wwPDB EM Validation Summary Report

Nov 30, 2022 – 08:32 AM EST

PDB ID	:	6U42
EMDB ID	:	EMD-20631
Title	:	Natively decorated ciliary doublet microtubule
Authors	:	Ma, M.; Stoyanova, M.; Rademacher, G.; Dutcher, S.K.; Brown, A.; Zhang, R.
Deposited on	:	2019-08-22
Resolution	:	3.40 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

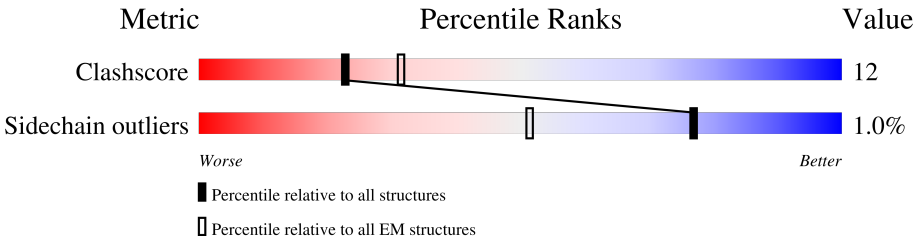
EMDB validation analysis	:	0.0.1.dev43
Mogul	:	1.8.5 (274361), CSD as541be (2020)
MolProbity	:	4.02b-467
buster-report	:	1.1.7 (2018)
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	FAILED
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry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

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.40 Å.

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



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

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5%

Mol	Chain	Length	Quality of chain
1	0A	443	63% 33% .
1	0C	443	64% 32% .
1	0E	443	57% 39% .
1	0G	443	63% 33% .
1	0I	443	63% 33% .
1	0K	443	62% 34% .
1	0M	443	62% 34% .
1	0O	443	61% 35% .
1	0Q	443	64% 33% .
1	0S	443	62% 34% .

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Mol	Chain	Length	Quality of chain
1	0U	443	61% 35%
1	0W	443	63% 33%
1	0Y	443	65% 31%
1	1	443	29% 69%
1	1A	443	70% 26%
1	1C	443	65% 31%
1	1E	443	60% 36%
1	1G	443	65% 31%
1	1K	443	64% 32%
1	1M	443	66% 30%
1	1O	443	68% 28%
1	1Q	443	66% 30%
1	1S	443	69% 28%
1	1U	443	65% 31%
1	1W	443	65% 31%
1	2A	443	67% 28%
1	2C	443	67% 29%
1	2E	443	66% 30%
1	2G	443	71% 25%
1	2I	443	68% 28%
1	2K	443	73% 23%
1	2M	443	64% 32%
1	2Q	443	67% 29%
1	2S	443	71% 25%
1	2U	443	68% 28%

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Mol	Chain	Length	Quality of chain
1	2W	443	73% 23%
1	2Y	443	67% 28%
1	3	443	95%
1	3A	443	66% 30%
1	3C	443	61% 34%
1	3G	443	70% 26%
1	3I	443	70% 26%
1	3K	443	66% 30%
1	3M	443	71% 25%
1	3O	443	69% 27%
1	3Q	443	67% 30%
1	3S	443	59% 37%
1	5	443	93% 5%
1	7	443	95%
1	9	443	94%
1	A1	443	95%
1	A3	443	92% 6%
1	A5	443	96%
1	A7	443	95%
1	A9	443	94%
1	B1	443	94%
1	B3	443	94%
1	B5	443	94%
1	B8	443	93%
1	C0	443	95%

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Mol	Chain	Length	Quality of chain
1	C2	443	95%
1	C4	443	95%
1	C6	443	95%
1	C8	443	95%
1	D0	443	95%
1	D2	443	95%
1	D4	443	93%
1	D6	443	94%
1	D8	443	95%
1	E0	443	94%
1	E2	443	94%
1	E4	443	95%
1	E6	443	94%
1	E8	443	94%
1	F0	443	95%
1	F2	443	94%
1	F6	443	94%
1	F8	443	94%
1	G0	443	93%
1	G2	443	65% 31%
1	G4	443	67% 29%
1	G6	443	63% 33%
1	G8	443	63% 33%
1	H2	443	65% 31%
1	H4	443	67% 29%

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Mol	Chain	Length	Quality of chain
1	H6	443	69% 27%
1	H8	443	74% 21%
1	I0	443	72% 24%
1	I2	443	69% 27%
1	I4	443	64% 32%
1	I8	443	66% 30%
1	J0	443	69% 27%
1	J2	443	73% 23%
1	J4	443	70% 26%
1	J6	443	71% 25%
1	J8	443	74% 22%
1	K0	443	74% 22%
1	K4	443	70% 26%
1	K6	443	73% 23%
1	K8	443	71% 25%
1	L0	443	72% 24%
1	L2	443	70% 26%
1	L4	443	70% 26%
1	L6	443	68% 28%
1	M0	443	69% 27%
1	M2	443	72% 24%
1	M4	443	72% 24%
1	M6	443	69% 27%
1	M8	443	72% 24%
1	N0	443	71% 25%

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Mol	Chain	Length	Quality of chain
1	N2	443	70% 27% .
1	N6	443	73% 23% .
1	N8	443	72% 24% .
1	O0	443	75% 21% .
1	O2	443	72% 24% .
1	O4	443	69% 27% .
1	O6	443	75% 21% .
1	O8	443	75% 21% .
1	P4	443	65% 31% .
1	P6	443	71% 25% .
1	P8	443	70% 26% .
1	Q0	443	74% 23% .
1	Q2	443	70% 27% .
1	Q4	443	70% 26% .
1	Q6	443	70% 26% .
1	Q8	443	61% 33% 5%
1	R0	443	72% 26% .
1	R2	443	71% 25% .
1	R4	443	67% 29% .
1	R6	443	69% 27% .
1	R8	443	70% 27% .
1	S0	443	69% 26% .
1	S2	443	70% 27% .
1	S4	443	60% 36% .
1	S6	443	68% 28% .

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Mol	Chain	Length	Quality of chain
1	S8	443	67% 29%
1	T0	443	69% 28%
1	T2	443	65% 31%
1	T4	443	68% 28%
1	T6	443	59% 37%
1	T8	443	68% 28%
1	U2	443	68% 28%
1	U4	443	69% 27%
1	U6	443	66% 30%
1	U8	443	69% 28%
1	V0	443	73% 23%
1	V2	443	68% 28%
1	V4	443	74% 22%
1	V6	443	57% 39%
1	V8	443	67% 29%
1	W0	443	68% 28%
1	W2	443	71% 25%
1	W4	443	66% 30%
1	W6	443	69% 27%
1	W8	443	70% 26%
1	X0	443	68% 28%
1	X2	443	61% 35%
1	X4	443	63% 33%
1	X6	443	66% 30%
1	X8	443	70% 26%

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Mol	Chain	Length	Quality of chain
1	Y0	443	66% 30% •
1	Y2	443	71% 25% •
1	Y4	443	70% 27% •
1	Y6	443	73% 23% •
1	Y8	443	59% 37% •
1	Z0	443	59% 37% •
1	Z2	443	59% 37% •
1	Z4	443	61% 35% •
1	Z6	443	61% 35% •
1	Z8	443	56% 40% •
2	0B	451	62% 33% 5%
2	0F	451	59% 35% 5%
2	0H	451	61% 33% 5%
2	0J	451	60% 35% 5%
2	0L	451	59% 36% 5%
2	0N	451	57% 37% 5%
2	0P	451	65% 30% 5%
2	0R	451	59% 36% 5%
2	0V	451	59% 35% 5%
2	0X	451	61% 33% 5%
2	0Z	451	64% 30% 5%
2	1B	451	65% 29% 5%
2	1D	451	62% 32% 5%
2	1F	451	58% 36% 5%
2	1H	451	59% 35% • 5%

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Mol	Chain	Length	Quality of chain
2	1L	451	66% 29% 5%
2	1N	451	64% 30% • 5%
2	1P	451	68% 26% 5%
2	1R	451	63% 30% • 5%
2	1T	451	65% 29% 5%
2	1V	451	63% 31% • 5%
2	1X	451	60% 34% 5%
2	1Z	451	65% 29% 5%
2	2	451	94% • •
2	2B	451	69% 26% 5%
2	2D	451	70% 24% 5%
2	2F	451	67% 28% 5%
2	2H	451	67% 27% 5%
2	2J	451	68% 26% 5%
2	2L	451	69% 26% 5%
2	2N	451	61% 33% 5%
2	2P	451	64% 30% • 5%
2	2R	451	70% 25% 5%
2	2T	451	67% 27% 5%
2	2V	451	69% 25% 5%
2	2X	451	67% 30% •
2	2Z	451	64% 30% • 5%
2	3B	451	63% 33% •
2	3D	451	62% 33% 5%
2	3F	451	67% 28% 5%

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Mol	Chain	Length	Quality of chain
2	3H	451	67% 27% 5%
2	3J	451	70% 25% 5%
2	3L	451	71% 24% 5%
2	3N	451	69% 25% 5%
2	3P	451	67% 28% 5%
2	3R	451	63% 34%
2	3T	451	58% 36% 5%
2	4	451	93%
2	6	451	95%
2	8	451	91% 5%
2	A0	451	95%
2	A2	451	91% 5%
2	A4	451	93%
2	A8	451	93% 5%
2	B0	451	93% 5%
2	B2	451	93% 5%
2	B4	451	93% 5%
2	B7	451	92% 5%
2	B9	451	93% 5%
2	C1	451	93% 5%
2	C5	451	94%
2	C7	451	95%
2	C9	451	93% 5%
2	D1	451	93% 5%
2	D3	451	94% 5%

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Mol	Chain	Length	Quality of chain
2	D5	451	93% • 5%
2	D7	451	94% • 5%
2	E1	451	93% • 5%
2	E3	451	93% • 5%
2	E5	451	92% • 5%
2	E7	451	92% • 5%
2	E9	451	92% • 5%
2	F1	451	92% • 5%
2	F3	451	92% • 5%
2	F5	451	92% • 5%
2	F7	451	92% • 5%
2	F9	451	94% • •
2	G1	451	76% 20% • •
2	G3	451	65% 31% • •
2	G5	451	66% 29% 5%
2	G7	451	61% 33% 5%
2	G9	451	56% 39% 5%
2	H1	451	62% 33% 5%
2	H3	451	65% 29% 5%
2	H5	451	68% 27% 5%
2	H7	451	69% 25% 5%
2	H9	451	68% 27% 5%
2	I1	451	66% 28% 5%
2	I3	451	67% 27% 5%
2	I5	451	59% 35% 5%

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Mol	Chain	Length	Quality of chain
2	I7	451	68% 27% 5%
2	I9	451	63% 31% • 5%
2	J1	451	63% 32% 5%
2	J3	451	68% 27% 5%
2	J5	451	68% 29% •
2	J7	451	65% 29% • 5%
2	J9	451	64% 33% •
2	K1	451	62% 32% 5%
2	K3	451	65% 29% 5%
2	K5	451	70% 24% 5%
2	K7	451	70% 25% 5%
2	K9	451	71% 24% 5%
2	L1	451	72% 22% 5%
2	L3	451	67% 27% • 5%
2	L5	451	67% 28% 5%
2	L7	451	59% 35% 5%
2	L9	451	70% 25% 5%
2	M1	451	71% 24% 5%
2	M3	451	67% 29% • •
2	M5	451	69% 26% 5%
2	M7	451	71% 25% •
2	M9	451	67% 30% •
2	N1	451	68% 27% 5%
2	N3	451	61% 33% 5%
2	N5	451	66% 28% 5%

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Mol	Chain	Length	Quality of chain
2	N7	451	64% 30% • 5%
2	N9	451	65% 30% 5%
2	O1	451	70% 24% 5%
2	O3	451	65% 30% 5%
2	O5	451	65% 29% 5%
2	O7	451	67% 28% •
2	O9	451	71% 24% 5%
2	P3	451	70% 25% 5%
2	P5	451	69% 27% •
2	P7	451	71% 24% 5%
2	P9	451	69% 28% •
2	Q1	451	72% 23% 5%
2	Q3	451	69% 26% 5%
2	Q5	451	69% 26% 5%
2	Q9	451	64% 31% 5%
2	R1	451	65% 29% 5%
2	R3	451	68% 27% 5%
2	R5	451	69% 27% •
2	R7	451	70% 24% 5%
2	R9	451	68% 29% •
2	S1	451	68% 26% 5%
2	S5	451	69% 25% 5%
2	S7	451	66% 30% •
2	S9	451	65% 29% • 5%
2	T1	451	65% 29% 5%

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Mol	Chain	Length	Quality of chain
2	T3	451	70% 23% • 5%
2	T5	451	66% 29% 5%
2	T7	451	68% 26% 5%
2	U1	451	70% 25% 5%
2	U3	451	71% 24% 5%
2	U5	451	68% 27% 5%
2	U7	451	69% 25% 5%
2	U9	451	65% 29% 5%
2	V1	451	65% 29% 5%
2	V3	451	65% 29% • 5%
2	V7	451	64% 31% 5%
2	V9	451	69% 26% 5%
2	W1	451	69% 25% 5%
2	W3	451	71% 24% 5%
2	W5	451	73% 22% 5%
2	W7	451	63% 32% 5%
2	W9	451	61% 32% • 5%
2	X3	451	58% 37% 5%
2	X5	451	62% 32% 5%
2	X7	451	64% 30% 5%
2	X9	451	67% 27% • 5%
2	Y1	451	66% 29% 5%
2	Y3	451	65% 29% 5%
2	Y5	451	66% 28% 5%
2	Y9	451	58% 36% 5%

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Mol	Chain	Length	Quality of chain
2	Z1	451	64% 31% 5%
2	Z3	451	60% 35% 5%
2	Z5	451	59% 35% 5%
2	Z7	451	61% 33% 5%
2	Z9	451	64% 30% 5%
3	3V	307	66% 27%
3	3X	307	64% 29%
3	3Z	307	65% 29%
3	4B	307	66% 27%
3	4D	307	65% 28%
3	4F	307	64% 29%
3	4H	307	64% 29%
3	4J	307	46% 21% 34%
4	3W	190	59% 35%
4	3Y	190	61% 34%
4	4A	190	61% 34%
4	4C	190	59% 35%
4	4E	190	62% 33%
4	4G	190	61% 34%
4	4I	190	61% 34%
5	4L	482	34% 16% 51%
5	4M	482	47% 18% 34%
6	4N	505	7% 90%
6	4O	505	67% 28% 5%
6	4P	505	30% 8% 62%

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Mol	Chain	Length	Quality of chain
7	4Q	367	15% 83%
7	4R	367	74% 25%
7	4S	367	9% 88%
7	4T	367	42% 11% 47%
7	4U	367	59% 18% 23%
8	4V	475	13% 83%
8	4W	475	51% 23% 26%
8	4X	475	9% 88%
9	4Y	462	18% 9% 73%
9	4Z	462	55% 29% 16%
10	5A	501	31% 15% 54%
10	5B	501	33% 17% 50%
10	5C	501	51% 23% 26%
10	5D	501	14% 7% 79%
11	5E	274	69% 24% 6%
12	5F	391	70% 26%
12	5G	391	24% 12% 64%
12	7B	391	17% 8% 75%
13	5H	137	61% 30% 8%
13	5I	137	57% 34% 7%
13	5J	137	60% 31% 8%
13	5K	137	58% 33% 8%
14	5L	633	50% 44% 5%
14	5M	633	51% 43%
14	5N	633	51% 43% 5%

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Mol	Chain	Length	Quality of chain
15	5O	380	45% 46% 8%
15	5P	380	57% 40%
16	5Q	197	63% 32%
17	5R	240	7% 91%
17	5S	240	50% 29% 5% 17%
17	5T	240	51% 25% 6% 18%
17	5U	240	50% 28% 17%
17	5V	240	32% 13% 55%
18	5X	230	52% 37% 8%
18	5Y	230	53% 36% 7%
18	5Z	230	53% 37% 6%
18	6A	230	54% 35% 7%
18	6B	230	53% 37% 6%
18	6C	230	54% 36% 7%
18	6D	230	54% 36% 7%
19	6E	268	62% 33% 5%
20	6F	403	70% 28%
21	6G	214	68% 18% 14%
21	6H	214	60% 30% 10%
22	6I	352	68% 26% 7%
22	6J	352	70% 23% 7%
22	6K	352	70% 23% 7%
22	6L	352	66% 28% 7%
22	6M	352	68% 25% 7%
22	6N	352	67% 26% 7%

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Mol	Chain	Length	Quality of chain
22	6O	352	68% 25% 7%
22	6P	352	55% 28% 16%
23	6Q	87	61% 29% 8%
23	6R	87	63% 26% 8%
23	6S	87	68% 24% 6%
24	6T	635	57% 31% 11%
24	6U	635	57% 32% 10%
24	6V	635	57% 31% 12%
24	6W	635	62% 26% 11%
24	6X	635	55% 33% 10%
24	6Y	635	56% 32% 11%
24	6Z	635	57% 31% 11%
24	7A	635	20% 10% 70%
25	7C	111	65% 23% 12%
26	7D	146	53% 33% 5% 10%
26	7E	146	52% 34% 5% 10%
26	7F	146	47% 37% 6% 10%
27	7G	235	63% 32% 5%
28	7H	471	19% 9% 71%
28	7X	471	18% 9% 71%
29	7I	483	34% 13% 53%
29	7J	483	54% 21% 25%
30	7K	458	64% 28% 8%
30	7L	458	30% 9% 62%
31	7M	139	36% 24% 39%

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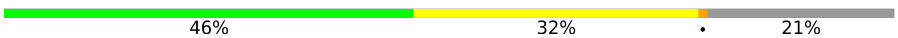
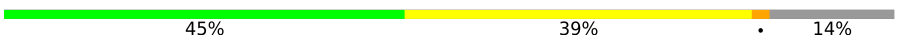
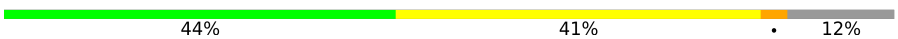
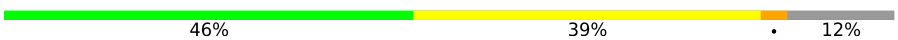
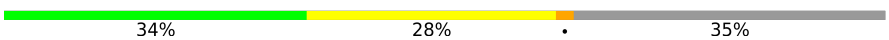
Mol	Chain	Length	Quality of chain
31	7N	139	
32	7O	238	
32	7P	238	
33	7Q	189	
34	7R	749	
34	7S	749	
35	7T	552	
35	7U	552	
36	7V	184	
36	7W	184	
37	7Y	312	
38	7Z	242	
38	8A	242	
38	8B	242	
38	8C	242	
38	8D	242	

2 Entry composition (i)

There are 41 unique types of molecules in this entry. The entry contains 1358547 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 Tubulin beta.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	1	138	Total 1120	C 701	N 192	O 214	S 13	0	0
1	3	433	Total 3397	C 2131	N 581	O 655	S 30	0	0
1	5	436	Total 3421	C 2147	N 584	O 660	S 30	0	0
1	7	437	Total 3430	C 2152	N 585	O 663	S 30	0	0
1	9	436	Total 3421	C 2147	N 584	O 660	S 30	0	0
1	A1	432	Total 3388	C 2126	N 580	O 652	S 30	0	0
1	A3	435	Total 3410	C 2138	N 583	O 659	S 30	0	0
1	A5	430	Total 3370	C 2116	N 578	O 646	S 30	0	0
1	A7	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	A9	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	B1	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	B3	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	B5	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	B8	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	C0	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	C2	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	C4	426	Total 3346	C 2103	N 574	O 639	S 30	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	C6	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	C8	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	D0	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	D2	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	D4	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	D6	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	D8	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	E0	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	E2	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	E4	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	E6	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	E8	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	F0	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	F2	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	F6	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	F8	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	G0	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	G2	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	G4	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	G6	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	G8	426	Total 3346	C 2103	N 574	O 639	S 30	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	H2	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	H4	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	H6	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	H8	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	I0	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	I2	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	I4	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	I8	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	J0	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	J2	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	J4	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	J6	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	J8	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	K0	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	K4	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	K6	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	K8	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	L0	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	L2	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	L4	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	L6	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	M0	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	M2	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	M4	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	M6	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	M8	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	N0	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	N2	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	N6	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	N8	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	O0	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	O2	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	O4	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	O6	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	O8	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	P4	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	P6	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	P8	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	Q0	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	Q2	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	Q4	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	Q6	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	Q8	420	Total 3293	C 2070	N 563	O 631	S 29	0	0
1	R0	434	Total 3401	C 2133	N 582	O 656	S 30	0	0
1	R2	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	R4	430	Total 3370	C 2116	N 578	O 646	S 30	0	0
1	R6	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	R8	431	Total 3379	C 2121	N 579	O 649	S 30	0	0
1	S0	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	S2	431	Total 3379	C 2121	N 579	O 649	S 30	0	0
1	S4	427	Total 3354	C 2107	N 575	O 642	S 30	0	0
1	S6	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	S8	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	T0	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	T2	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	T4	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	T6	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	T8	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	U2	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	U4	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	U6	426	Total 3346	C 2103	N 574	O 639	S 30	0	0
1	U8	430	Total 3370	C 2116	N 578	O 646	S 30	0	0
1	V0	426	Total 3346	C 2103	N 574	O 639	S 30	0	0

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	V2	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	V4	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	V6	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	V8	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	W0	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	W2	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	W4	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	W6	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	W8	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	X0	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	X2	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	X4	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	X6	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	X8	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	Y0	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	Y2	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	Y4	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	Y6	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	Y8	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	Z0	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	Z2	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	Z4	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	Z6	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	Z8	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	0A	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	0C	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	0E	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	0G	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	0I	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	0K	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	0M	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	0O	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	0Q	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	0S	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	0U	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	0W	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	0Y	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	1A	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	1C	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	1E	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	1G	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	1K	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	1M	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	1O	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	1Q	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	1S	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	1U	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	1W	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	2A	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	2C	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	2E	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	2G	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	2I	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	2K	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	2M	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	2Q	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	2S	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	2U	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	2W	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	2Y	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	3A	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	3C	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	3G	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		

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Mol	Chain	Residues	Atoms					AltConf	Trace
1	3I	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	3K	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	3M	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	3O	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	3Q	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		
1	3S	426	Total	C	N	O	S	0	0
			3346	2103	574	639	30		

- Molecule 2 is a protein called Tubulin alpha.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	2	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	4	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	6	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	8	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	A0	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	A2	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	A4	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	A8	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	B0	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	B2	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	B4	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	B7	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	B9	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	C1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	C5	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	C7	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	C9	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	D1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	D3	428	Total	C	N	O	S	0	0
			3324	2106	566	631	21		
2	D5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	D7	428	Total	C	N	O	S	0	0
			3324	2106	566	631	21		
2	E1	428	Total	C	N	O	S	0	0
			3324	2106	566	631	21		
2	E3	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	E5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	E7	428	Total	C	N	O	S	0	0
			3324	2106	566	631	21		
2	E9	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	F1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	F3	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	F5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	F7	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	F9	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	G1	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	G3	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	G5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	G7	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	G9	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	H1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	H3	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	H5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	H7	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	H9	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	I1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	I3	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	I5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	I7	429	Total	C	N	O	S	0	0
			3332	2110	567	634	21		
2	I9	428	Total	C	N	O	S	0	0
			3324	2106	566	631	21		
2	J1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	J3	428	Total	C	N	O	S	0	0
			3326	2107	566	632	21		
2	J5	437	Total	C	N	O	S	0	0
			3385	2141	576	647	21		
2	J7	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	J9	437	Total	C	N	O	S	0	0
			3385	2141	576	647	21		
2	K1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	K3	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	K5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	K7	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	K9	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	L1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	L3	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	L5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	L7	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	L9	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	M1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	M3	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	M5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	M7	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	M9	437	Total	C	N	O	S	0	0
			3385	2141	576	647	21		
2	N1	428	Total	C	N	O	S	0	0
			3324	2106	566	631	21		
2	N3	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	N5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	N7	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	N9	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	O1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	O3	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	O5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	O7	431	Total	C	N	O	S	0	0
			3340	2114	569	636	21		
2	O9	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	P3	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	P5	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	P7	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	P9	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	Q1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	Q3	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	Q5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	Q9	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	R1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	R3	428	Total	C	N	O	S	0	0
			3327	2108	566	632	21		
2	R5	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	R7	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	R9	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	S1	429	Total	C	N	O	S	0	0
			3333	2111	567	634	21		
2	S5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	S7	436	Total	C	N	O	S	0	0
			3376	2136	575	644	21		
2	S9	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	T1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	T3	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	T5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	T7	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	U1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	U3	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	U5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	U7	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	U9	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	V1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	V3	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	V7	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	V9	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	W1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	W3	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	W5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	W7	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	W9	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	X3	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	X5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	X7	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	X9	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	Y1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	Y3	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	Y5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	Y9	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	Z1	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	Z3	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	Z5	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	Z7	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	Z9	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	0B	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	0F	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	0H	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	0J	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	0L	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	0N	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	0P	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	0R	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	0V	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	0X	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	0Z	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	1B	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	1D	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	1F	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	1H	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	1L	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	1N	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	1P	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	1R	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	1T	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	1V	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	1X	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	1Z	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	2B	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	2D	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	2F	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	2H	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	2J	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	2L	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	2N	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	2P	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	2R	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	2T	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	2V	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	2X	437	Total	C	N	O	S	0	0
			3385	2141	576	647	21		
2	2Z	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		

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Mol	Chain	Residues	Atoms					AltConf	Trace
2	3B	437	Total	C	N	O	S	0	0
			3383	2140	576	646	21		
2	3D	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	3F	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	3H	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	3J	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	3L	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	3N	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	3P	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		
2	3R	437	Total	C	N	O	S	0	0
			3385	2141	576	647	21		
2	3T	427	Total	C	N	O	S	0	0
			3318	2103	565	629	21		

- Molecule 3 is a protein called PACRG.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	3V	297	Total	C	N	O	S	0	0
			2329	1491	401	428	9		
3	3X	297	Total	C	N	O	S	0	0
			2329	1491	401	428	9		
3	3Z	297	Total	C	N	O	S	0	0
			2329	1491	401	428	9		
3	4B	297	Total	C	N	O	S	0	0
			2329	1491	401	428	9		
3	4D	297	Total	C	N	O	S	0	0
			2329	1491	401	428	9		
3	4F	297	Total	C	N	O	S	0	0
			2329	1491	401	428	9		
3	4H	297	Total	C	N	O	S	0	0
			2329	1491	401	428	9		
3	4J	204	Total	C	N	O	S	0	0
			1643	1060	281	296	6		

- Molecule 4 is a protein called FAP20.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	3W	184	Total	C	N	O	S	0	0
			1515	971	264	273	7		
4	3Y	184	Total	C	N	O	S	0	0
			1515	971	264	273	7		
4	4A	184	Total	C	N	O	S	0	0
			1515	971	264	273	7		
4	4C	184	Total	C	N	O	S	0	0
			1515	971	264	273	7		
4	4E	184	Total	C	N	O	S	0	0
			1515	971	264	273	7		
4	4G	184	Total	C	N	O	S	0	0
			1515	971	264	273	7		
4	4I	184	Total	C	N	O	S	0	0
			1515	971	264	273	7		

- Molecule 5 is a protein called FAP53.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	4L	238	Total	C	N	O	S	0	0
			1921	1164	366	381	10		
5	4M	316	Total	C	N	O	S	0	0
			2622	1589	514	503	16		

- Molecule 6 is a protein called FAP127.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	4N	52	Total	C	N	O	S	0	0
			422	260	76	85	1		
6	4O	478	Total	C	N	O	S	0	0
			3995	2407	778	791	19		
6	4P	194	Total	C	N	O	S	0	0
			1588	956	313	315	4		

- Molecule 7 is a protein called RIB43a.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	4Q	63	Total	C	N	O	S	0	0
			525	324	101	98	2		
7	4R	366	Total	C	N	O	S	0	0
			2982	1819	561	589	13		
7	4S	45	Total	C	N	O		0	0
			371	228	71	72			

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Mol	Chain	Residues	Atoms					AltConf	Trace
7	4T	194	Total	C	N	O	S	0	0
			1574	961	295	307	11		
7	4U	283	Total	C	N	O	S	0	0
			2285	1392	423	461	9		

- Molecule 8 is a protein called FAP112.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	4V	83	Total	C	N	O	S	0	0
			653	396	129	124	4		
8	4W	353	Total	C	N	O	S	0	0
			2750	1649	552	538	11		
8	4X	59	Total	C	N	O	S	0	0
			462	284	85	90	3		

- Molecule 9 is a protein called FAP210.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	4Y	126	Total	C	N	O	S	0	0
			1004	625	187	189	3		
9	4Z	389	Total	C	N	O	S	0	0
			3158	1908	627	615	8		

- Molecule 10 is a protein called FAP45.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	5A	228	Total	C	N	O	S	0	0
			1902	1154	367	372	9		
10	5B	249	Total	C	N	O	S	0	0
			2074	1257	391	410	16		
10	5C	370	Total	C	N	O	S	0	0
			3103	1881	597	604	21		
10	5D	106	Total	C	N	O	S	0	0
			901	542	176	174	9		

- Molecule 11 is a protein called RIB30.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	5E	258	Total	C	N	O	S	0	0
			1981	1245	352	380	4		

- Molecule 12 is a protein called FAP363.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	5F	381	Total	C	N	O	S	0	0
			3020	1921	520	569	10		
12	5G	141	Total	C	N	O	S	0	0
			1123	711	203	206	3		
12	7B	97	Total	C	N	O	S	0	0
			753	476	125	148	4		

- Molecule 13 is a protein called FAP126.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	5H	135	Total	C	N	O	S	0	0
			1069	674	190	202	3		
13	5I	135	Total	C	N	O	S	0	0
			1069	674	190	202	3		
13	5J	135	Total	C	N	O	S	0	0
			1069	674	190	202	3		
13	5K	135	Total	C	N	O	S	0	0
			1069	674	190	202	3		

- Molecule 14 is a protein called FAP52.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	5L	626	Total	C	N	O	S	0	0
			4757	2992	827	912	26		
14	5M	626	Total	C	N	O	S	0	0
			4757	2992	827	912	26		
14	5N	626	Total	C	N	O	S	0	0
			4757	2992	827	912	26		

- Molecule 15 is a protein called FAP67.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	5O	376	Total	C	N	O	S	0	0
			2927	1862	503	547	15		
15	5P	376	Total	C	N	O	S	0	0
			2927	1862	503	547	15		

- Molecule 16 is a protein called FAP85.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	5Q	191	Total	C	N	O	S	0	0
			1523	961	267	293	2		

- Molecule 17 is a protein called FAP106.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	5R	22	Total	C	N	O	S	0	0
			162	100	33	28	1		
17	5S	199	Total	C	N	O	S	0	0
			1572	989	291	288	4		
17	5T	198	Total	C	N	O	S	0	0
			1563	984	290	285	4		
17	5U	199	Total	C	N	O	S	0	0
			1572	989	291	288	4		
17	5V	109	Total	C	N	O	S	0	0
			879	551	164	162	2		

- Molecule 18 is a protein called FAP115.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	5X	221	Total	C	N	O	S	0	0
			1793	1153	302	330	8		
18	5Y	221	Total	C	N	O	S	0	0
			1793	1153	302	330	8		
18	5Z	221	Total	C	N	O	S	0	0
			1793	1153	302	330	8		
18	6A	221	Total	C	N	O	S	0	0
			1793	1153	302	330	8		
18	6B	221	Total	C	N	O	S	0	0
			1793	1153	302	330	8		
18	6C	221	Total	C	N	O	S	0	0
			1793	1153	302	330	8		
18	6D	221	Total	C	N	O	S	0	0
			1793	1153	302	330	8		

- Molecule 19 is a protein called FAP143.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	6E	255	Total	C	N	O	S	0	0
			1952	1208	345	390	9		

- Molecule 20 is a protein called FAP161.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	6F	394	Total	C	N	O	S	0	0
			2950	1852	518	566	14		

- Molecule 21 is a protein called FAP166.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	6G	183	Total	C	N	O	S	0	0
			1420	891	251	269	9		
21	6H	193	Total	C	N	O	S	0	0
			1493	937	265	282	9		

- Molecule 22 is a protein called FAP252.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	6I	329	Total	C	N	O	S	0	0
			2617	1660	442	501	14		
22	6J	329	Total	C	N	O	S	0	0
			2617	1660	442	501	14		
22	6K	329	Total	C	N	O	S	0	0
			2617	1660	442	501	14		
22	6L	329	Total	C	N	O	S	0	0
			2617	1660	442	501	14		
22	6M	329	Total	C	N	O	S	0	0
			2617	1660	442	501	14		
22	6N	329	Total	C	N	O	S	0	0
			2617	1660	442	501	14		
22	6O	329	Total	C	N	O	S	0	0
			2617	1660	442	501	14		
22	6P	297	Total	C	N	O	S	0	0
			2366	1499	399	454	14		

- Molecule 23 is a protein called FAP276.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	6Q	85	Total	C	N	O	S	0	0
			694	434	130	127	3		
23	6R	85	Total	C	N	O	S	0	0
			694	434	130	127	3		
23	6S	85	Total	C	N	O	S	0	0
			694	434	130	127	3		

- Molecule 24 is a protein called RIB72.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	6T	564	Total	C	N	O	S	0	0
			4590	2928	792	854	16		
24	6U	569	Total	C	N	O	S	0	0
			4623	2949	798	860	16		

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Mol	Chain	Residues	Atoms					AltConf	Trace
24	6V	561	Total	C	N	O	S	0	0
			4569	2915	789	849	16		
24	6W	566	Total	C	N	O	S	0	0
			4606	2938	795	857	16		
24	6X	569	Total	C	N	O	S	0	0
			4631	2954	799	862	16		
24	6Y	562	Total	C	N	O	S	0	0
			4579	2923	791	849	16		
24	6Z	563	Total	C	N	O	S	0	0
			4585	2925	791	853	16		
24	7A	189	Total	C	N	O	S	0	0
			1518	962	267	284	5		

- Molecule 25 is a protein called FAP141.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	7C	98	Total	C	N	O	S	0	0
			794	486	157	149	2		

- Molecule 26 is a protein called FAP222.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	7D	132	Total	C	N	O	S	0	0
			1016	637	183	189	7		
26	7E	132	Total	C	N	O	S	0	0
			1016	637	183	189	7		
26	7F	132	Total	C	N	O	S	0	0
			1016	637	183	189	7		

- Molecule 27 is a protein called FAP95.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	7G	224	Total	C	N	O	S	0	0
			1728	1083	305	336	4		

- Molecule 28 is a protein called FAP182.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	7H	138	Total	C	N	O	S	0	0
			1046	651	194	196	5		
28	7X	138	Total	C	N	O	S	0	0
			1046	651	194	196	5		

- Molecule 29 is a protein called FAP129.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	7I	228	Total	C	N	O	S	0	0
			1716	1065	311	334	6		
29	7J	362	Total	C	N	O	S	0	0
			2741	1691	505	535	10		

- Molecule 30 is a protein called FAP21.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	7K	423	Total	C	N	O	S	0	0
			3276	2026	620	625	5		
30	7L	176	Total	C	N	O	S	0	0
			1333	819	254	257	3		

- Molecule 31 is a protein called FAP273.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	7M	85	Total	C	N	O	S	0	0
			662	411	123	125	3		
31	7N	126	Total	C	N	O	S	0	0
			977	607	179	186	5		

- Molecule 32 is a protein called FAP107.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	7O	59	Total	C	N	O		0	0
			443	270	81	92			
32	7P	182	Total	C	N	O	S	0	0
			1398	865	257	273	3		

- Molecule 33 is a protein called RIB21.

Mol	Chain	Residues	Atoms				AltConf	Trace
33	7Q	71	Total	C	N	O	0	0
			567	352	98	117		

- Molecule 34 is a protein called DC1.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	7R	195	Total	C	N	O	S	0	0
			1619	988	308	317	6		

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Mol	Chain	Residues	Atoms					AltConf	Trace
34	7S	160	Total	C	N	O	S	0	0
			1347	818	260	263	6		

- Molecule 35 is a protein called DC2.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	7T	213	Total	C	N	O	S	0	0
			1738	1068	326	335	9		
35	7U	181	Total	C	N	O	S	0	0
			1476	904	278	285	9		

- Molecule 36 is a protein called DC3.

Mol	Chain	Residues	Atoms					AltConf	Trace
36	7V	89	Total	C	N	O	S	0	0
			735	457	123	150	5		
36	7W	89	Total	C	N	O	S	0	0
			735	457	123	150	5		

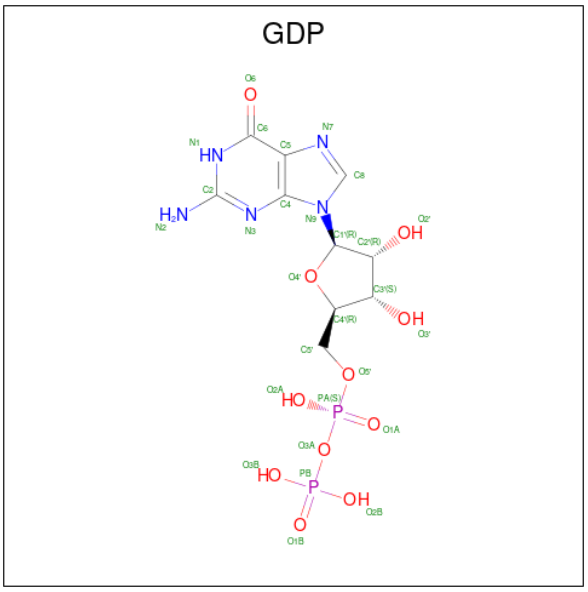
- Molecule 37 is a protein called FAP68.

Mol	Chain	Residues	Atoms					AltConf	Trace
37	7Y	247	Total	C	N	O	S	0	0
			1971	1221	372	370	8		

- Molecule 38 is a protein called FAP90.

Mol	Chain	Residues	Atoms					AltConf	Trace
38	7Z	39	Total	C	N	O	S	0	0
			298	184	50	62	2		
38	8A	207	Total	C	N	O	S	0	0
			1691	1058	305	322	6		
38	8B	213	Total	C	N	O	S	0	0
			1728	1078	311	332	7		
38	8C	213	Total	C	N	O	S	0	0
			1728	1078	311	332	7		
38	8D	157	Total	C	N	O	S	0	0
			1311	820	236	250	5		

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



Mol	Chain	Residues	Atoms					AltConf
39	2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	3	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	5	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	7	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	9	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	A1	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	A3	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	A5	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	A7	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	A9	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	B1	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	B3	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	B5	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	B8	1	Total	C	N	O	P	0
			28	10	5	11	2	

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Mol	Chain	Residues	Atoms					AltConf
39	C0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	C2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	C4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	C6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	C8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	D0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	D2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	D4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	D6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	D8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	E0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	E2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	E4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	E6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	E8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	F0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	F2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	F6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	F8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	G0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	G2	1	Total	C	N	O	P	0
			28	10	5	11	2	

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Mol	Chain	Residues	Atoms					AltConf
39	G4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	G6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	G8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	H2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	H4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	H6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	H8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	I0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	I2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	I4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	I8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	J0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	J2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	J4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	J6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	J8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	K0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	K4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	K6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	K8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	L0	1	Total	C	N	O	P	0
			28	10	5	11	2	

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Mol	Chain	Residues	Atoms					AltConf
39	L2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	L4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	L6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	M0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	M2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	M4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	M6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	M8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	N0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	N2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	N6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	N8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	O0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	O2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	O4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	O6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	O8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	P4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	P6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	P8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	Q0	1	Total	C	N	O	P	0
			28	10	5	11	2	

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Mol	Chain	Residues	Atoms					AltConf
39	Q2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	Q4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	Q6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	Q8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	R0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	R2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	R4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	R6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	R8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	S0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	S2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	S4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	S6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	S8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	T0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	T2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	T4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	T6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	T8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	U2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	U4	1	Total	C	N	O	P	0
			28	10	5	11	2	

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Mol	Chain	Residues	Atoms					AltConf
39	U6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	U8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	V0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	V2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	V4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	V6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	V8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	W0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	W2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	W4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	W6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	W8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	X0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	X2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	X4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	X6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	X8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	Y0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	Y2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	Y4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	Y6	1	Total	C	N	O	P	0
			28	10	5	11	2	

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Mol	Chain	Residues	Atoms					AltConf
39	Y8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	Z0	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	Z2	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	Z4	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	Z6	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	Z8	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	0A	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	0C	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	0E	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	0G	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	0I	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	0K	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	0M	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	0O	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	0Q	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	0S	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	0U	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	0W	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	0Y	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	1A	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	1C	1	Total	C	N	O	P	0
			28	10	5	11	2	

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Mol	Chain	Residues	Atoms					AltConf
39	1E	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	1G	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	1K	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	1M	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	1O	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	1Q	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	1S	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	1U	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	1W	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	2A	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	2C	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	2E	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	2G	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	2I	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	2K	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	2M	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	2Q	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	2S	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	2U	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	2W	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	2Y	1	Total	C	N	O	P	0
			28	10	5	11	2	

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Mol	Chain	Residues	Atoms					AltConf
39	3A	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	3C	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	3G	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	3I	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	3K	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	3M	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	3O	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	3Q	1	Total	C	N	O	P	0
			28	10	5	11	2	
39	3S	1	Total	C	N	O	P	0
			28	10	5	11	2	

- Molecule 40 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		AltConf
40	2	1	Total	Mg	0
			1	1	
40	4	1	Total	Mg	0
			1	1	
40	6	1	Total	Mg	0
			1	1	
40	8	1	Total	Mg	0
			1	1	
40	A0	1	Total	Mg	0
			1	1	
40	A2	1	Total	Mg	0
			1	1	
40	A4	1	Total	Mg	0
			1	1	
40	A8	1	Total	Mg	0
			1	1	
40	B0	1	Total	Mg	0
			1	1	
40	B2	1	Total	Mg	0
			1	1	

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Mol	Chain	Residues	Atoms	AltConf
40	B4	1	Total Mg 1 1	0
40	B7	1	Total Mg 1 1	0
40	B9	1	Total Mg 1 1	0
40	C1	1	Total Mg 1 1	0
40	C5	1	Total Mg 1 1	0
40	C7	1	Total Mg 1 1	0
40	C9	1	Total Mg 1 1	0
40	D1	1	Total Mg 1 1	0
40	D3	1	Total Mg 1 1	0
40	D5	1	Total Mg 1 1	0
40	D7	1	Total Mg 1 1	0
40	E1	1	Total Mg 1 1	0
40	E3	1	Total Mg 1 1	0
40	E5	1	Total Mg 1 1	0
40	E7	1	Total Mg 1 1	0
40	E9	1	Total Mg 1 1	0
40	F1	1	Total Mg 1 1	0
40	F3	1	Total Mg 1 1	0
40	F5	1	Total Mg 1 1	0
40	F7	1	Total Mg 1 1	0
40	F9	1	Total Mg 1 1	0

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Mol	Chain	Residues	Atoms	AltConf
40	G1	1	Total Mg 1 1	0
40	G3	1	Total Mg 1 1	0
40	G5	1	Total Mg 1 1	0
40	G7	1	Total Mg 1 1	0
40	G9	1	Total Mg 1 1	0
40	H2	1	Total Mg 1 1	0
40	H3	1	Total Mg 1 1	0
40	H5	1	Total Mg 1 1	0
40	H8	1	Total Mg 1 1	0
40	H9	1	Total Mg 1 1	0
40	I1	1	Total Mg 1 1	0
40	I3	1	Total Mg 1 1	0
40	I5	1	Total Mg 1 1	0
40	I7	1	Total Mg 1 1	0
40	I9	1	Total Mg 1 1	0
40	J1	1	Total Mg 1 1	0
40	J4	1	Total Mg 1 1	0
40	J5	1	Total Mg 1 1	0
40	J7	1	Total Mg 1 1	0
40	J9	1	Total Mg 1 1	0
40	K1	1	Total Mg 1 1	0

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Mol	Chain	Residues	Atoms	AltConf
40	K3	1	Total Mg 1 1	0
40	K5	1	Total Mg 1 1	0
40	K7	1	Total Mg 1 1	0
40	K9	1	Total Mg 1 1	0
40	L1	1	Total Mg 1 1	0
40	L3	1	Total Mg 1 1	0
40	L5	1	Total Mg 1 1	0
40	L7	1	Total Mg 1 1	0
40	L9	1	Total Mg 1 1	0
40	M1	1	Total Mg 1 1	0
40	M3	1	Total Mg 1 1	0
40	M5	1	Total Mg 1 1	0
40	M7	1	Total Mg 1 1	0
40	M9	1	Total Mg 1 1	0
40	N1	1	Total Mg 1 1	0
40	N3	1	Total Mg 1 1	0
40	N6	1	Total Mg 1 1	0
40	N7	1	Total Mg 1 1	0
40	O0	1	Total Mg 1 1	0
40	O1	1	Total Mg 1 1	0
40	O3	1	Total Mg 1 1	0

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Mol	Chain	Residues	Atoms	AltConf
40	O5	1	Total Mg 1 1	0
40	O8	1	Total Mg 1 1	0
40	O9	1	Total Mg 1 1	0
40	P4	1	Total Mg 1 1	0
40	P6	1	Total Mg 1 1	0
40	P7	1	Total Mg 1 1	0
40	P9	1	Total Mg 1 1	0
40	Q1	1	Total Mg 1 1	0
40	Q3	1	Total Mg 1 1	0
40	Q5	1	Total Mg 1 1	0
40	Q9	1	Total Mg 1 1	0
40	R1	1	Total Mg 1 1	0
40	R3	1	Total Mg 1 1	0
40	R6	1	Total Mg 1 1	0
40	R7	1	Total Mg 1 1	0
40	R9	1	Total Mg 1 1	0
40	S1	1	Total Mg 1 1	0
40	S5	1	Total Mg 1 1	0
40	S7	1	Total Mg 1 1	0
40	S9	1	Total Mg 1 1	0
40	T1	1	Total Mg 1 1	0

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Mol	Chain	Residues	Atoms	AltConf
40	T3	1	Total Mg 1 1	0
40	T5	1	Total Mg 1 1	0
40	T7	1	Total Mg 1 1	0
40	U1	1	Total Mg 1 1	0
40	U3	1	Total Mg 1 1	0
40	U5	1	Total Mg 1 1	0
40	U7	1	Total Mg 1 1	0
40	U9	1	Total Mg 1 1	0
40	V2	1	Total Mg 1 1	0
40	V3	1	Total Mg 1 1	0
40	V7	1	Total Mg 1 1	0
40	V9	1	Total Mg 1 1	0
40	W2	1	Total Mg 1 1	0
40	W3	1	Total Mg 1 1	0
40	W5	1	Total Mg 1 1	0
40	W8	1	Total Mg 1 1	0
40	W9	1	Total Mg 1 1	0
40	X3	1	Total Mg 1 1	0
40	X5	1	Total Mg 1 1	0
40	X7	1	Total Mg 1 1	0
40	X9	1	Total Mg 1 1	0

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Mol	Chain	Residues	Atoms	AltConf
40	Y1	1	Total Mg 1 1	0
40	Y3	1	Total Mg 1 1	0
40	Y5	1	Total Mg 1 1	0
40	Y9	1	Total Mg 1 1	0
40	Z2	1	Total Mg 1 1	0
40	Z3	1	Total Mg 1 1	0
40	Z5	1	Total Mg 1 1	0
40	Z7	1	Total Mg 1 1	0
40	0A	1	Total Mg 1 1	0
40	0B	1	Total Mg 1 1	0
40	0F	1	Total Mg 1 1	0
40	0H	1	Total Mg 1 1	0
40	0J	1	Total Mg 1 1	0
40	0L	1	Total Mg 1 1	0
40	0N	1	Total Mg 1 1	0
40	0P	1	Total Mg 1 1	0
40	0R	1	Total Mg 1 1	0
40	0W	1	Total Mg 1 1	0
40	0X	1	Total Mg 1 1	0
40	1A	1	Total Mg 1 1	0
40	1B	1	Total Mg 1 1	0

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Mol	Chain	Residues	Atoms	AltConf
40	1D	1	Total Mg 1 1	0
40	1F	1	Total Mg 1 1	0
40	1H	1	Total Mg 1 1	0
40	1L	1	Total Mg 1 1	0
40	1N	1	Total Mg 1 1	0
40	1P	1	Total Mg 1 1	0
40	1R	1	Total Mg 1 1	0
40	1T	1	Total Mg 1 1	0
40	1V	1	Total Mg 1 1	0
40	1X	1	Total Mg 1 1	0
40	1Z	1	Total Mg 1 1	0
40	2B	1	Total Mg 1 1	0
40	2D	1	Total Mg 1 1	0
40	2F	1	Total Mg 1 1	0
40	2H	1	Total Mg 1 1	0
40	2J	1	Total Mg 1 1	0
40	2L	1	Total Mg 1 1	0
40	2N	1	Total Mg 1 1	0
40	2P	1	Total Mg 1 1	0
40	2R	1	Total Mg 1 1	0
40	2T	1	Total Mg 1 1	0

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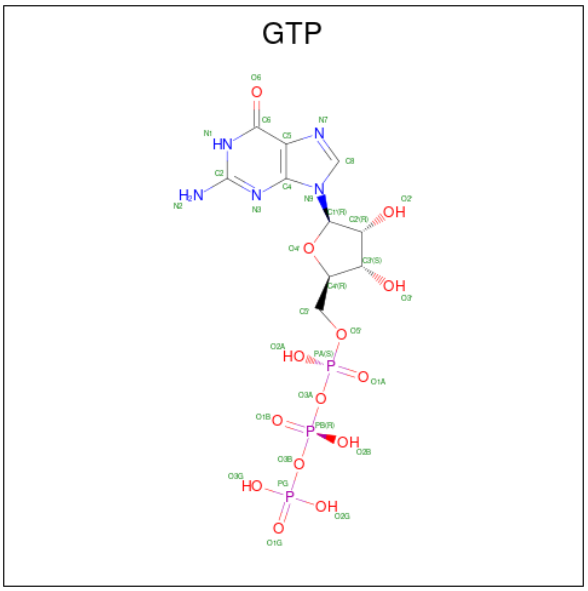
Mol	Chain	Residues	Atoms	AltConf
40	2V	1	Total Mg 1 1	0
40	2X	1	Total Mg 1 1	0
40	2Z	1	Total Mg 1 1	0
40	3B	1	Total Mg 1 1	0
40	3D	1	Total Mg 1 1	0
40	3F	1	Total Mg 1 1	0
40	3H	1	Total Mg 1 1	0
40	3K	1	Total Mg 1 1	0
40	3L	1	Total Mg 1 1	0
40	3N	1	Total Mg 1 1	0
40	3P	1	Total Mg 1 1	0
40	3R	1	Total Mg 1 1	0
40	3T	1	Total Mg 1 1	0

- Molecule 41 is GUANOSINE-5'-TRIPHOSPHATE (three-letter code: GTP) (formula: $C_{10}H_{16}N_5O_{14}P_3$).



Mol	Chain	Residues	Atoms					AltConf
41	3	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	4	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	7	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	8	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	A1	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	A2	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	A4	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	A9	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	B0	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	B2	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	B5	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	B7	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	C0	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	C1	1	Total	C	N	O	P	0
			32	10	5	14	3	

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Mol	Chain	Residues	Atoms					AltConf
41	C5	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	C8	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	C9	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	D1	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	D3	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	D5	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	D7	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	E1	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	E4	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	E6	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	E8	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	F0	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	F1	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	F3	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	F5	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	F8	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	G0	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	G1	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	G4	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	G5	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	G7	1	Total	C	N	O	P	0
			32	10	5	14	3	

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Mol	Chain	Residues	Atoms					AltConf
41	G9	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	H2	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	H3	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	H6	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	H8	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	I0	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	I1	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	I4	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	I5	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	I8	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	J0	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	J2	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	J4	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	J6	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	J8	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	K0	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	K1	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	K4	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	K6	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	K7	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	K9	1	Total	C	N	O	P	0
			32	10	5	14	3	

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Mol	Chain	Residues	Atoms					AltConf
41	L2	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	L4	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	L6	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	L7	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	M0	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	M2	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	M4	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	M6	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	M7	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	N0	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	N1	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	N3	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	N6	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	N8	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	O0	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	O2	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	O4	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	O6	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	O8	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	O9	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	P4	1	Total	C	N	O	P	0
			32	10	5	14	3	

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Mol	Chain	Residues	Atoms					AltConf
41	P6	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	P8	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	P9	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	Q2	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	Q4	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	Q6	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	R0	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	R2	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	R4	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	R6	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	R8	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	S0	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	S2	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	S5	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	S8	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	S9	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	T2	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	T4	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	T6	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	T8	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	U2	1	Total	C	N	O	P	0
			32	10	5	14	3	

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Mol	Chain	Residues	Atoms					AltConf
41	U4	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	U6	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	U7	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	U9	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	V2	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	V3	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	V8	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	W0	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	W2	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	W4	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	W5	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	W8	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	X0	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	X4	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	X6	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	X7	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	Y0	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	Y1	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	Y4	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	Y6	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	Z0	1	Total	C	N	O	P	0
			32	10	5	14	3	

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Mol	Chain	Residues	Atoms					AltConf
41	Z2	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	Z3	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	Z6	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	Z7	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	0A	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	0C	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	0F	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	0I	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	0K	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	0M	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	0O	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	0Q	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	0S	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	0V	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	0Y	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	1A	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	1C	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	1D	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	1G	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	1H	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	1L	1	Total	C	N	O	P	0
			32	10	5	14	3	

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Mol	Chain	Residues	Atoms					AltConf
41	1N	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	1Q	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	1S	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	1T	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	1W	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	1X	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	2A	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	2C	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	2E	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	2G	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	2I	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	2K	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	2L	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	2N	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	2Q	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	2S	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	2U	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	2W	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	2Y	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	3A	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	3C	1	Total	C	N	O	P	0
			32	10	5	14	3	

Continued on next page...

Continued from previous page...

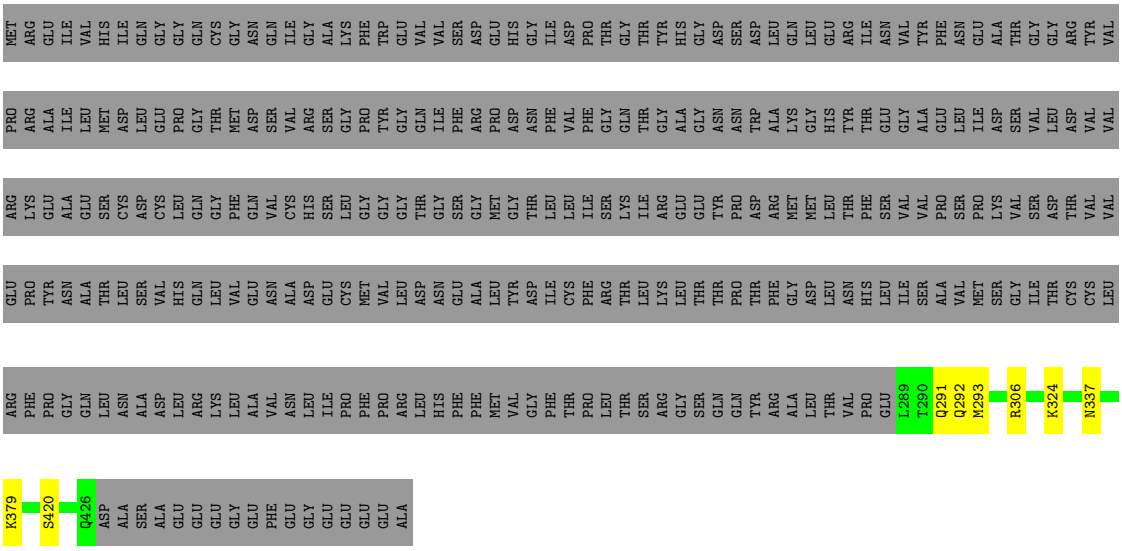
Mol	Chain	Residues	Atoms					AltConf
41	3D	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	3G	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	3I	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	3K	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	3M	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	3O	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	3P	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	3S	1	Total	C	N	O	P	0
			32	10	5	14	3	
41	3T	1	Total	C	N	O	P	0
			32	10	5	14	3	

3 Residue-property plots (i)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

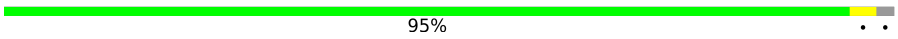
- Molecule 1: Tubulin beta

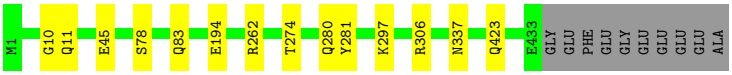
Chain 1:



- Molecule 1: Tubulin beta

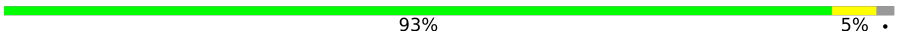
Chain 3:

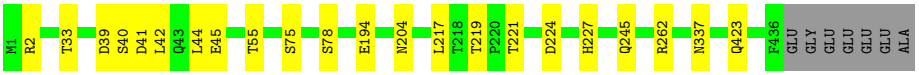




- Molecule 1: Tubulin beta

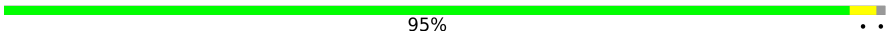
Chain 5:

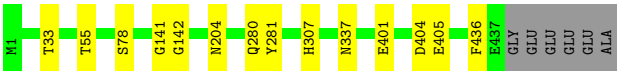




- Molecule 1: Tubulin beta

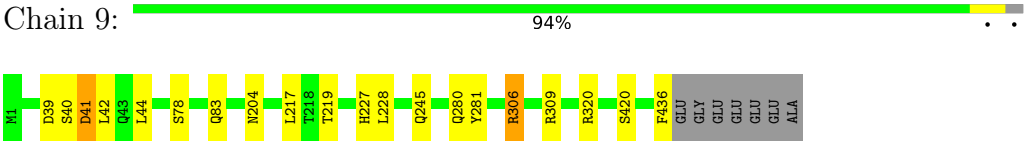
Chain 7:





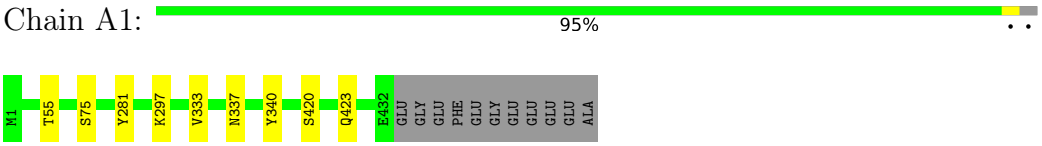
• Molecule 1: Tubulin beta

Chain 9:



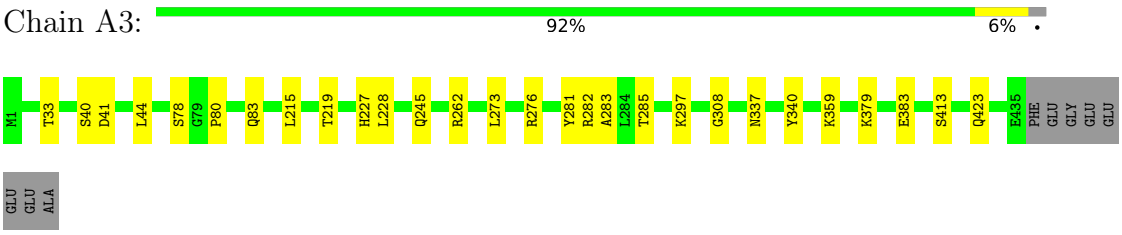
• Molecule 1: Tubulin beta

Chain A1:



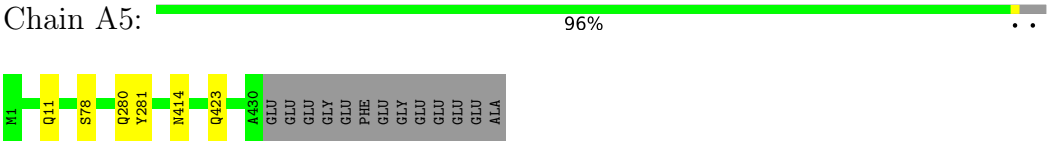
• Molecule 1: Tubulin beta

Chain A3:



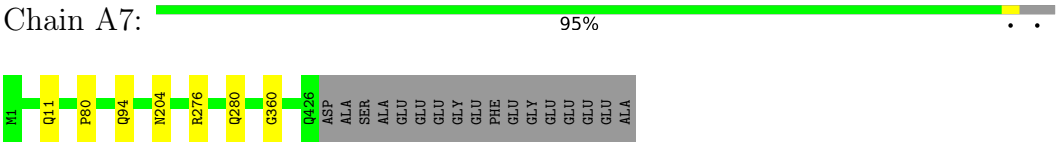
• Molecule 1: Tubulin beta

Chain A5:



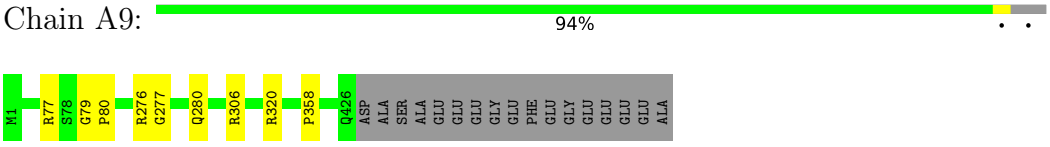
• Molecule 1: Tubulin beta

Chain A7:



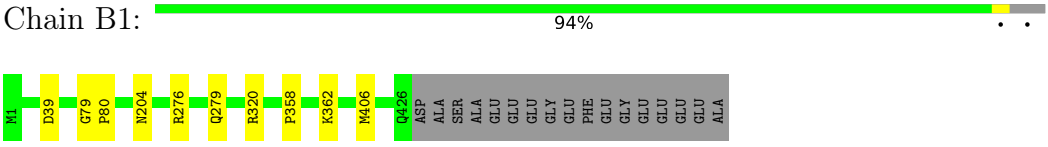
• Molecule 1: Tubulin beta

Chain A9:



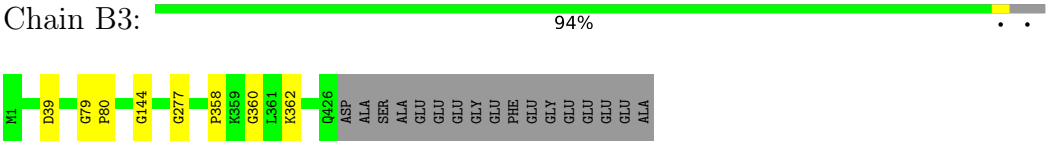
• Molecule 1: Tubulin beta

Chain B1:



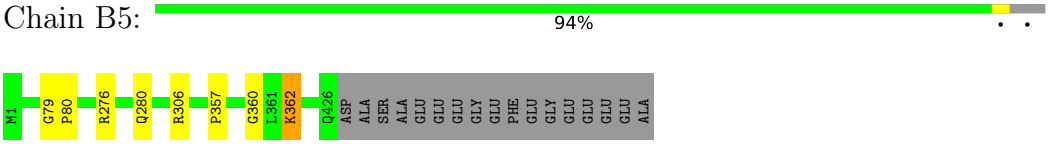
• Molecule 1: Tubulin beta

Chain B3:



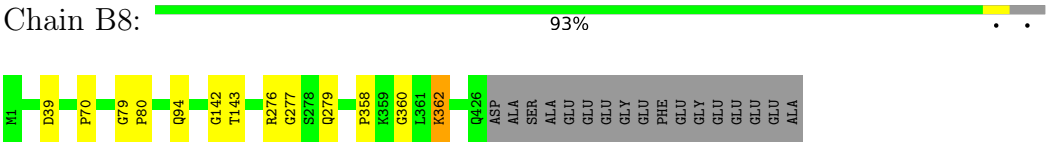
• Molecule 1: Tubulin beta

Chain B5:



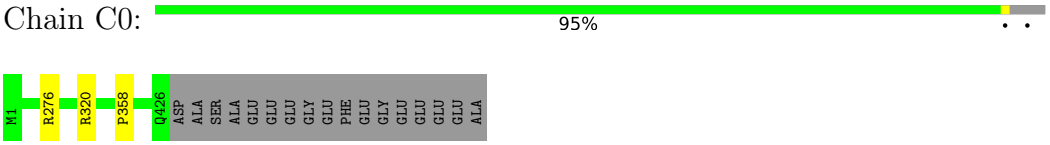
• Molecule 1: Tubulin beta

Chain B8:



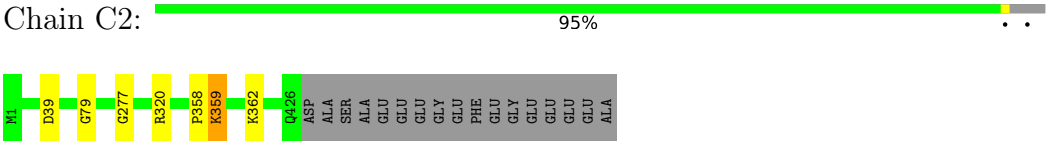
• Molecule 1: Tubulin beta

Chain C0:



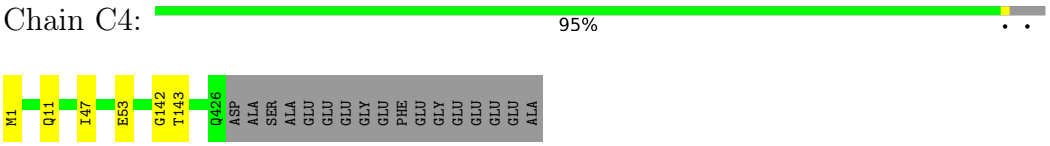
• Molecule 1: Tubulin beta

Chain C2:



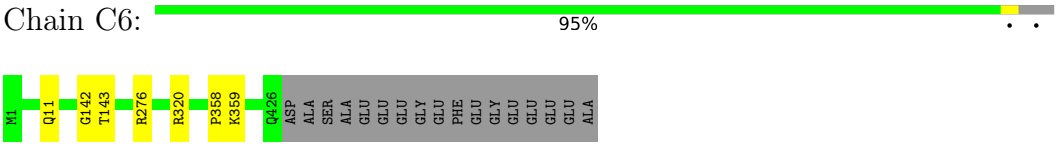
• Molecule 1: Tubulin beta

Chain C4:



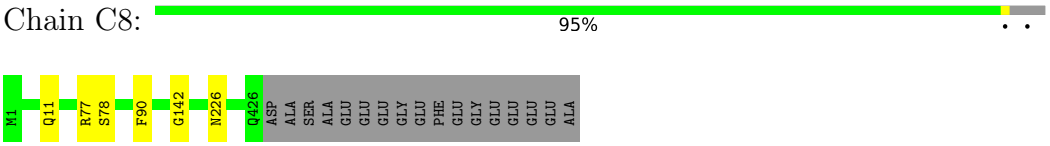
• Molecule 1: Tubulin beta

Chain C6:



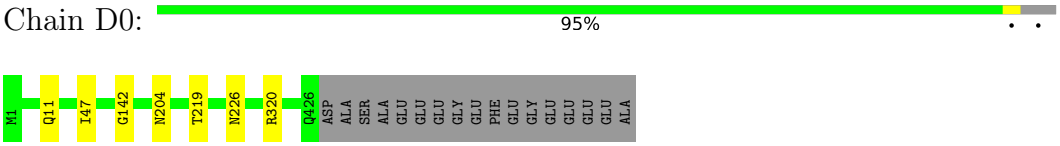
• Molecule 1: Tubulin beta

Chain C8:



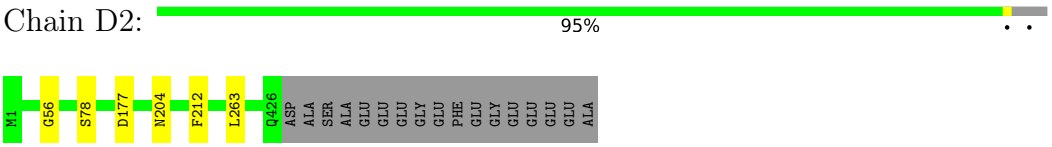
• Molecule 1: Tubulin beta

Chain D0:



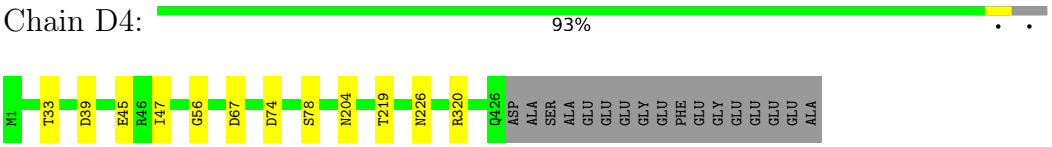
• Molecule 1: Tubulin beta

Chain D2:



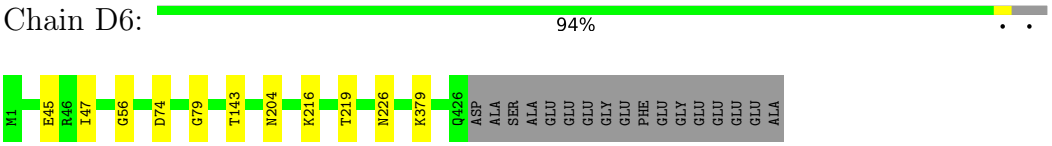
• Molecule 1: Tubulin beta

Chain D4:



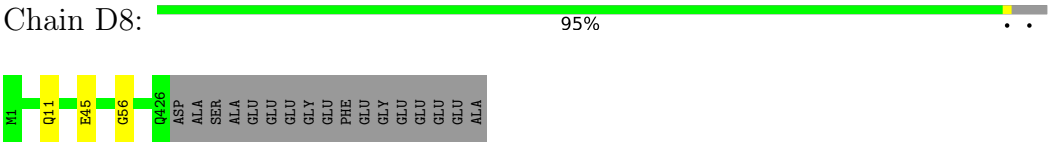
• Molecule 1: Tubulin beta

Chain D6:



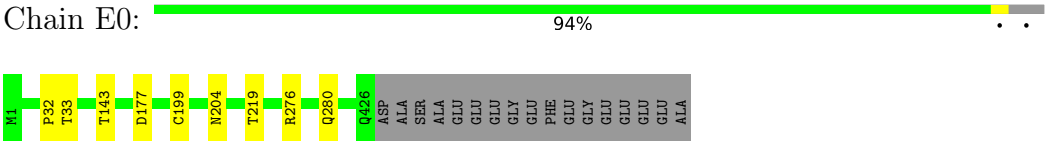
• Molecule 1: Tubulin beta

Chain D8:



• Molecule 1: Tubulin beta

Chain E0:

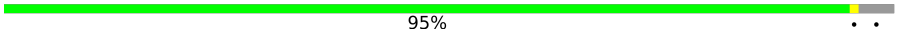


• Molecule 1: Tubulin beta

Chain E2:

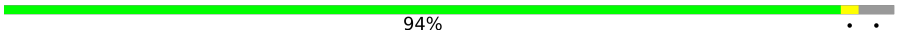
• Molecule 1: Tubulin beta

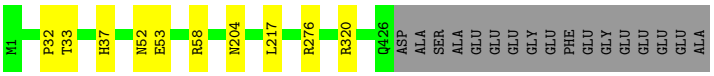
Chain E4:



• Molecule 1: Tubulin beta

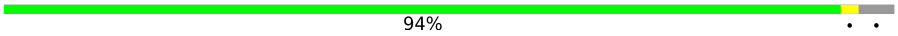
Chain E6:

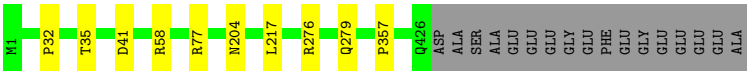




• Molecule 1: Tubulin beta

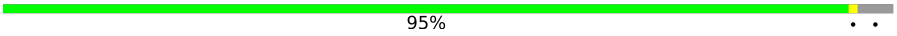
Chain E8:

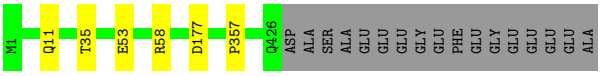




• Molecule 1: Tubulin beta

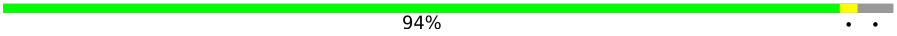
Chain F0:

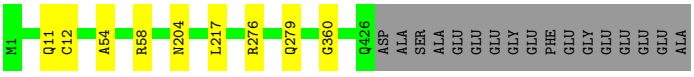




• Molecule 1: Tubulin beta

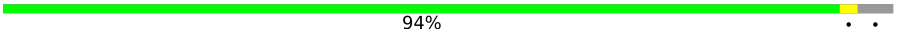
Chain F2:

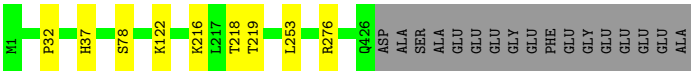




• Molecule 1: Tubulin beta

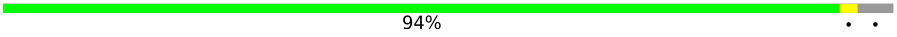
Chain F6:

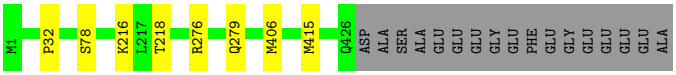




• Molecule 1: Tubulin beta

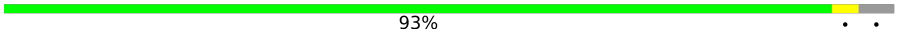
Chain F8:





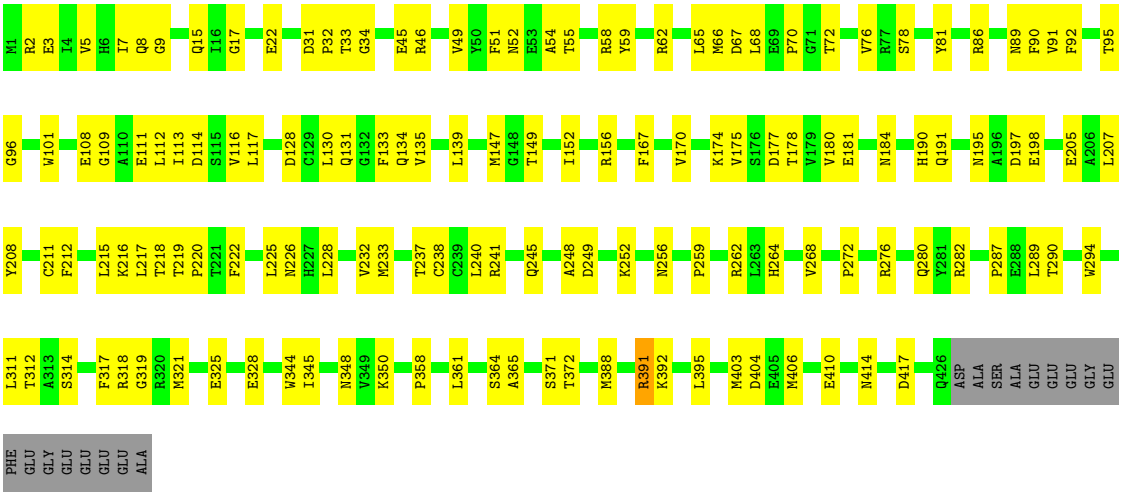
• Molecule 1: Tubulin beta

Chain G0:



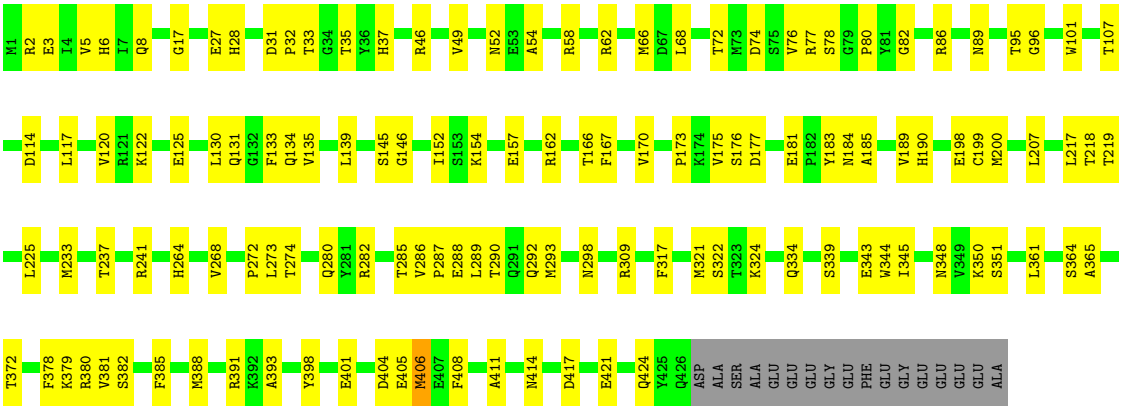
• Molecule 1: Tubulin beta

Chain G2:



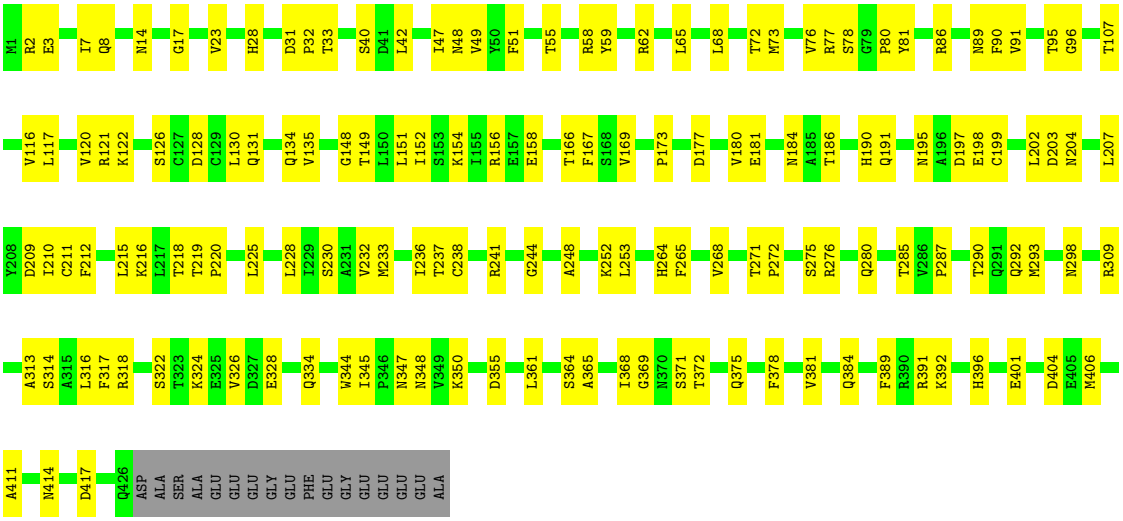
• Molecule 1: Tubulin beta

Chain G4:



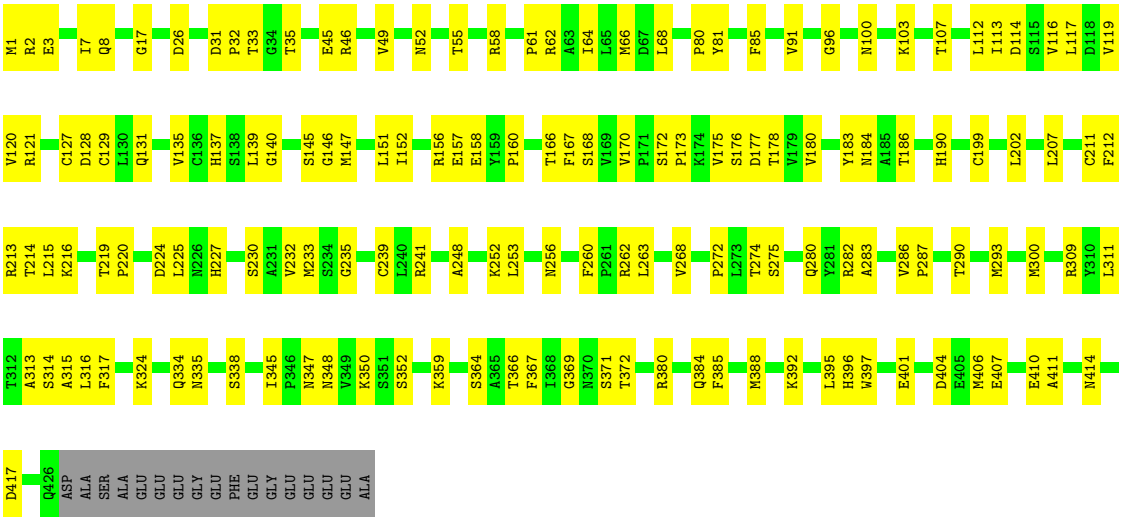
• Molecule 1: Tubulin beta

Chain G6:



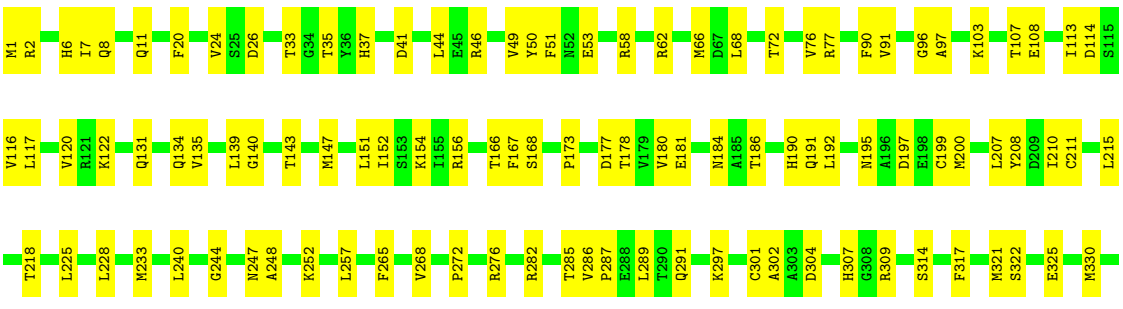
• Molecule 1: Tubulin beta

Chain G8:



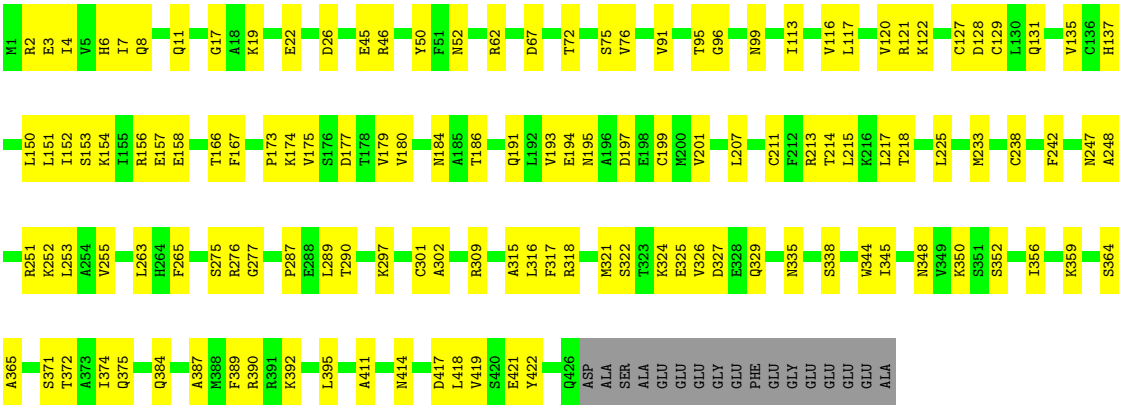
• Molecule 1: Tubulin beta

Chain H2:



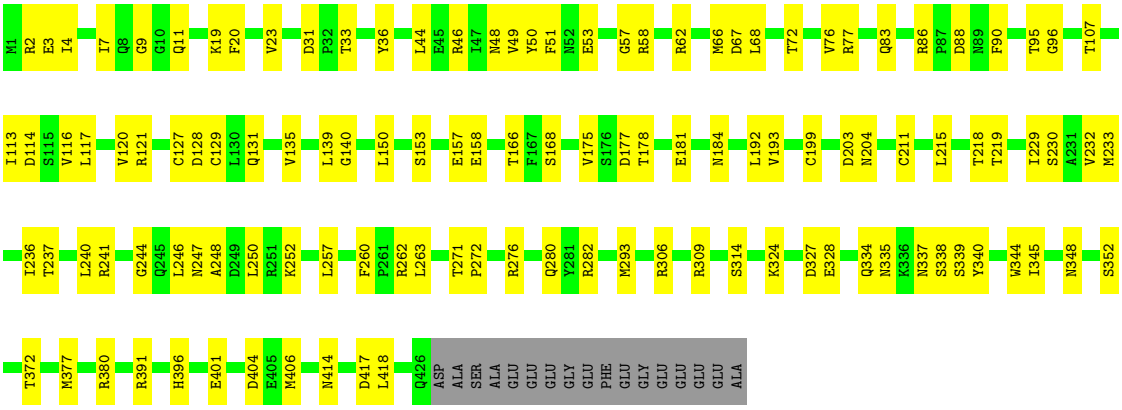
• Molecule 1: Tubulin beta

Chain H4:



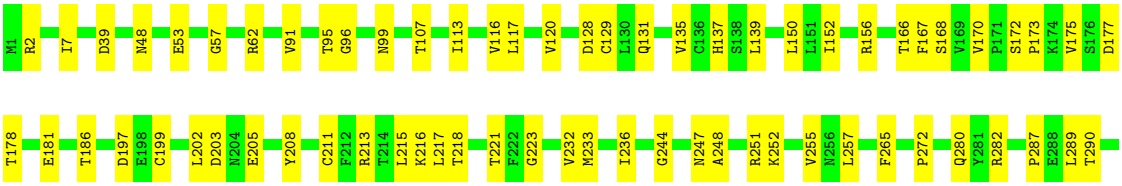
• Molecule 1: Tubulin beta

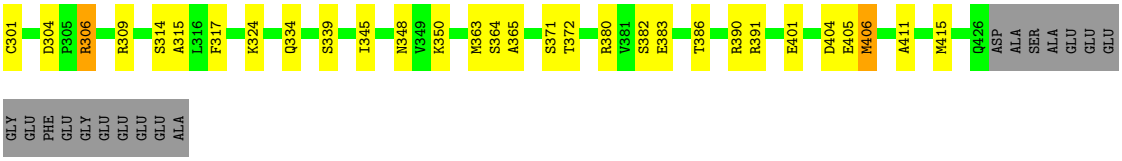
Chain H6:



• Molecule 1: Tubulin beta

Chain H8:



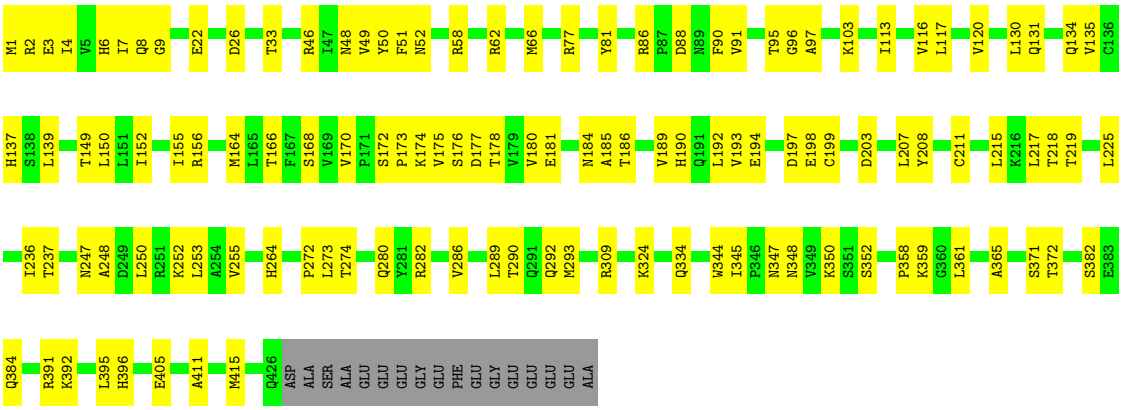


• Molecule 1: Tubulin beta

Chain I0:

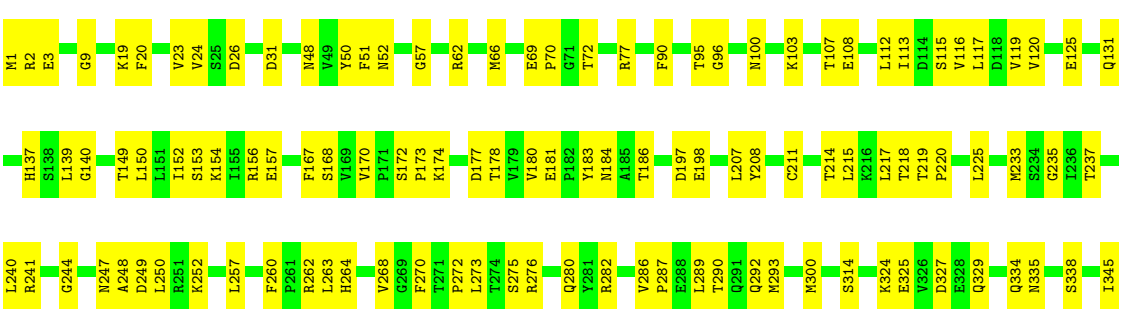
• Molecule 1: Tubulin beta

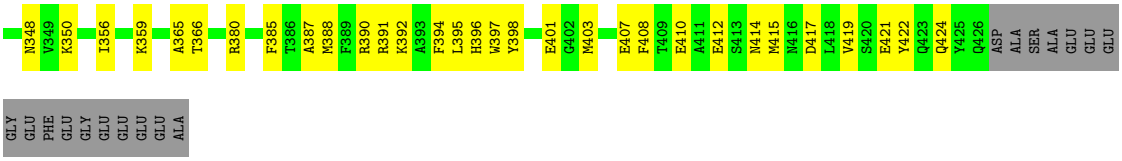
Chain I2:



• Molecule 1: Tubulin beta

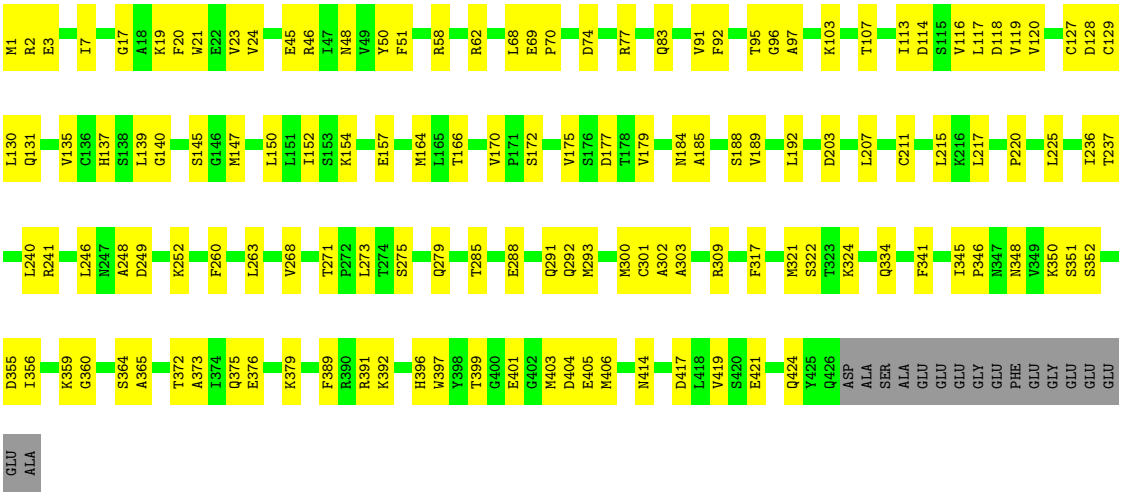
Chain I4:





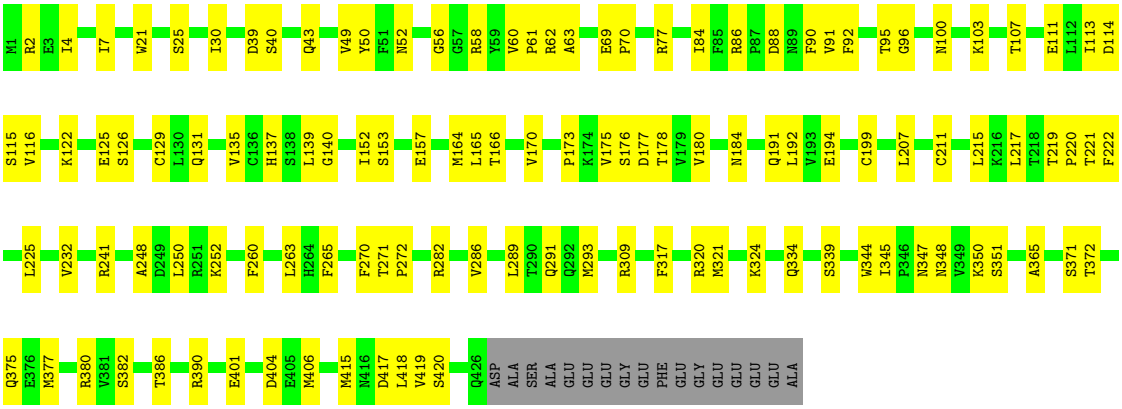
• Molecule 1: Tubulin beta

Chain I8:



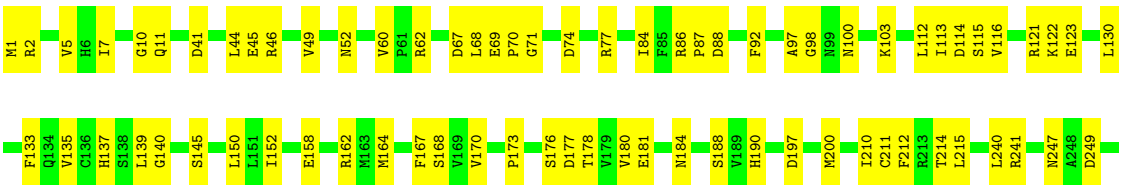
• Molecule 1: Tubulin beta

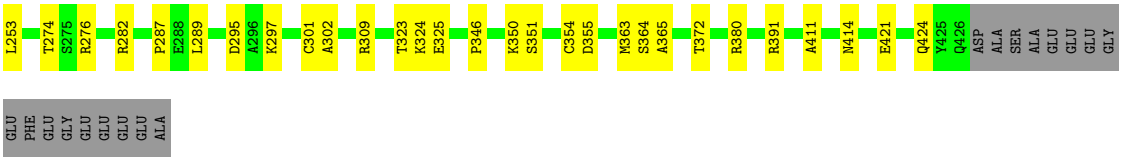
Chain J0:



• Molecule 1: Tubulin beta

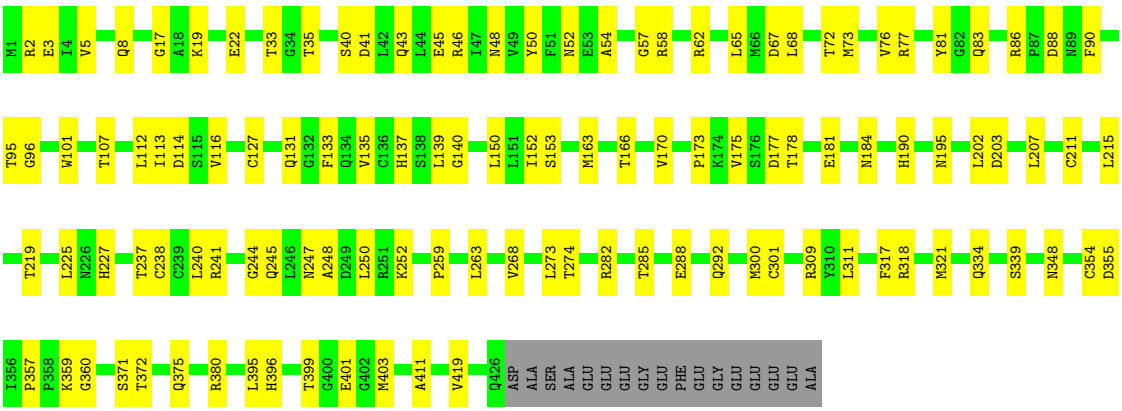
Chain J2:





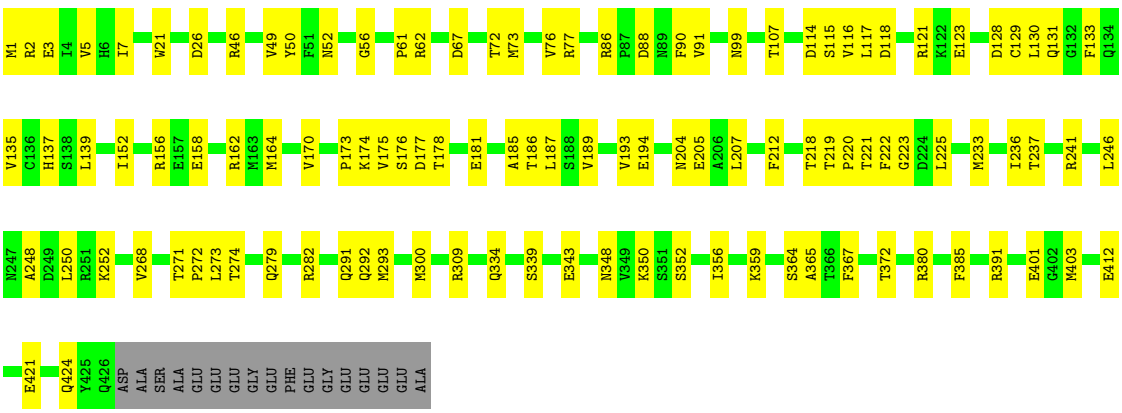
• Molecule 1: Tubulin beta

Chain J4:



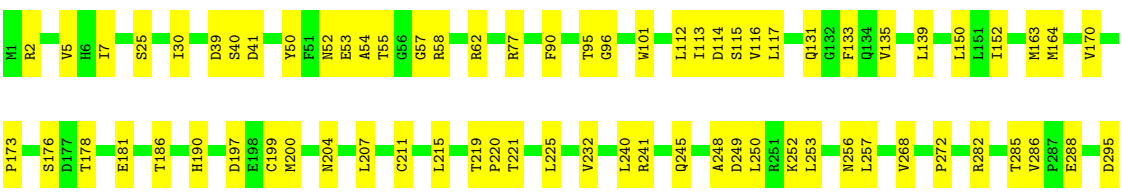
• Molecule 1: Tubulin beta

Chain J6:



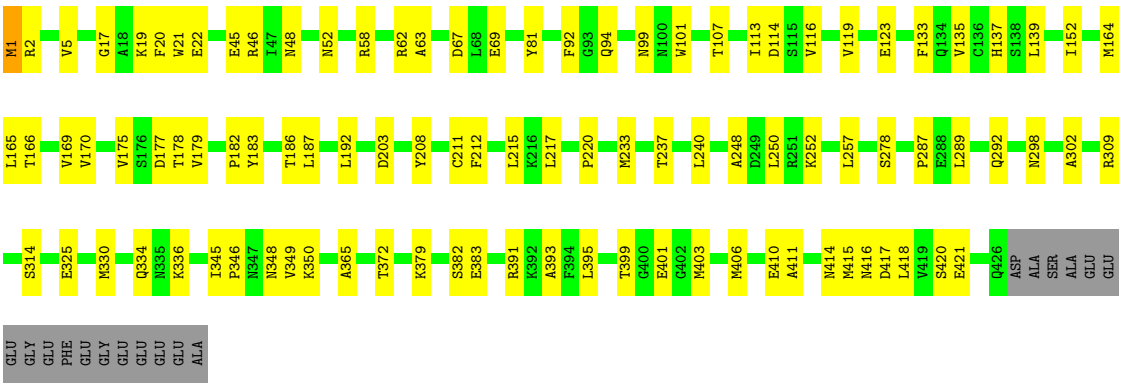
• Molecule 1: Tubulin beta

Chain J8:



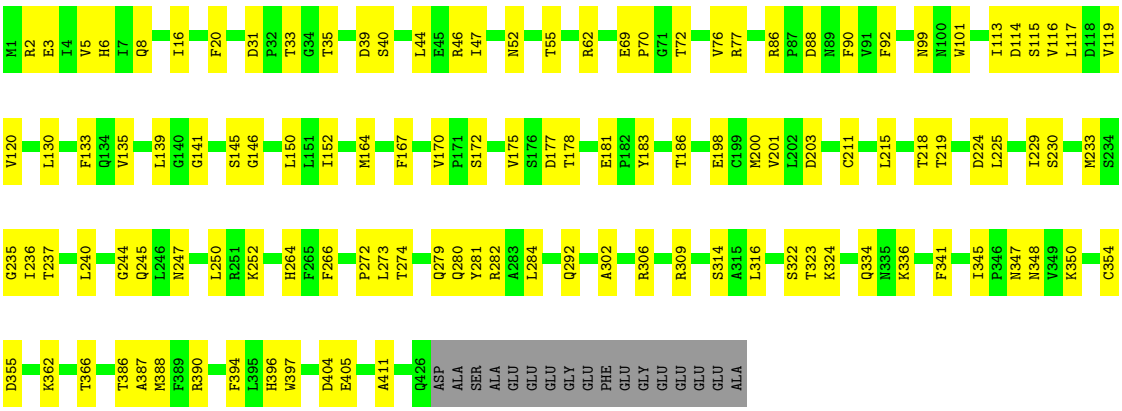
• Molecule 1: Tubulin beta

Chain K0:



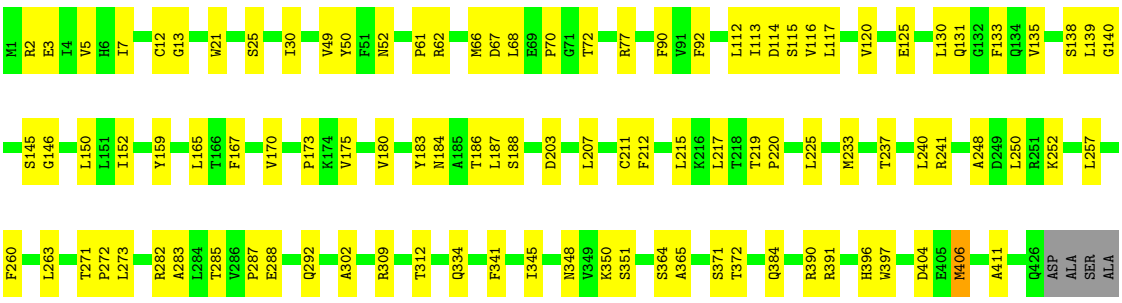
• Molecule 1: Tubulin beta

Chain K4:



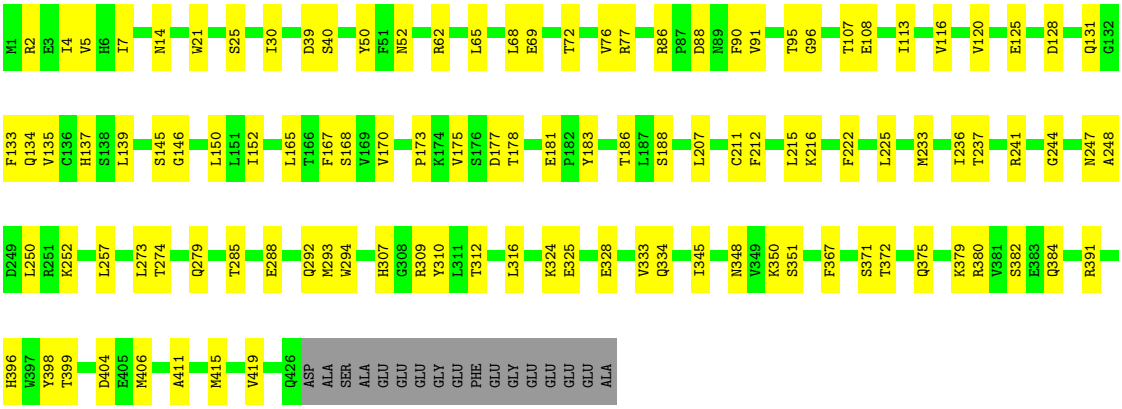
• Molecule 1: Tubulin beta

Chain K6:



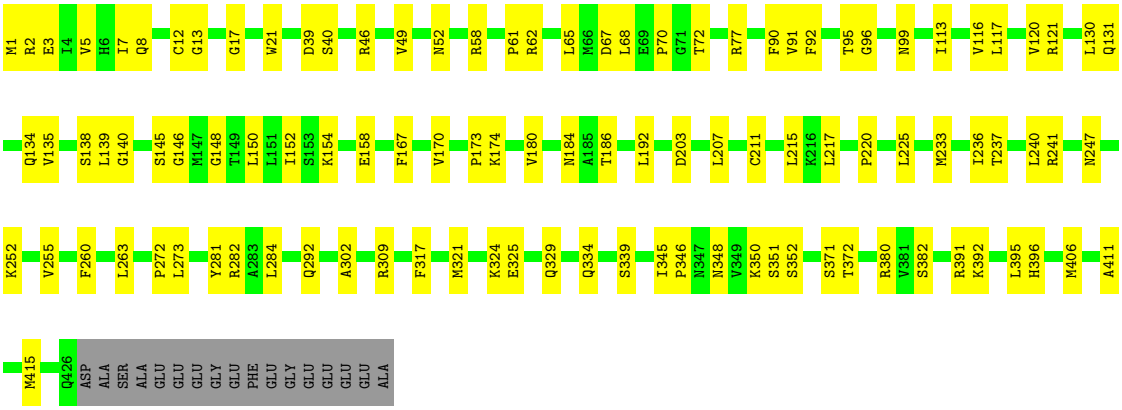
• Molecule 1: Tubulin beta

Chain K8:



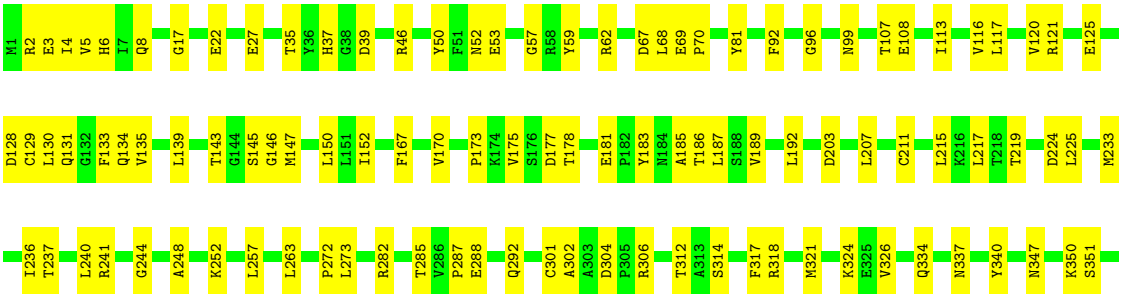
• Molecule 1: Tubulin beta

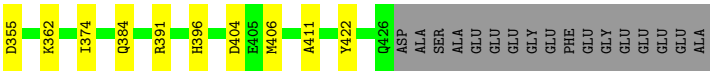
Chain L0:



• Molecule 1: Tubulin beta

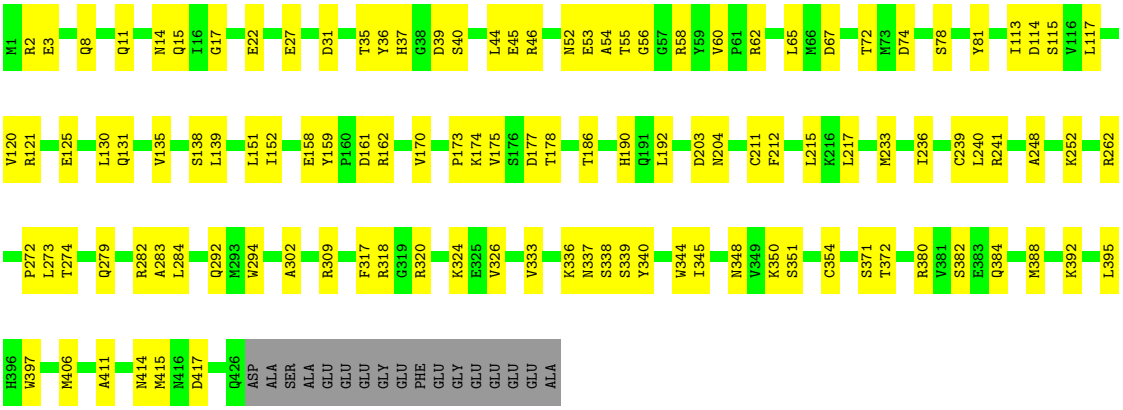
Chain L2:





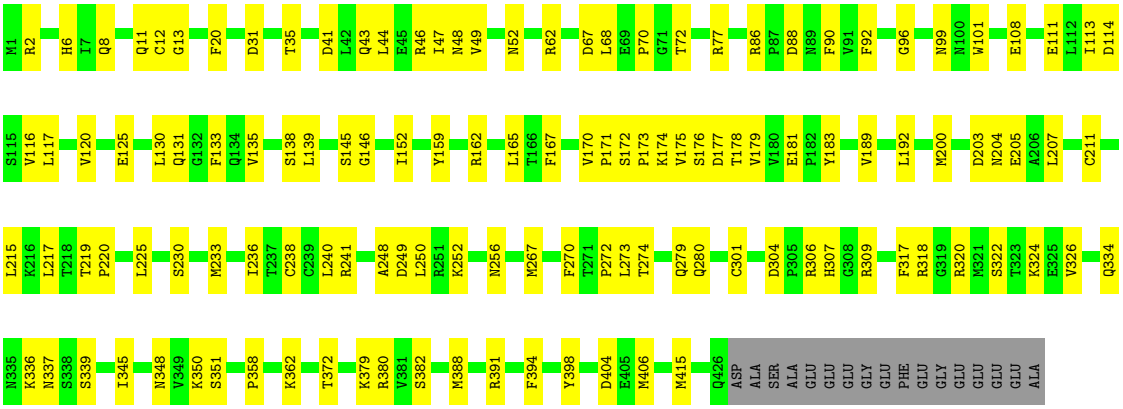
• Molecule 1: Tubulin beta

Chain L4:



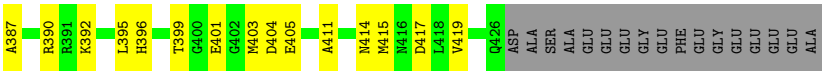
• Molecule 1: Tubulin beta

Chain L6:



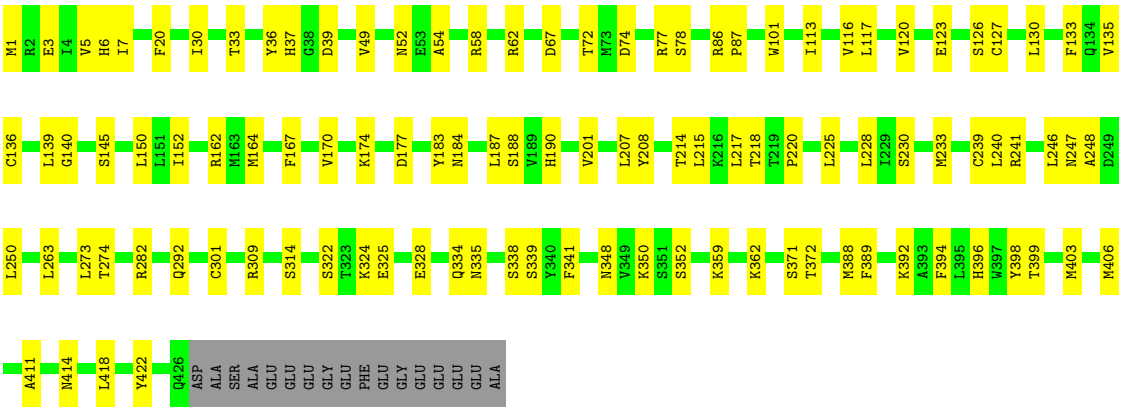
• Molecule 1: Tubulin beta

Chain M0:



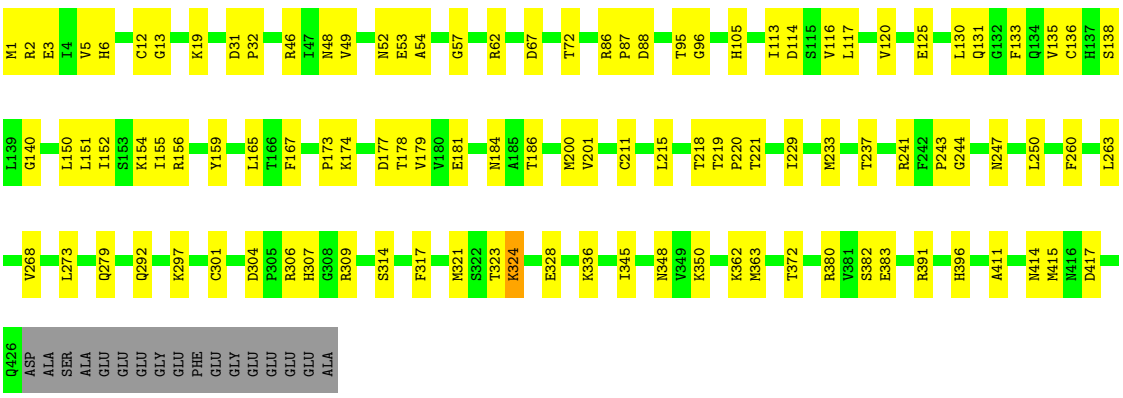
• Molecule 1: Tubulin beta

Chain M2:



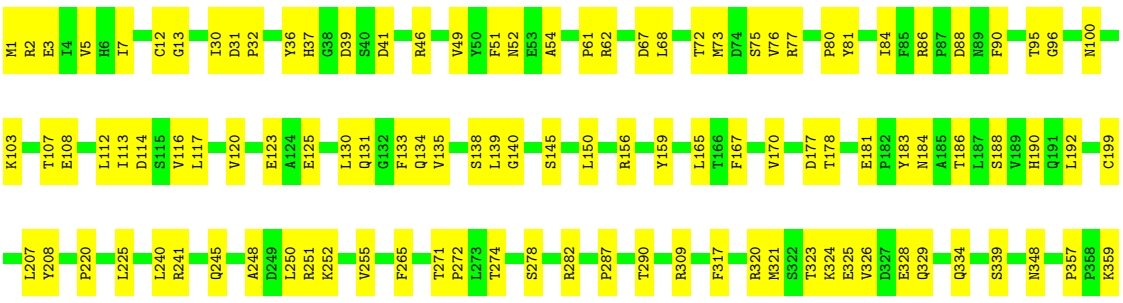
• Molecule 1: Tubulin beta

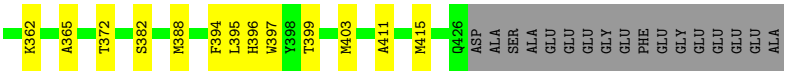
Chain M4:



• Molecule 1: Tubulin beta

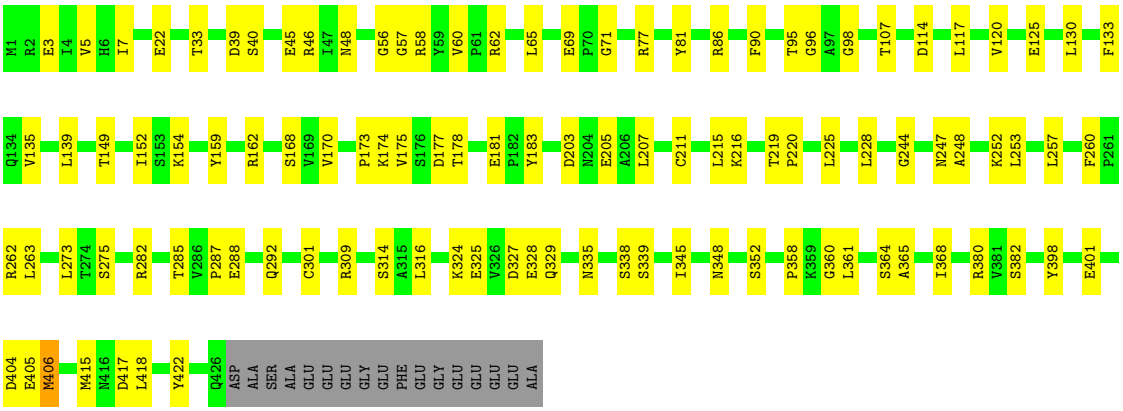
Chain M6:





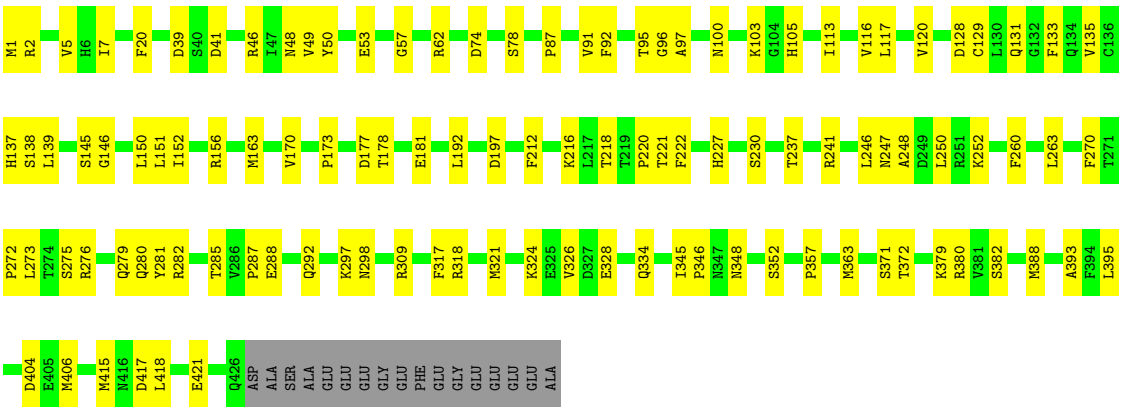
• Molecule 1: Tubulin beta

Chain M8:



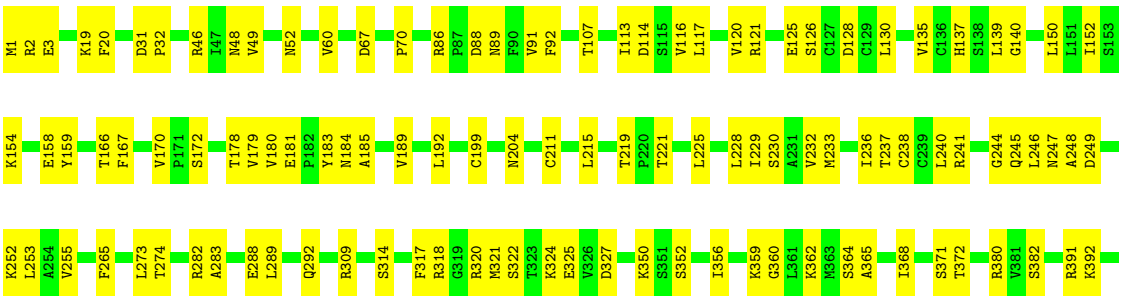
• Molecule 1: Tubulin beta

Chain N0:



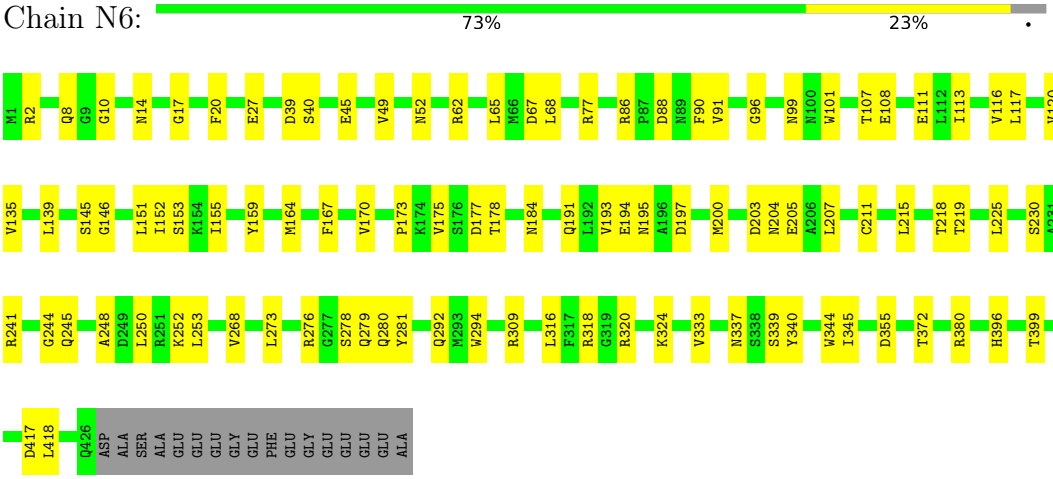
• Molecule 1: Tubulin beta

Chain N2:



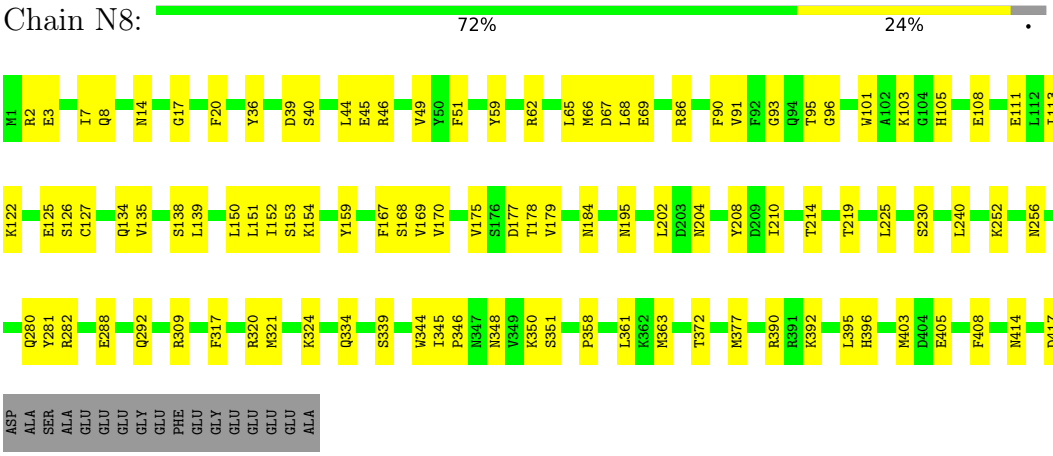
• Molecule 1: Tubulin beta

Chain N6:



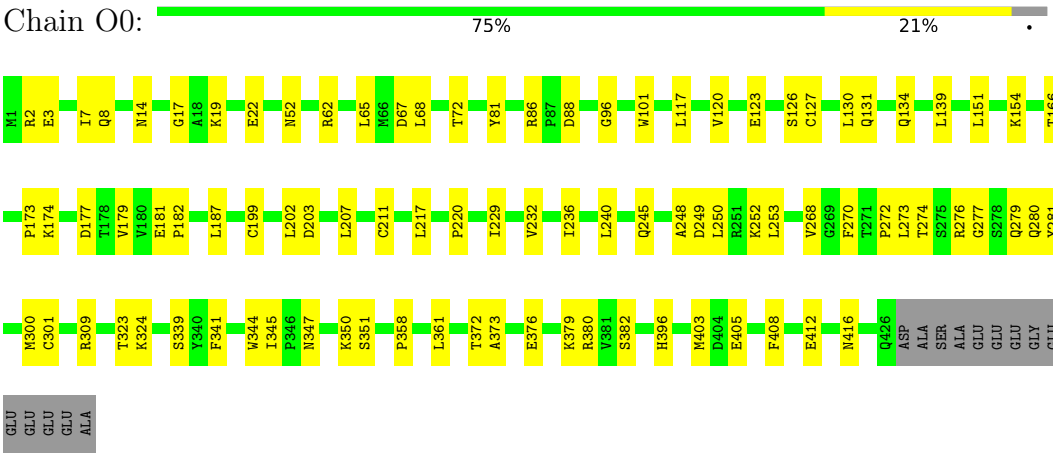
• Molecule 1: Tubulin beta

Chain N8:



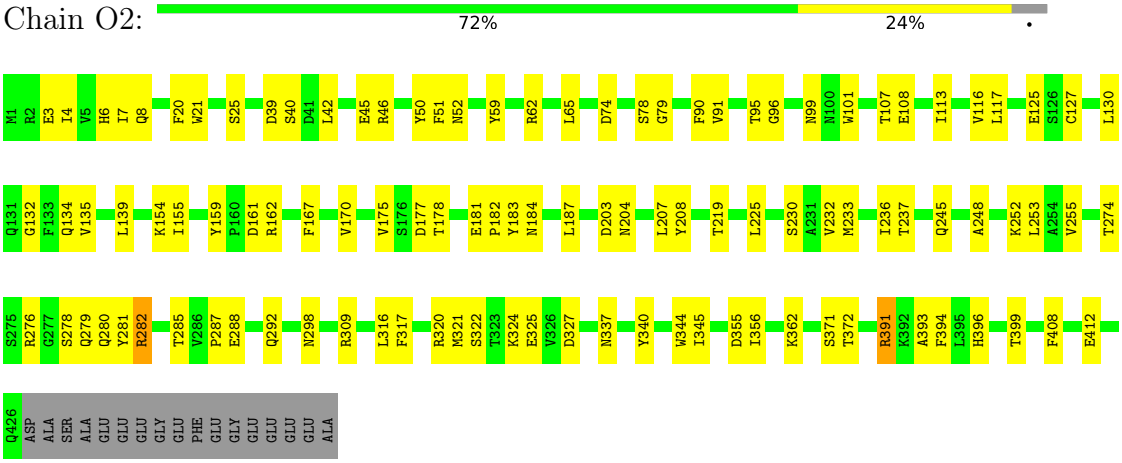
• Molecule 1: Tubulin beta

Chain O0:



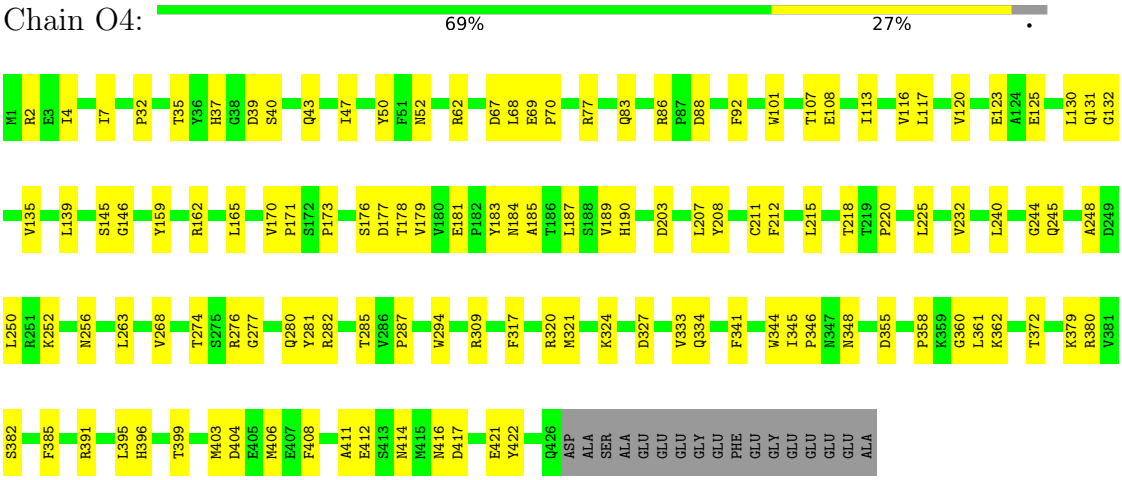
• Molecule 1: Tubulin beta

Chain O2:



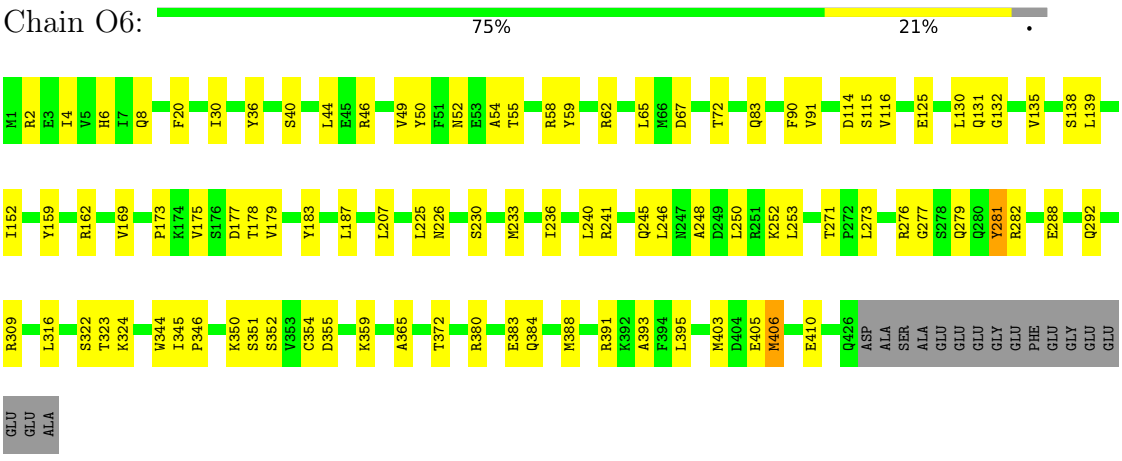
• Molecule 1: Tubulin beta

Chain O4:



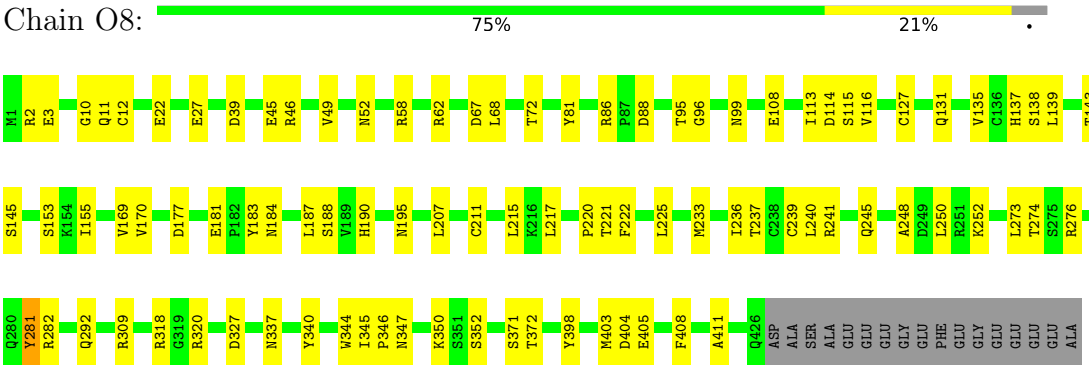
• Molecule 1: Tubulin beta

Chain O6:



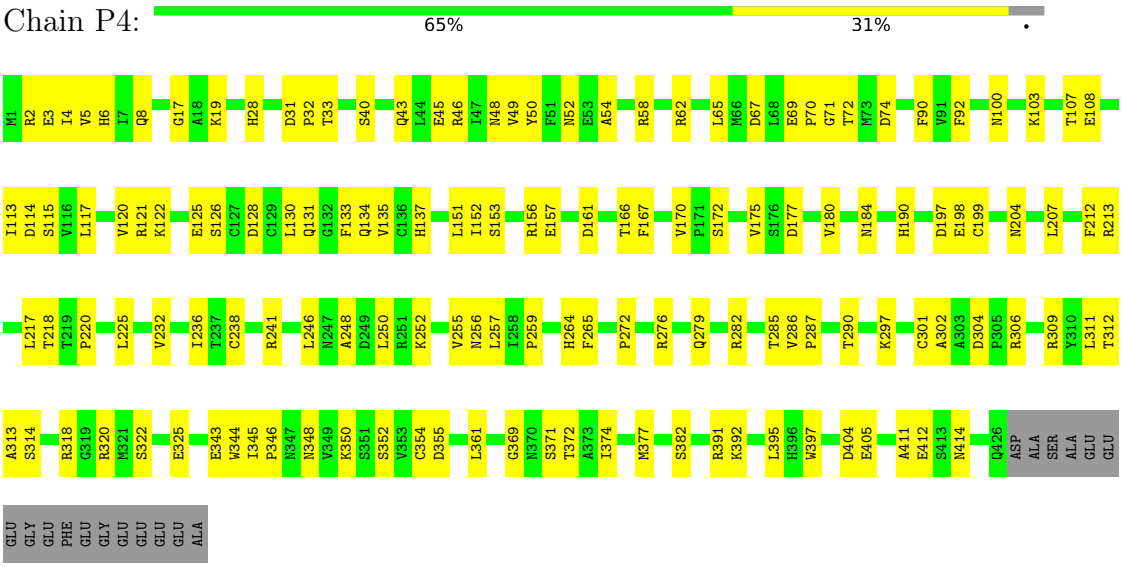
• Molecule 1: Tubulin beta

Chain O8:



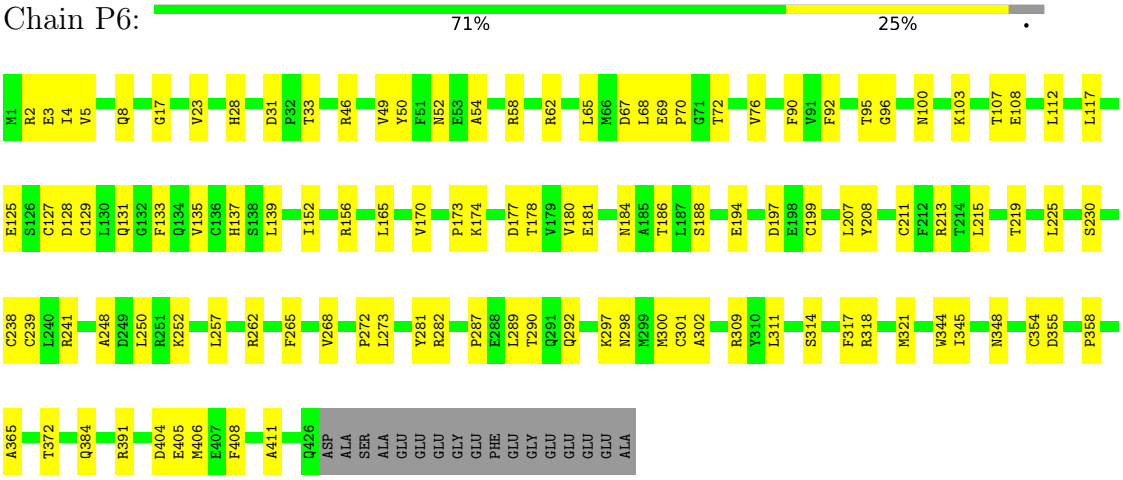
• Molecule 1: Tubulin beta

Chain P4:



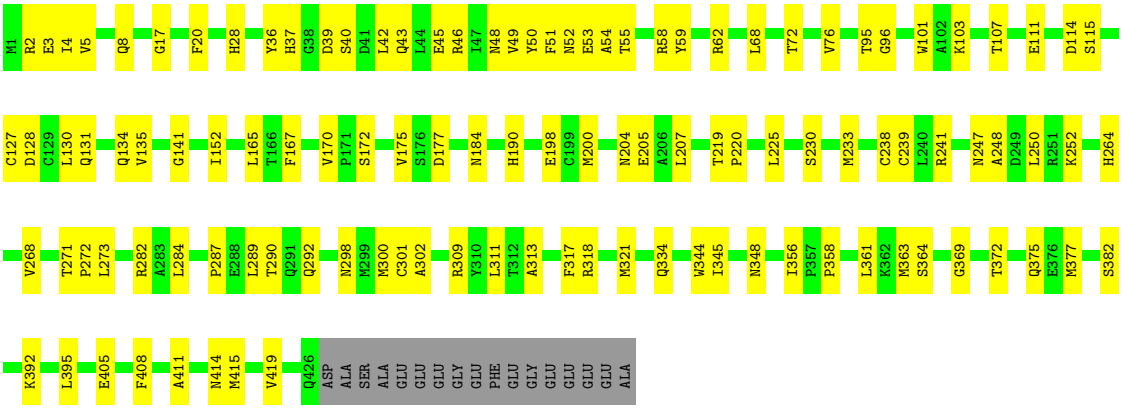
• Molecule 1: Tubulin beta

Chain P6:



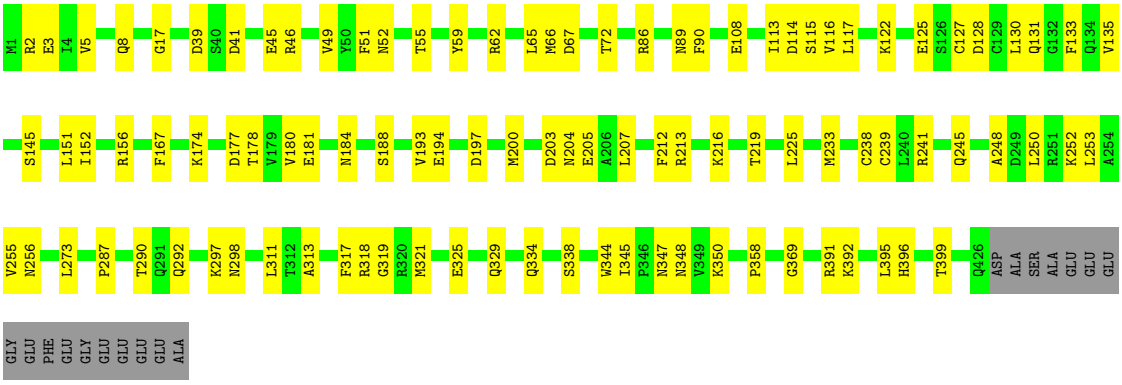
• Molecule 1: Tubulin beta

Chain P8:



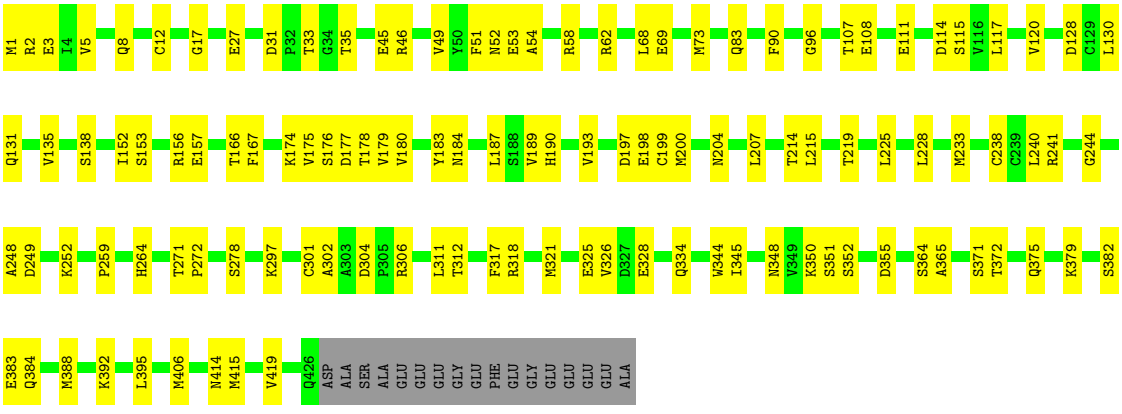
• Molecule 1: Tubulin beta

Chain Q0:



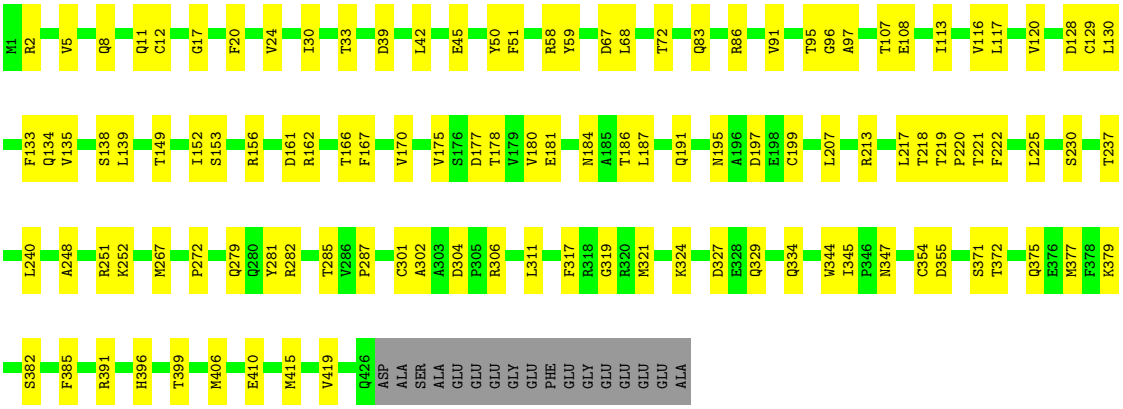
• Molecule 1: Tubulin beta

Chain Q2:



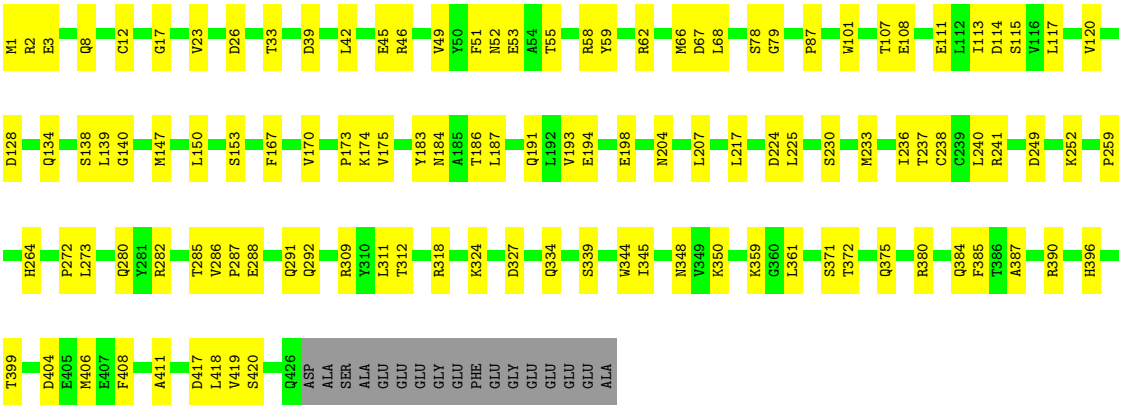
• Molecule 1: Tubulin beta

Chain Q4:



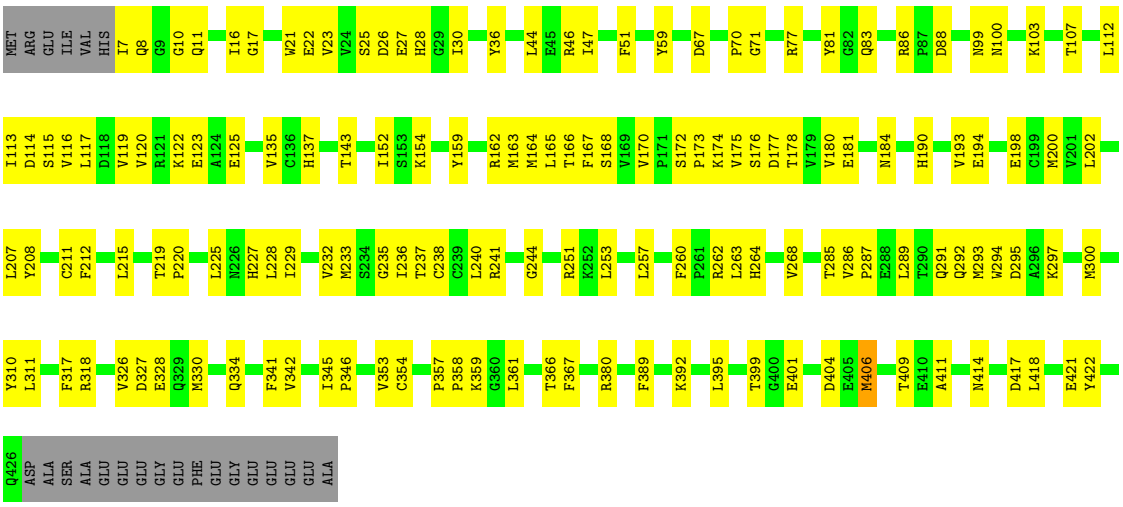
• Molecule 1: Tubulin beta

Chain Q6:



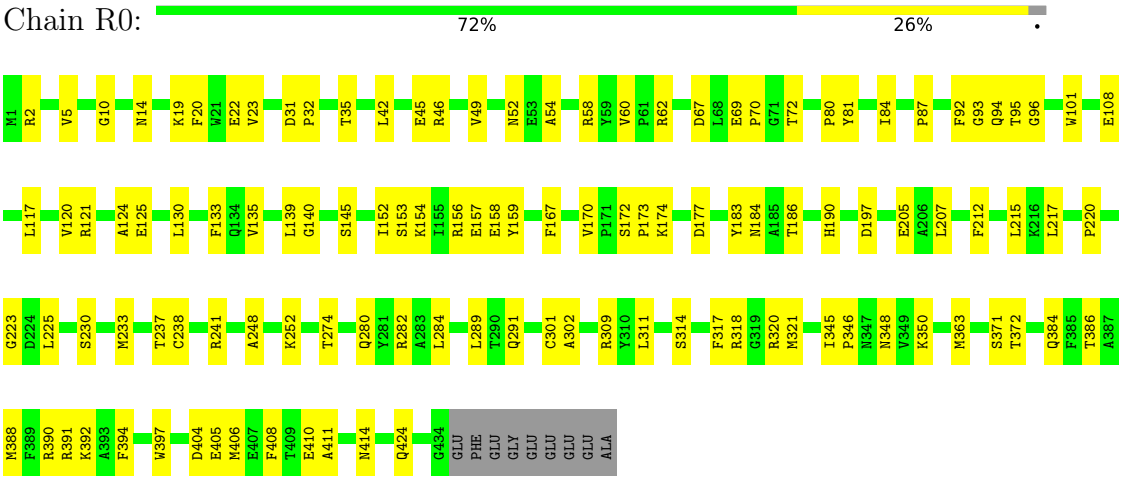
• Molecule 1: Tubulin beta

Chain Q8:



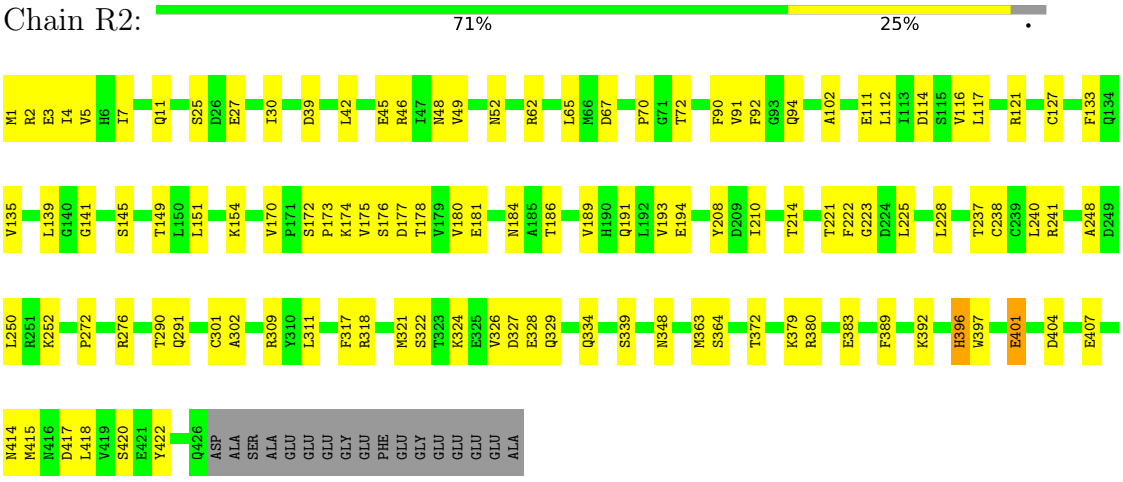
• Molecule 1: Tubulin beta

Chain R0:



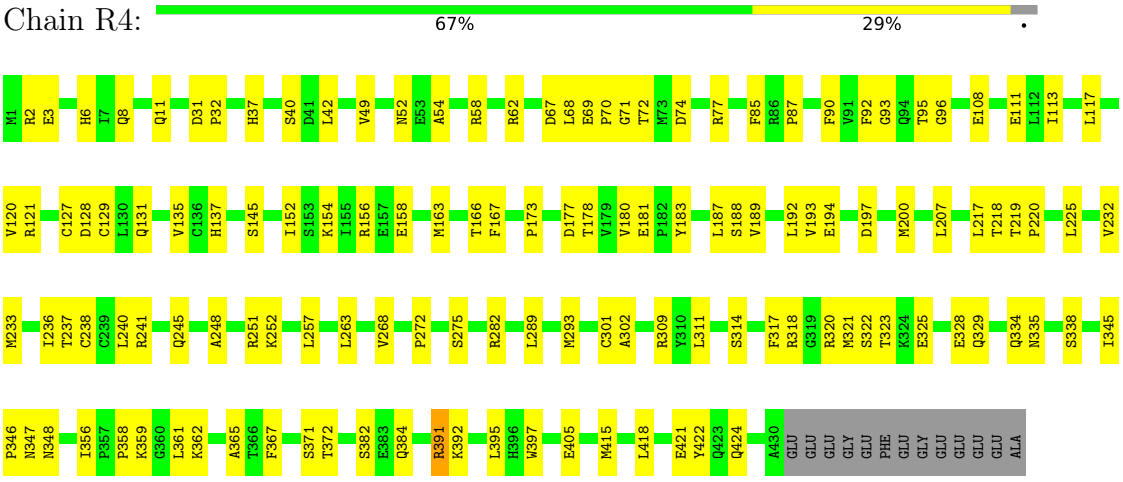
• Molecule 1: Tubulin beta

Chain R2:



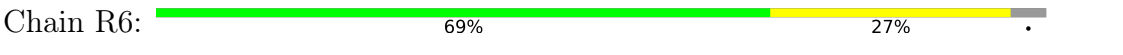
• Molecule 1: Tubulin beta

Chain R4:



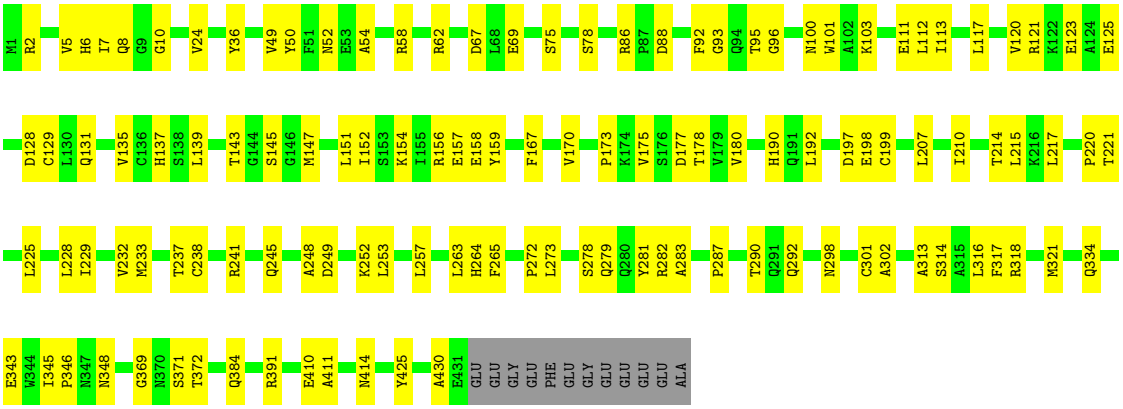
• Molecule 1: Tubulin beta

Chain R6:



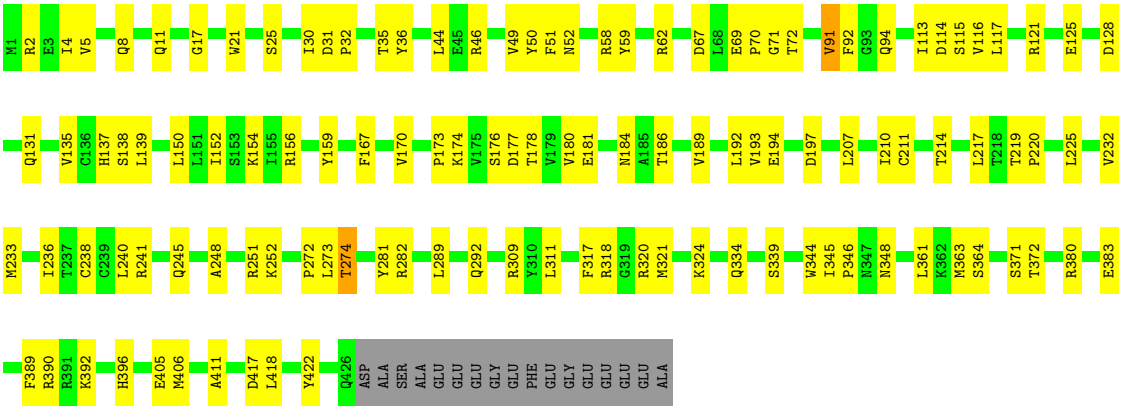
• Molecule 1: Tubulin beta

Chain R8:



• Molecule 1: Tubulin beta

Chain S0:

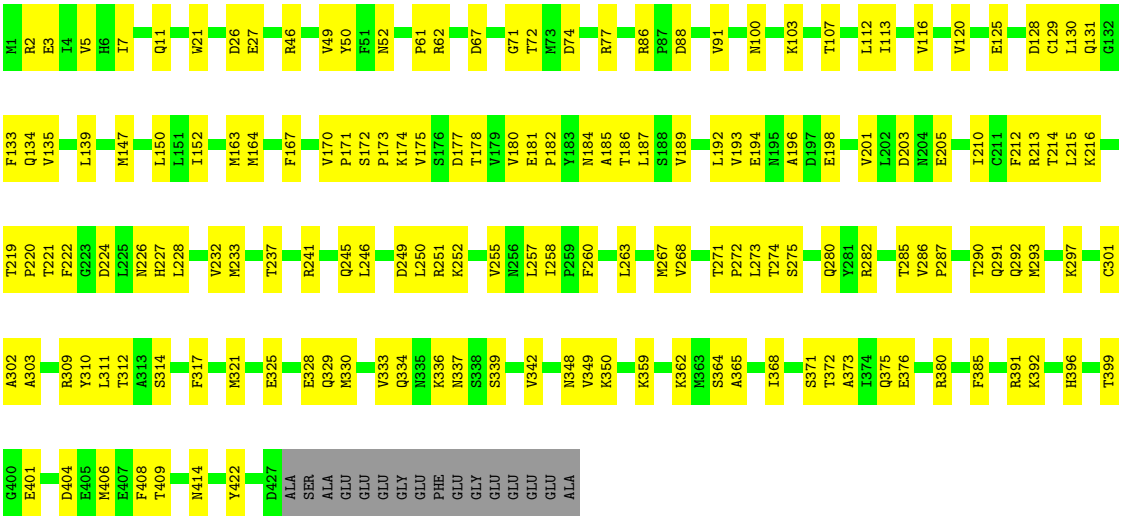


• Molecule 1: Tubulin beta

Chain S2:

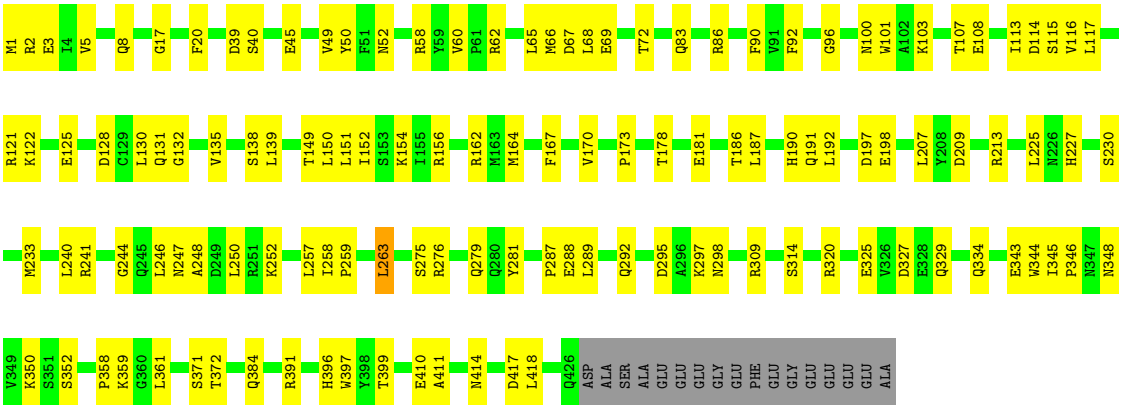
• Molecule 1: Tubulin beta

Chain S4:



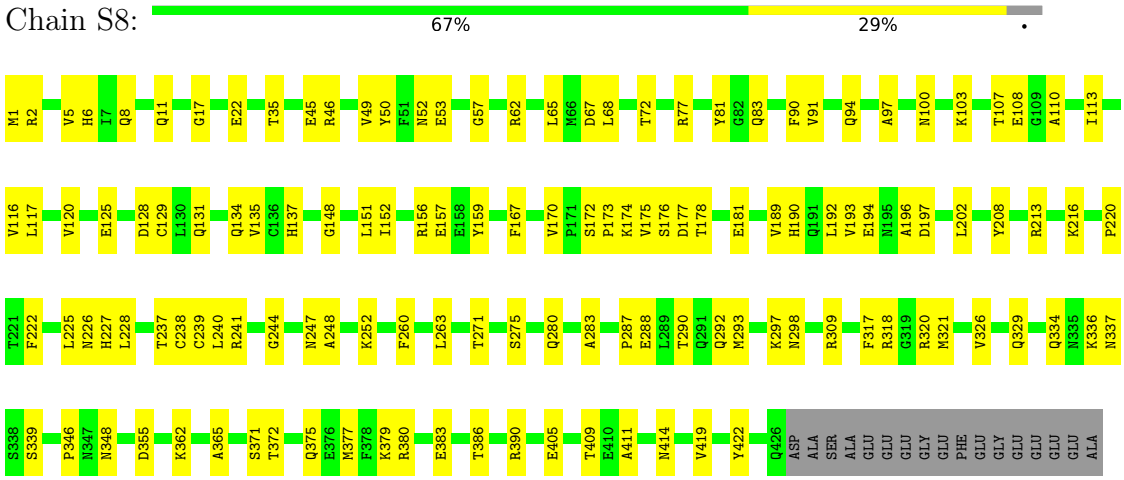
• Molecule 1: Tubulin beta

Chain S6:



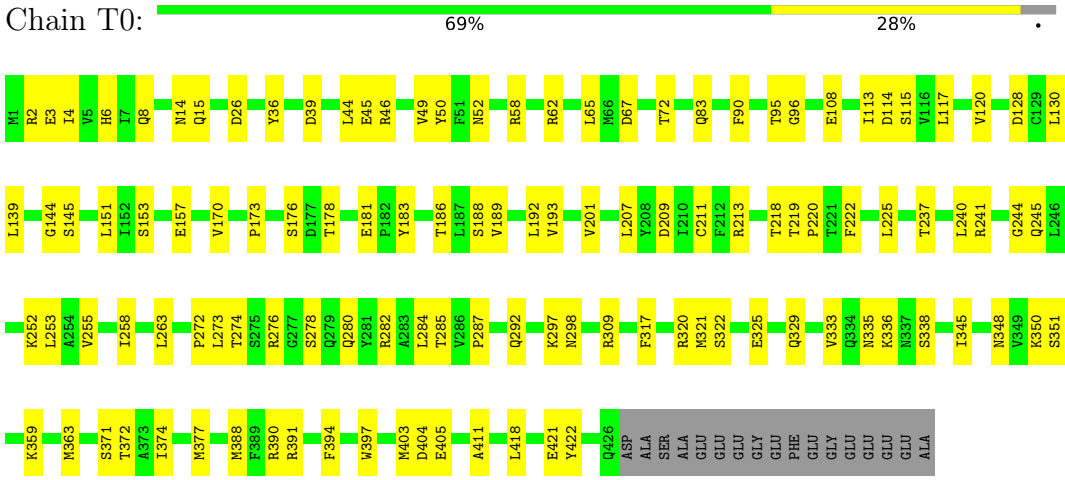
• Molecule 1: Tubulin beta

Chain S8:



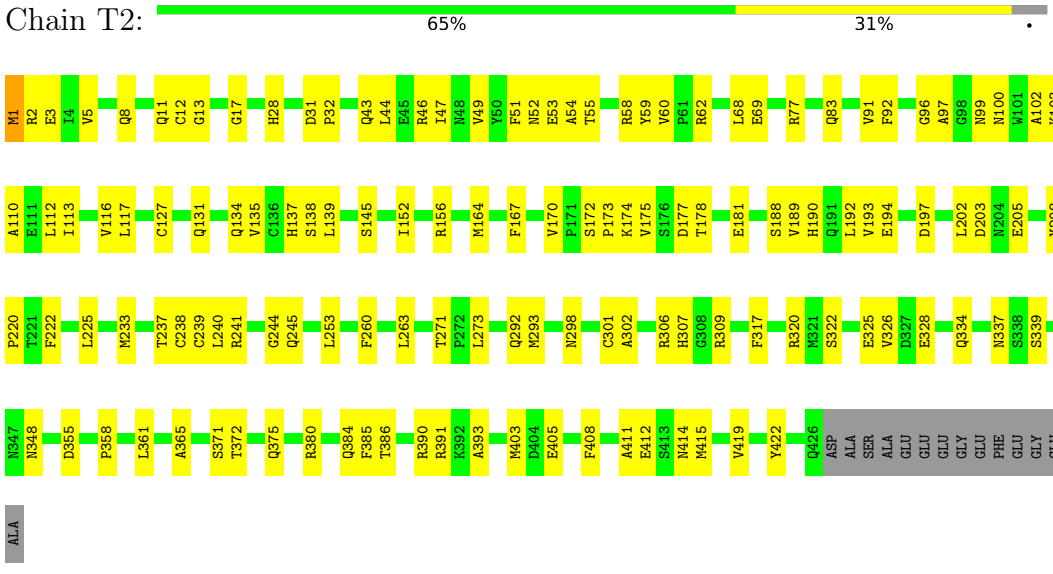
• Molecule 1: Tubulin beta

Chain T0:



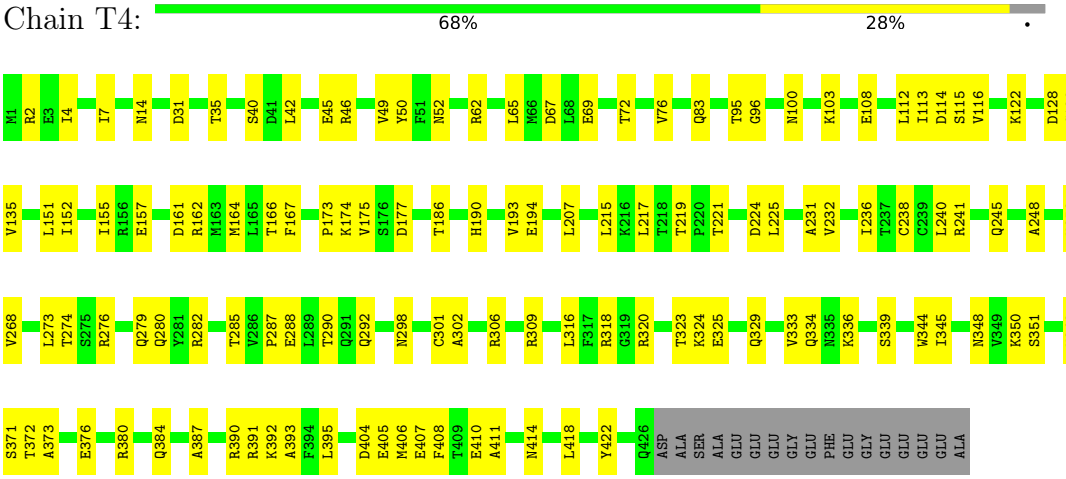
• Molecule 1: Tubulin beta

Chain T2:



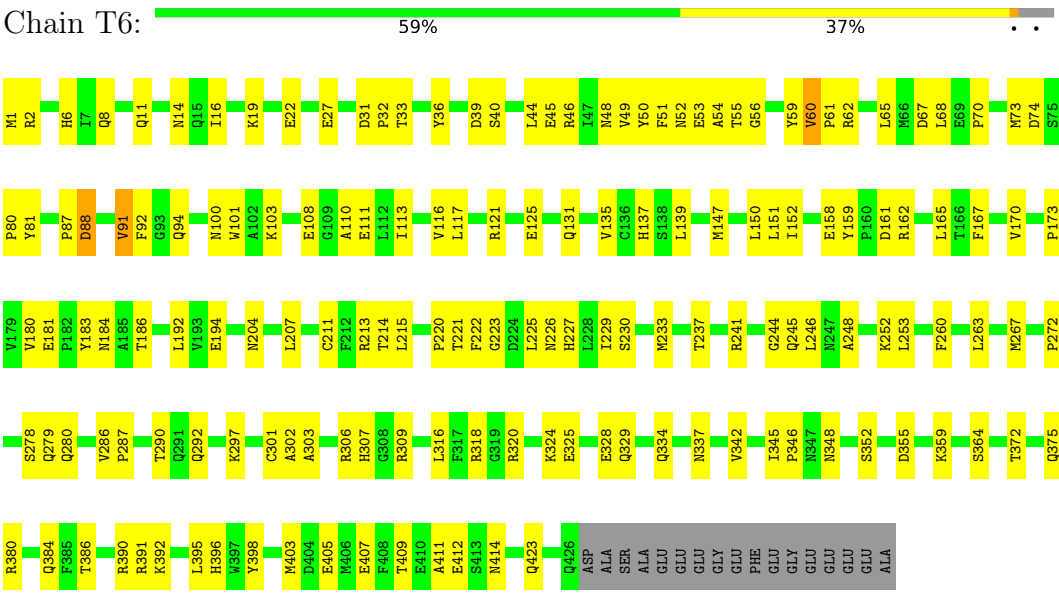
• Molecule 1: Tubulin beta

Chain T4:



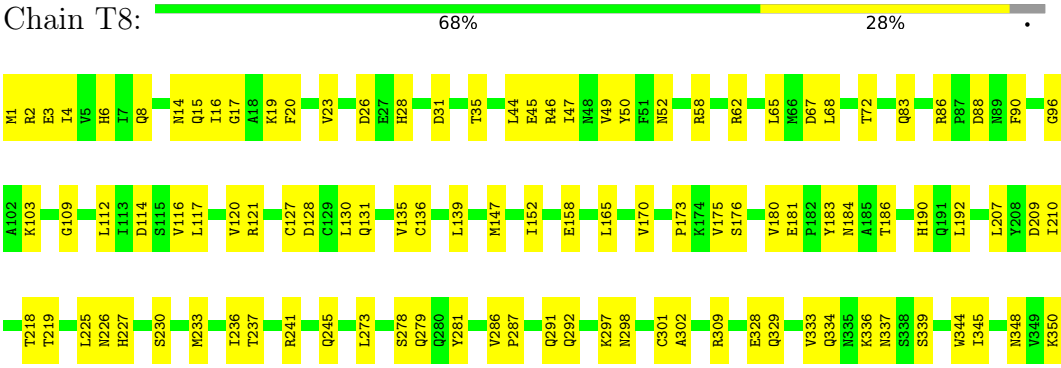
• Molecule 1: Tubulin beta

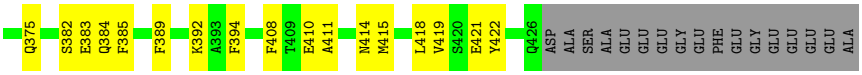
Chain T6:



• Molecule 1: Tubulin beta

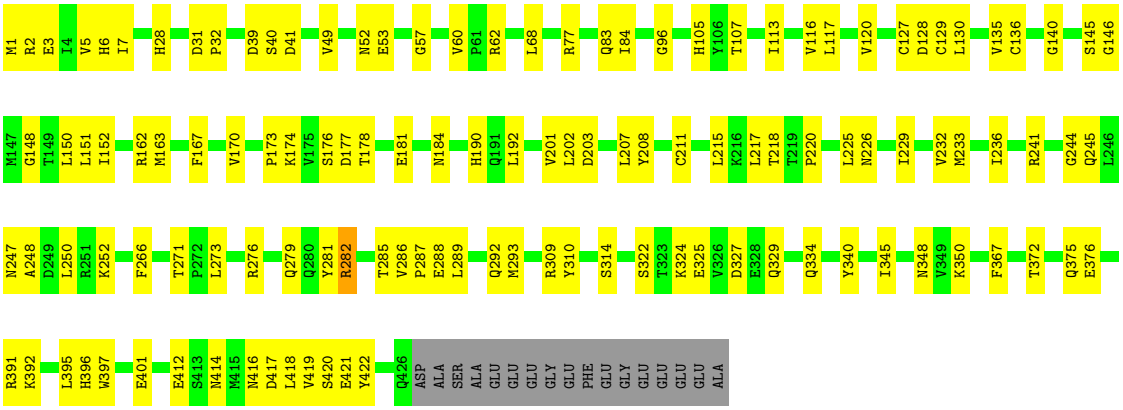
Chain T8:





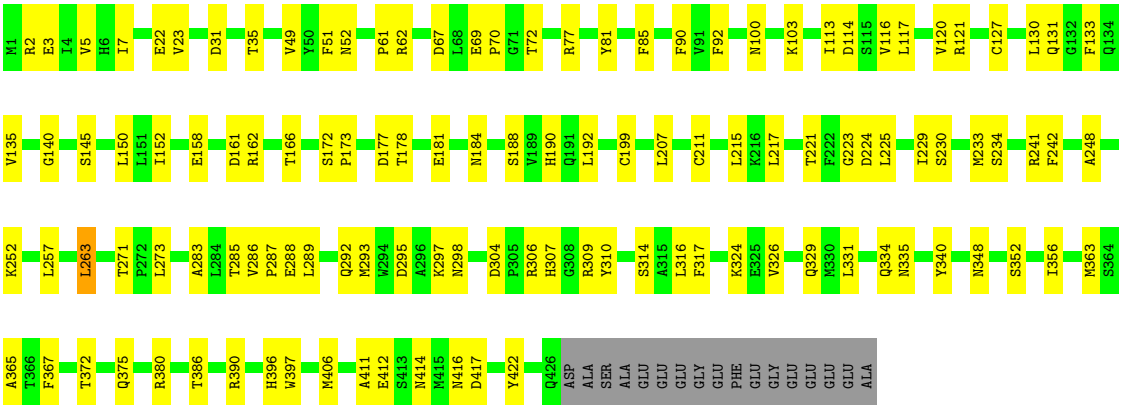
• Molecule 1: Tubulin beta

Chain U2:



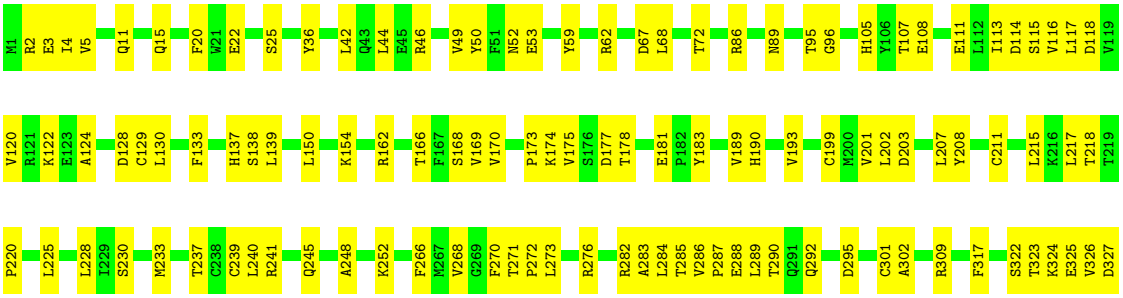
• Molecule 1: Tubulin beta

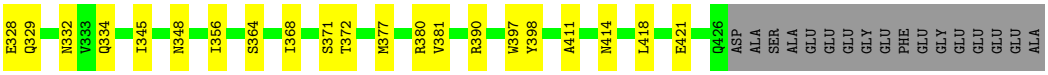
Chain U4:



• Molecule 1: Tubulin beta

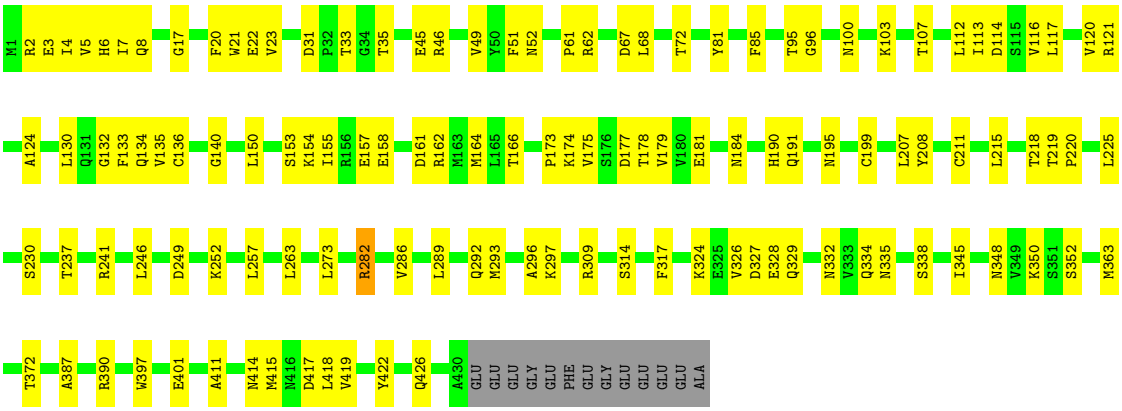
Chain U6:





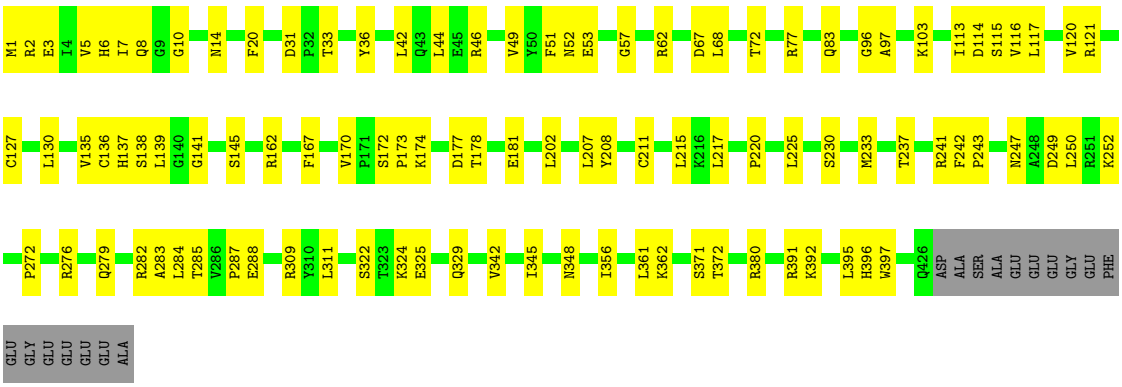
• Molecule 1: Tubulin beta

Chain U8:



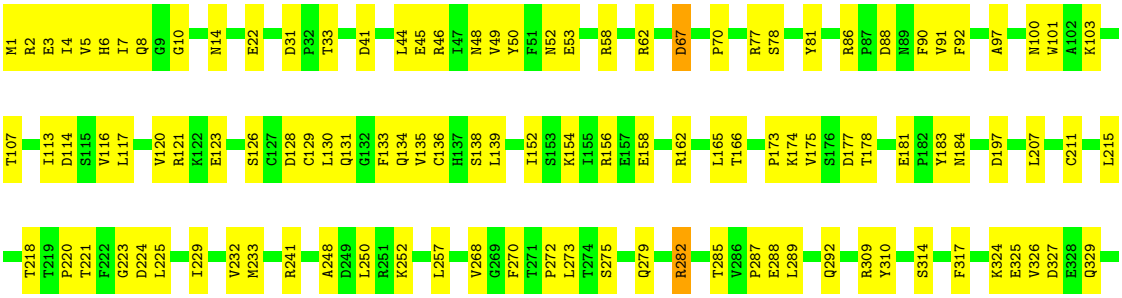
• Molecule 1: Tubulin beta

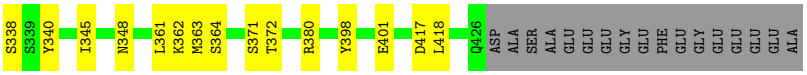
Chain V0:



• Molecule 1: Tubulin beta

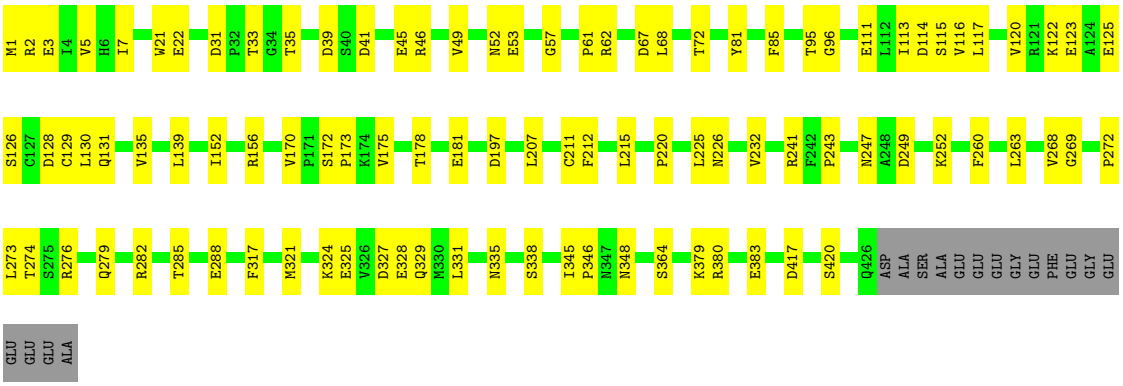
Chain V2:





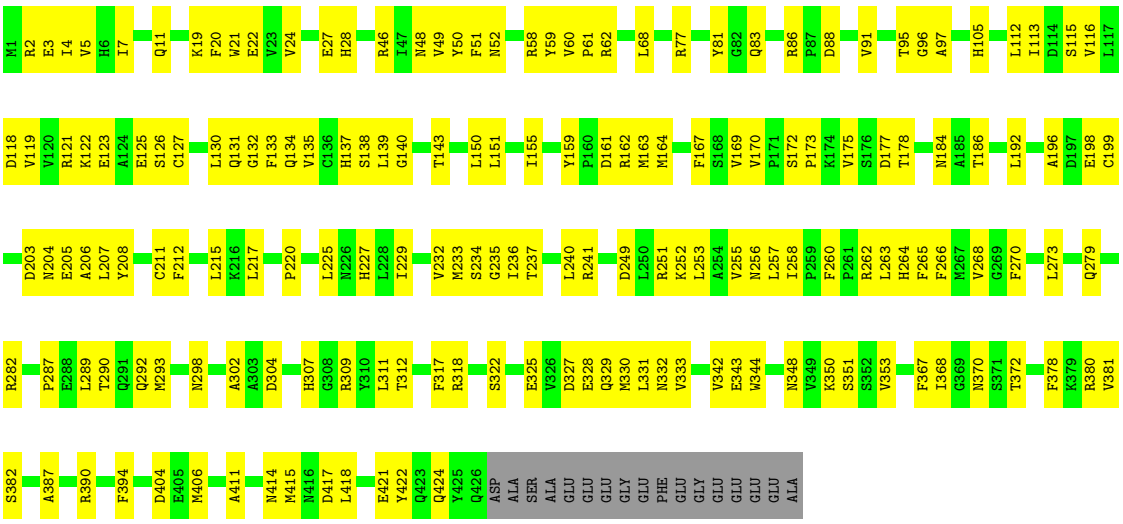
• Molecule 1: Tubulin beta

Chain V4:



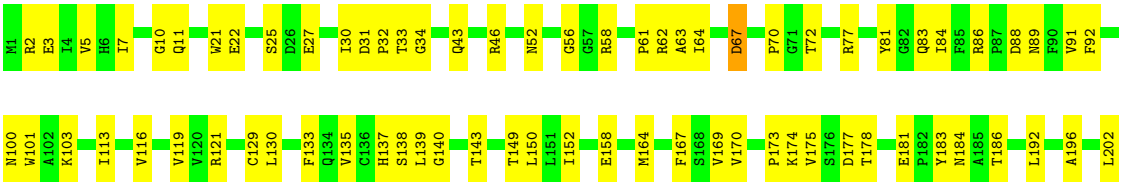
• Molecule 1: Tubulin beta

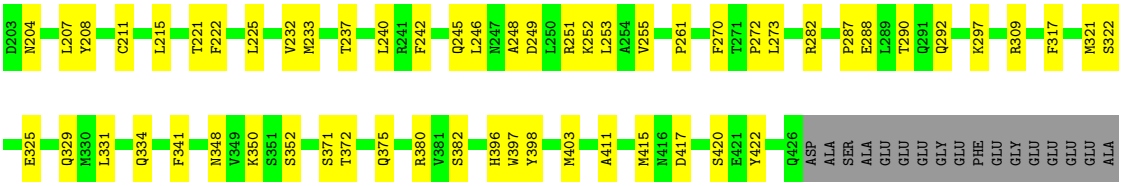
Chain V6:



• Molecule 1: Tubulin beta

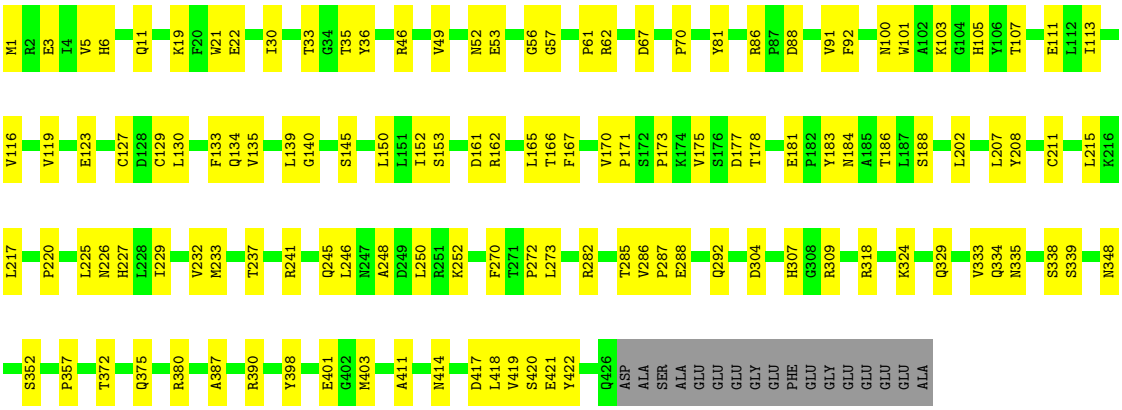
Chain V8:





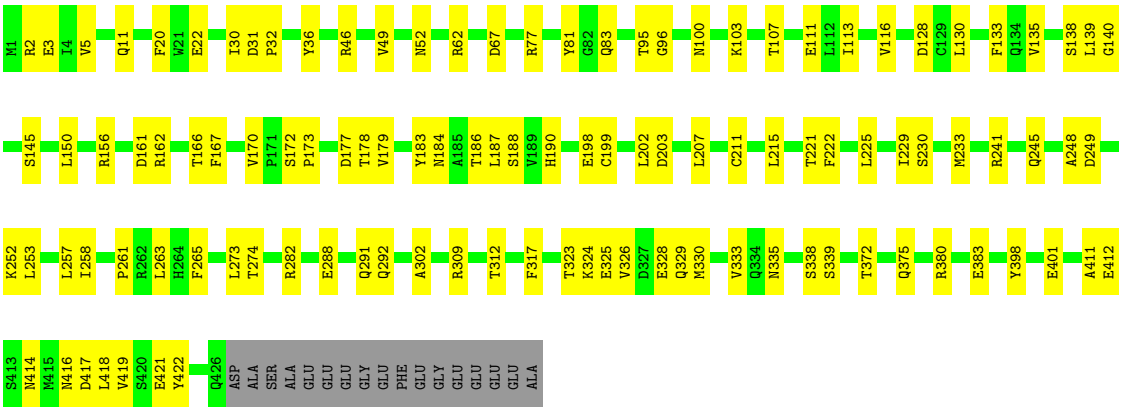
• Molecule 1: Tubulin beta

Chain W0:



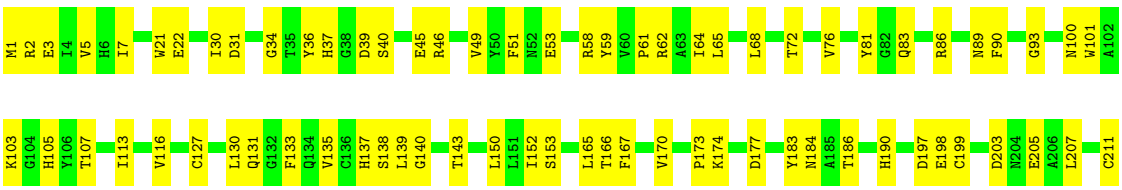
• Molecule 1: Tubulin beta

Chain W2:



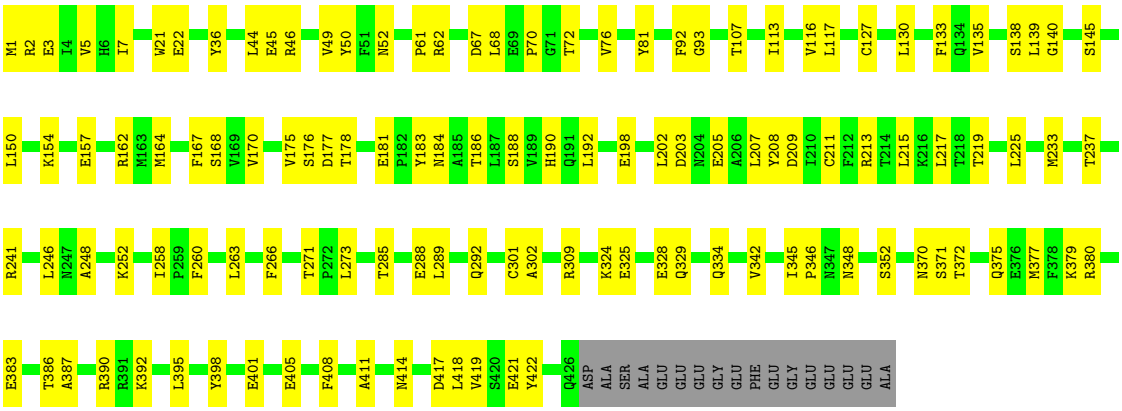
• Molecule 1: Tubulin beta

Chain W4:



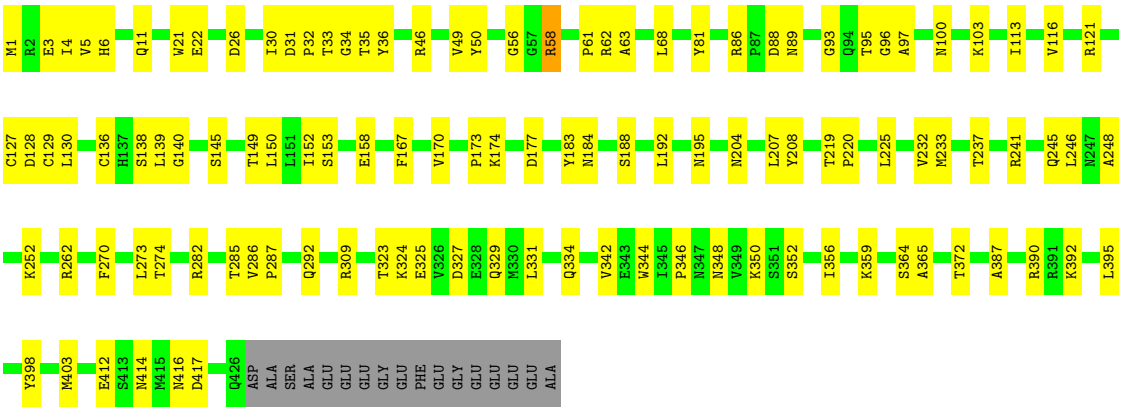
• Molecule 1: Tubulin beta

Chain W6:



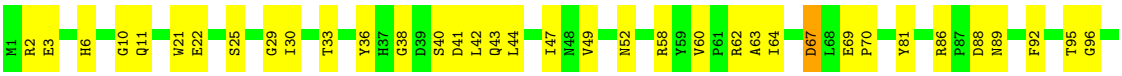
• Molecule 1: Tubulin beta

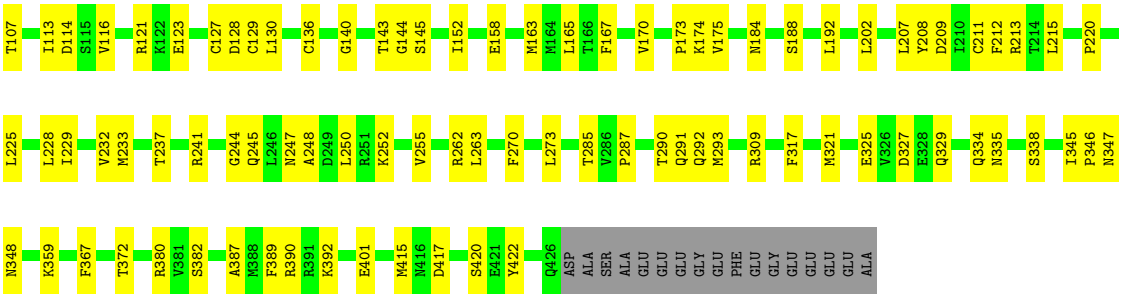
Chain W8:



• Molecule 1: Tubulin beta

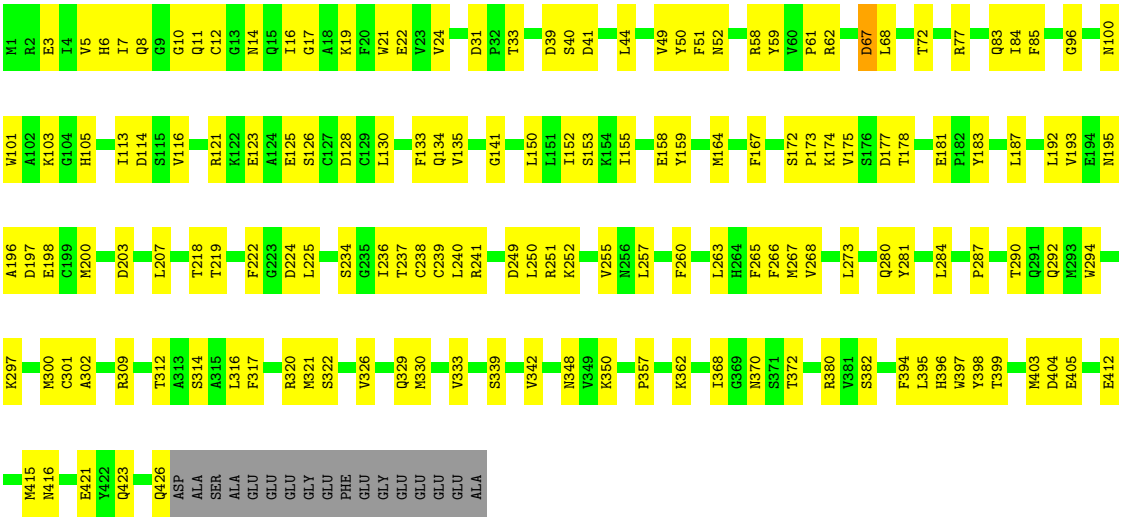
Chain X0:





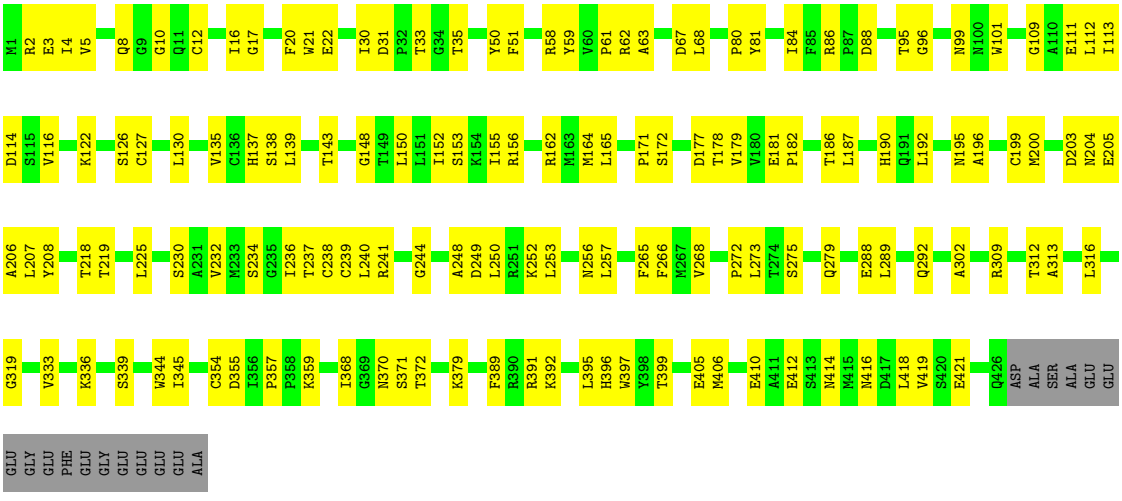
• Molecule 1: Tubulin beta

Chain X2:



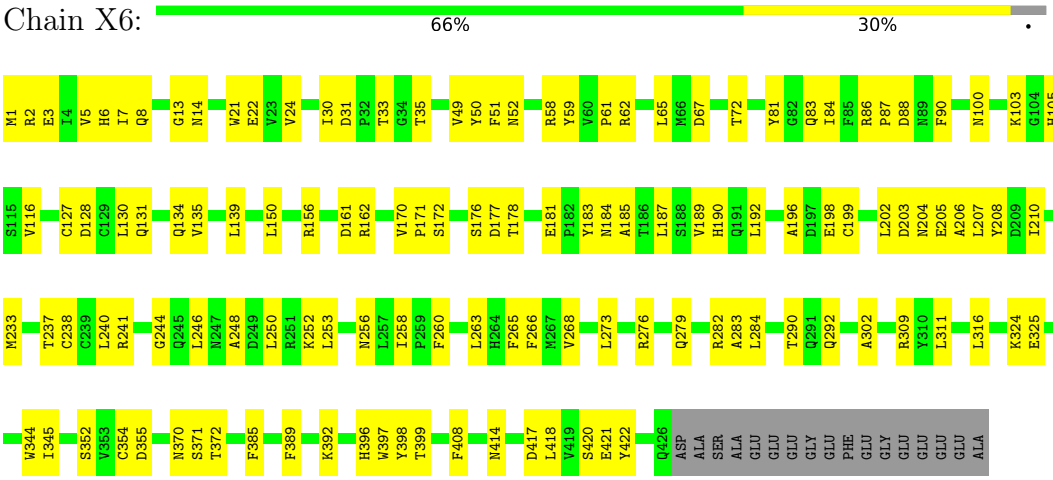
• Molecule 1: Tubulin beta

Chain X4:



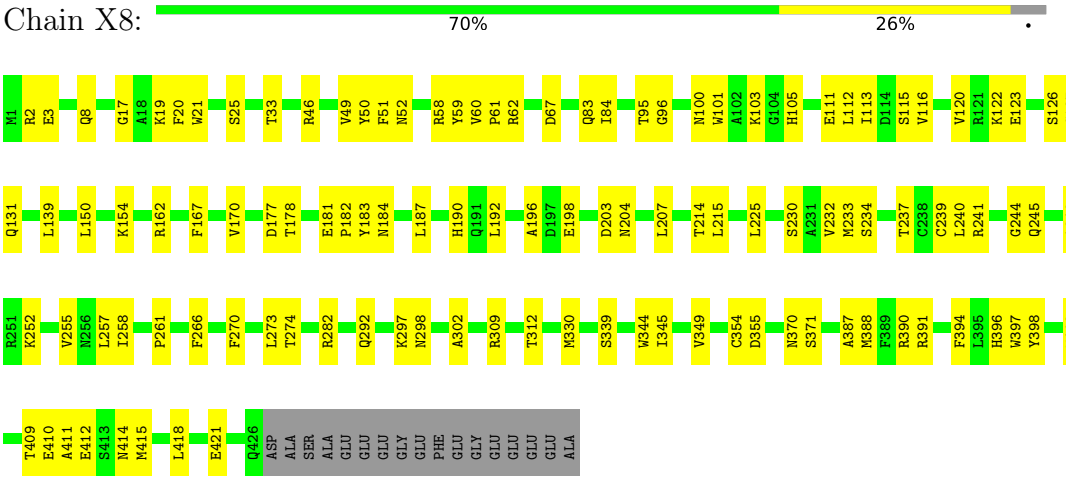
• Molecule 1: Tubulin beta

Chain X6:



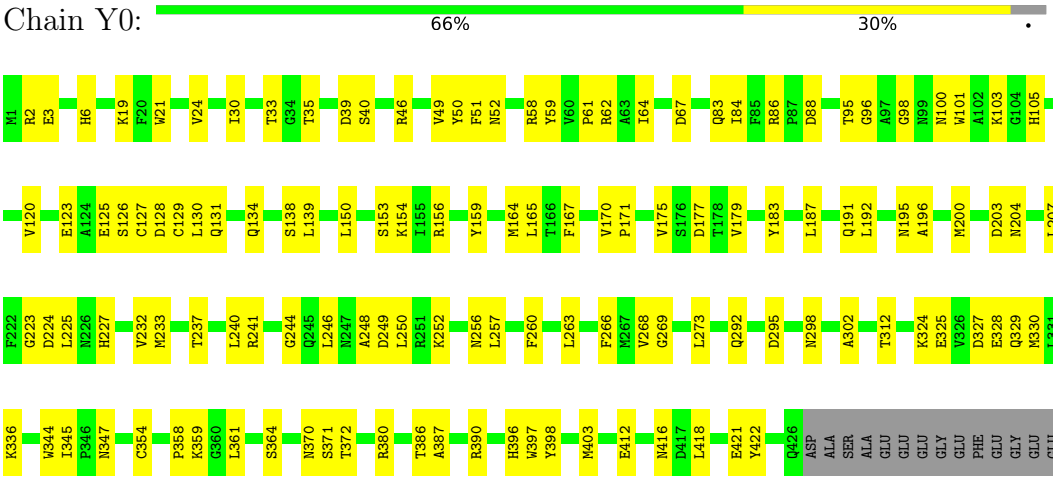
• Molecule 1: Tubulin beta

Chain X8:



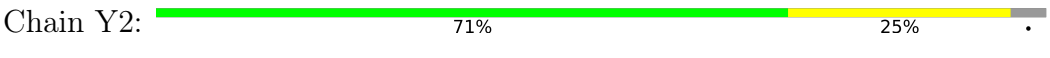
• Molecule 1: Tubulin beta

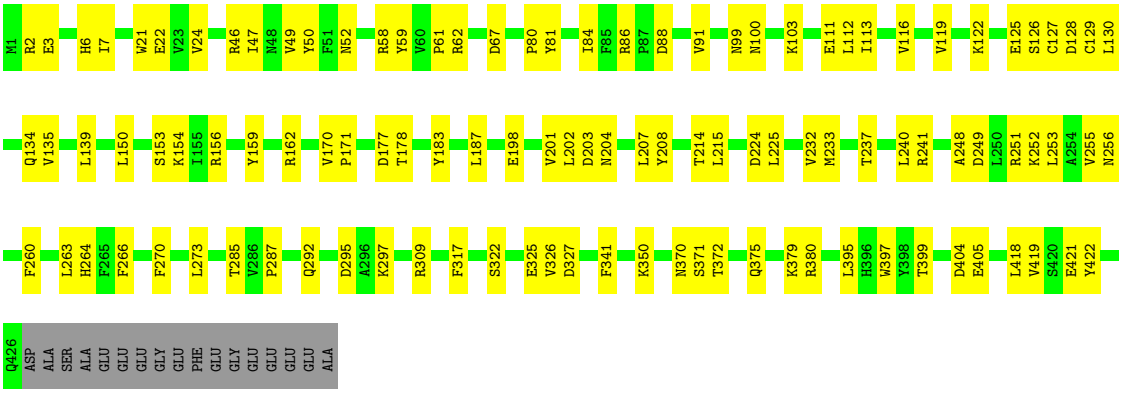
Chain Y0:



• Molecule 1: Tubulin beta

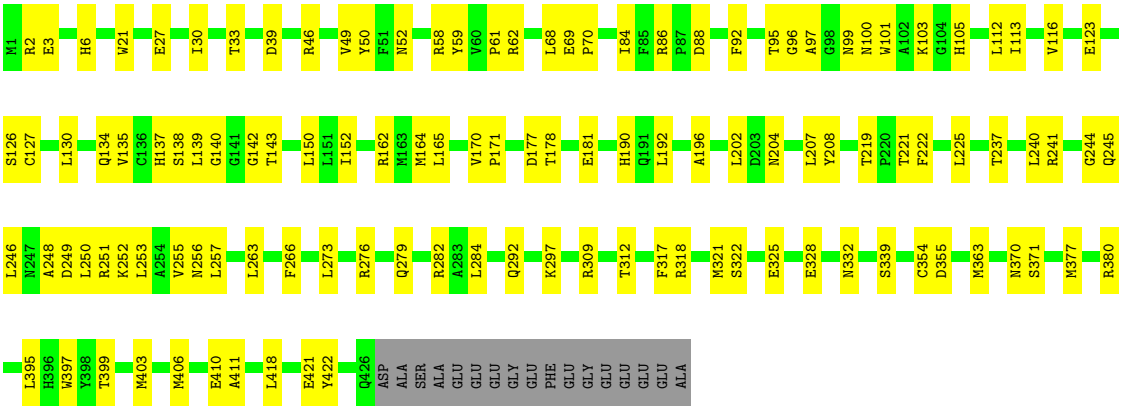
Chain Y2:





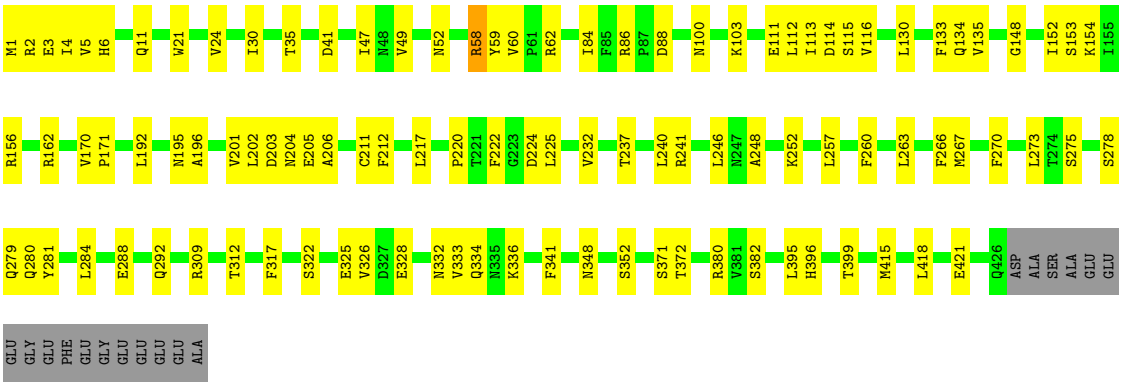
• Molecule 1: Tubulin beta

Chain Y4:



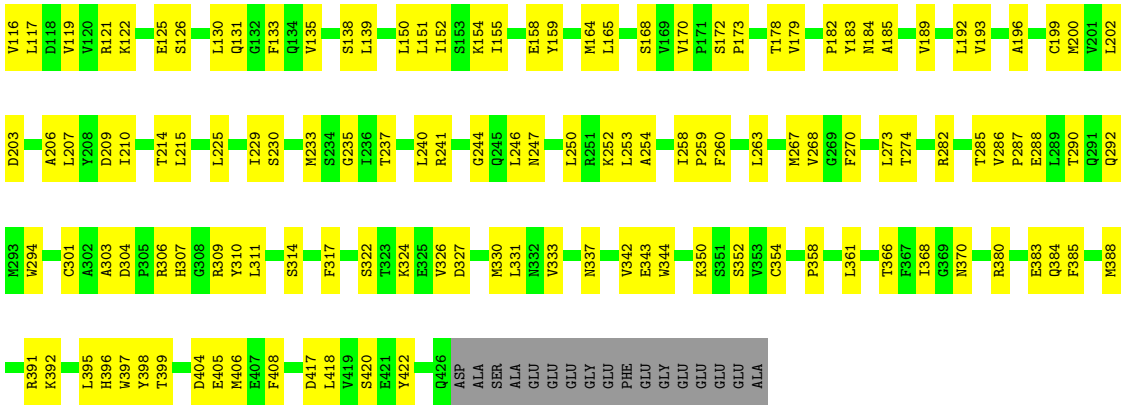
• Molecule 1: Tubulin beta

Chain Y6:



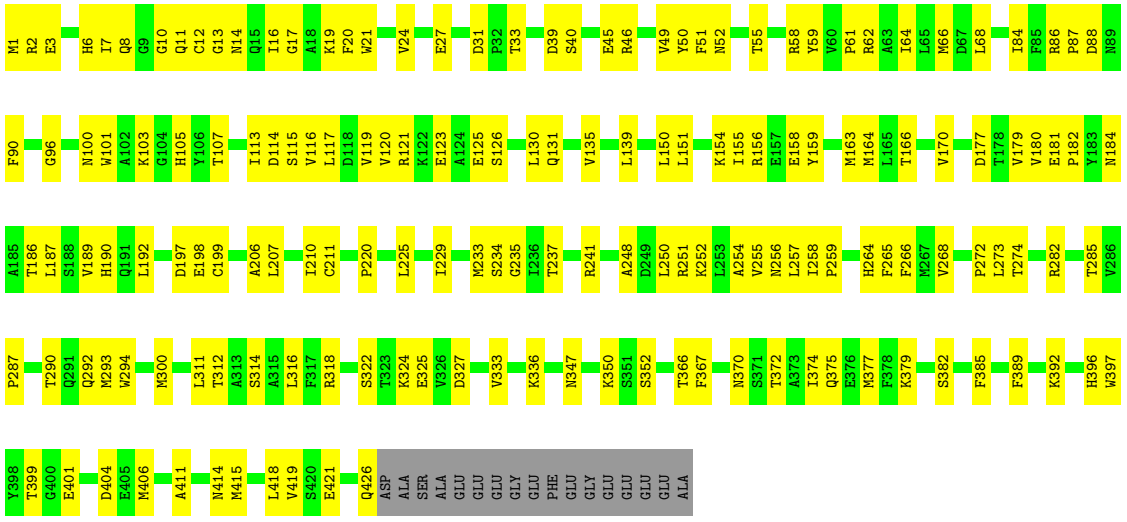
• Molecule 1: Tubulin beta

Chain Y8:



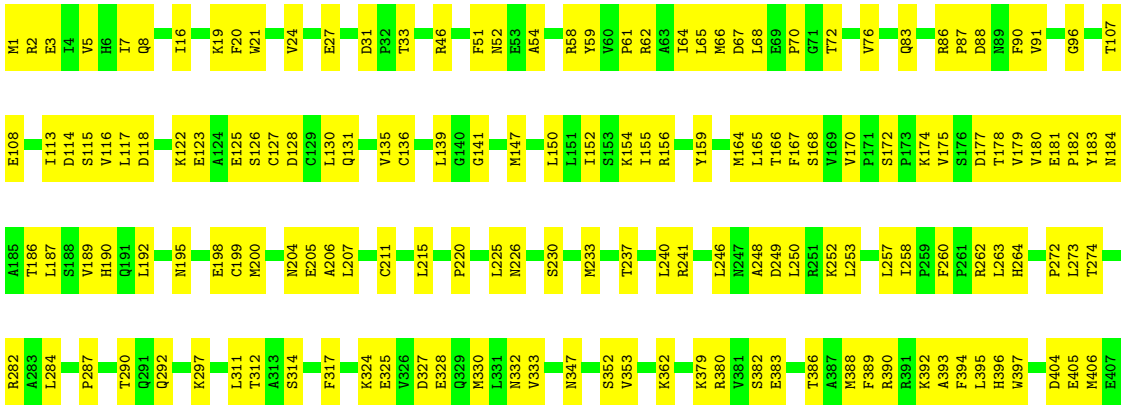
• Molecule 1: Tubulin beta

Chain Z0:



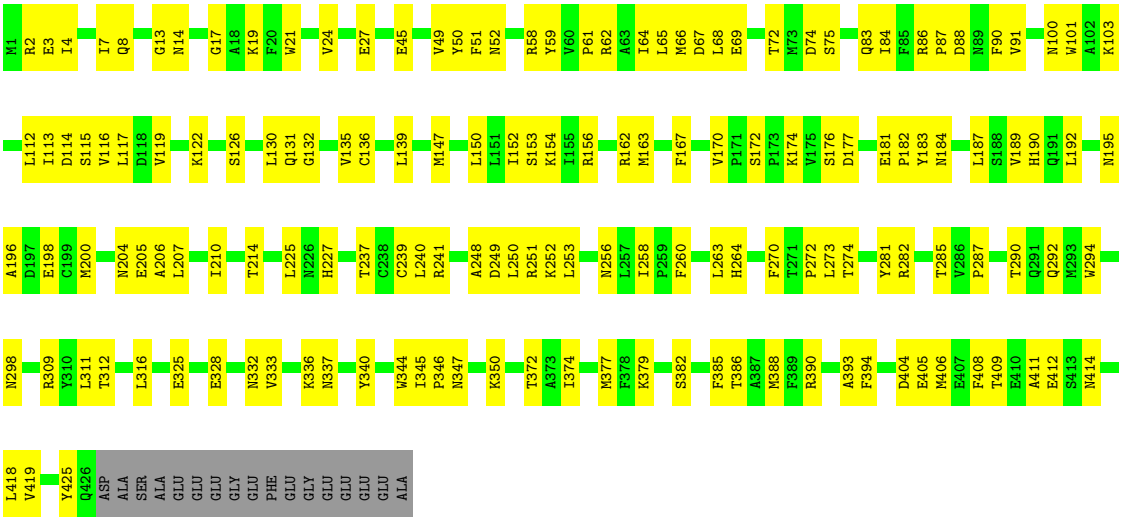
• Molecule 1: Tubulin beta

Chain Z2:



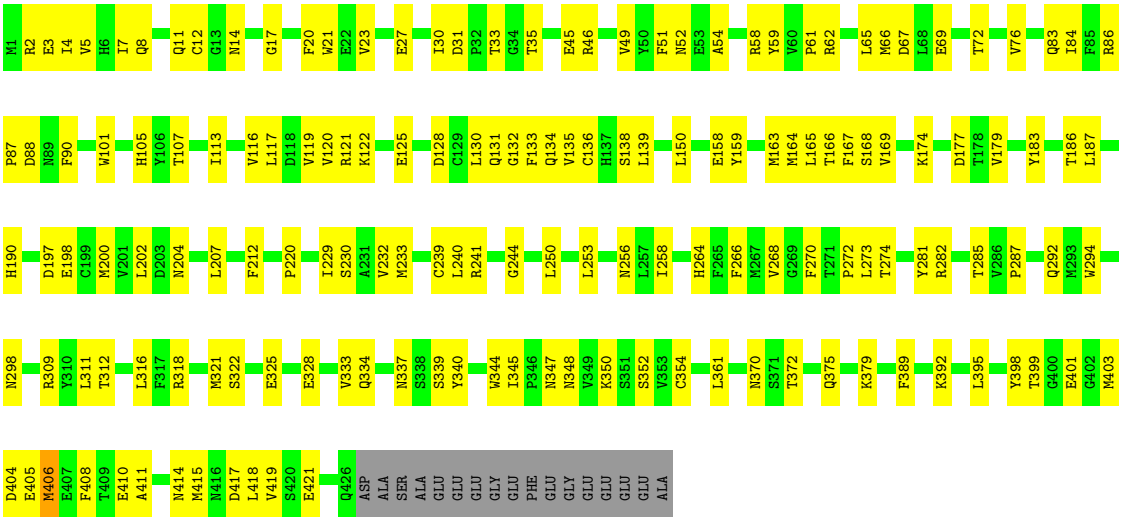
• Molecule 1: Tubulin beta

Chain Z4:



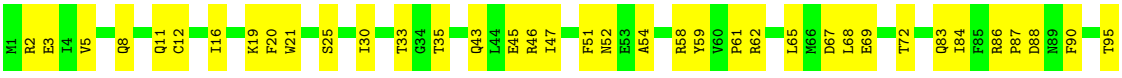
• Molecule 1: Tubulin beta

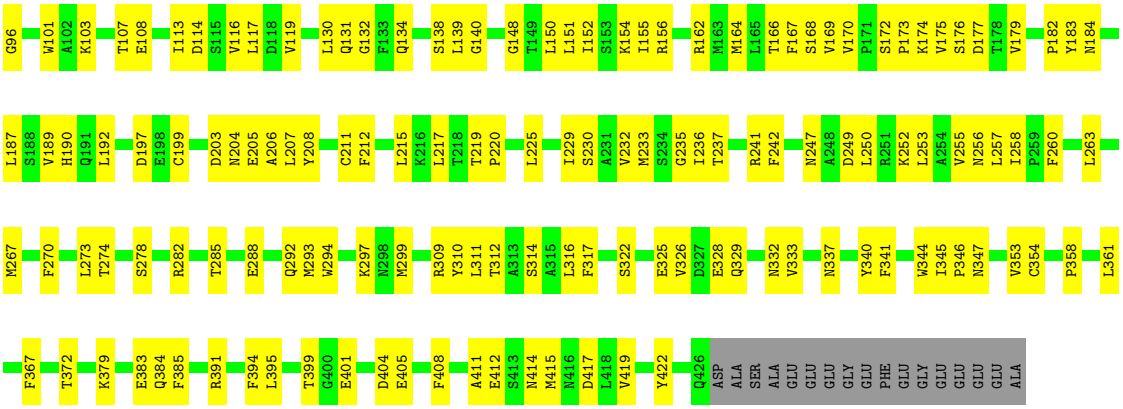
Chain Z6:



• Molecule 1: Tubulin beta

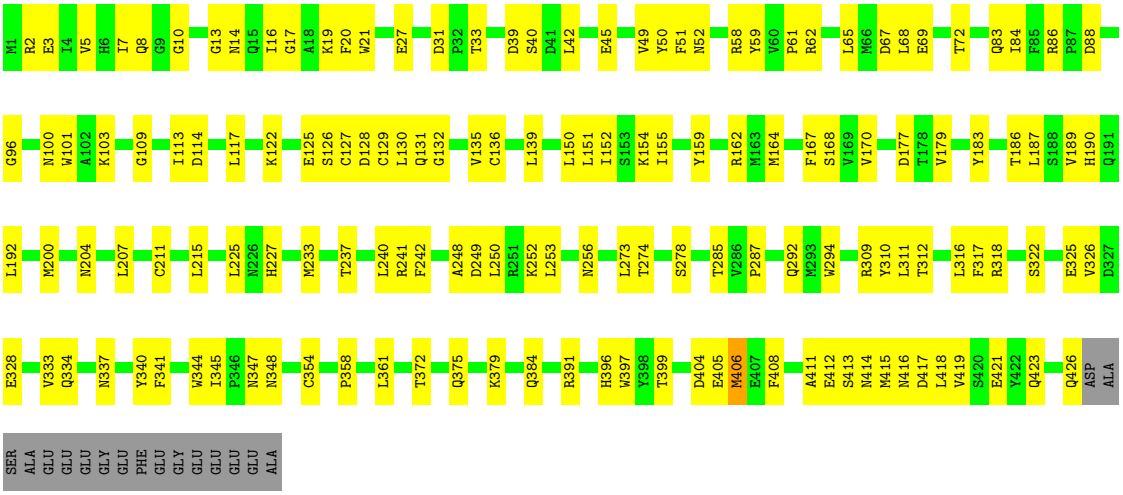
Chain Z8:





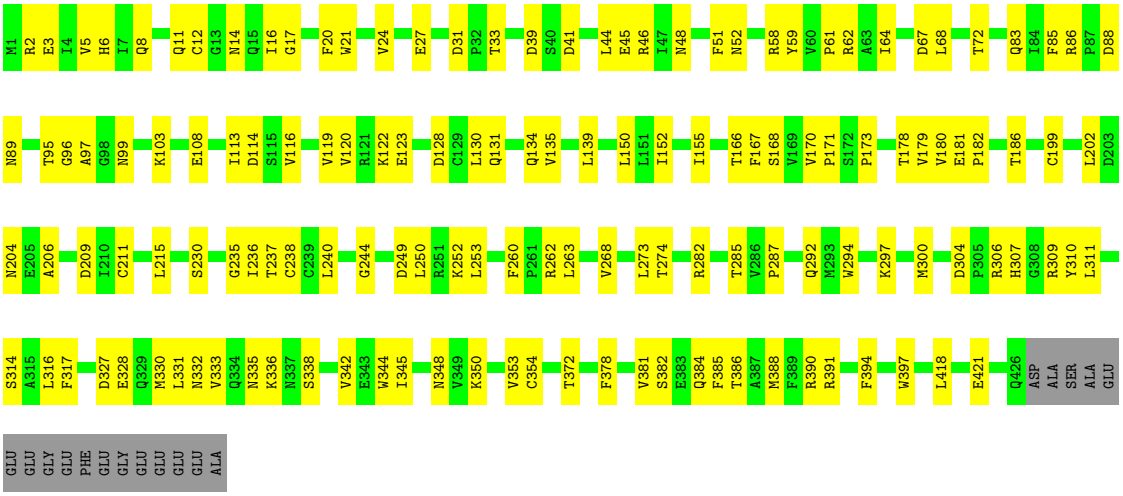
• Molecule 1: Tubulin beta

Chain 0A:



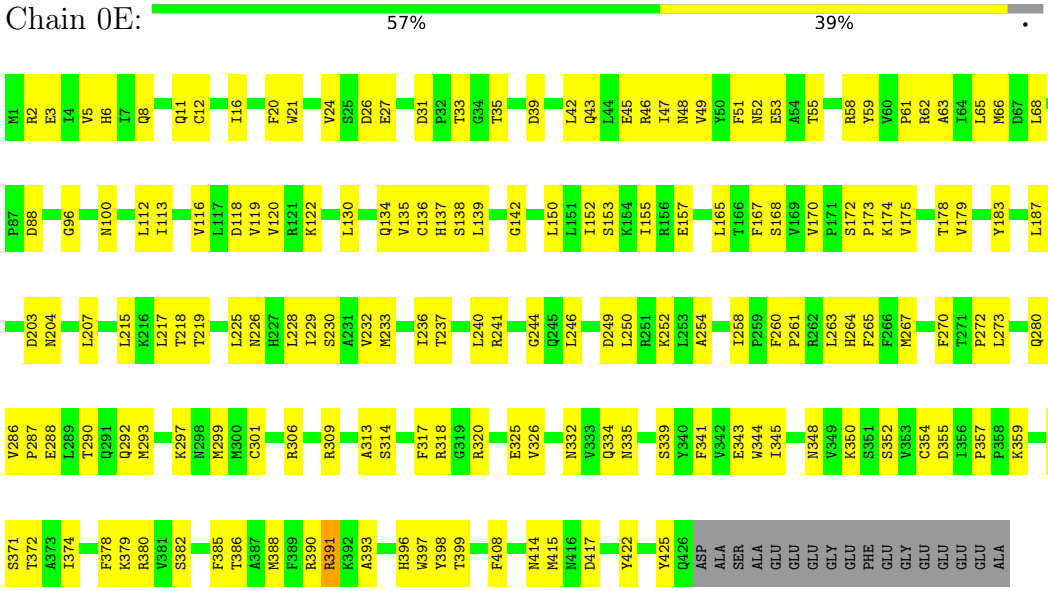
• Molecule 1: Tubulin beta

Chain 0C:



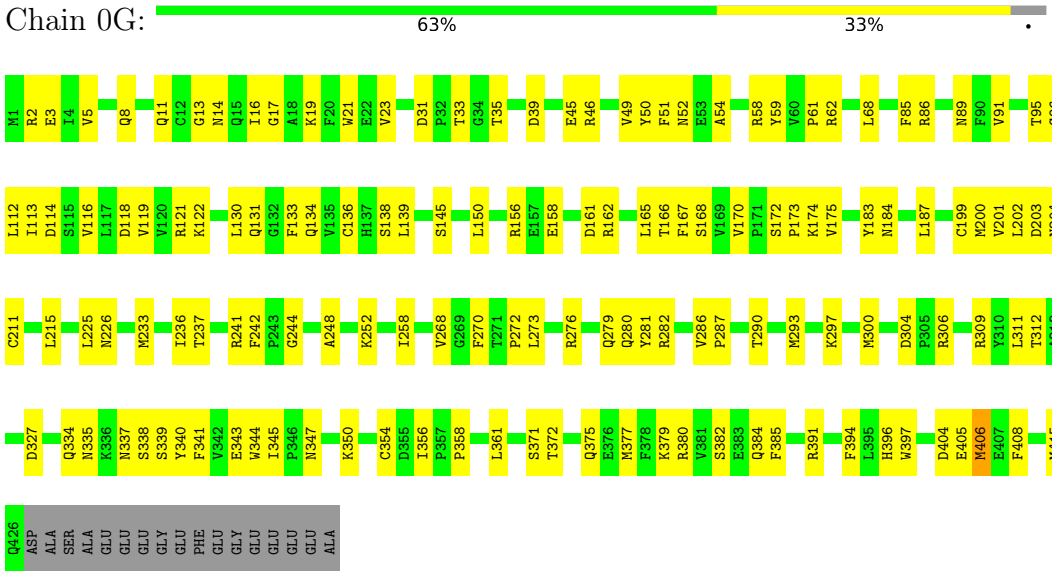
• Molecule 1: Tubulin beta

Chain 0E:



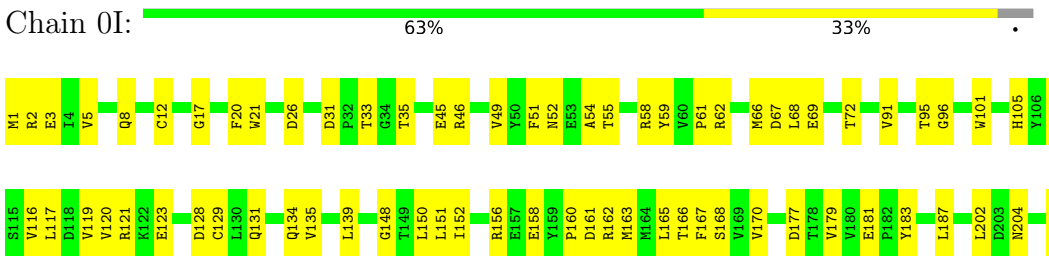
• Molecule 1: Tubulin beta

Chain 0G:



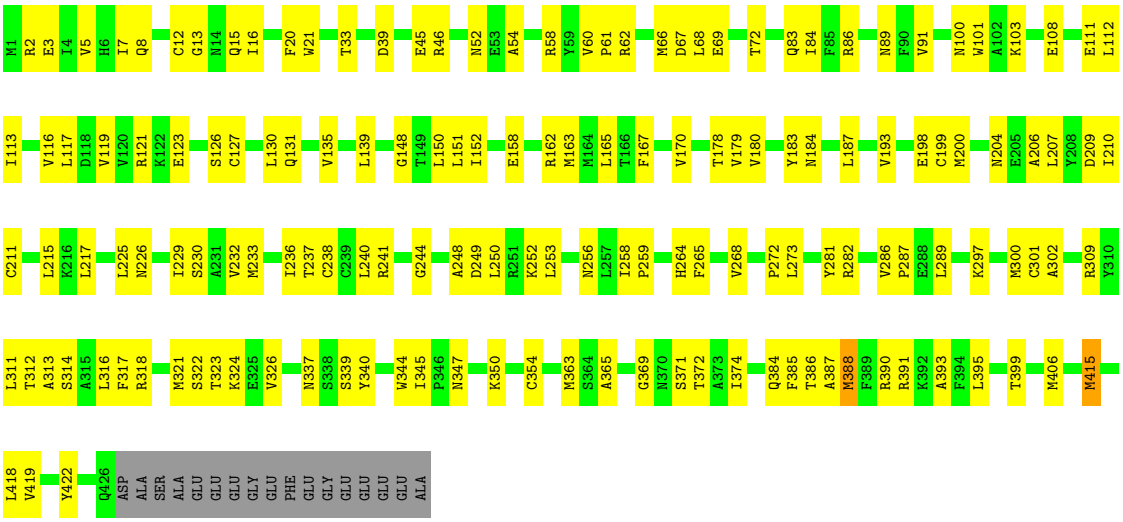
• Molecule 1: Tubulin beta

Chain 0I:



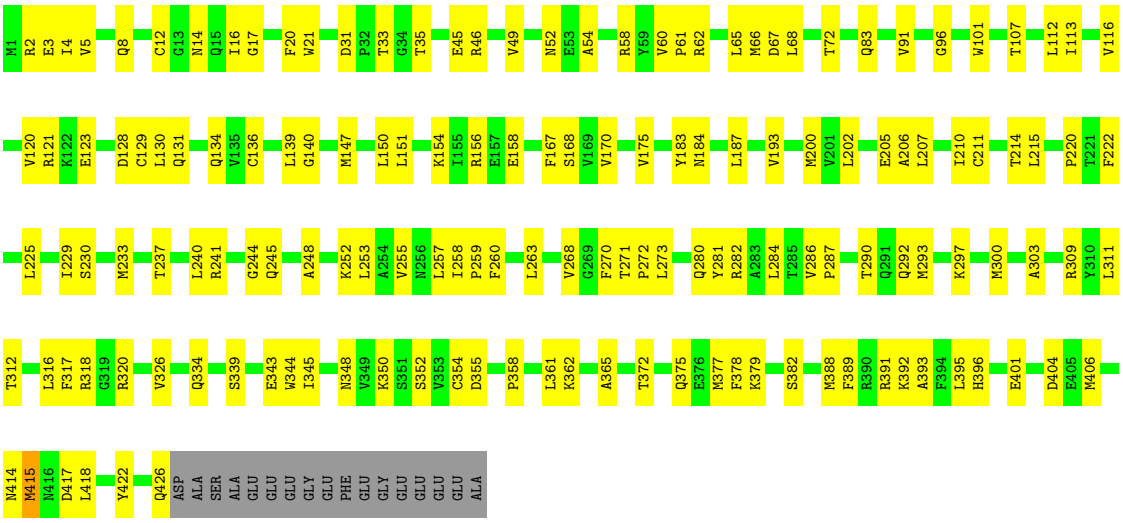
• Molecule 1: Tubulin beta

Chain 0K:



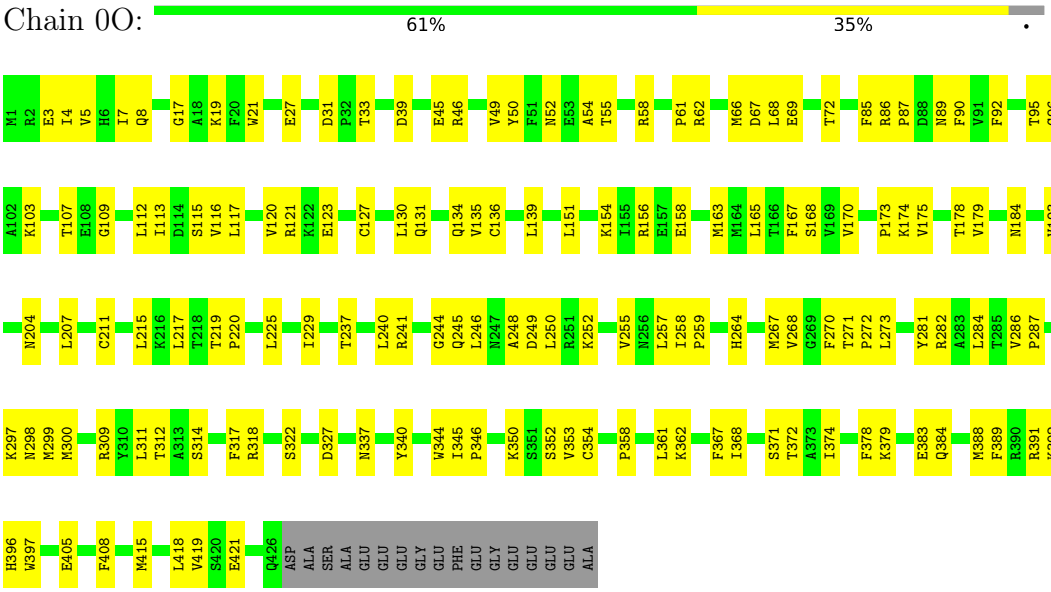
• Molecule 1: Tubulin beta

Chain 0M:



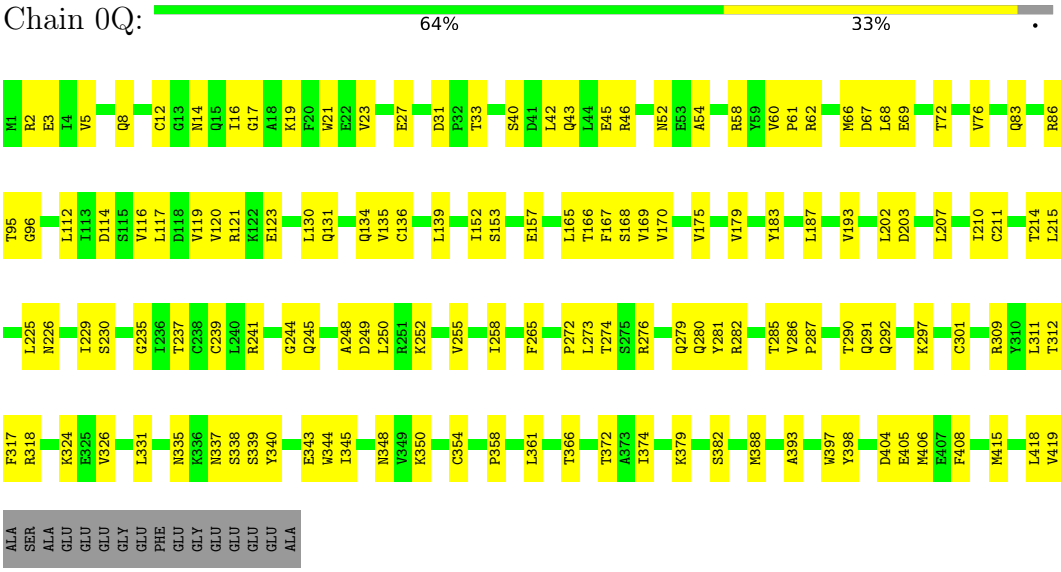
• Molecule 1: Tubulin beta

Chain 0O:



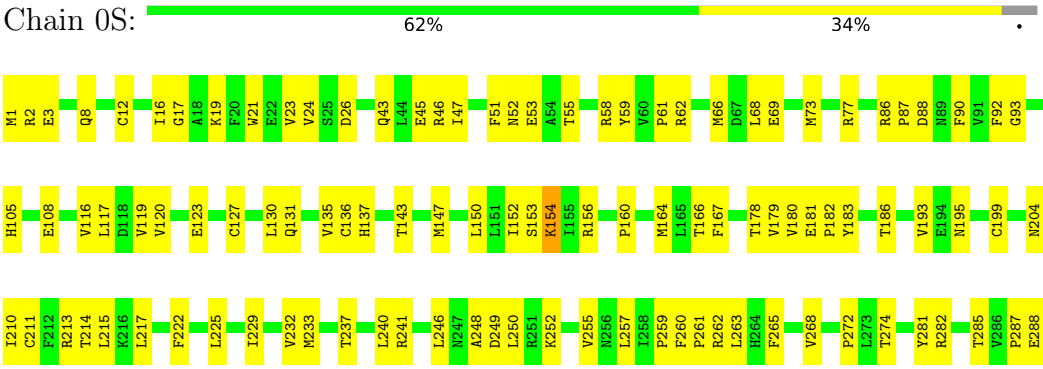
• Molecule 1: Tubulin beta

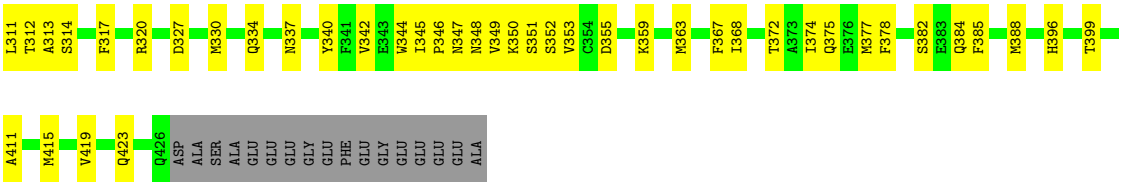
Chain 0Q:



• Molecule 1: Tubulin beta

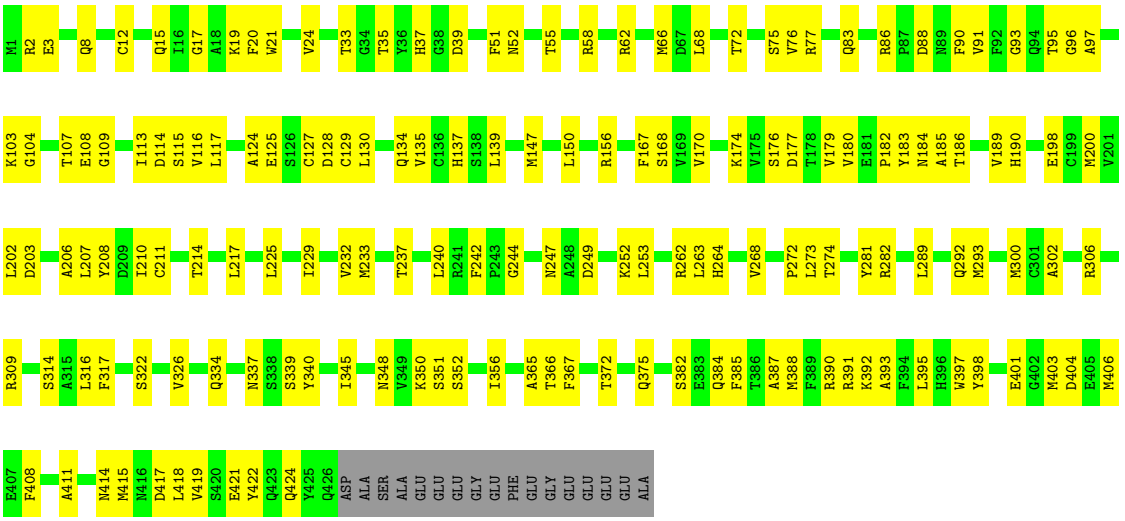
Chain 0S:





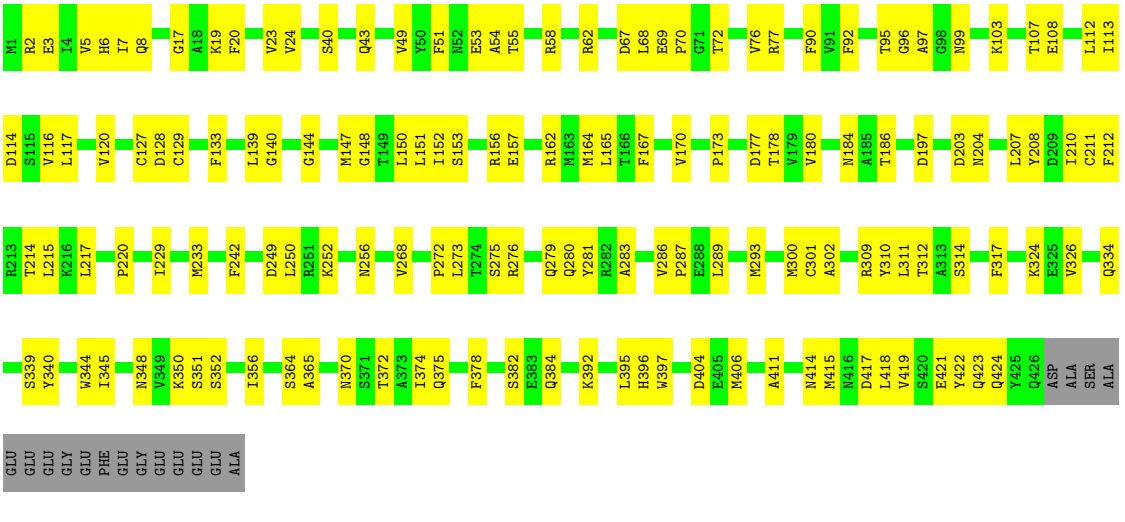
• Molecule 1: Tubulin beta

Chain 0U:



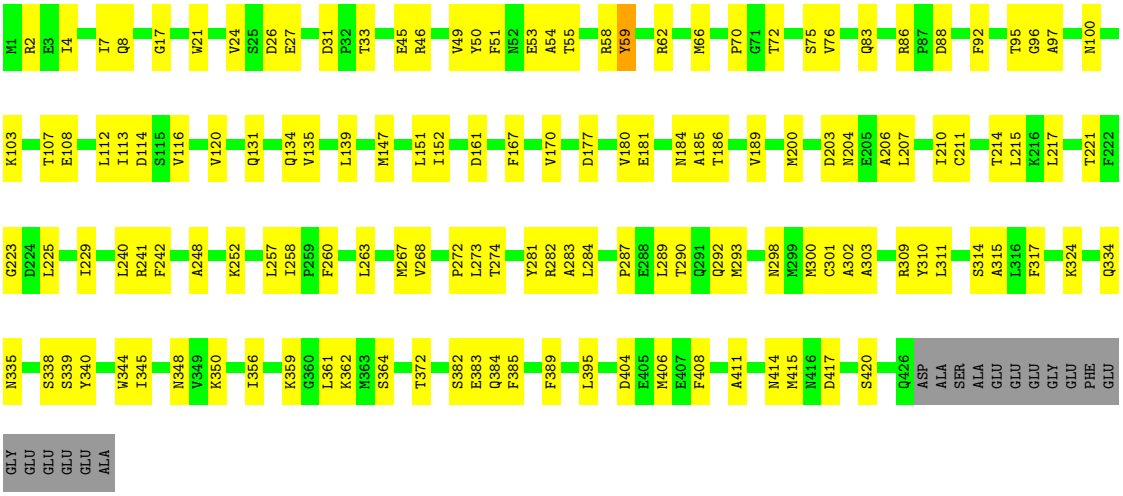
• Molecule 1: Tubulin beta

Chain 0W:



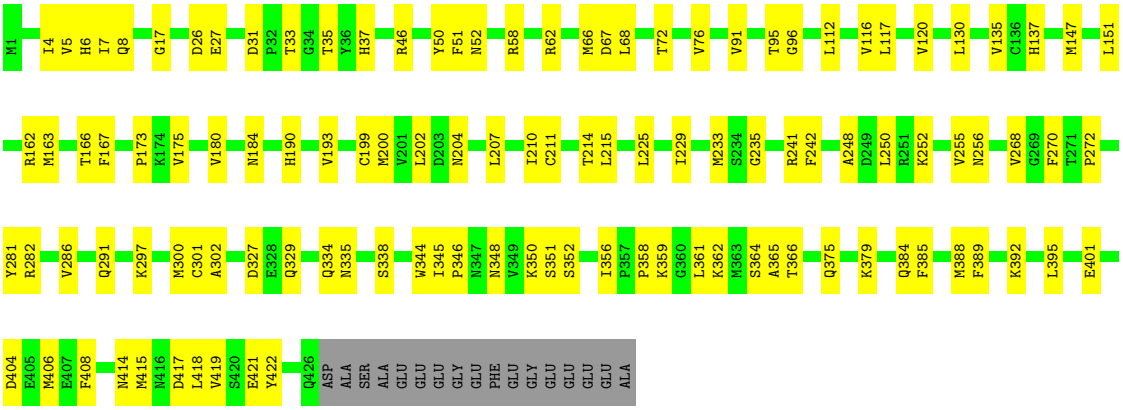
• Molecule 1: Tubulin beta

Chain 0Y:



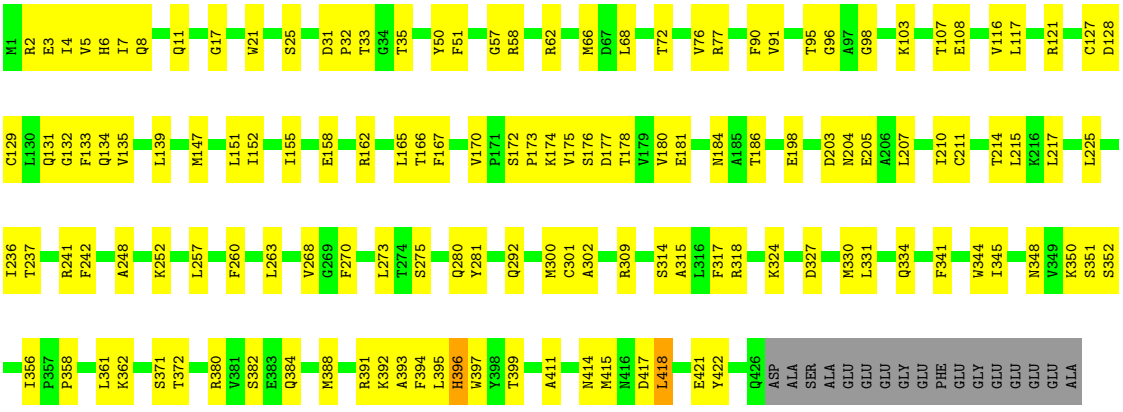
• Molecule 1: Tubulin beta

Chain 1A:



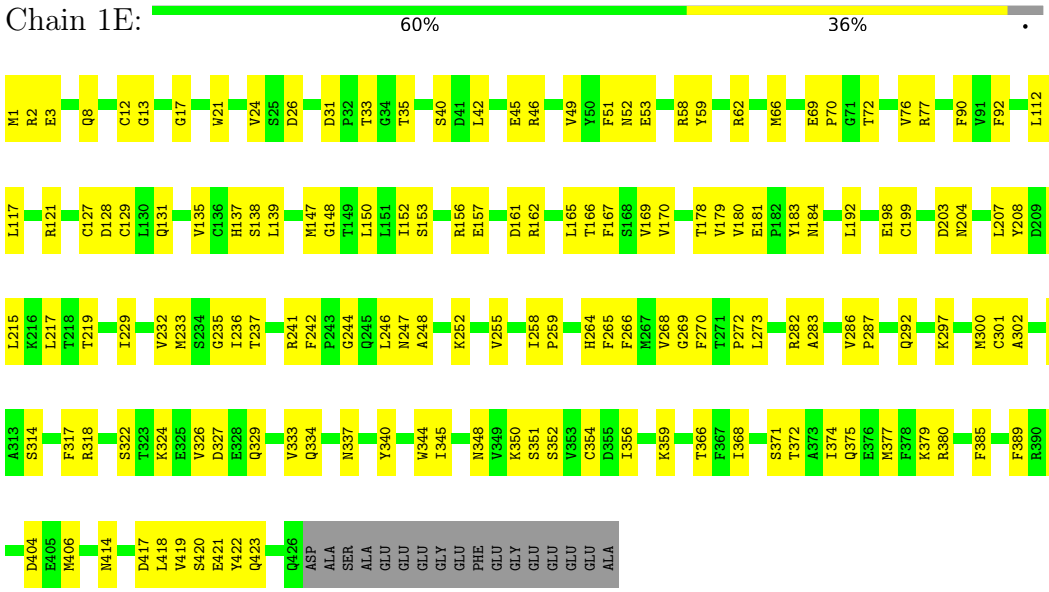
• Molecule 1: Tubulin beta

Chain 1C:



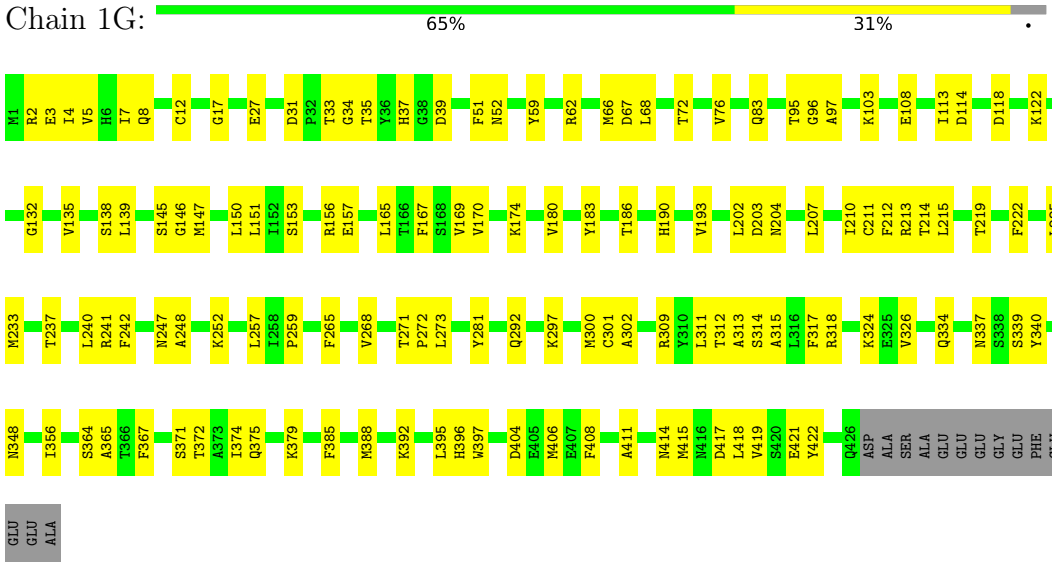
• Molecule 1: Tubulin beta

Chain 1E:



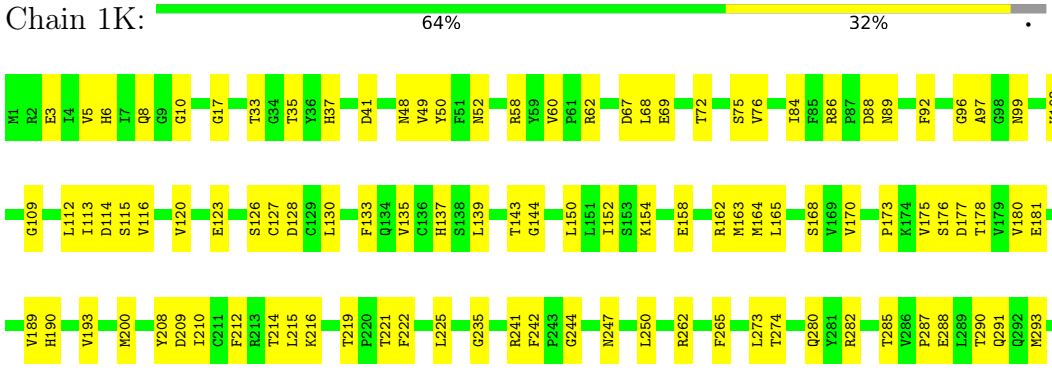
• Molecule 1: Tubulin beta

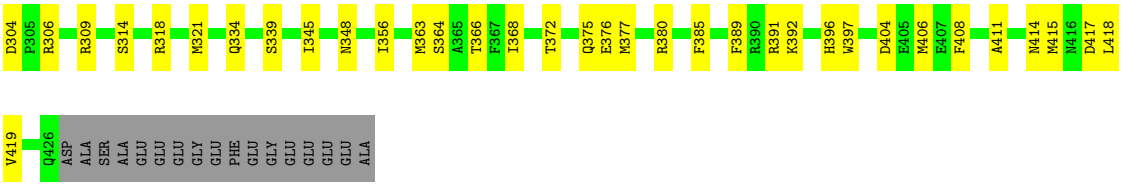
Chain 1G:



• Molecule 1: Tubulin beta

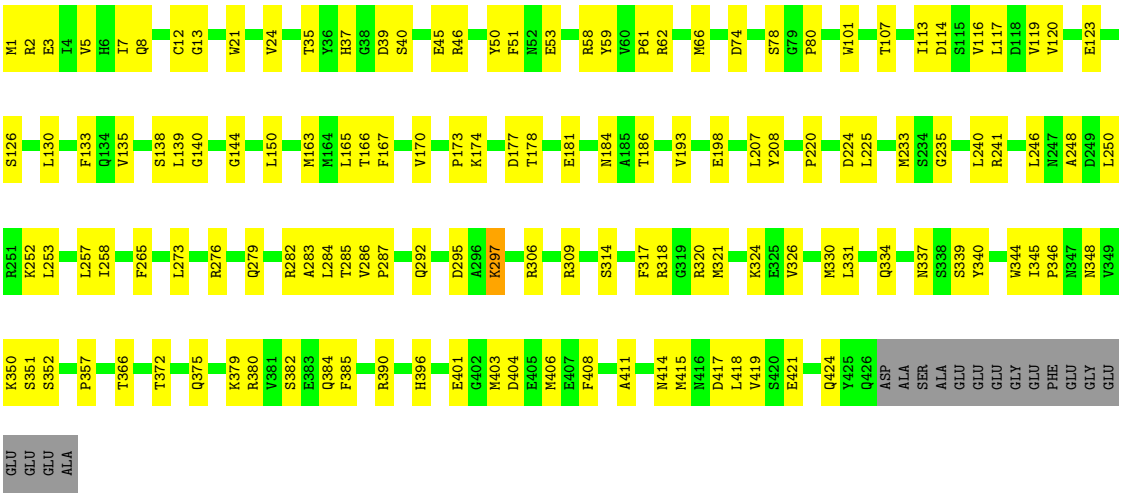
Chain 1K:





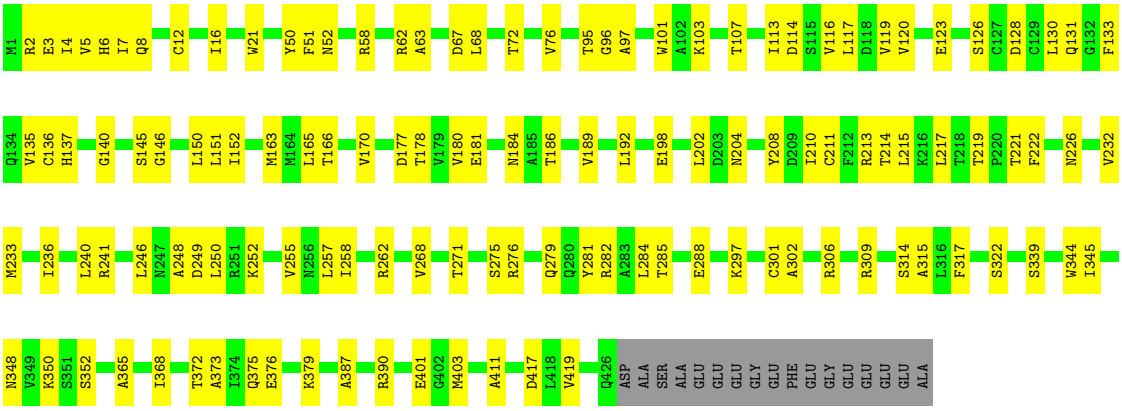
• Molecule 1: Tubulin beta

Chain 1M:



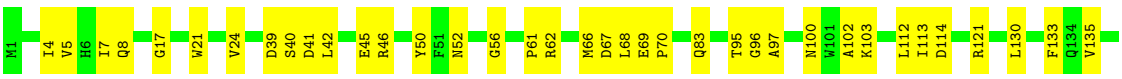
• Molecule 1: Tubulin beta

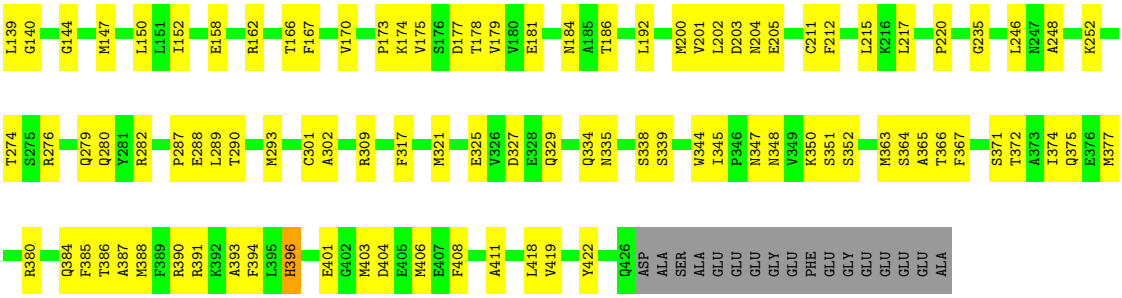
Chain 1O:



• Molecule 1: Tubulin beta

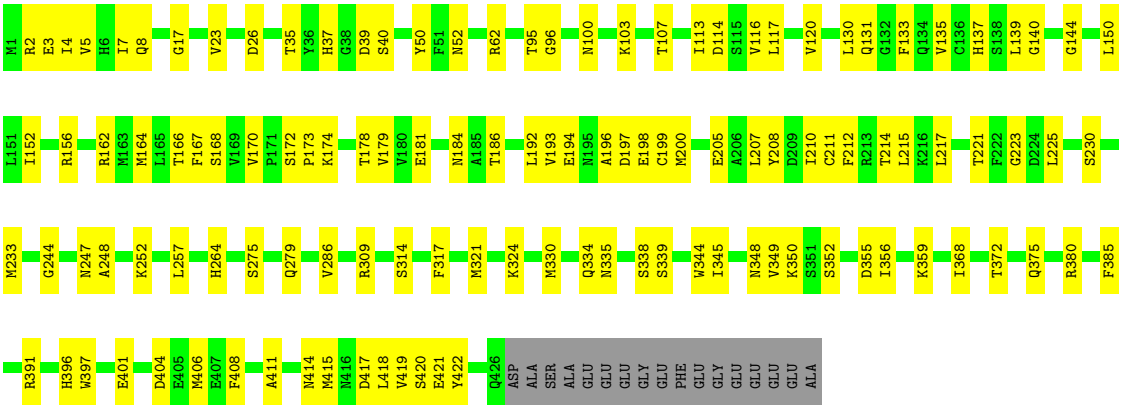
Chain 1Q:





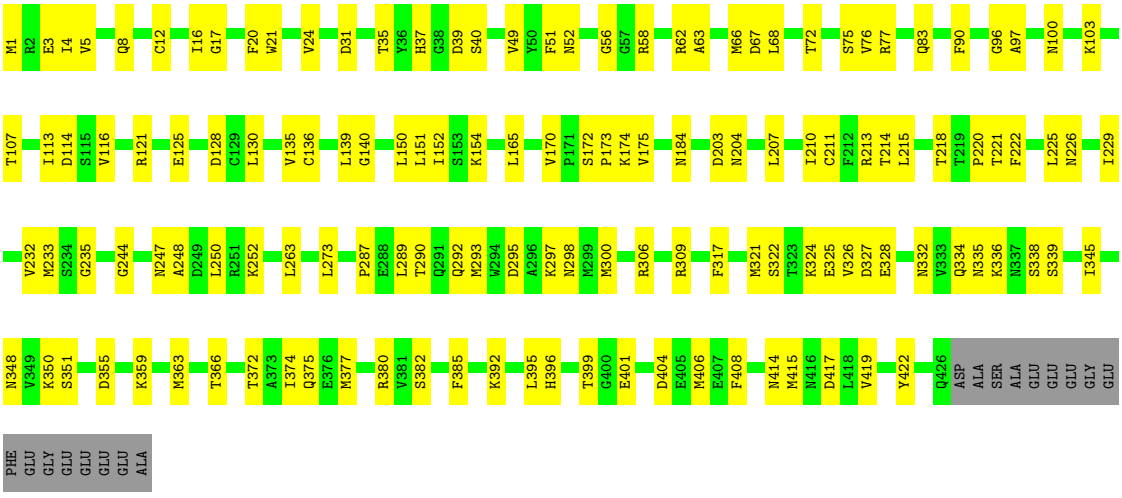
• Molecule 1: Tubulin beta

Chain 1S:



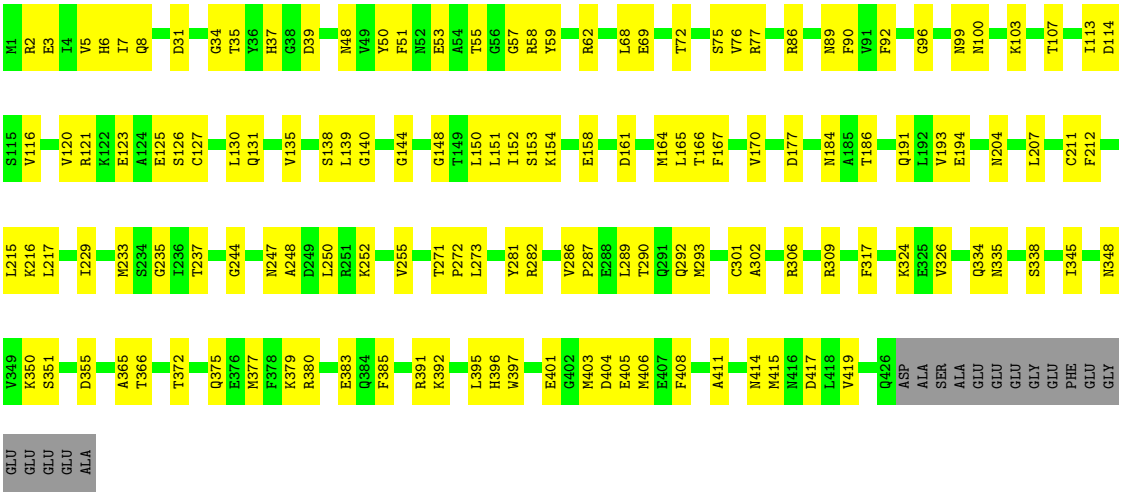
• Molecule 1: Tubulin beta

Chain 1U:



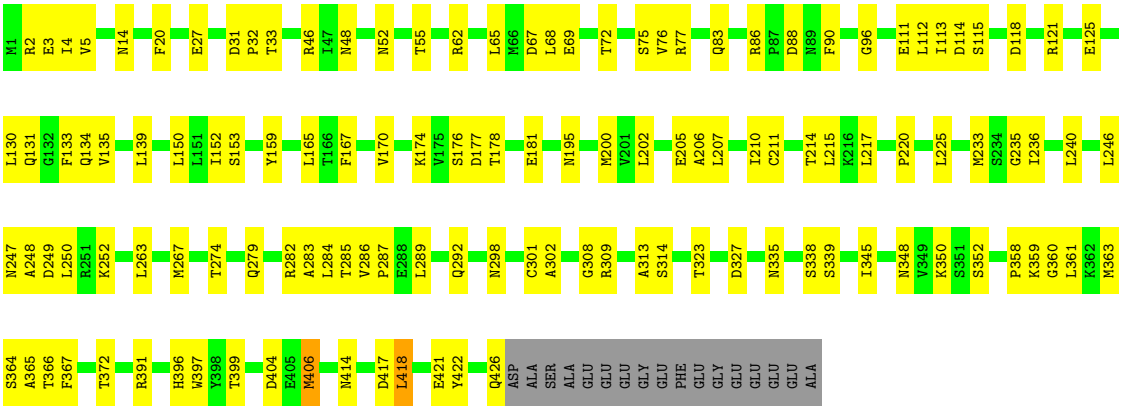
• Molecule 1: Tubulin beta

Chain 1W:



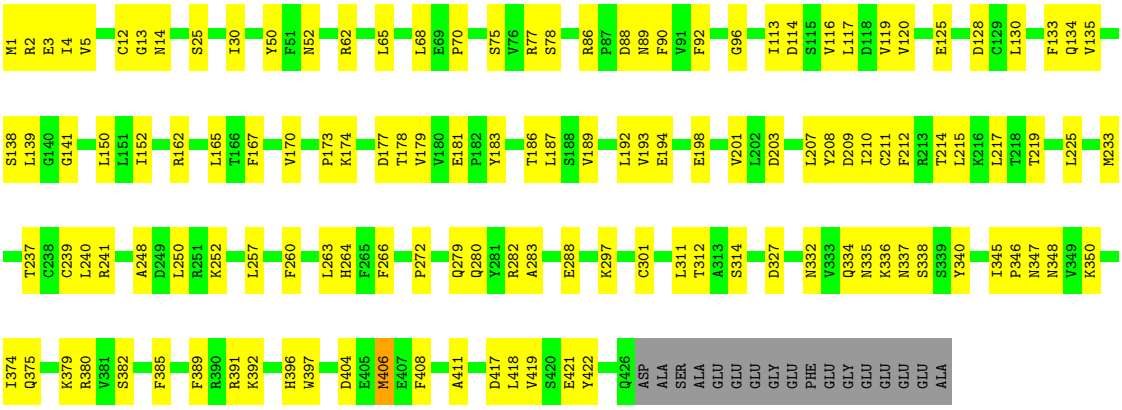
• Molecule 1: Tubulin beta

Chain 2A:



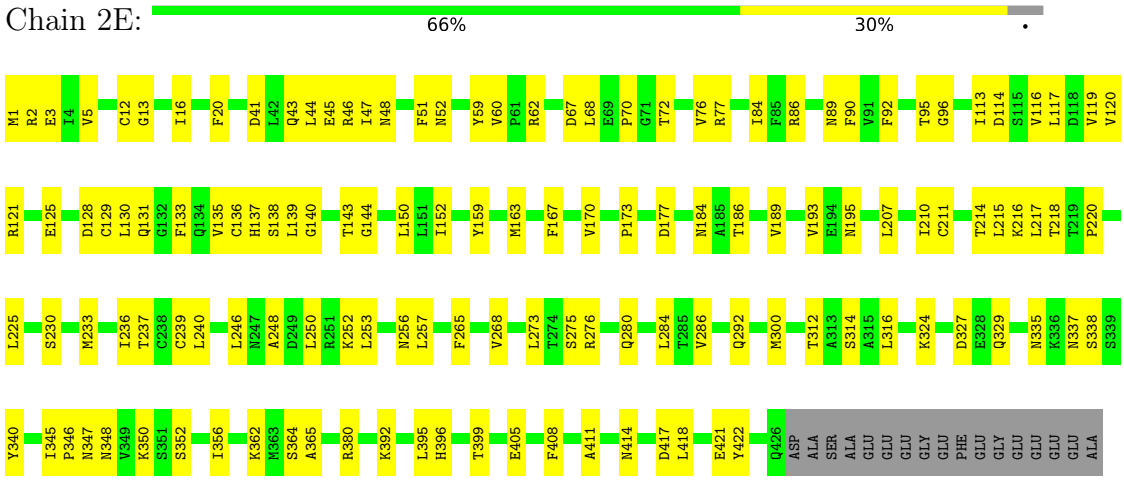
• Molecule 1: Tubulin beta

Chain 2C:



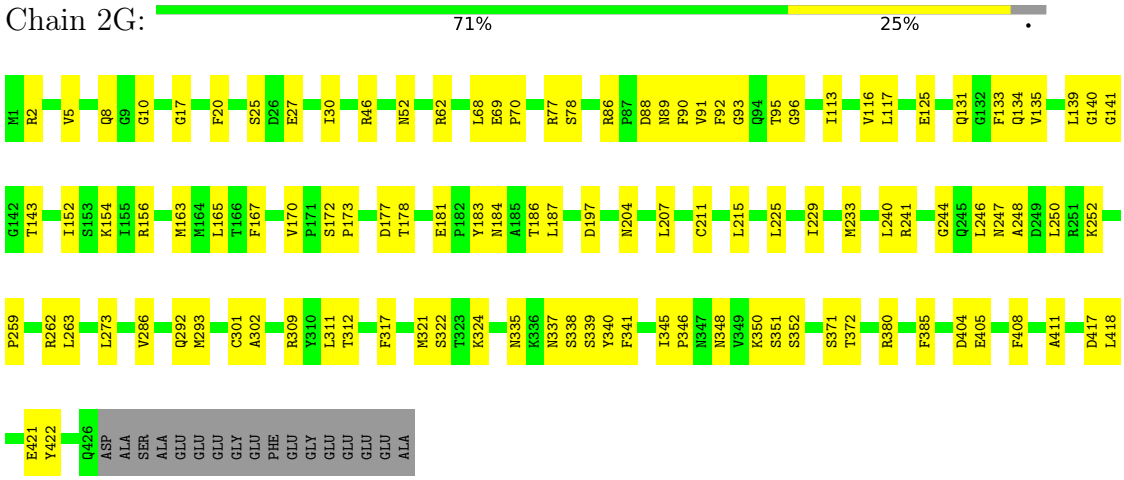
• Molecule 1: Tubulin beta

Chain 2E:



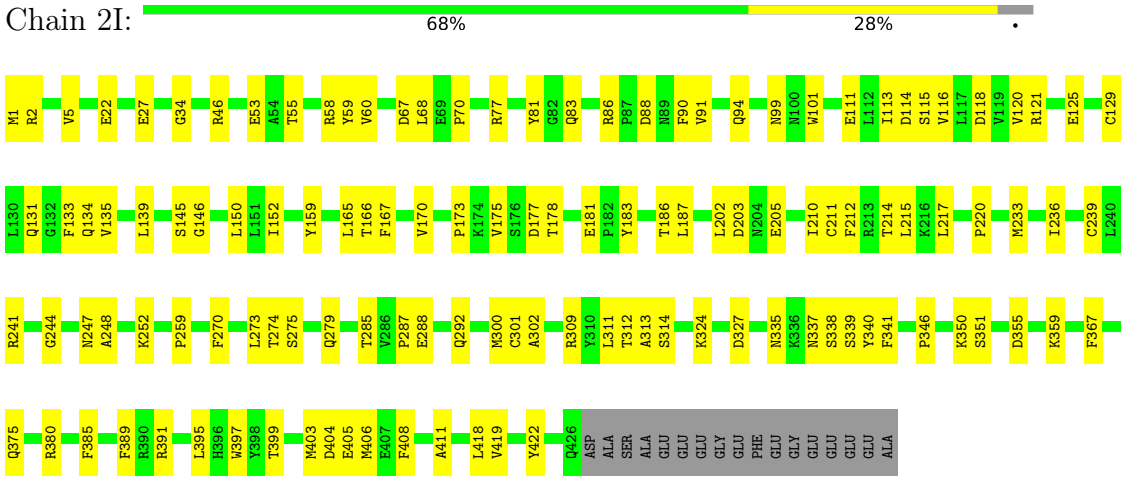
• Molecule 1: Tubulin beta

Chain 2G:



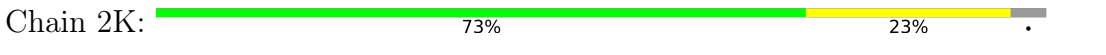
• Molecule 1: Tubulin beta

Chain 2I:



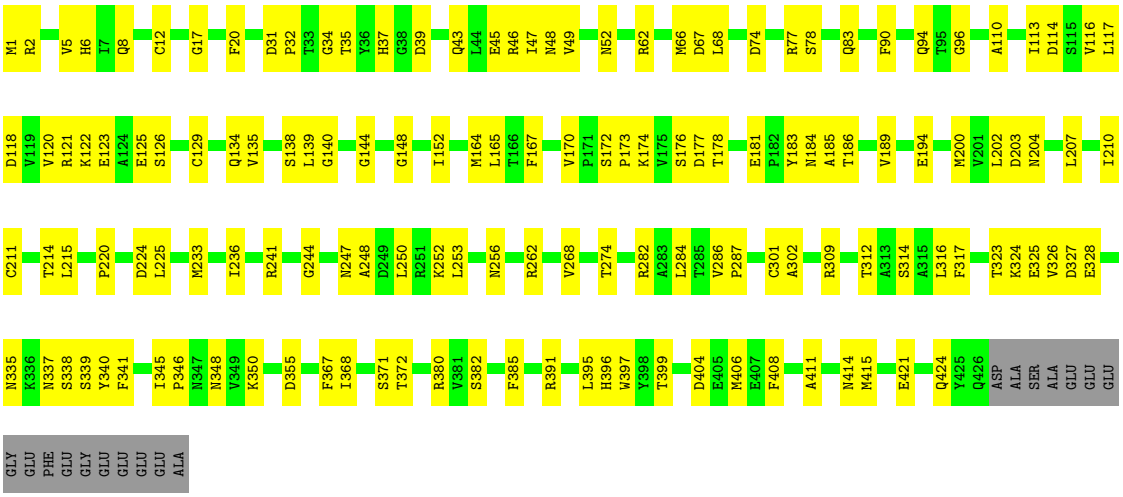
• Molecule 1: Tubulin beta

Chain 2K:



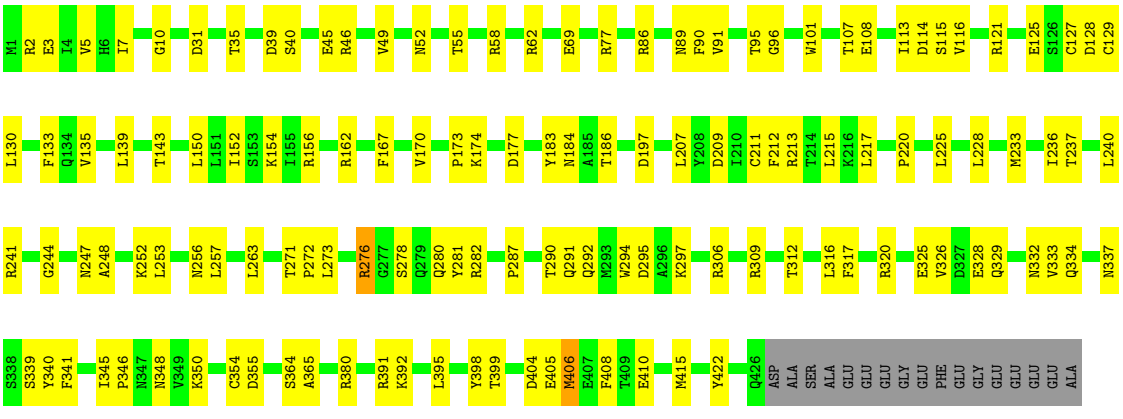
• Molecule 1: Tubulin beta

Chain 2M:



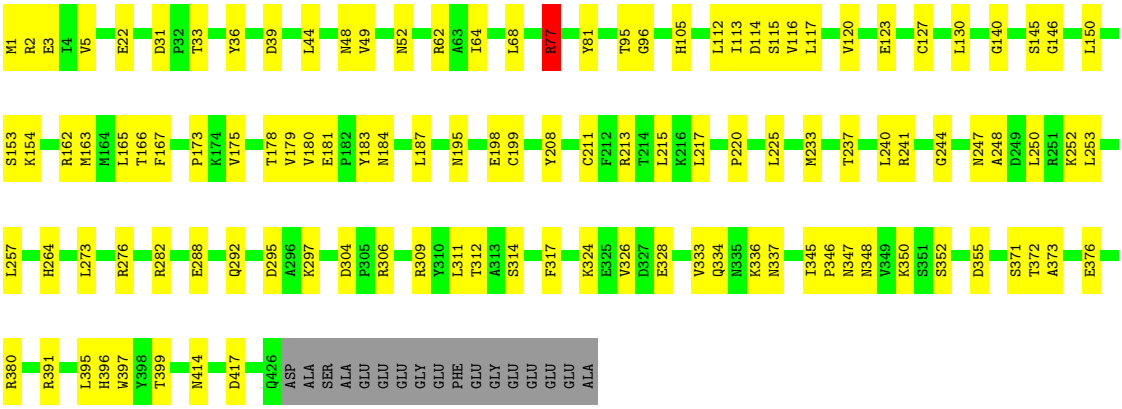
• Molecule 1: Tubulin beta

Chain 2Q:



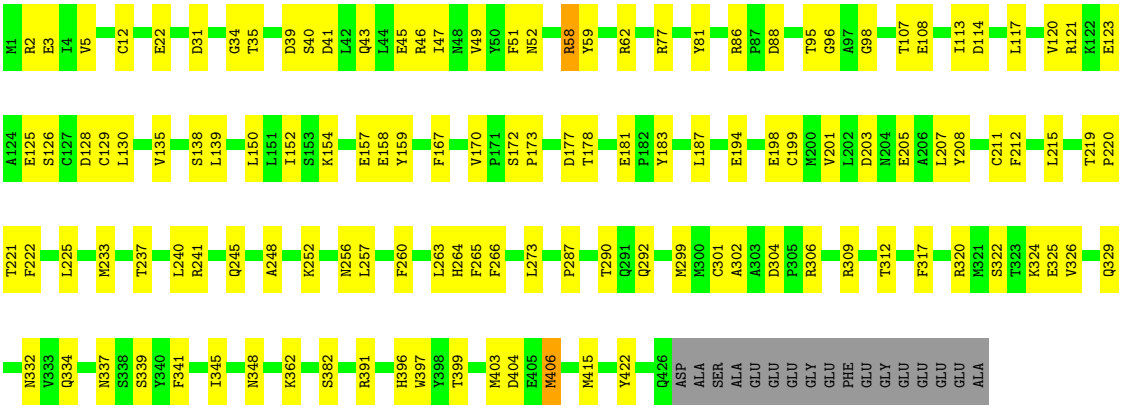
• Molecule 1: Tubulin beta

Chain 2S:



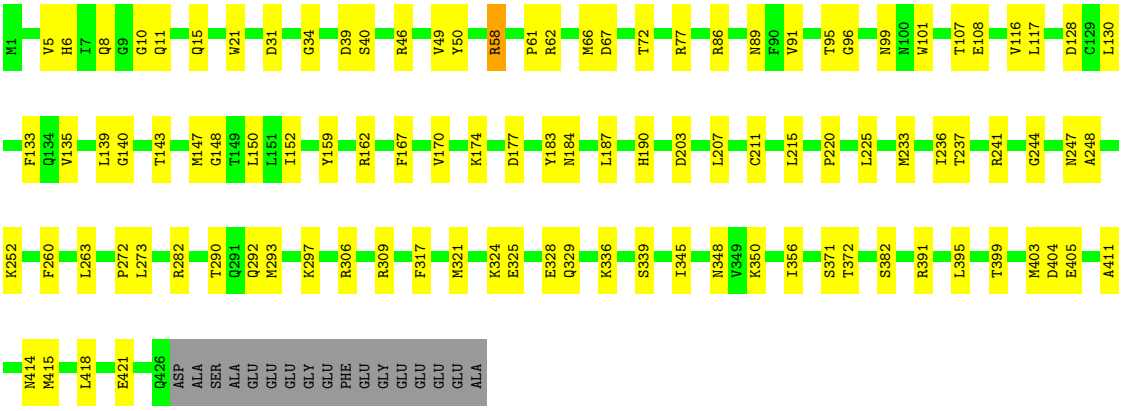
• Molecule 1: Tubulin beta

Chain 2U:



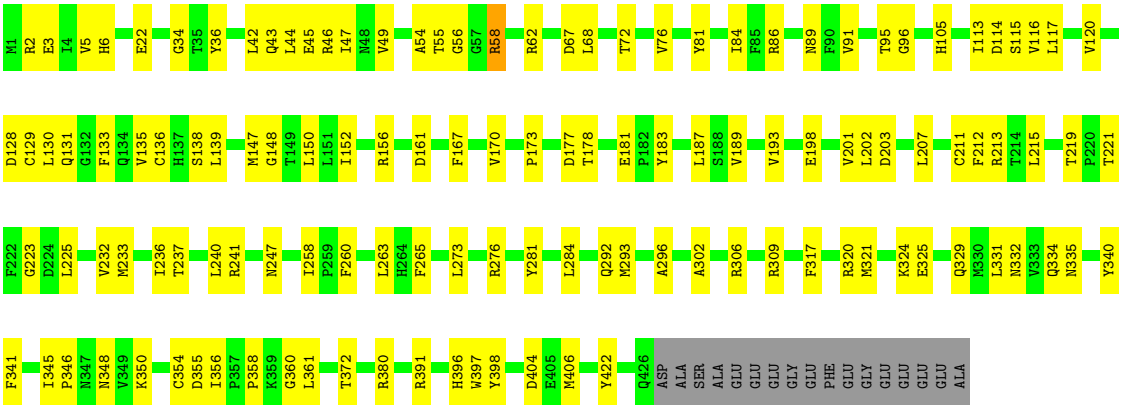
• Molecule 1: Tubulin beta

Chain 2W:



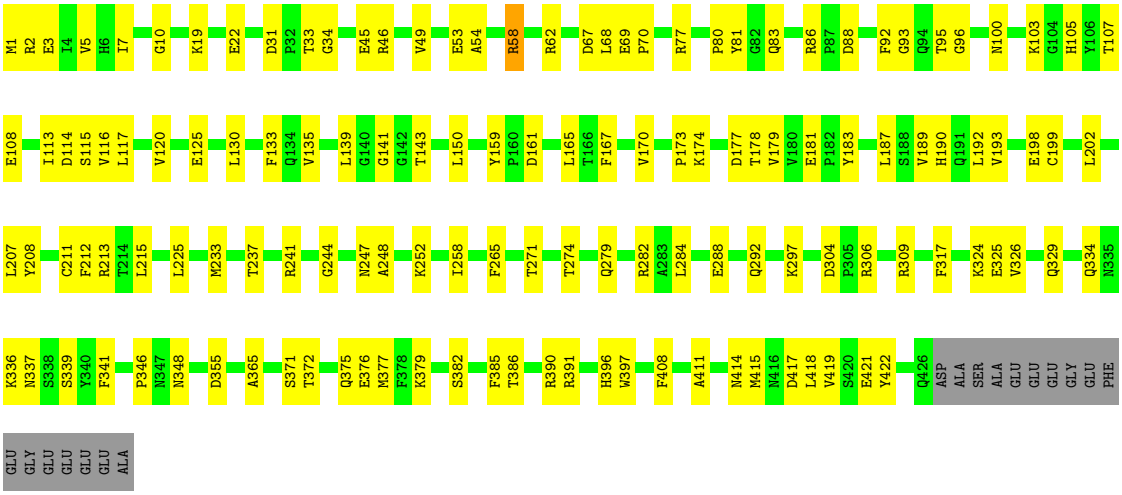
• Molecule 1: Tubulin beta

Chain 2Y:



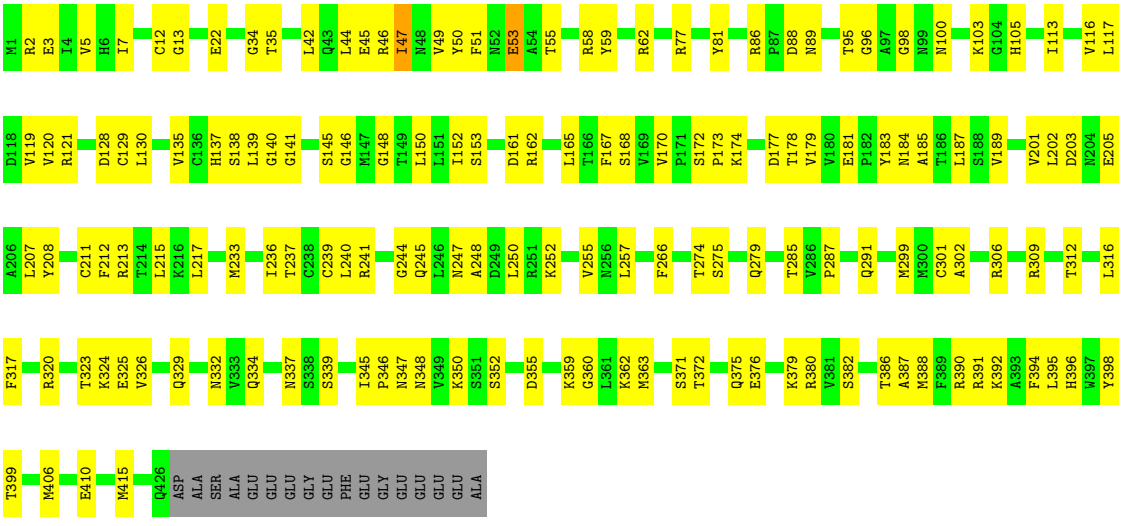
• Molecule 1: Tubulin beta

Chain 3A:



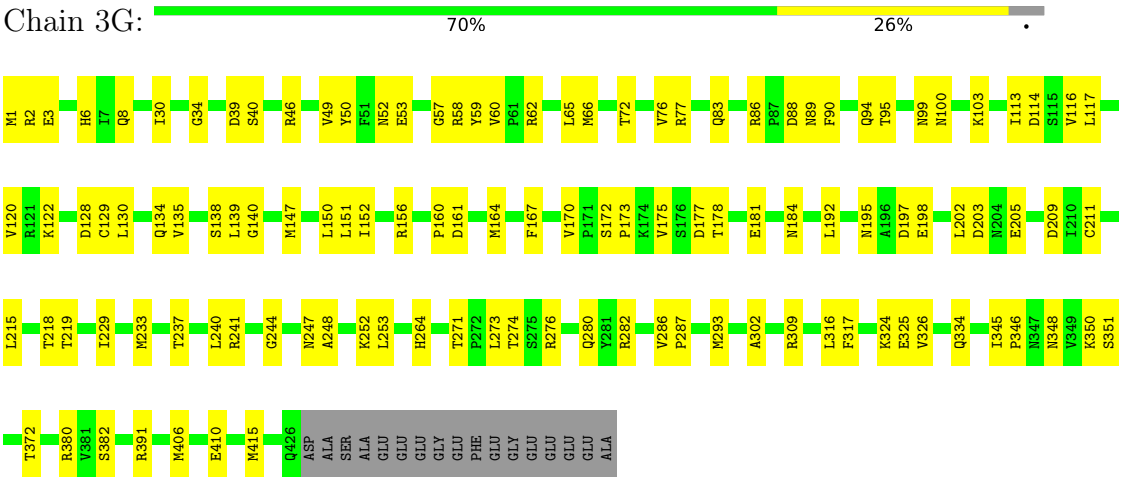
• Molecule 1: Tubulin beta

Chain 3C:



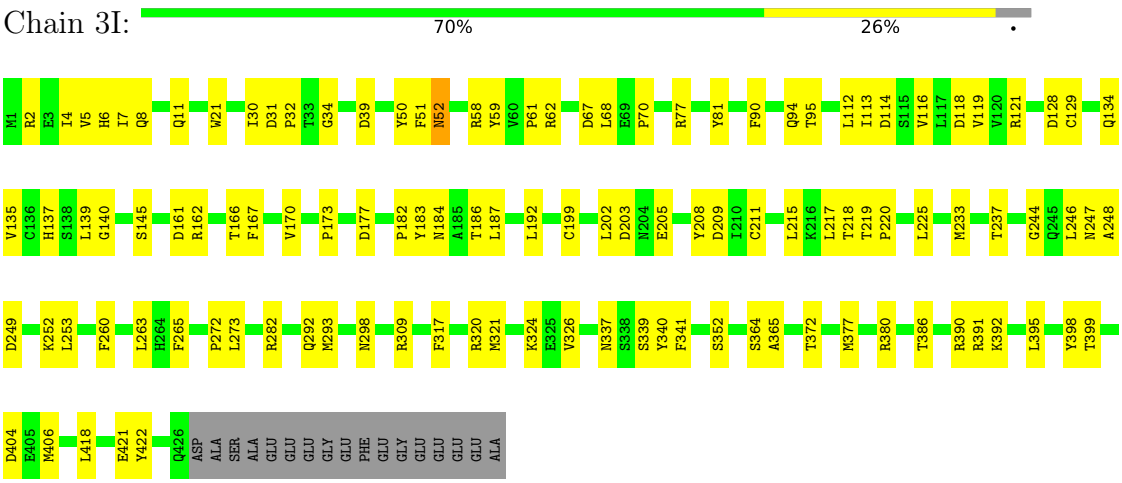
• Molecule 1: Tubulin beta

Chain 3G:



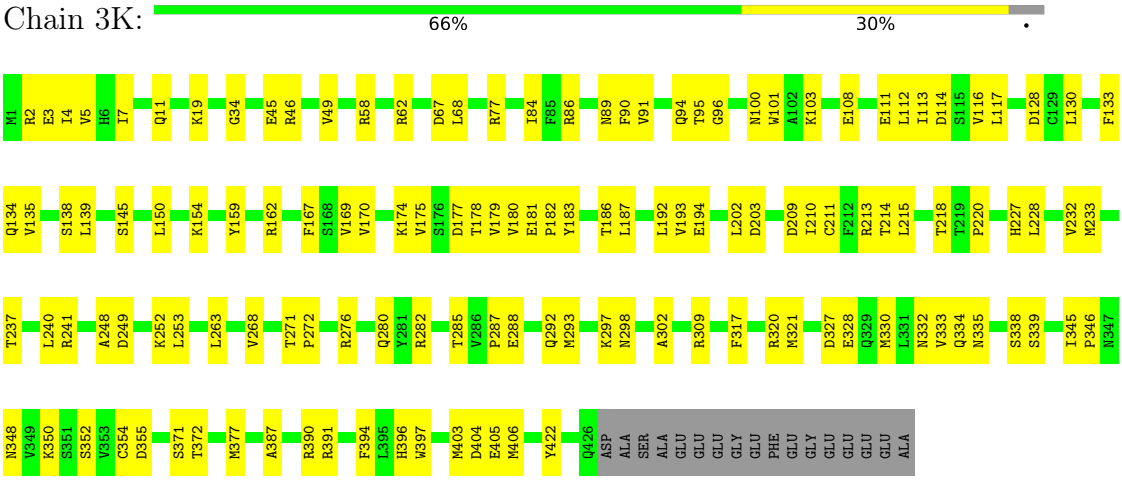
• Molecule 1: Tubulin beta

Chain 3I:



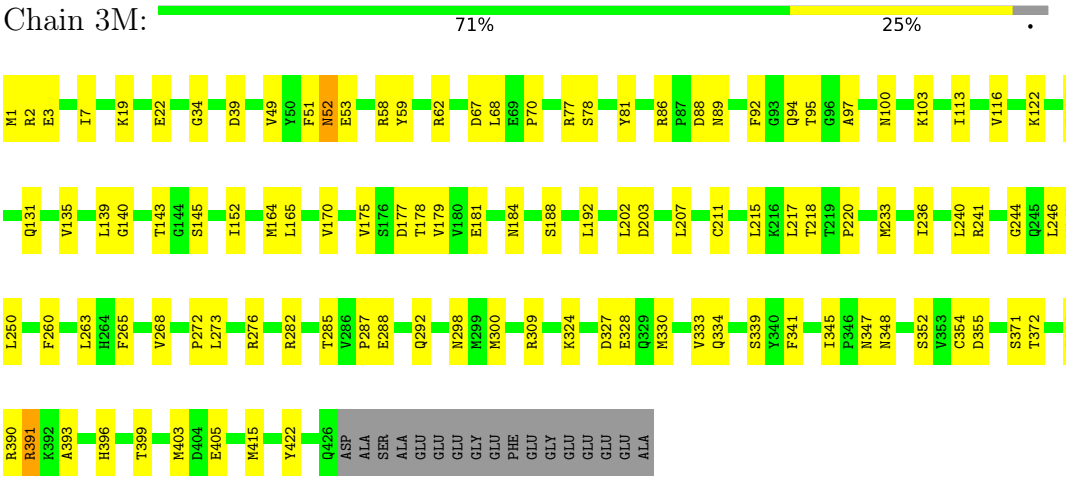
• Molecule 1: Tubulin beta

Chain 3K:



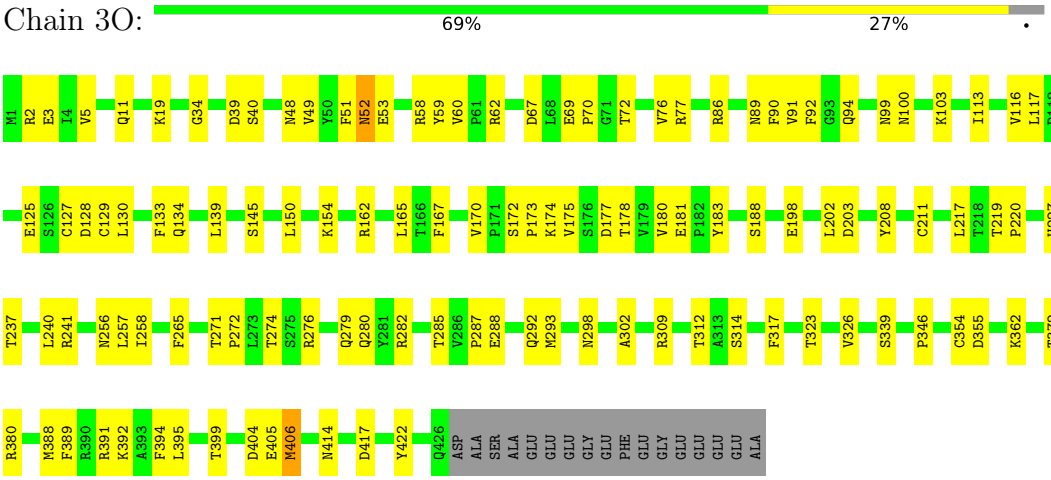
• Molecule 1: Tubulin beta

Chain 3M:



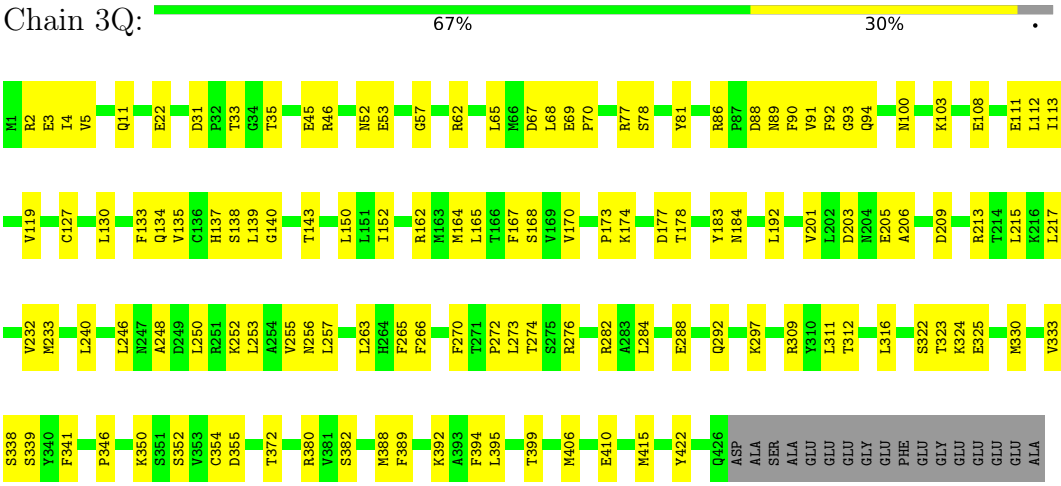
• Molecule 1: Tubulin beta

Chain 3O:



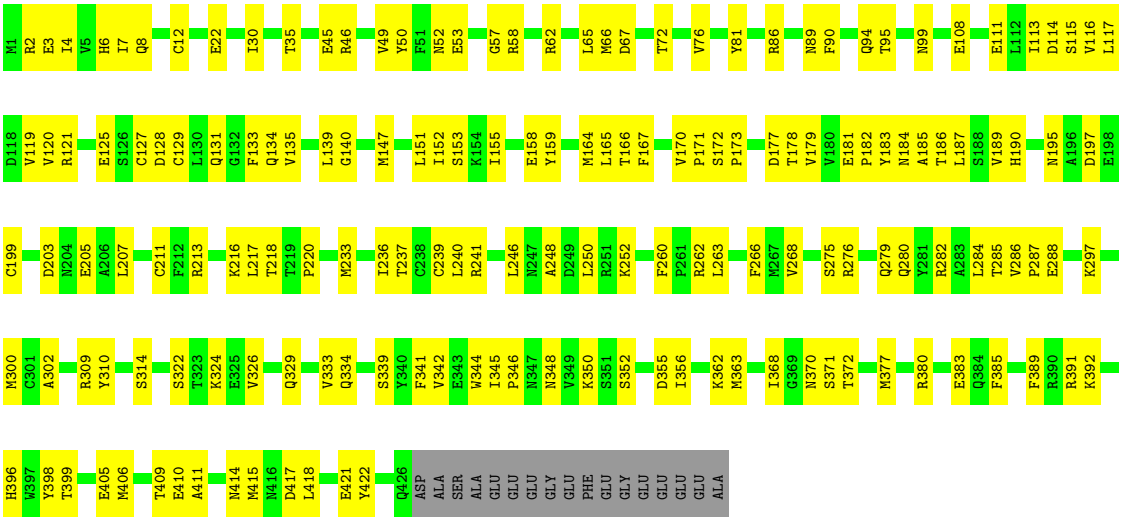
• Molecule 1: Tubulin beta

Chain 3Q:



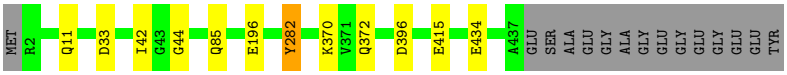
• Molecule 1: Tubulin beta

Chain 3S:



• Molecule 2: Tubulin alpha

Chain 2: 94%

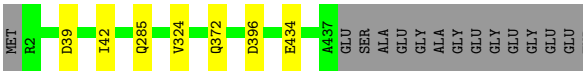


• Molecule 2: Tubulin alpha

Chain 4: 93%

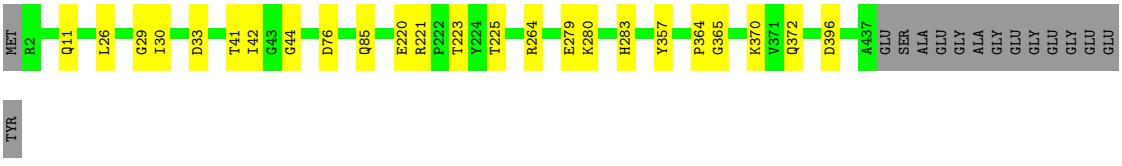
• Molecule 2: Tubulin alpha

Chain 6: 95%



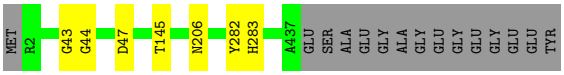
• Molecule 2: Tubulin alpha

Chain 8: 91% 5%



• Molecule 2: Tubulin alpha

Chain A0: 95%

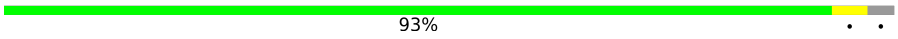


• Molecule 2: Tubulin alpha

Chain A2:

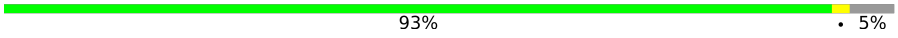
• Molecule 2: Tubulin alpha

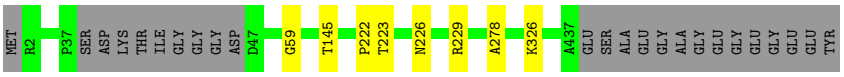
Chain A4:



• Molecule 2: Tubulin alpha

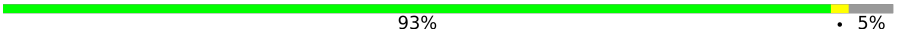
Chain A8:





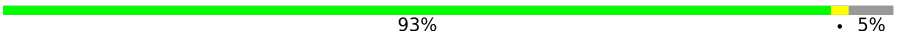
• Molecule 2: Tubulin alpha

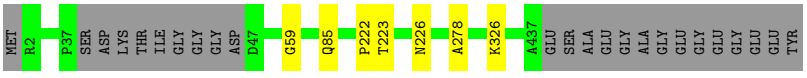
Chain B0:



• Molecule 2: Tubulin alpha

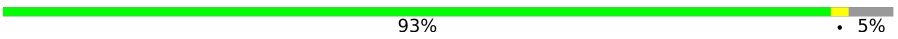
Chain B2:





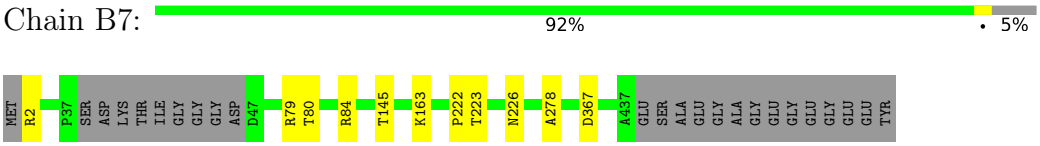
• Molecule 2: Tubulin alpha

Chain B4:



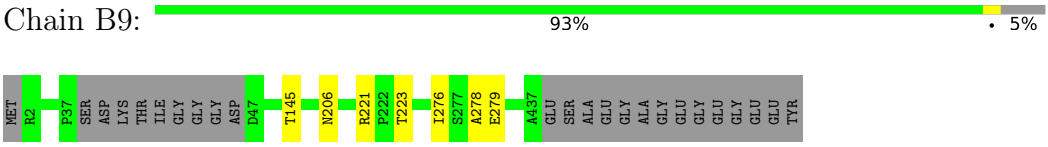
• Molecule 2: Tubulin alpha

Chain B7:



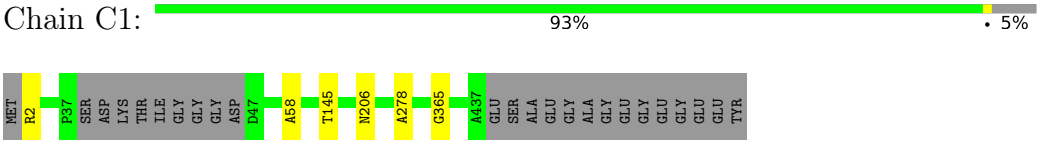
• Molecule 2: Tubulin alpha

Chain B9:



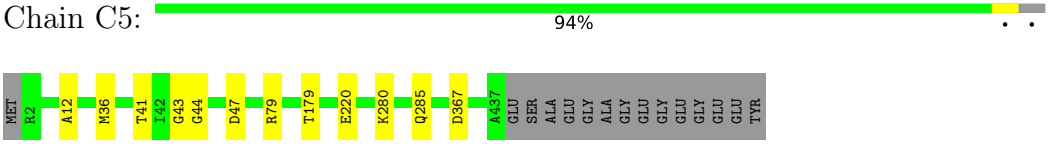
• Molecule 2: Tubulin alpha

Chain C1:



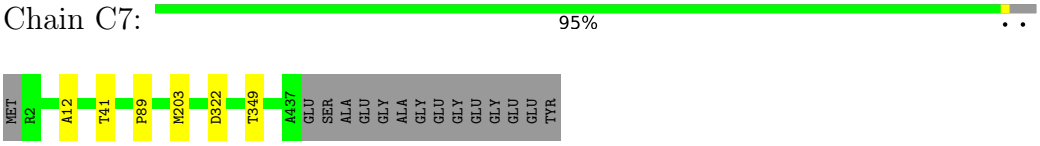
• Molecule 2: Tubulin alpha

Chain C5:



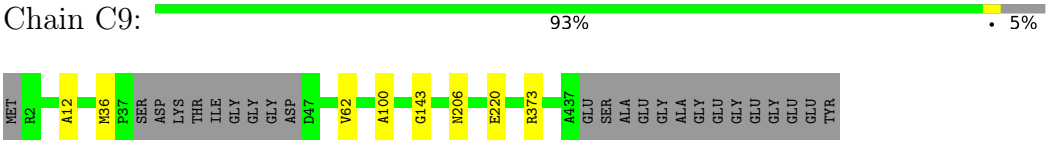
• Molecule 2: Tubulin alpha

Chain C7:



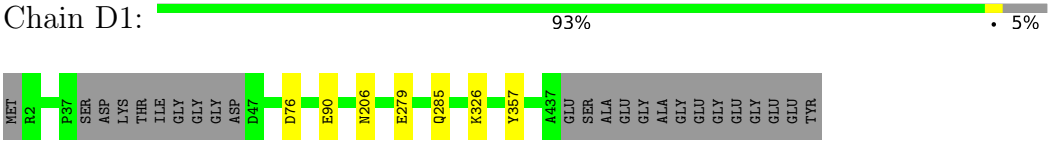
• Molecule 2: Tubulin alpha

Chain C9:



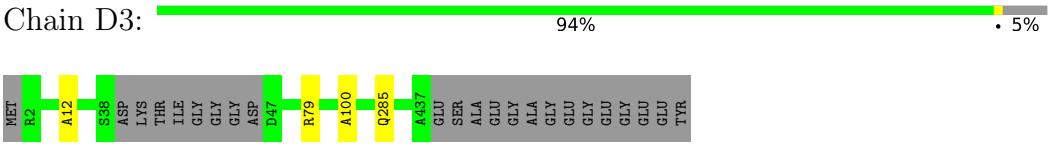
• Molecule 2: Tubulin alpha

Chain D1:



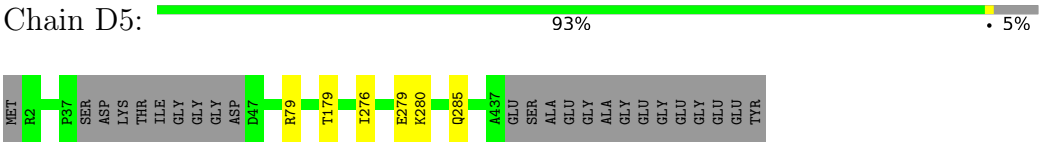
• Molecule 2: Tubulin alpha

Chain D3:



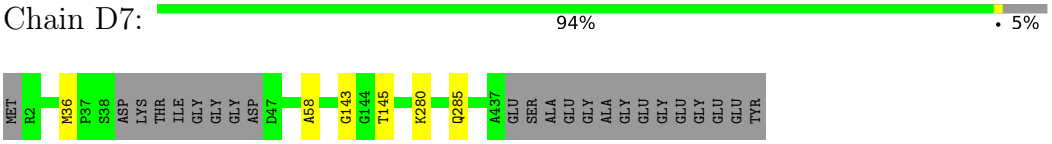
• Molecule 2: Tubulin alpha

Chain D5:



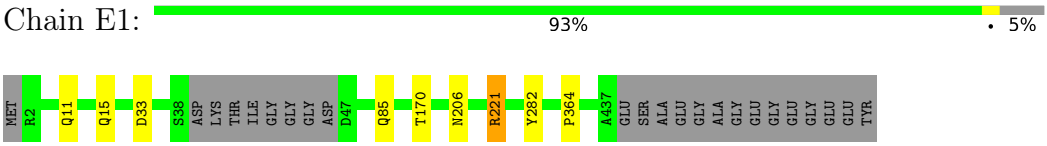
• Molecule 2: Tubulin alpha

Chain D7:



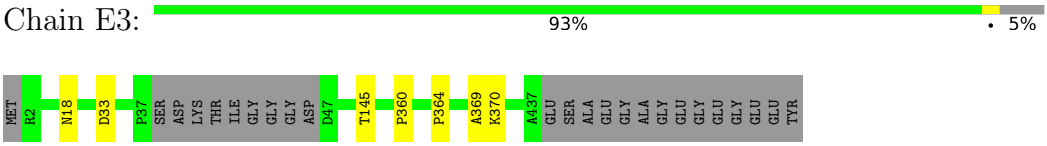
• Molecule 2: Tubulin alpha

Chain E1:



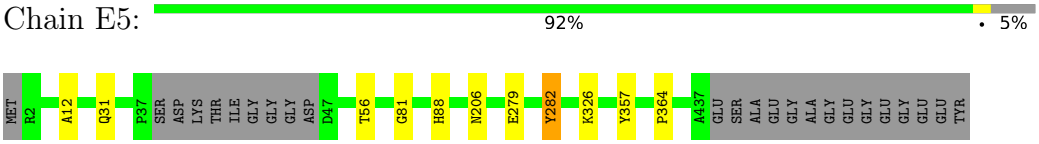
• Molecule 2: Tubulin alpha

Chain E3:



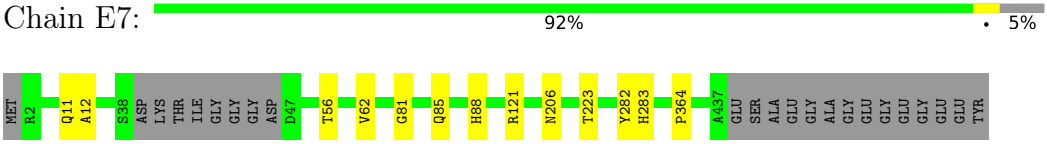
• Molecule 2: Tubulin alpha

Chain E5:



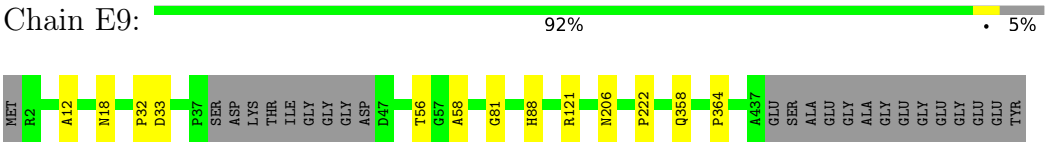
• Molecule 2: Tubulin alpha

Chain E7:



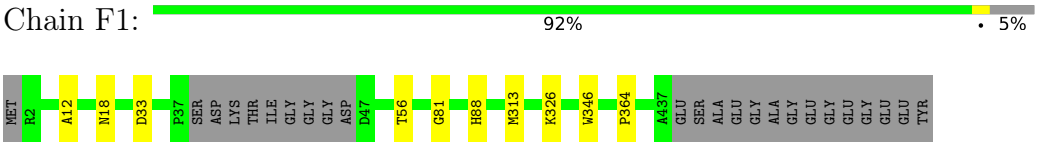
• Molecule 2: Tubulin alpha

Chain E9:



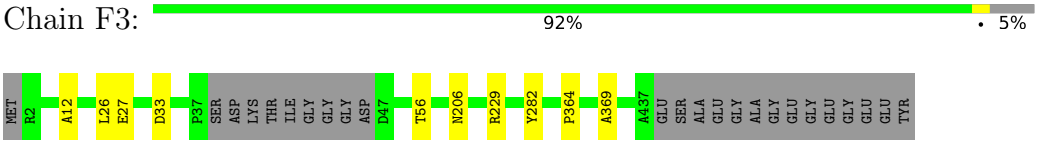
• Molecule 2: Tubulin alpha

Chain F1:



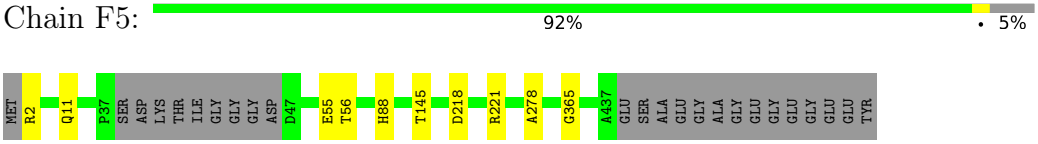
• Molecule 2: Tubulin alpha

Chain F3:



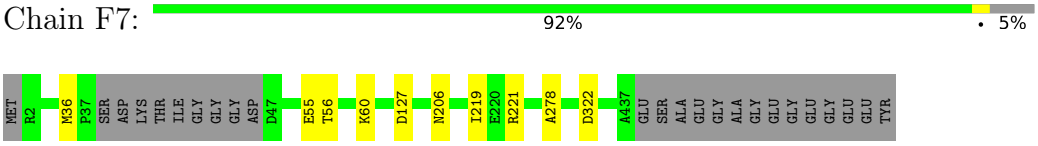
• Molecule 2: Tubulin alpha

Chain F5:



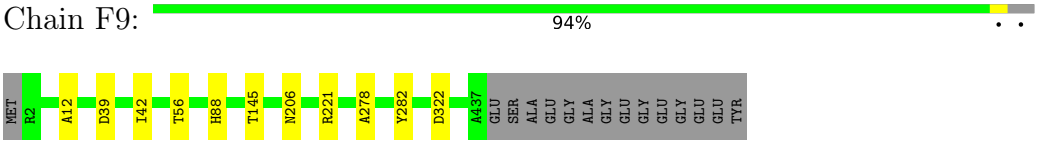
• Molecule 2: Tubulin alpha

Chain F7:



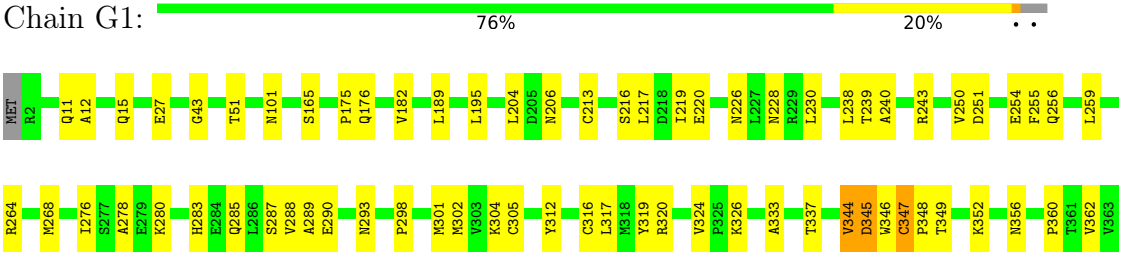
• Molecule 2: Tubulin alpha

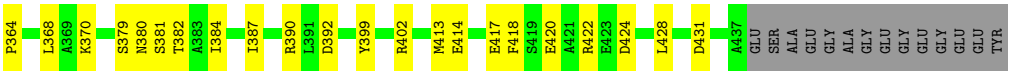
Chain F9:



• Molecule 2: Tubulin alpha

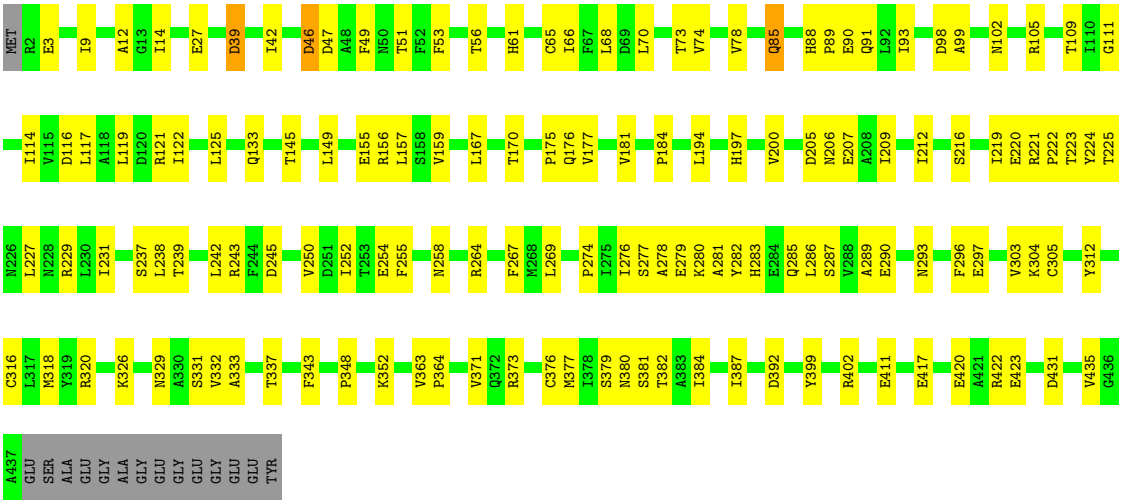
Chain G1:





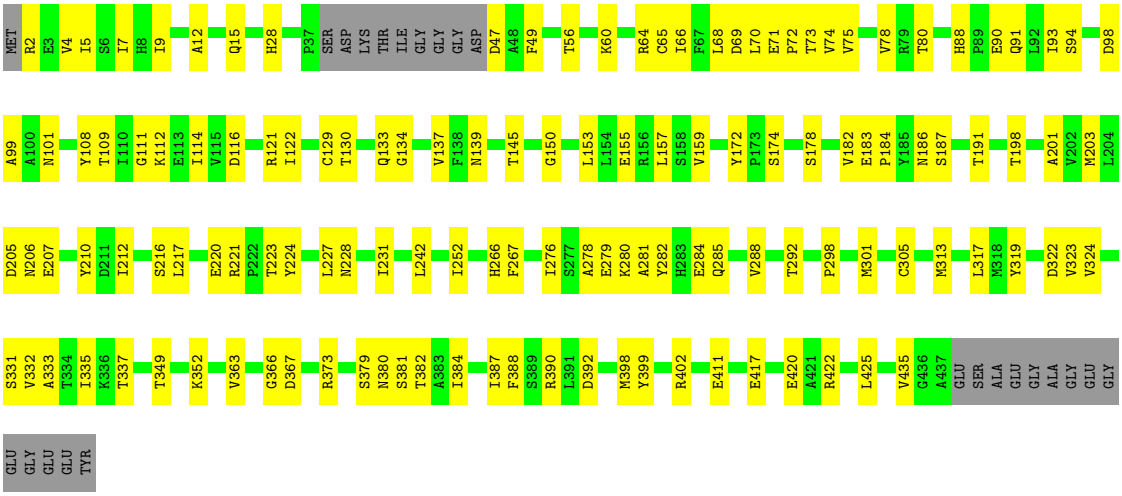
• Molecule 2: Tubulin alpha

Chain G3:



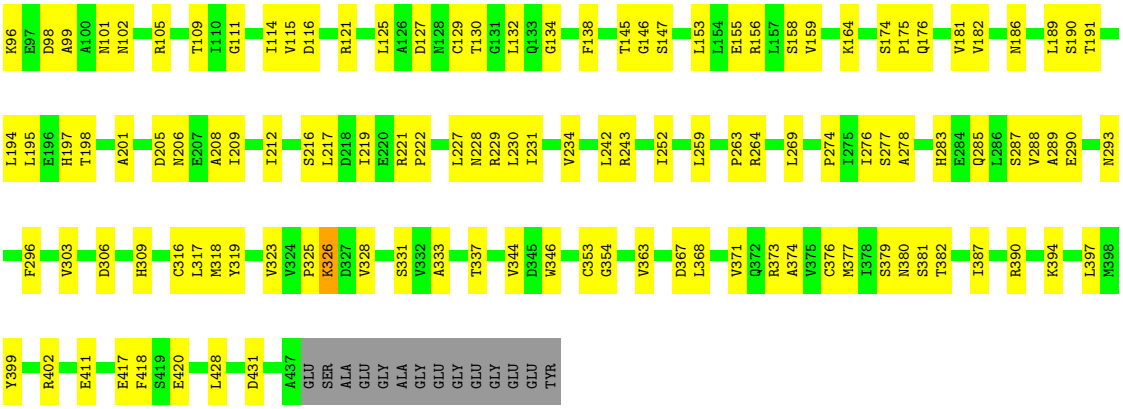
• Molecule 2: Tubulin alpha

Chain G5:



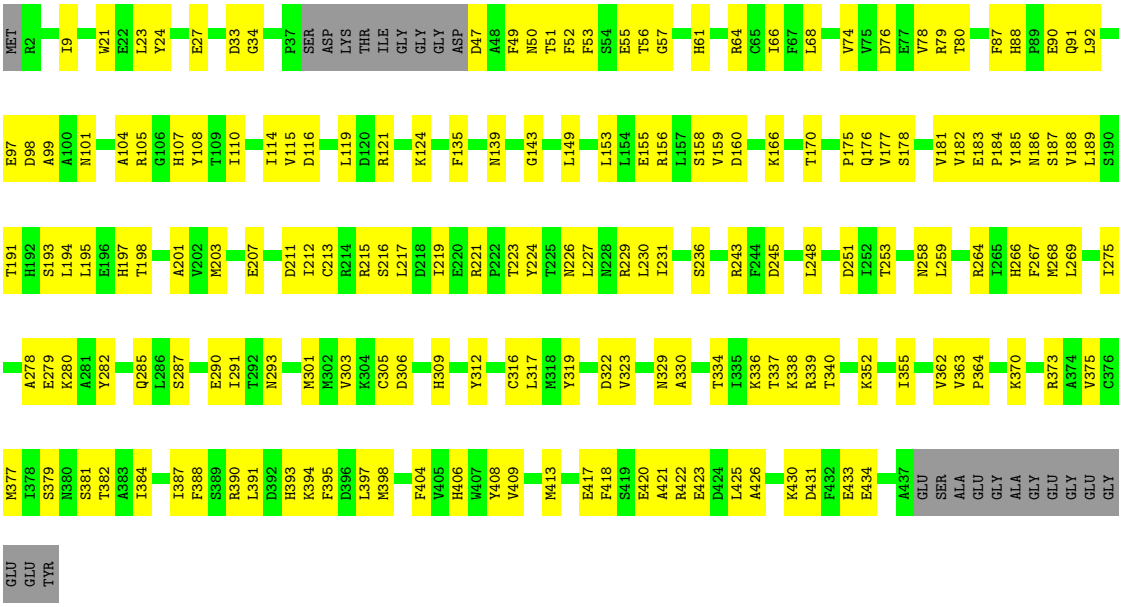
• Molecule 2: Tubulin alpha

Chain G7:



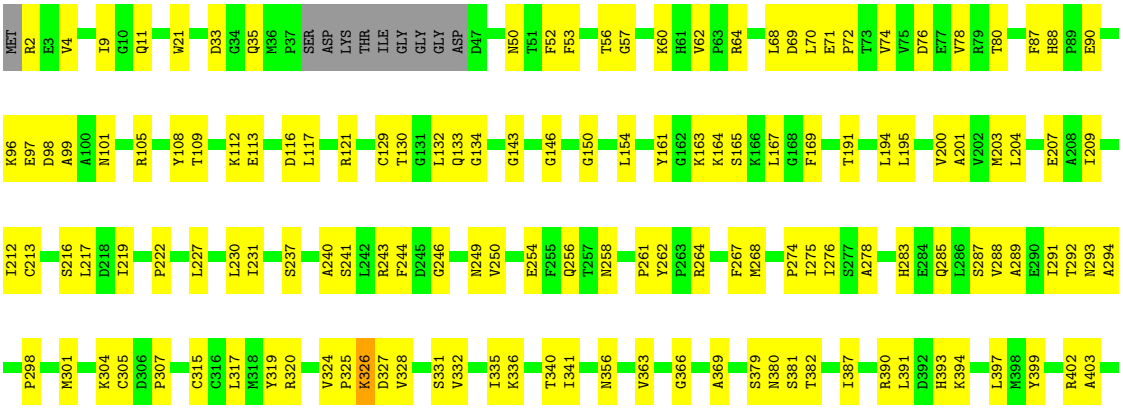
• Molecule 2: Tubulin alpha

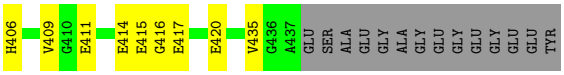
Chain G9:



• Molecule 2: Tubulin alpha

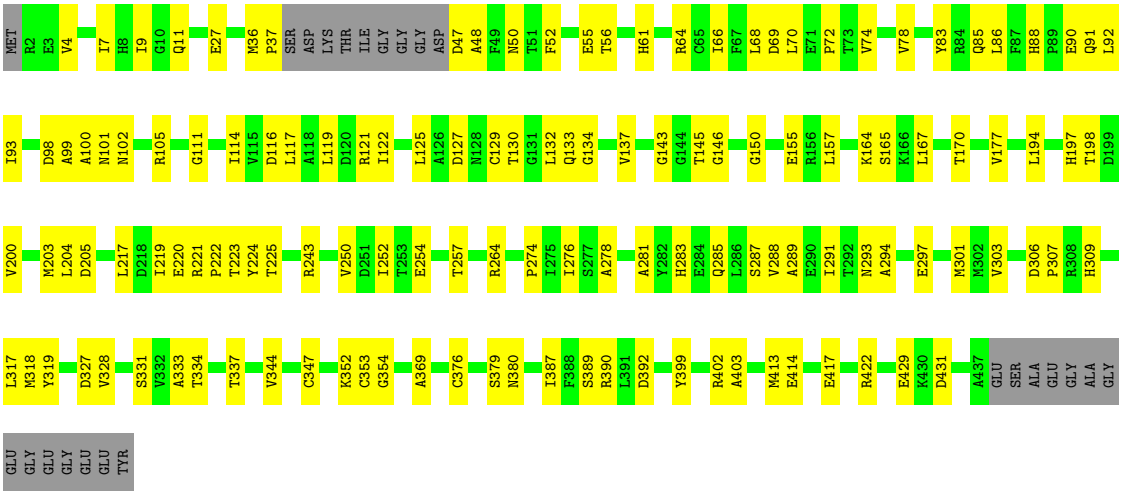
Chain H1:





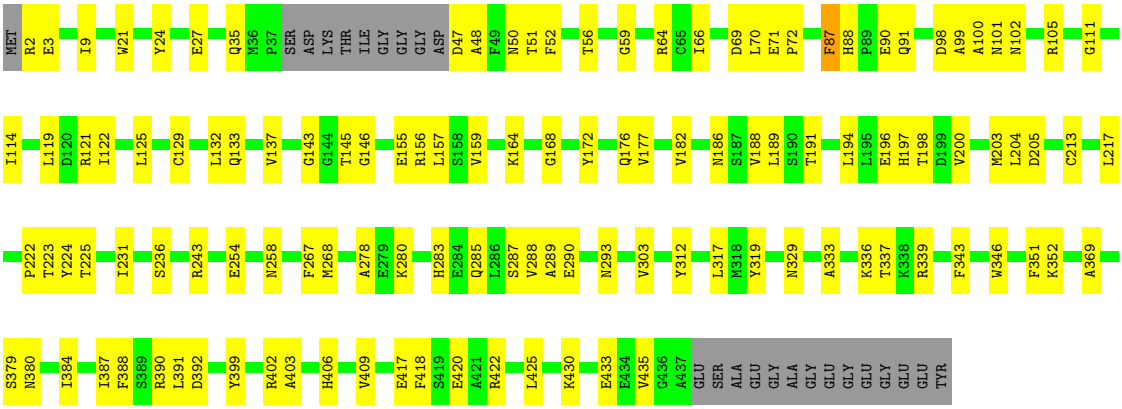
• Molecule 2: Tubulin alpha

Chain H3:



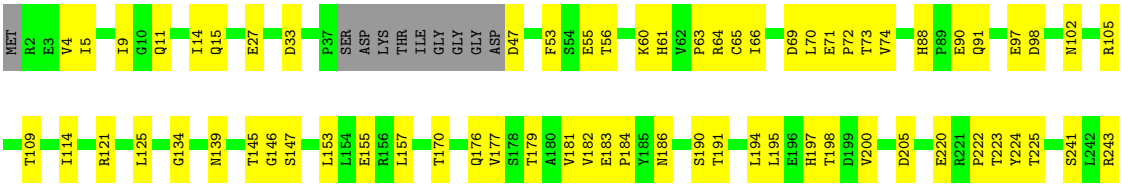
• Molecule 2: Tubulin alpha

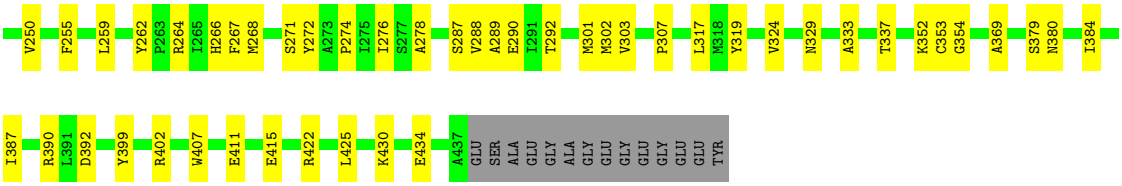
Chain H5:



• Molecule 2: Tubulin alpha

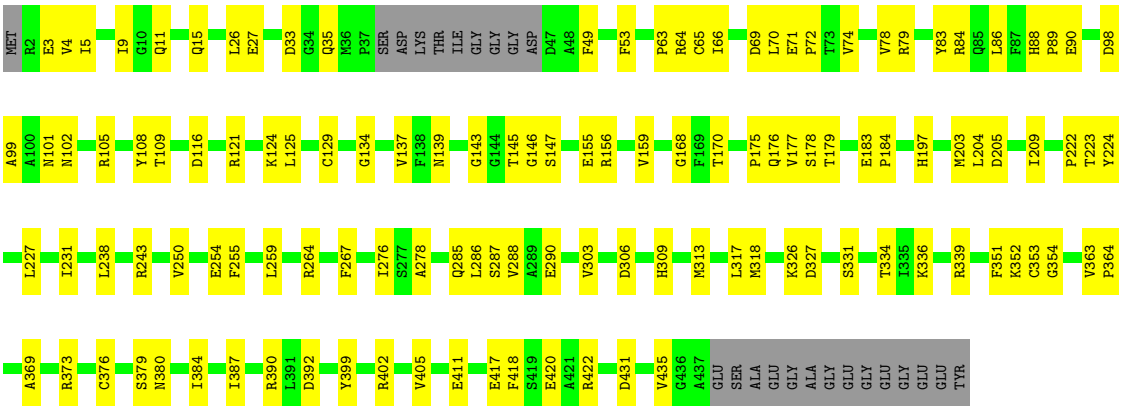
Chain H7:





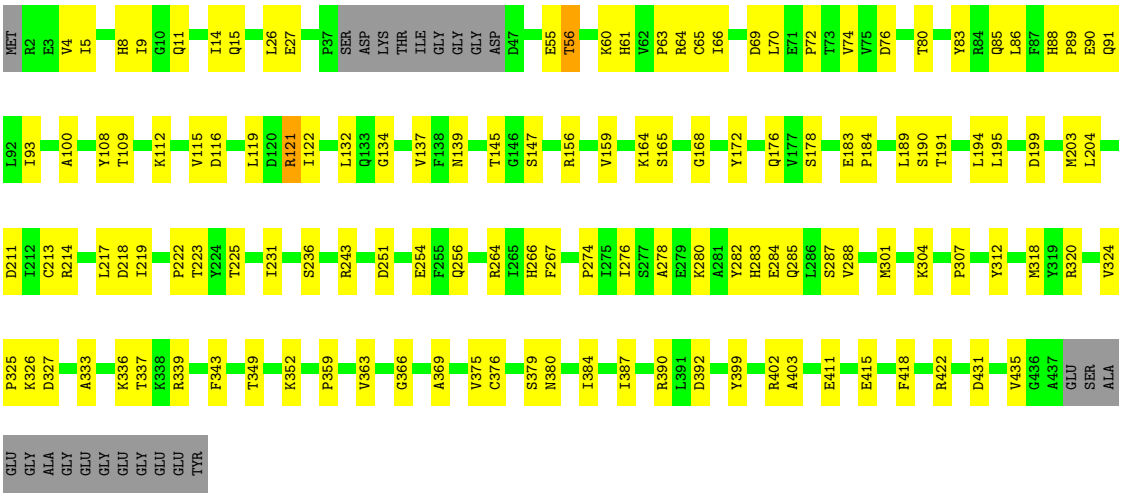
• Molecule 2: Tubulin alpha

Chain H9:



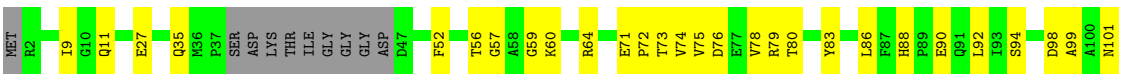
• Molecule 2: Tubulin alpha

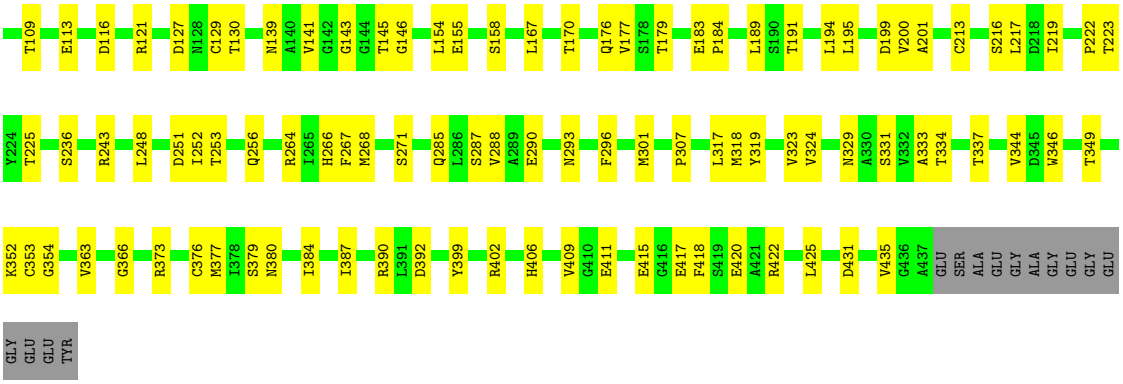
Chain I1:



• Molecule 2: Tubulin alpha

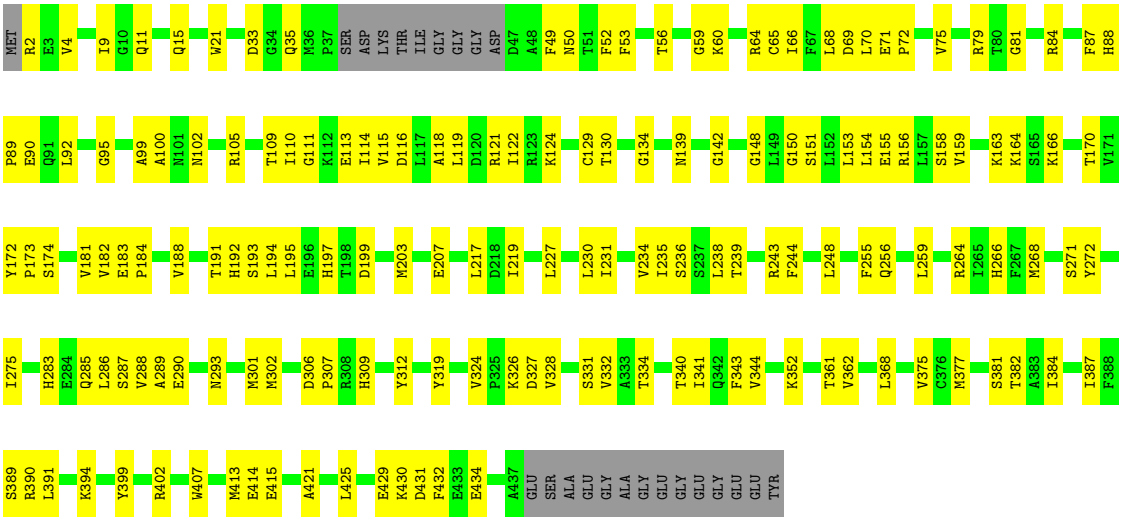
Chain I3:





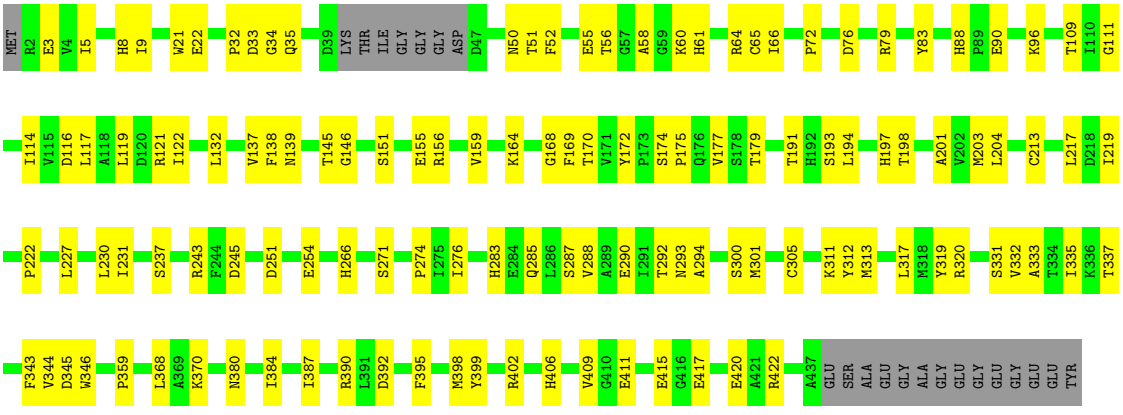
• Molecule 2: Tubulin alpha

Chain I5:



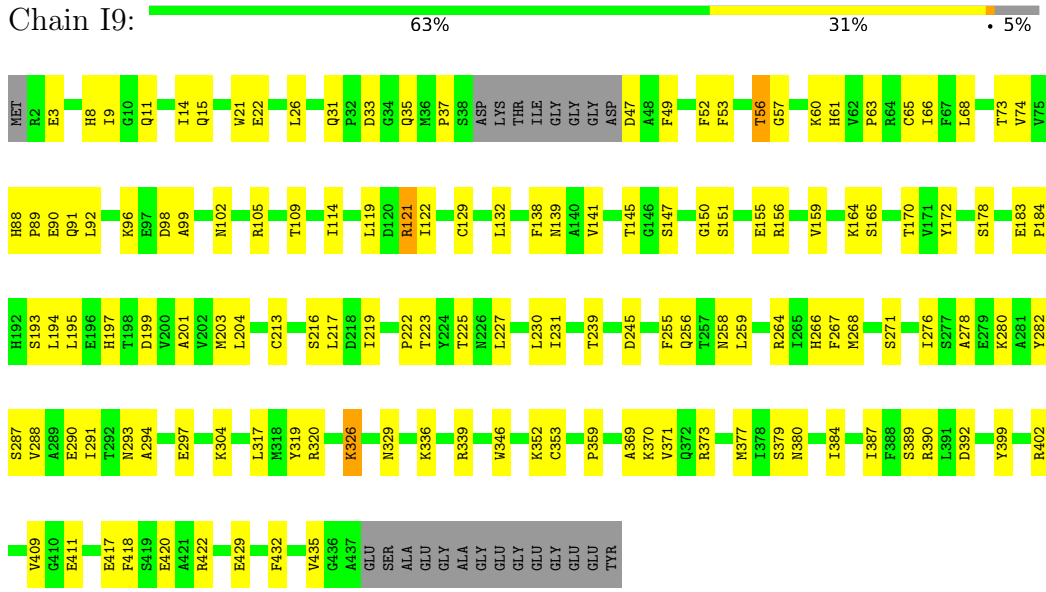
• Molecule 2: Tubulin alpha

Chain I7:



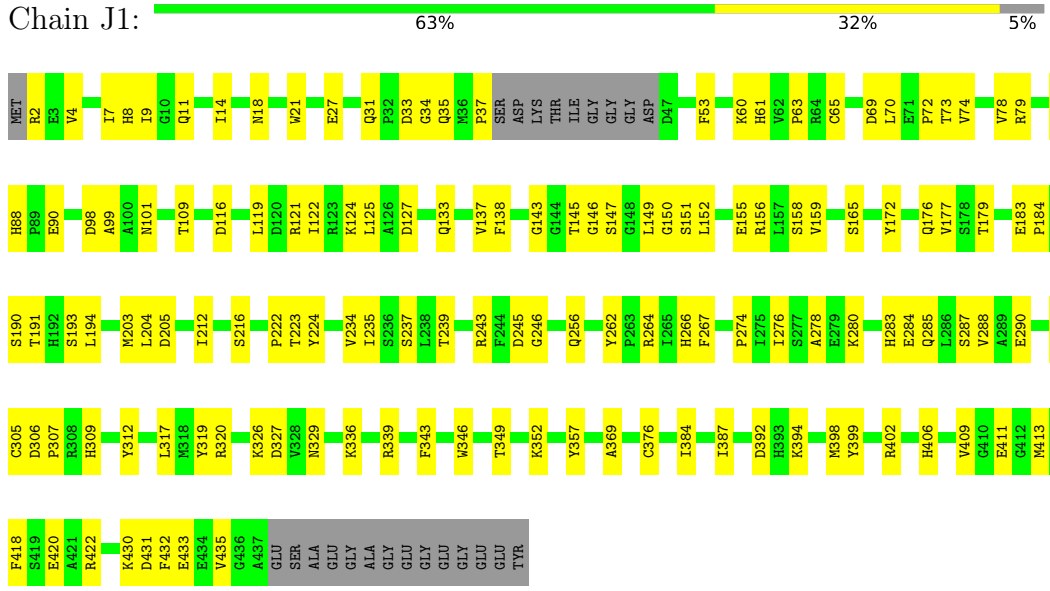
• Molecule 2: Tubulin alpha

Chain I9:



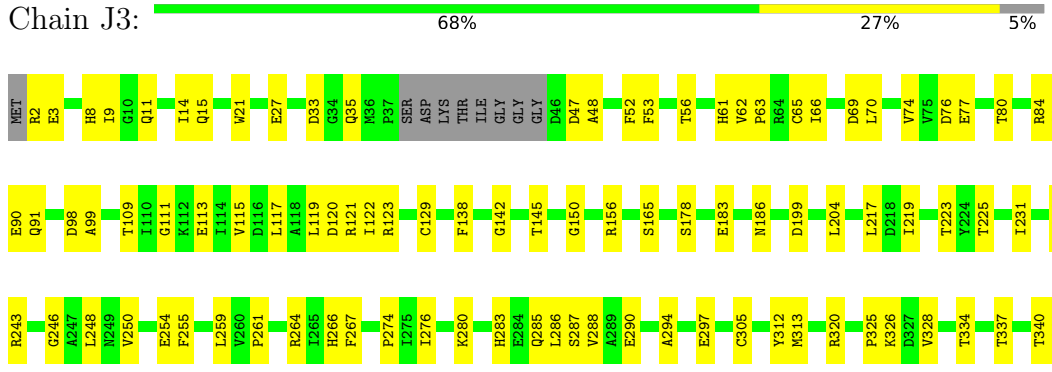
• Molecule 2: Tubulin alpha

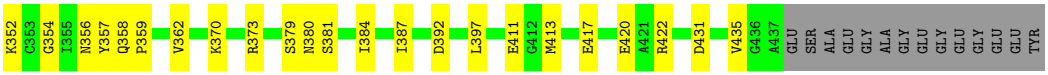
Chain J1:



• Molecule 2: Tubulin alpha

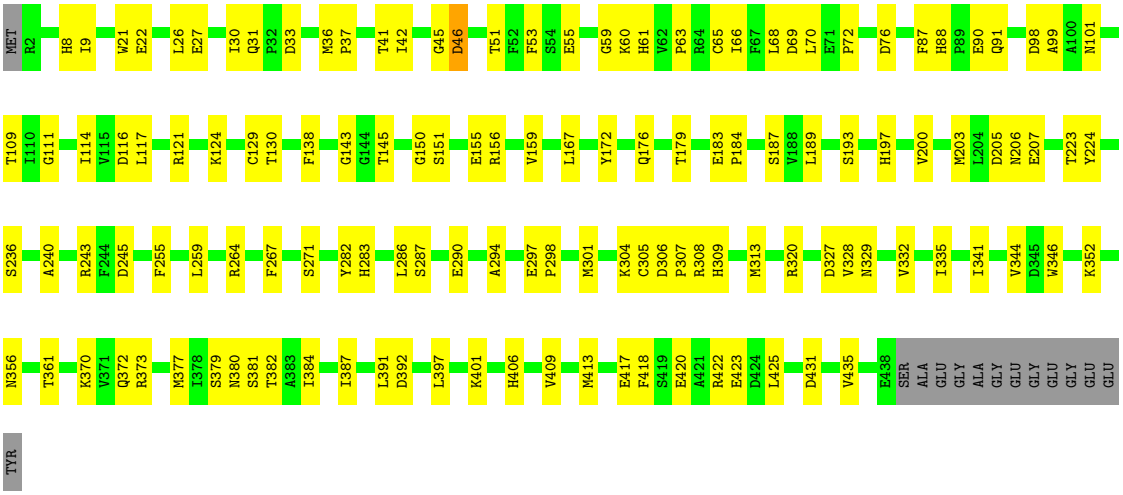
Chain J3:





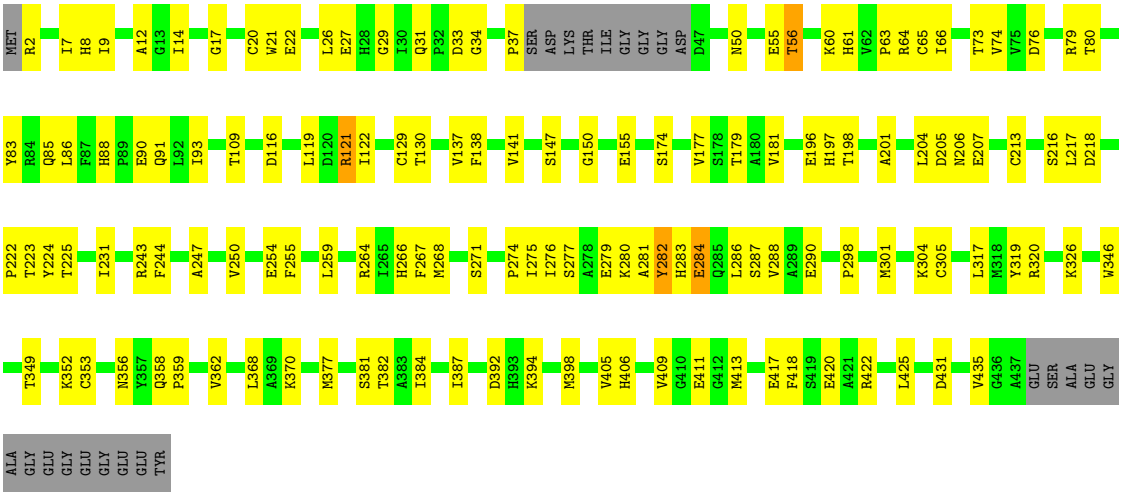
• Molecule 2: Tubulin alpha

Chain J5:



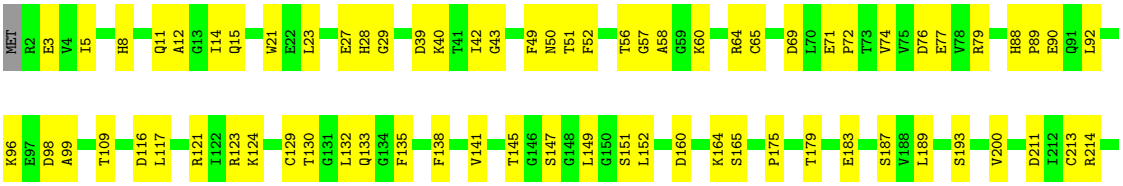
• Molecule 2: Tubulin alpha

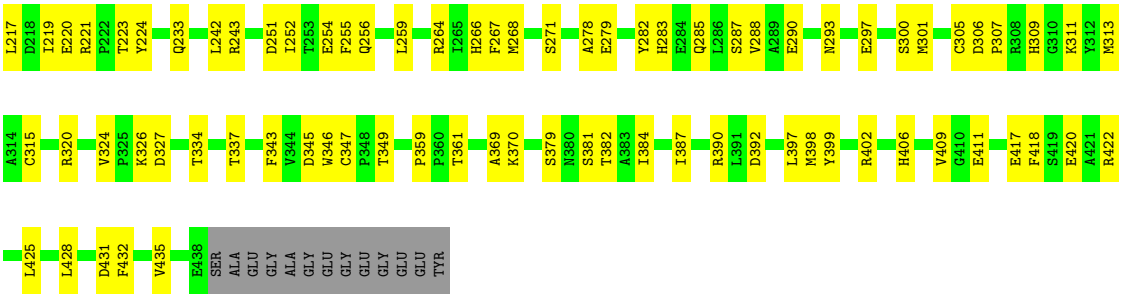
Chain J7:



• Molecule 2: Tubulin alpha

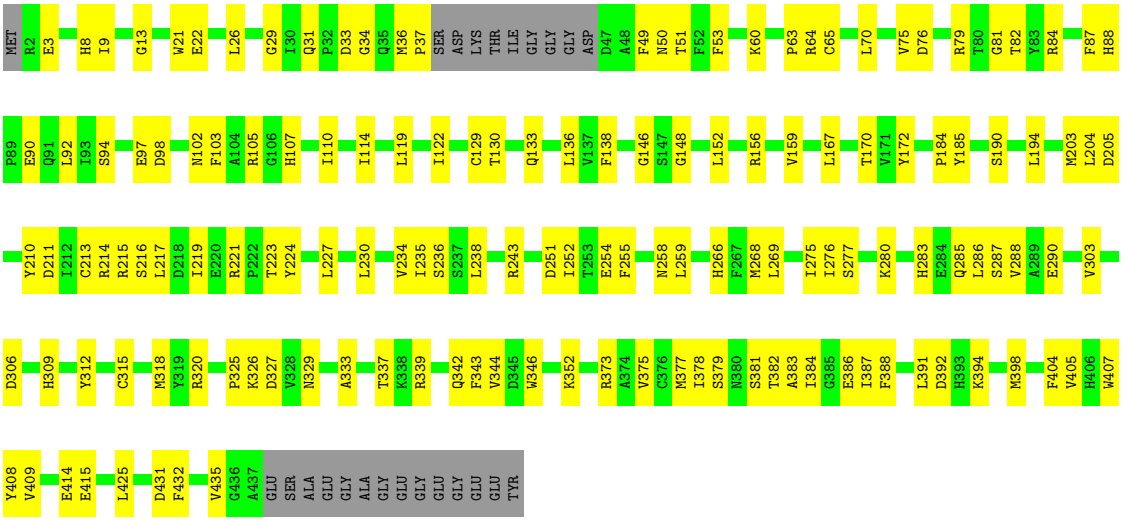
Chain J9:





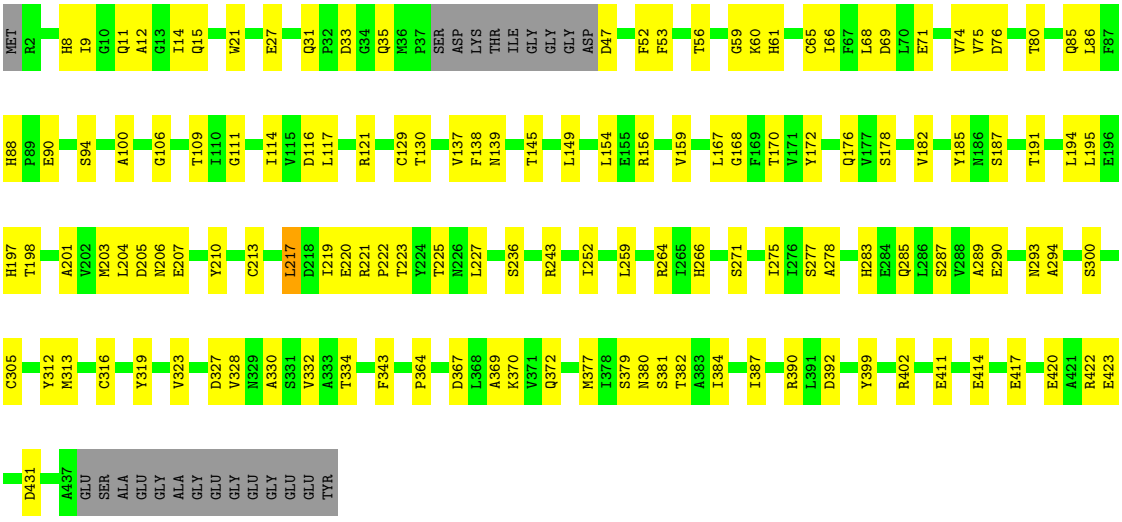
• Molecule 2: Tubulin alpha

Chain K1:



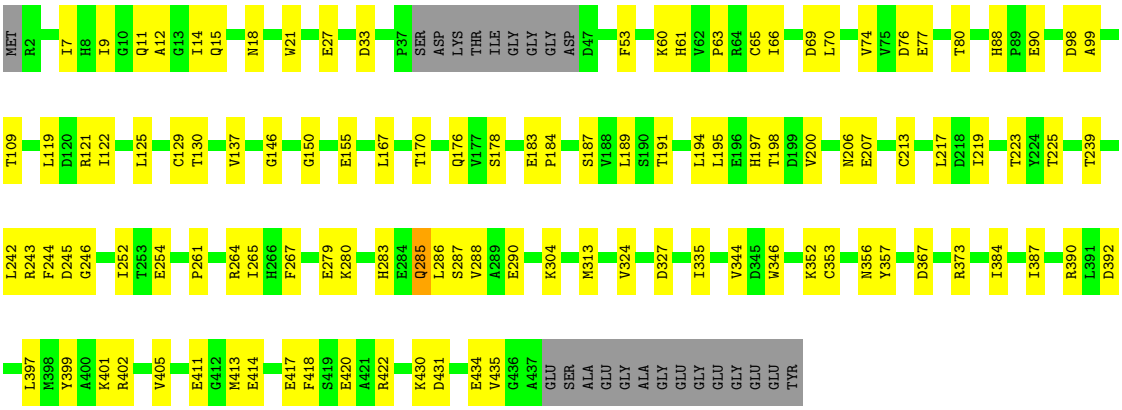
• Molecule 2: Tubulin alpha

Chain K3:



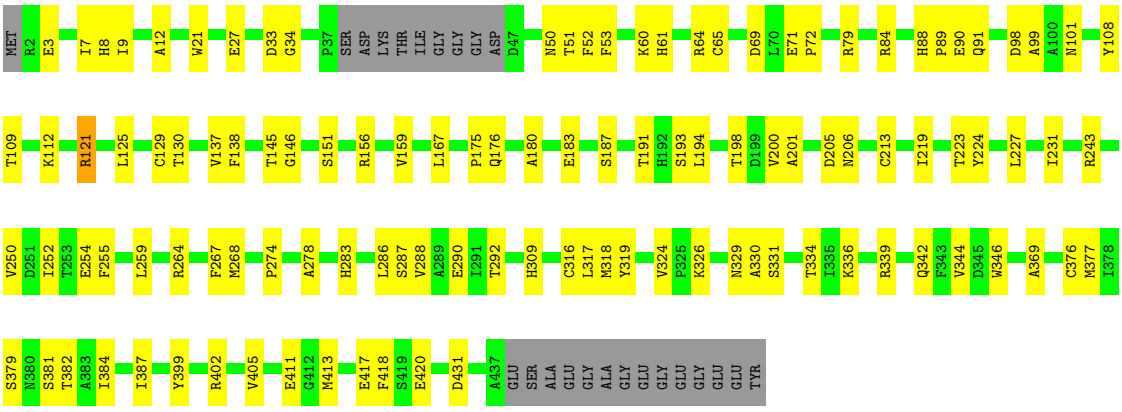
• Molecule 2: Tubulin alpha

Chain K5: 



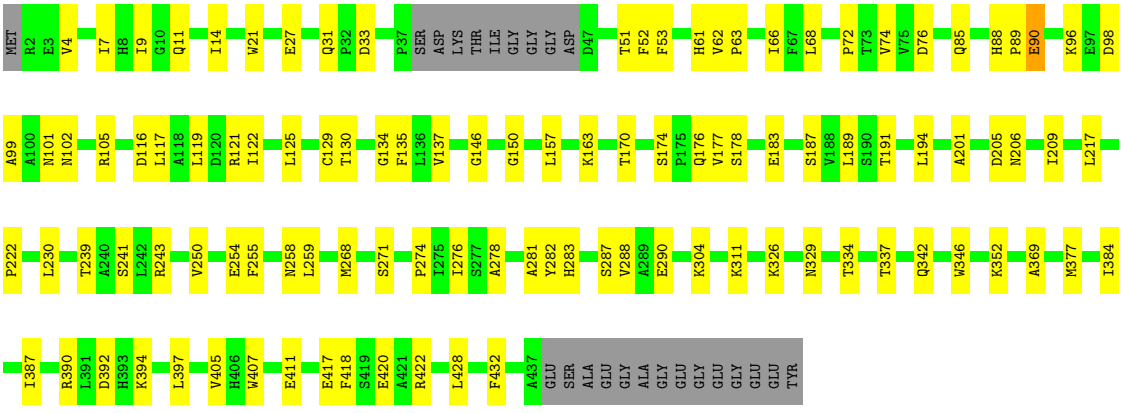
• Molecule 2: Tubulin alpha

Chain K7: 



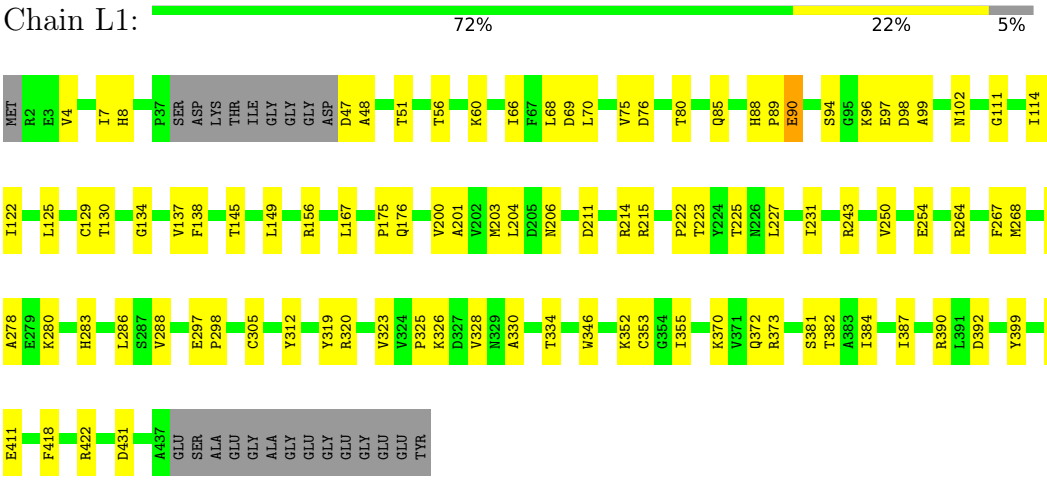
• Molecule 2: Tubulin alpha

Chain K9: 



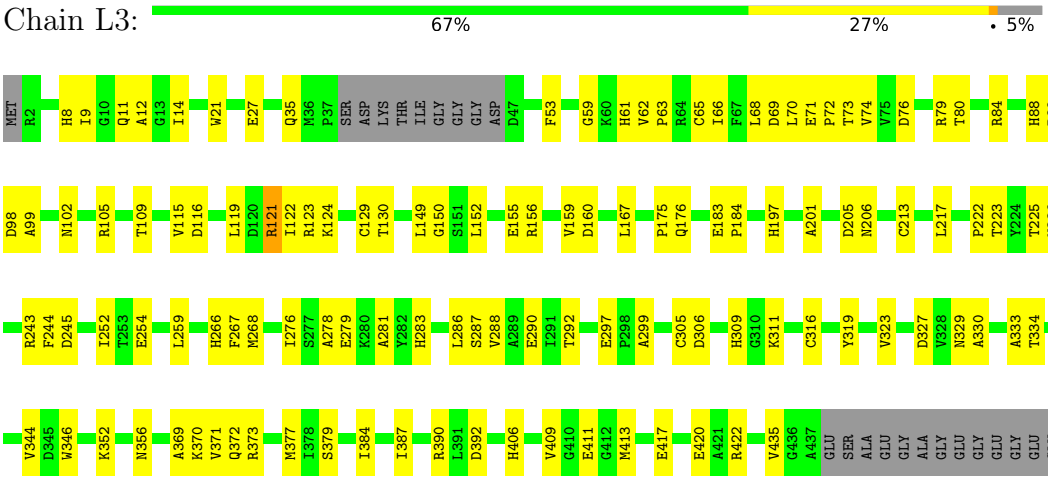
• Molecule 2: Tubulin alpha

Chain L1:



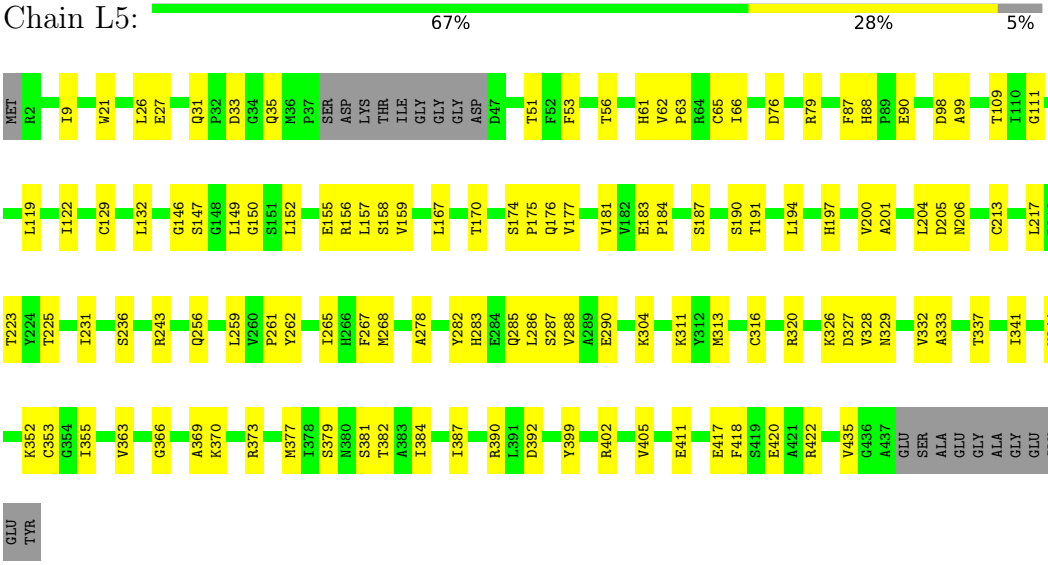
• Molecule 2: Tubulin alpha

Chain L3:



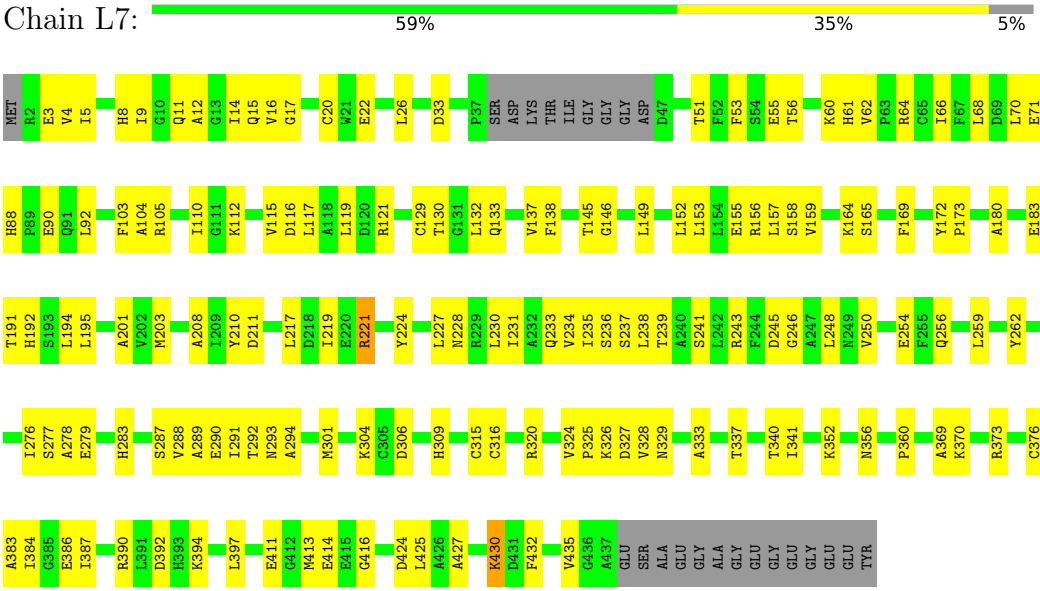
• Molecule 2: Tubulin alpha

Chain L5:



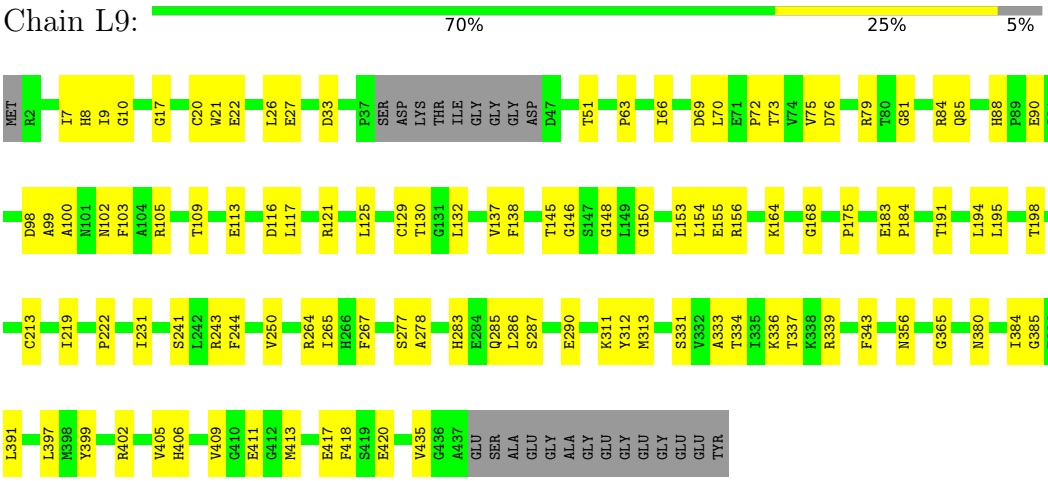
• Molecule 2: Tubulin alpha

Chain L7:



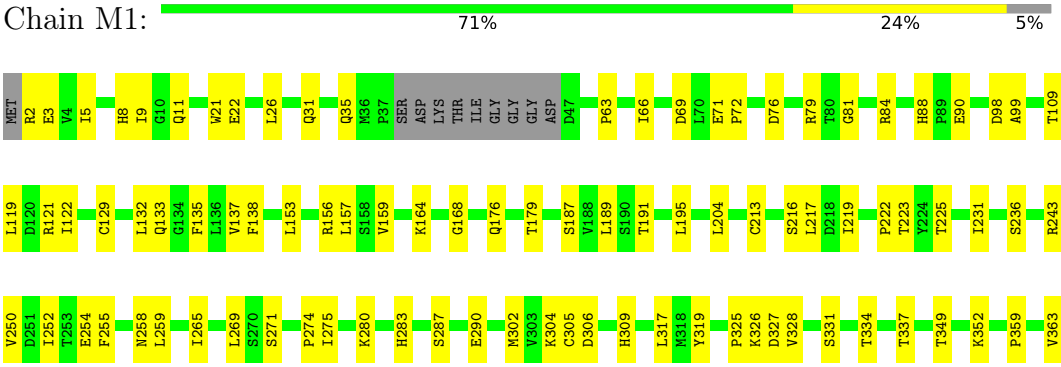
• Molecule 2: Tubulin alpha

Chain L9:



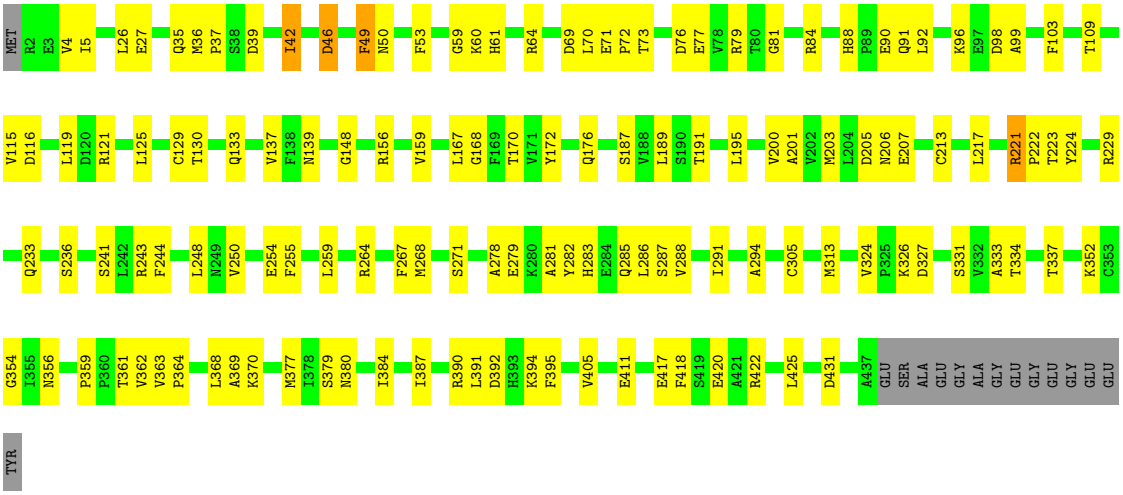
• Molecule 2: Tubulin alpha

Chain M1:



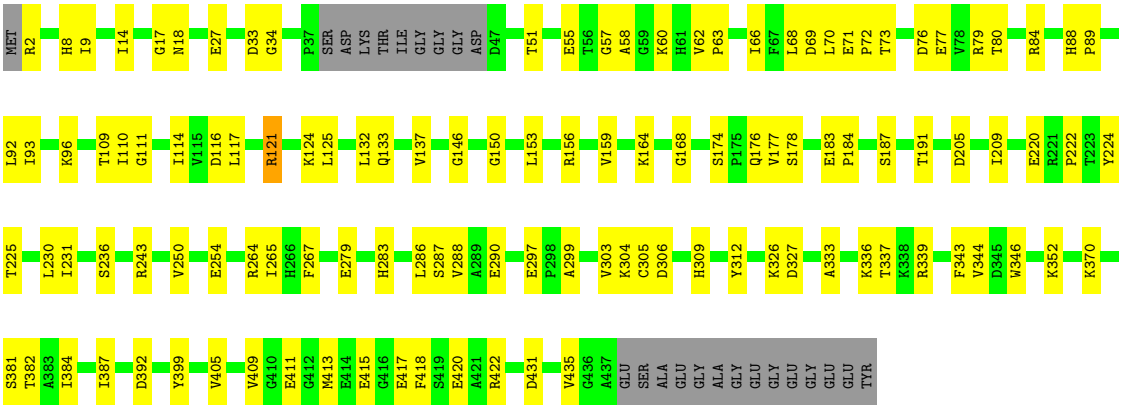
• Molecule 2: Tubulin alpha

Chain M3:



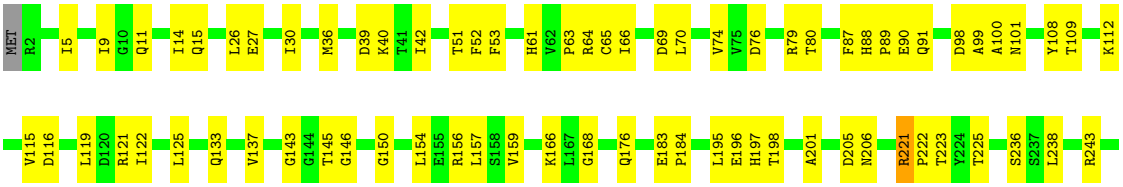
• Molecule 2: Tubulin alpha

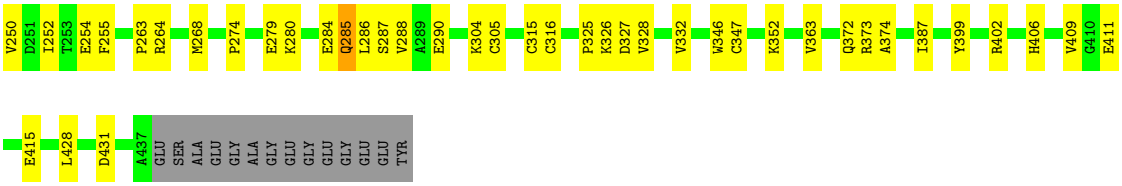
Chain M5:



• Molecule 2: Tubulin alpha

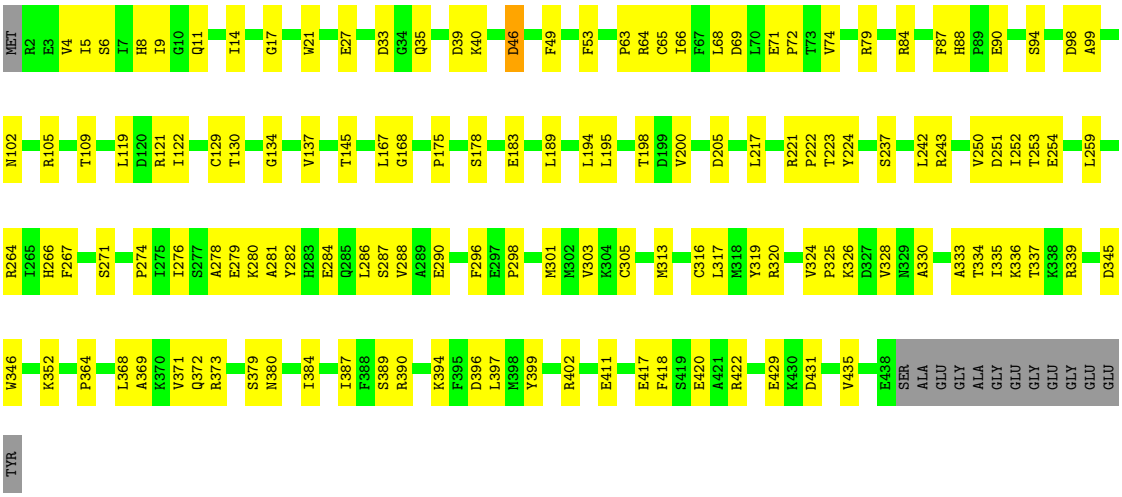
Chain M7:





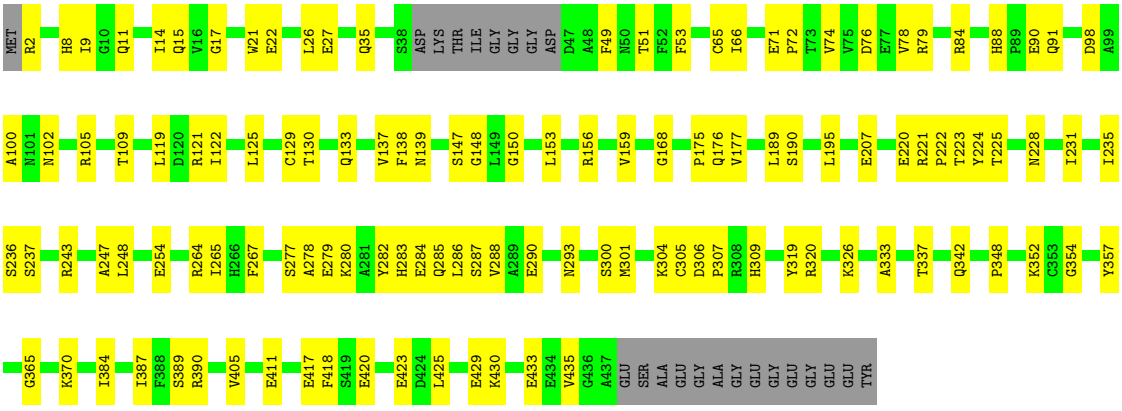
• Molecule 2: Tubulin alpha

Chain M9:



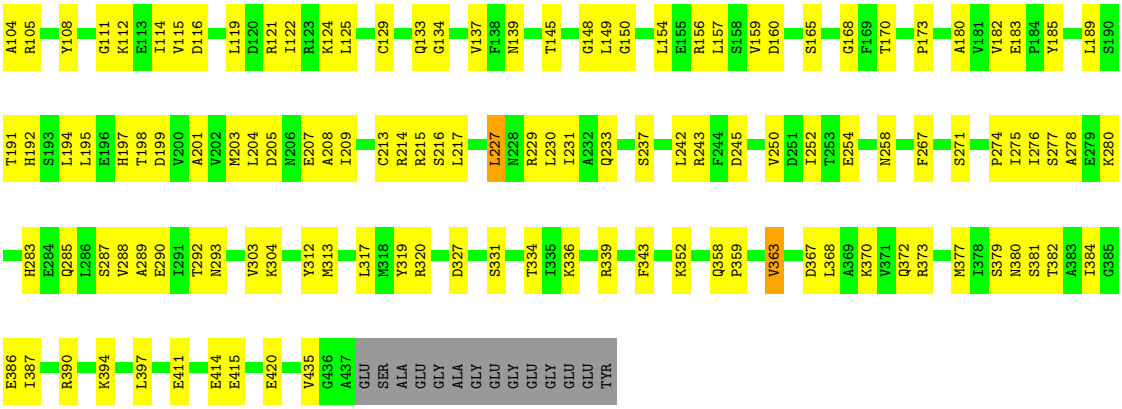
• Molecule 2: Tubulin alpha

Chain N1:



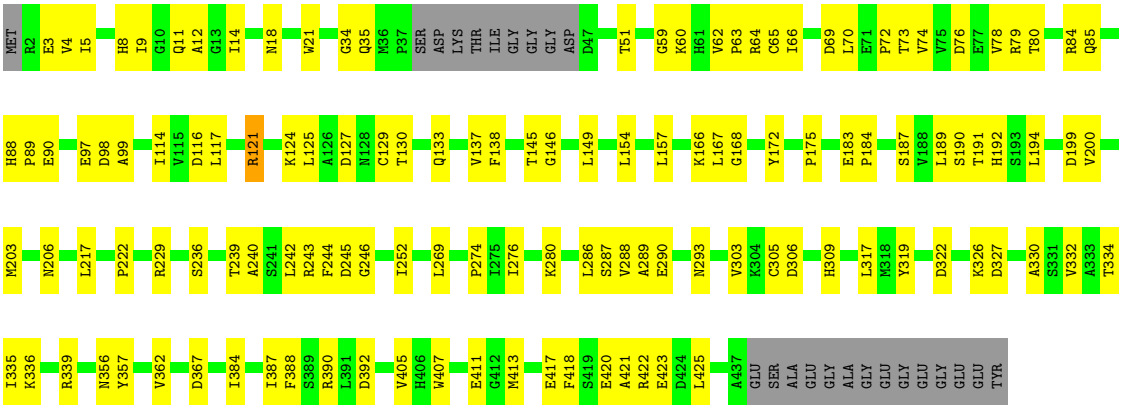
• Molecule 2: Tubulin alpha

Chain N3:



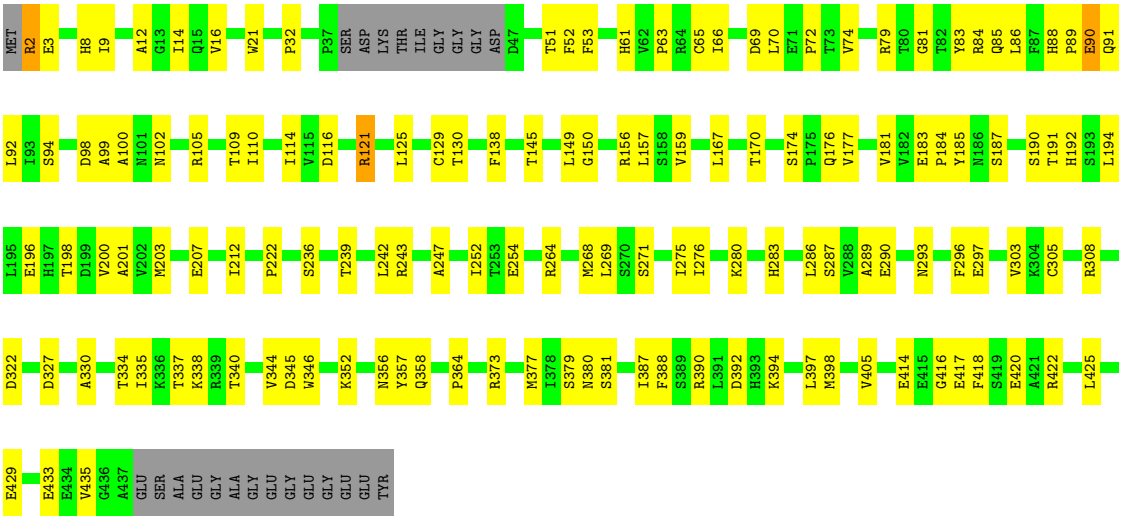
• Molecule 2: Tubulin alpha

Chain N5:



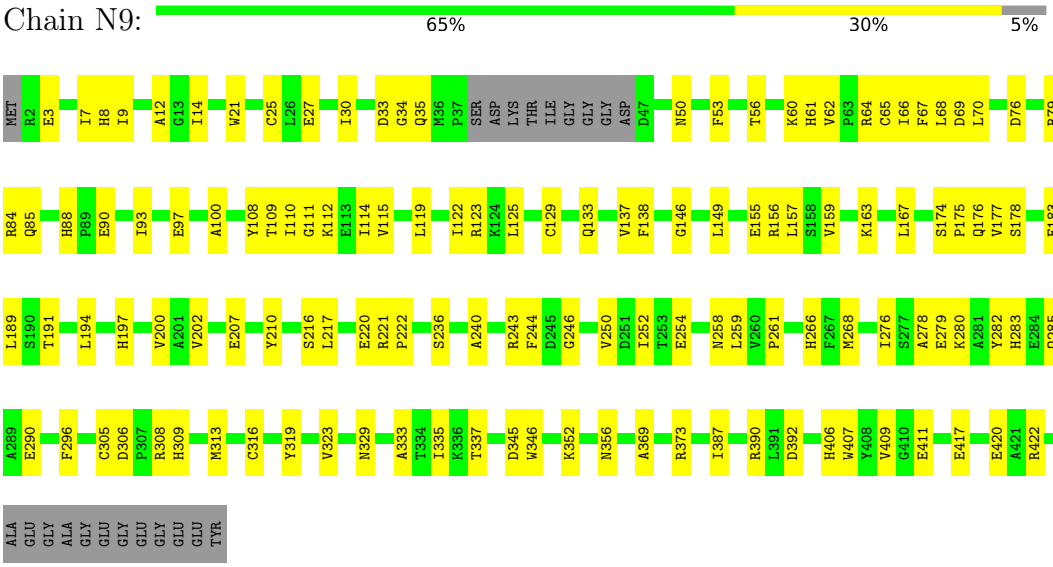
• Molecule 2: Tubulin alpha

Chain N7:



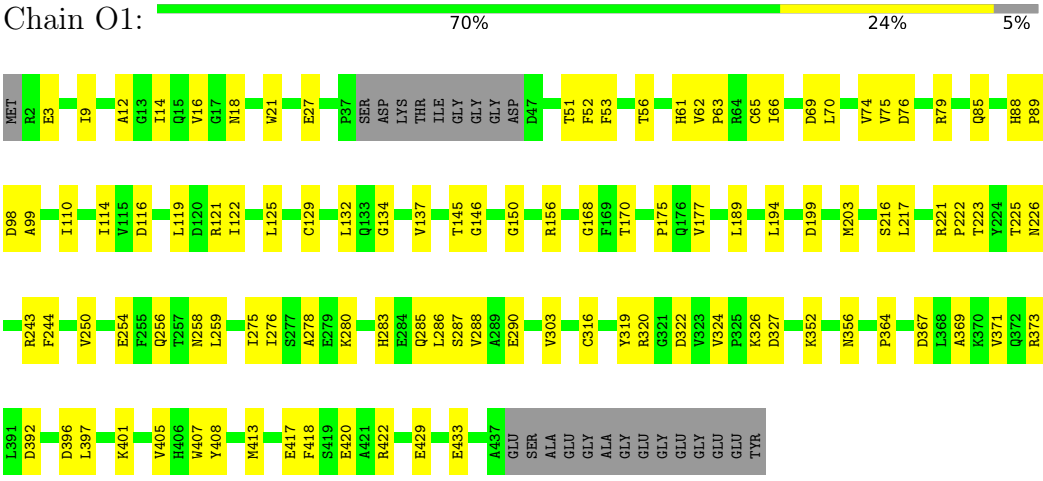
• Molecule 2: Tubulin alpha

Chain N9:



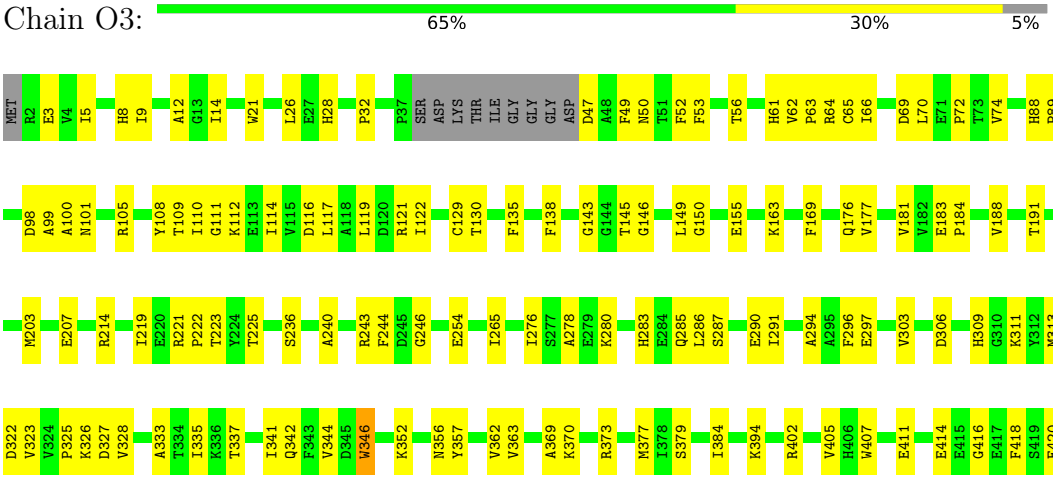
• Molecule 2: Tubulin alpha

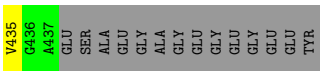
Chain O1:



• Molecule 2: Tubulin alpha

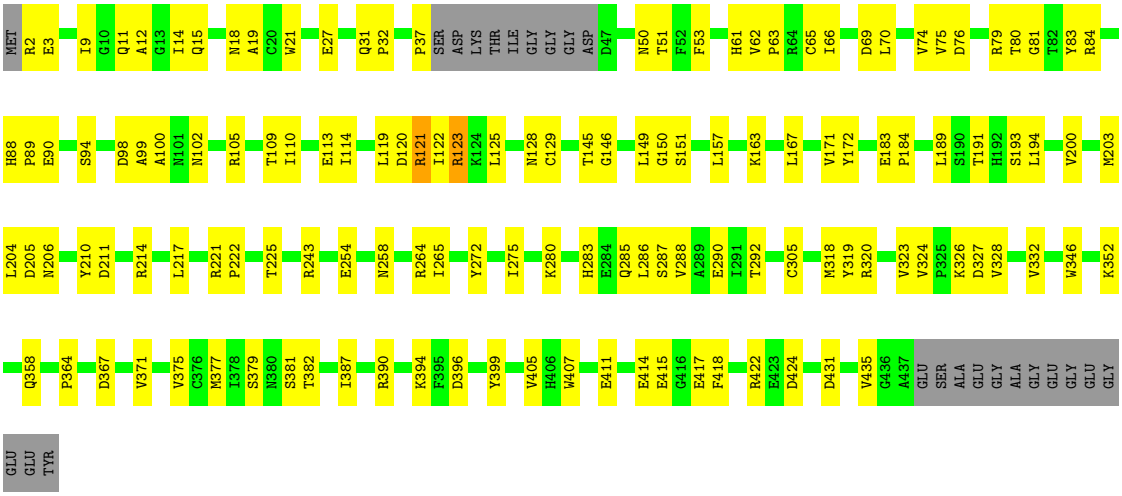
Chain O3:





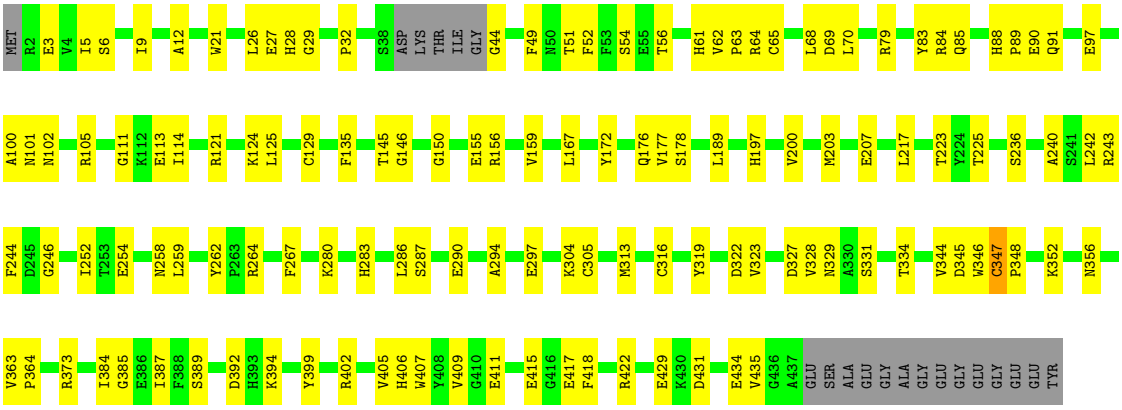
• Molecule 2: Tubulin alpha

Chain O5:



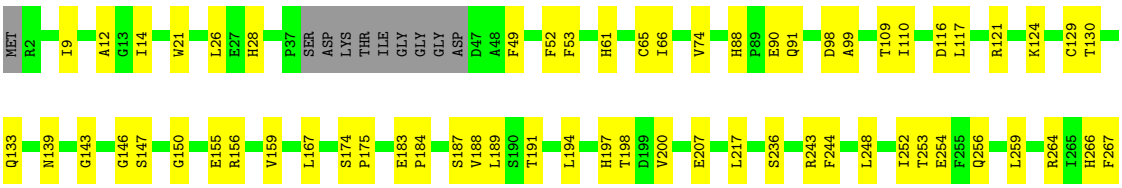
• Molecule 2: Tubulin alpha

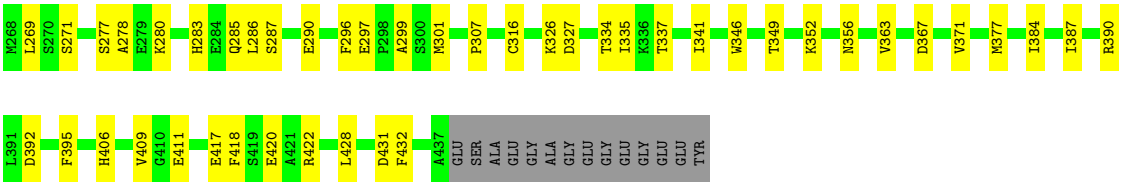
Chain O7:



• Molecule 2: Tubulin alpha

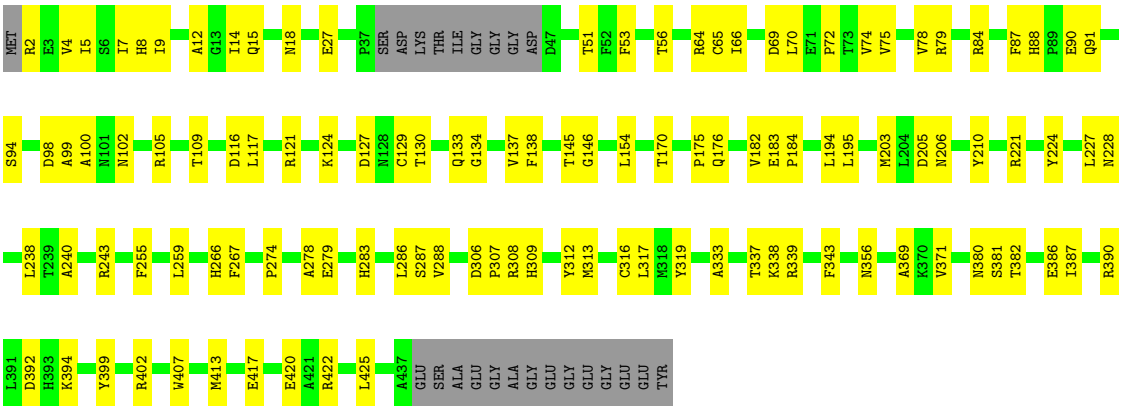
Chain O9:





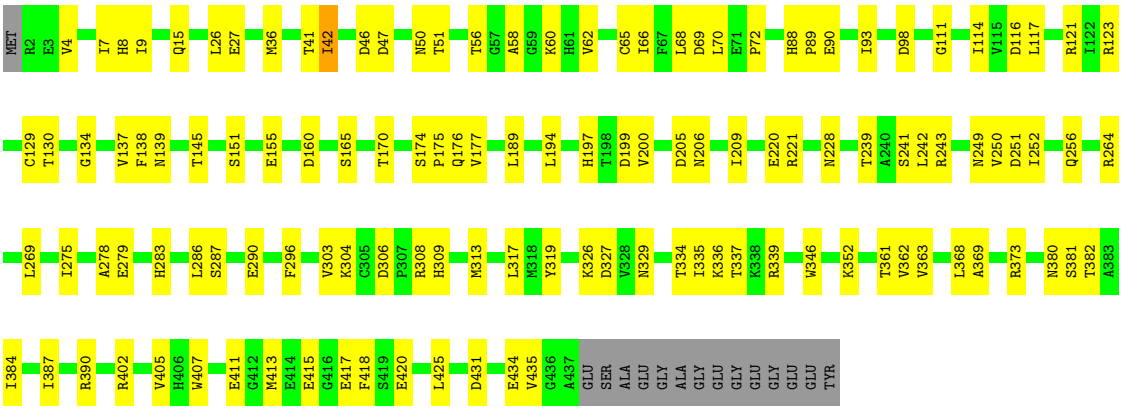
• Molecule 2: Tubulin alpha

Chain P3:



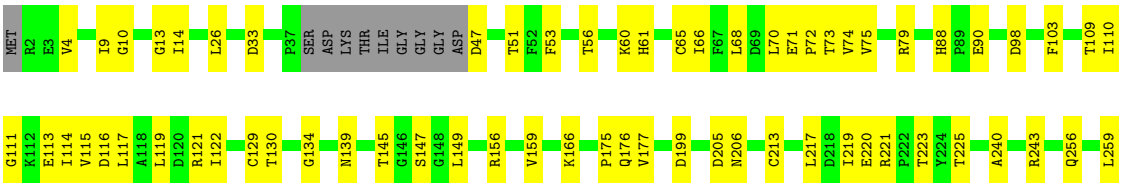
• Molecule 2: Tubulin alpha

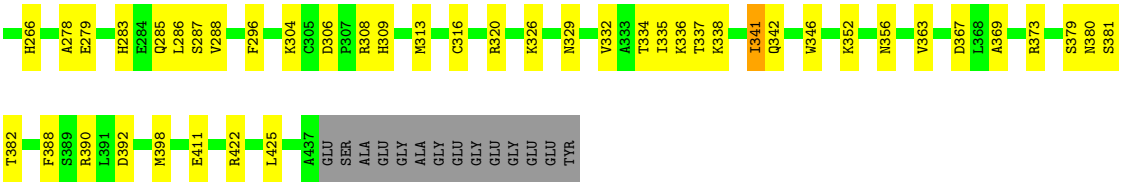
Chain P5:



• Molecule 2: Tubulin alpha

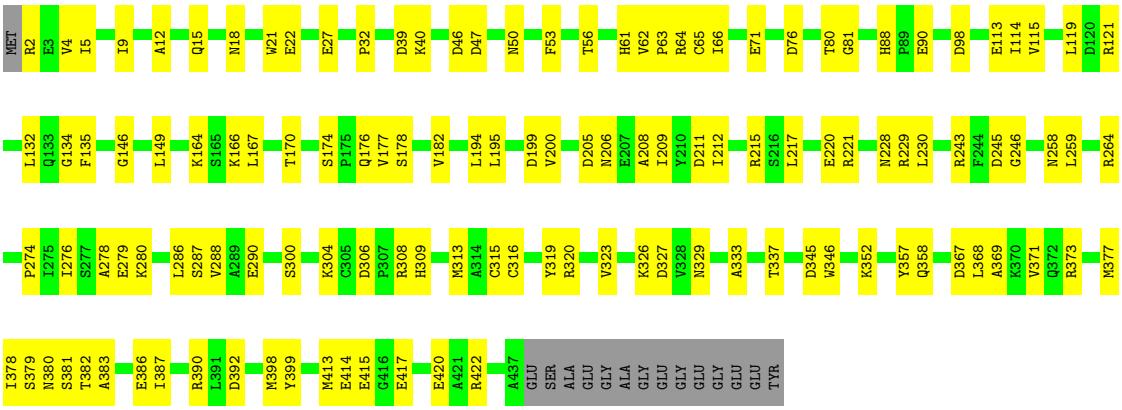
Chain P7:





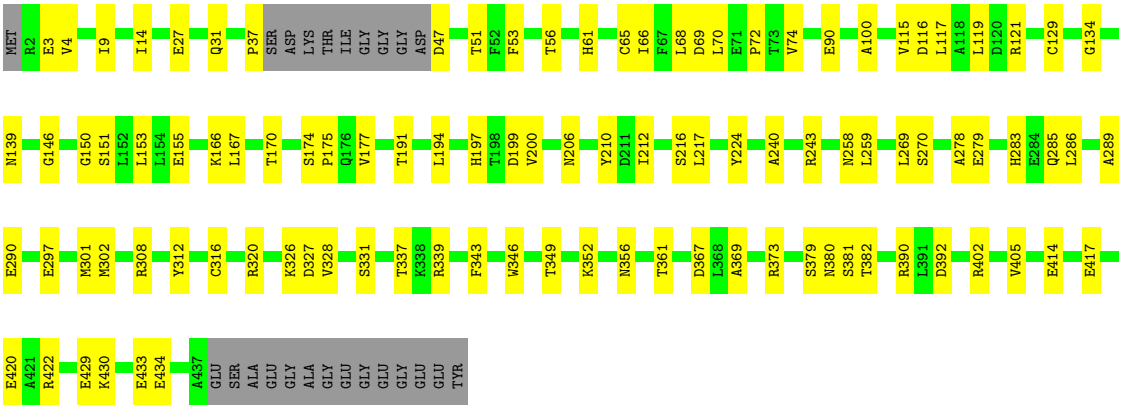
• Molecule 2: Tubulin alpha

Chain P9:



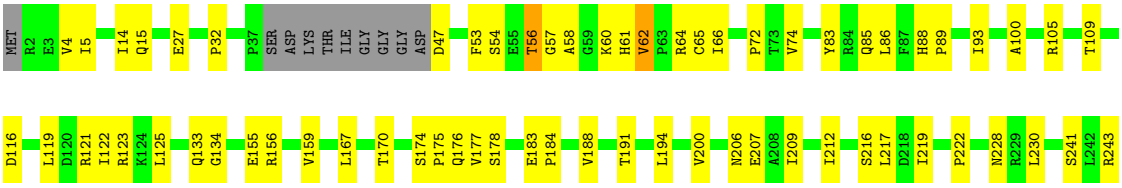
• Molecule 2: Tubulin alpha

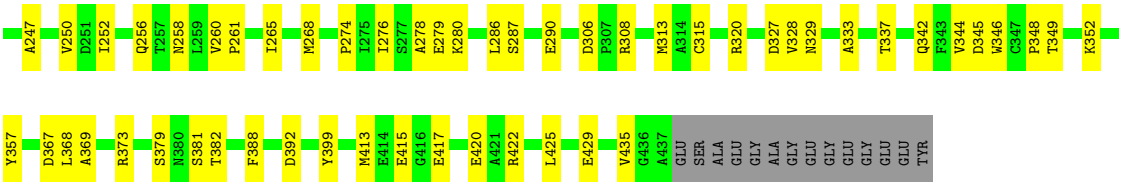
Chain Q1:



• Molecule 2: Tubulin alpha

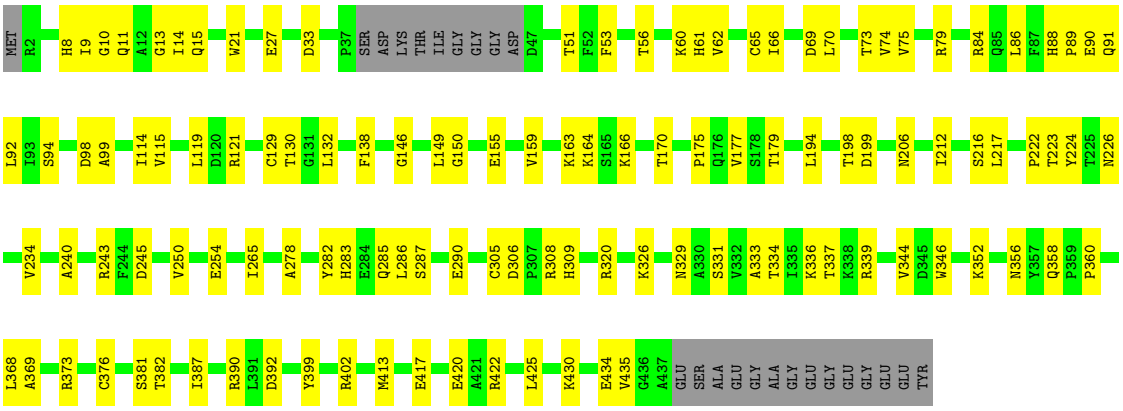
Chain Q3:





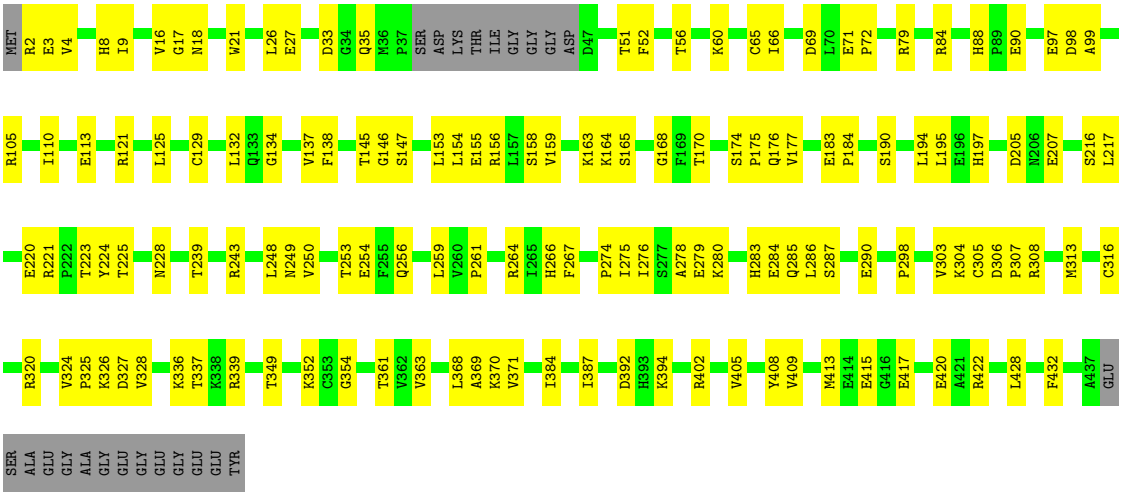
• Molecule 2: Tubulin alpha

Chain Q5:



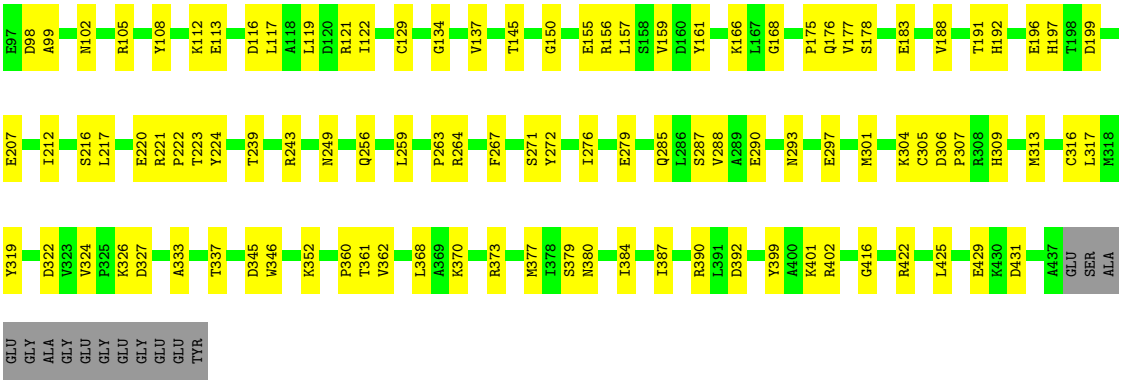
• Molecule 2: Tubulin alpha

Chain Q9:



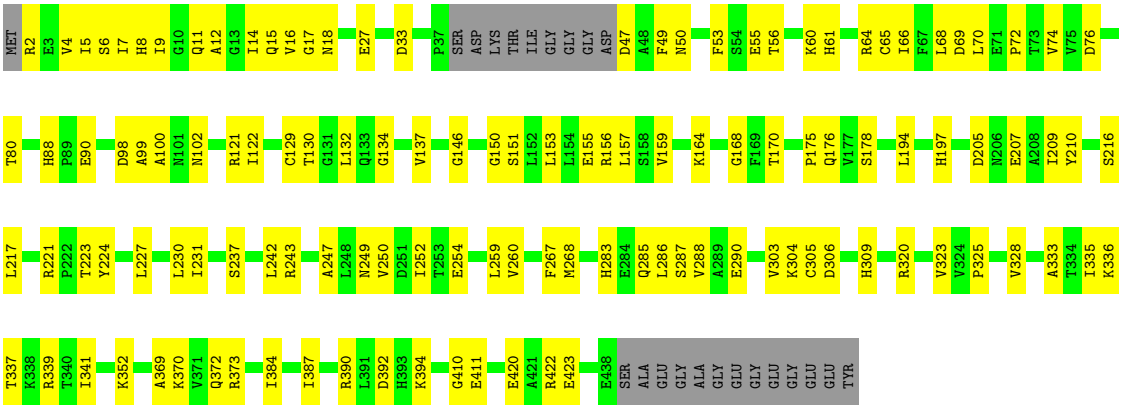
• Molecule 2: Tubulin alpha

Chain R1:



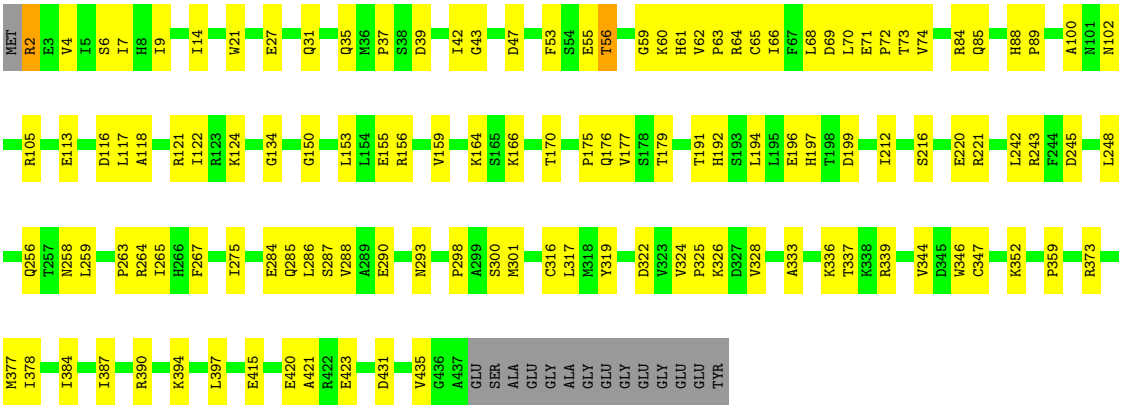
• Molecule 2: Tubulin alpha

Chain R3:



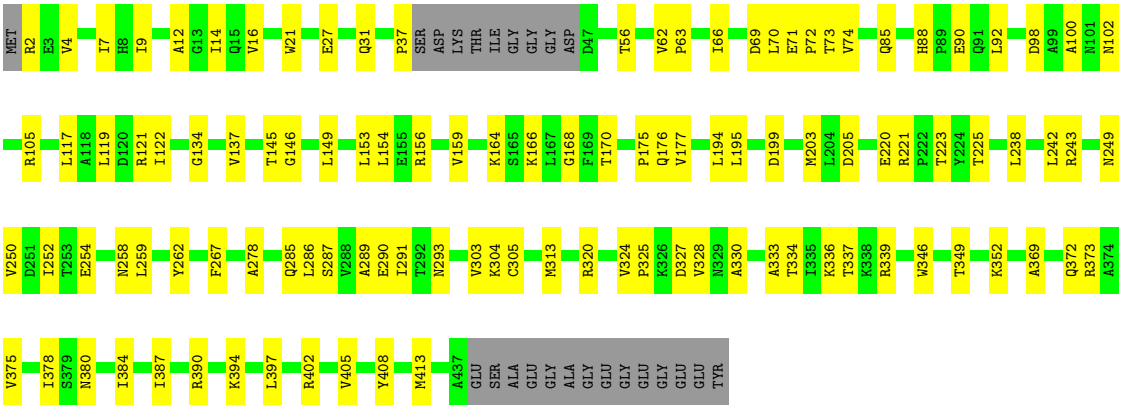
• Molecule 2: Tubulin alpha

Chain R5:



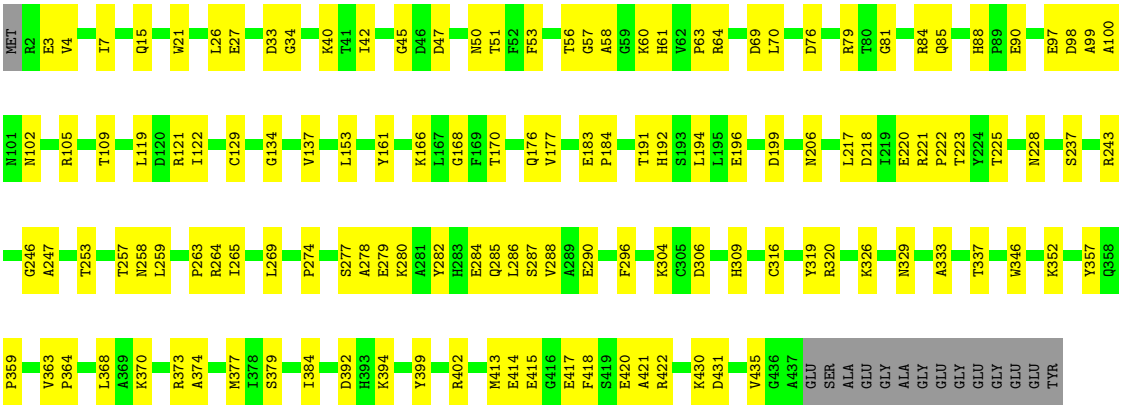
• Molecule 2: Tubulin alpha

Chain R7:



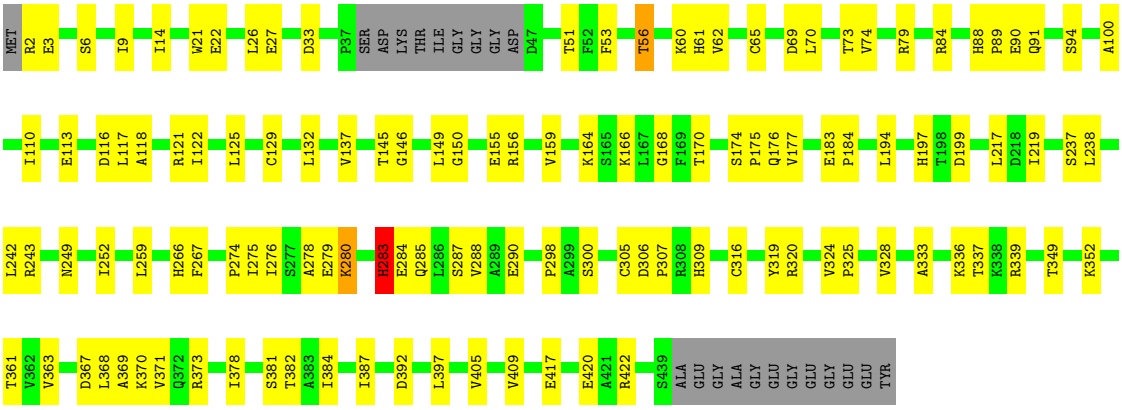
• Molecule 2: Tubulin alpha

Chain R9:



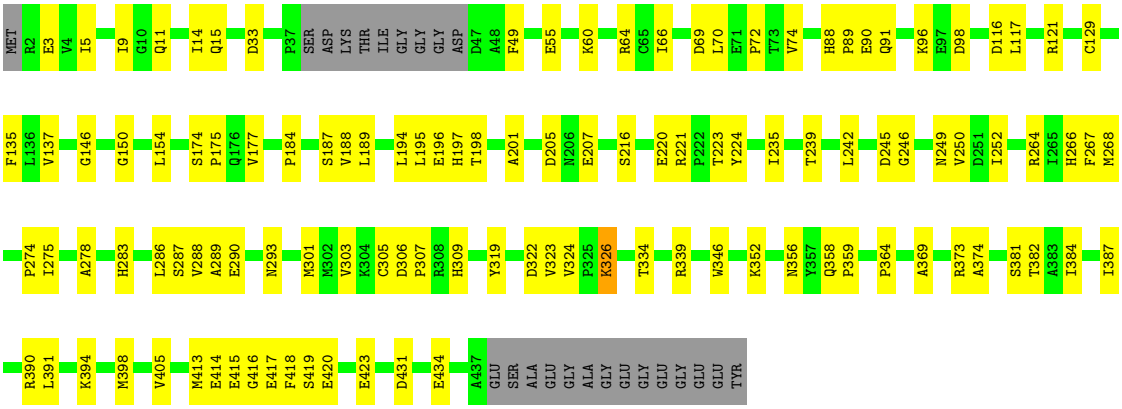
• Molecule 2: Tubulin alpha

Chain S1:



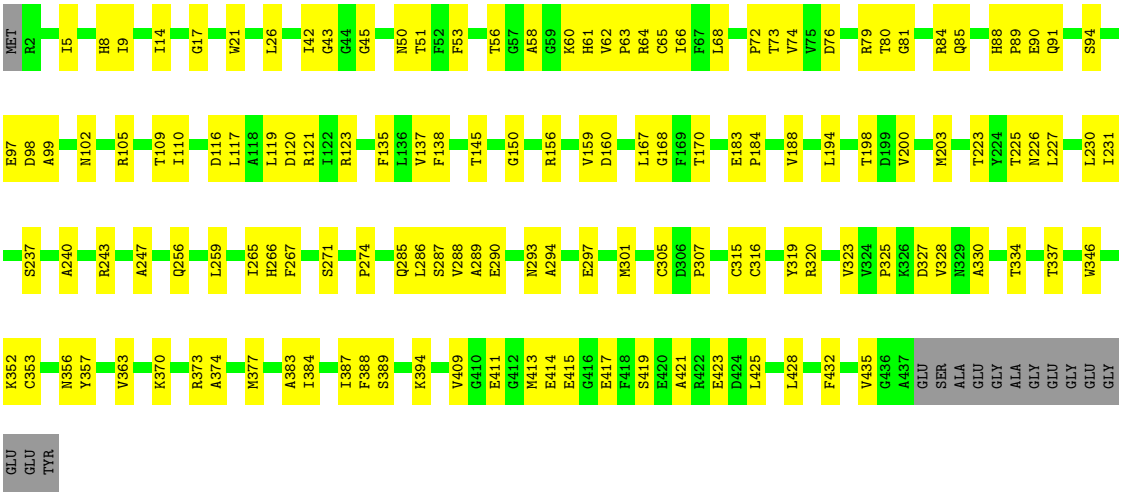
• Molecule 2: Tubulin alpha

Chain S5:



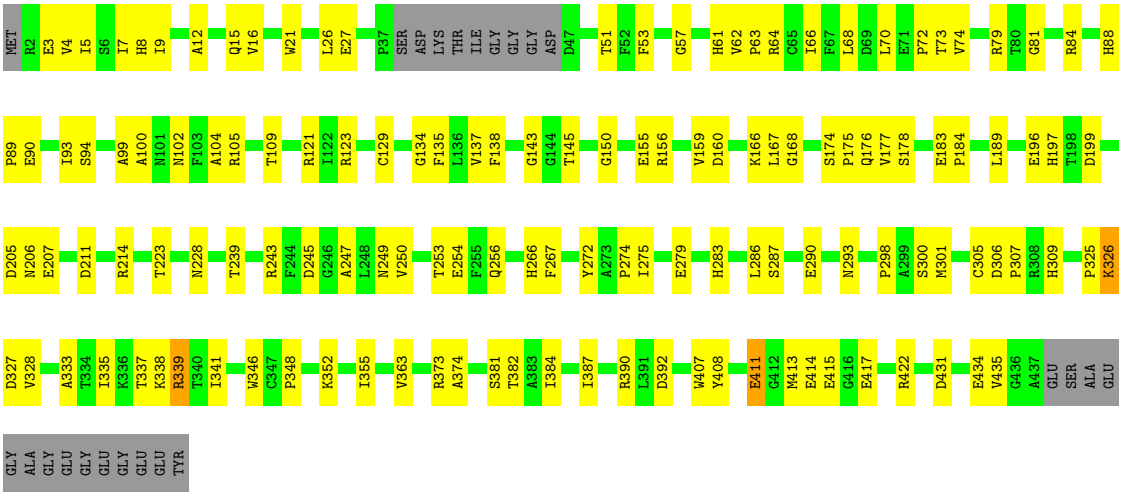
• Molecule 2: Tubulin alpha

Chain S7:



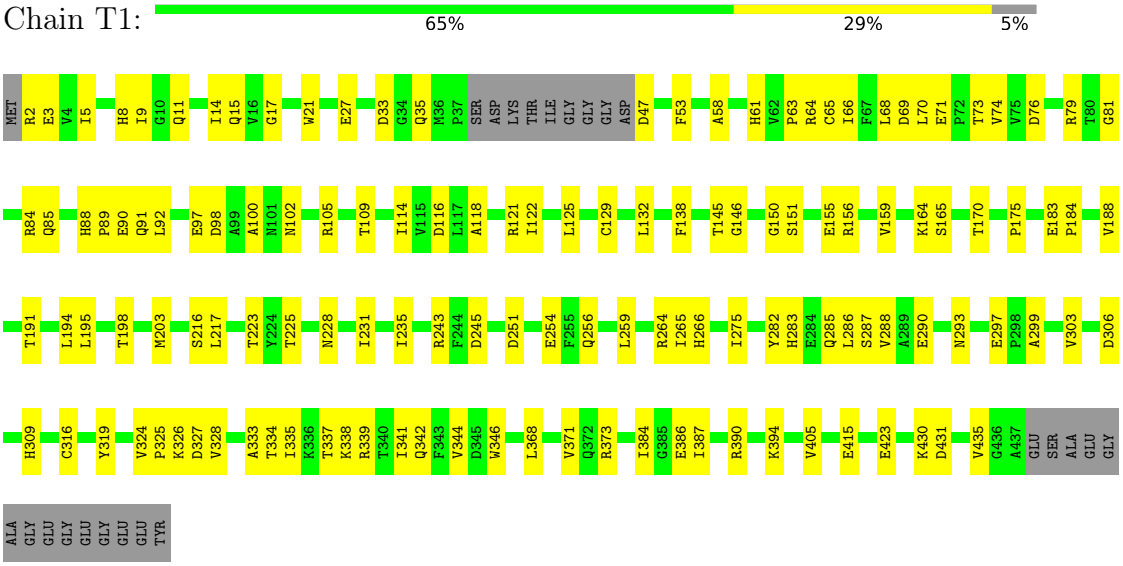
• Molecule 2: Tubulin alpha

Chain S9:



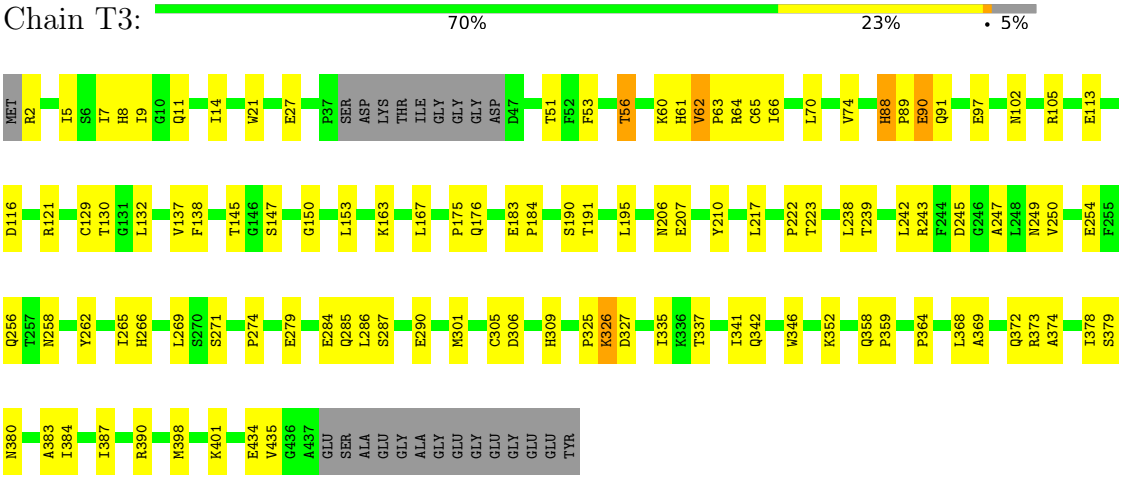
• Molecule 2: Tubulin alpha

Chain T1:



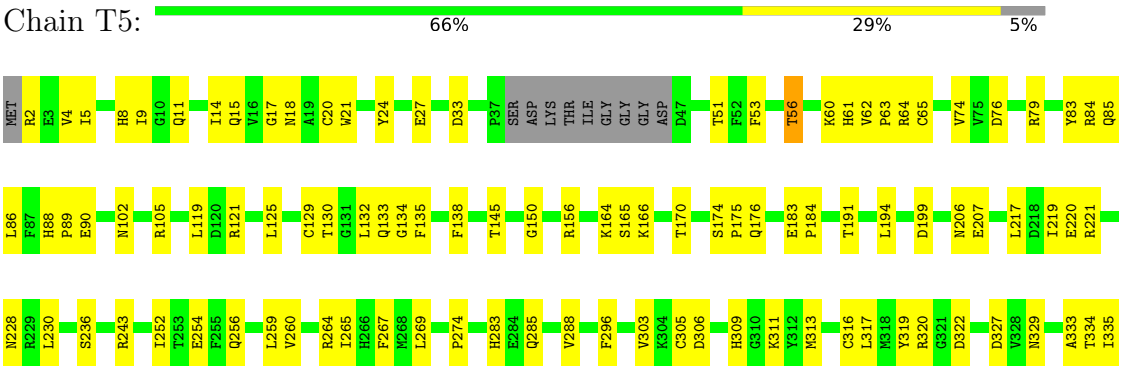
• Molecule 2: Tubulin alpha

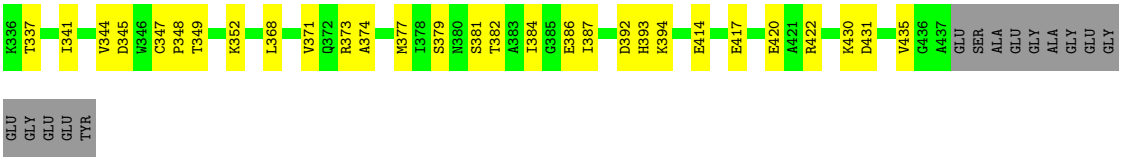
Chain T3:



• Molecule 2: Tubulin alpha

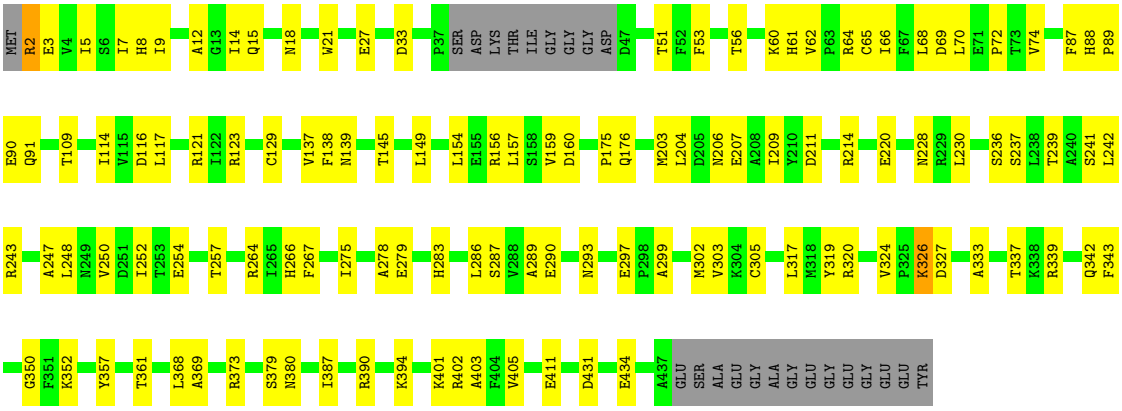
Chain T5:





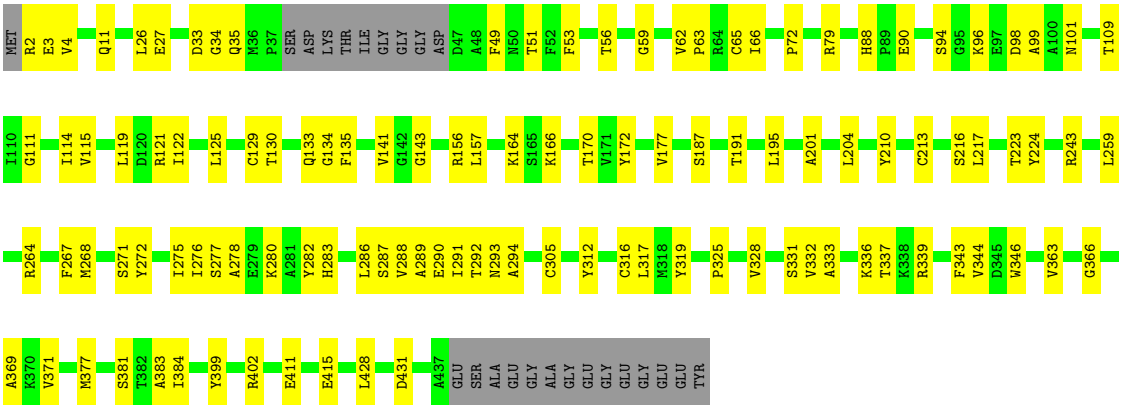
• Molecule 2: Tubulin alpha

Chain T7:



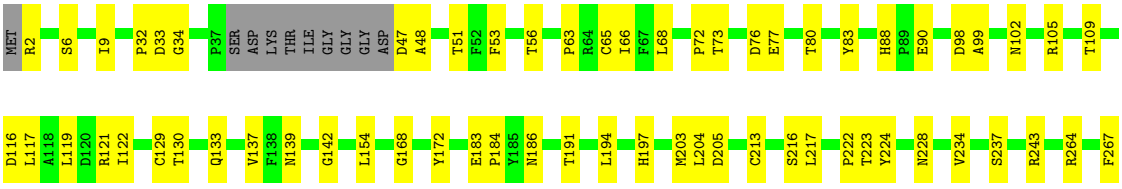
• Molecule 2: Tubulin alpha

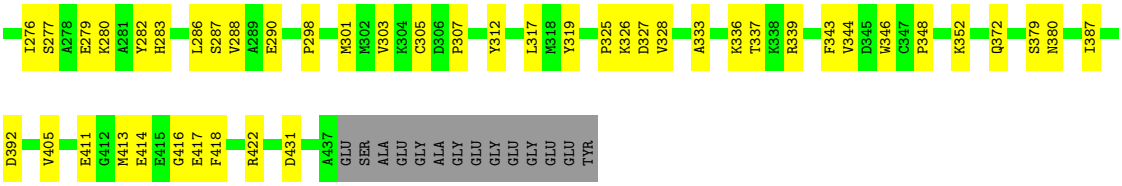
Chain U1:



• Molecule 2: Tubulin alpha

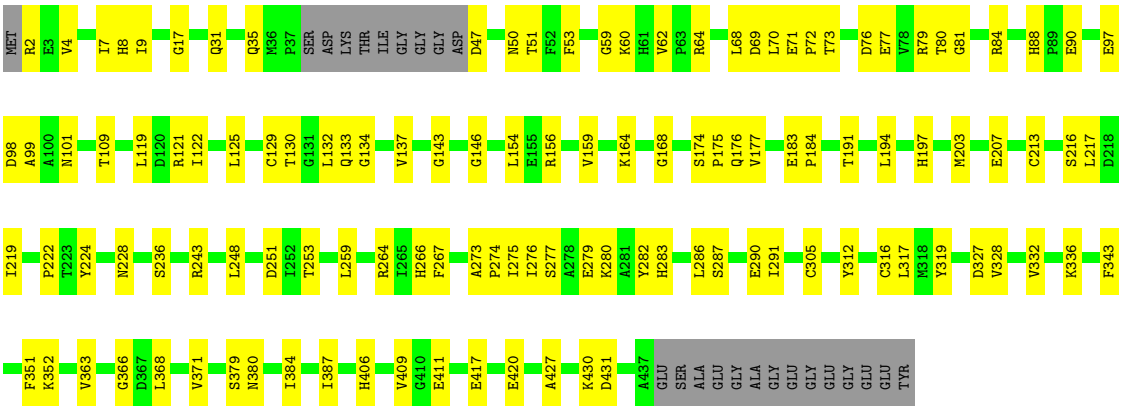
Chain U3:





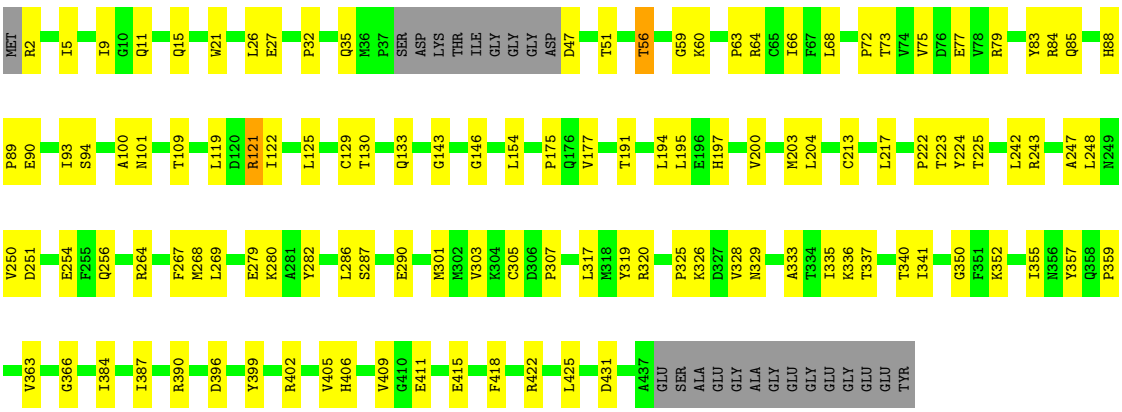
• Molecule 2: Tubulin alpha

Chain U5:



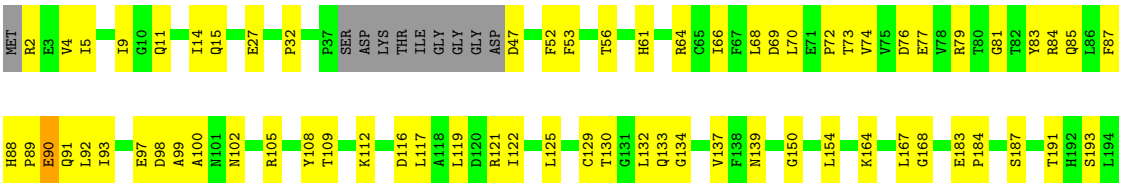
• Molecule 2: Tubulin alpha

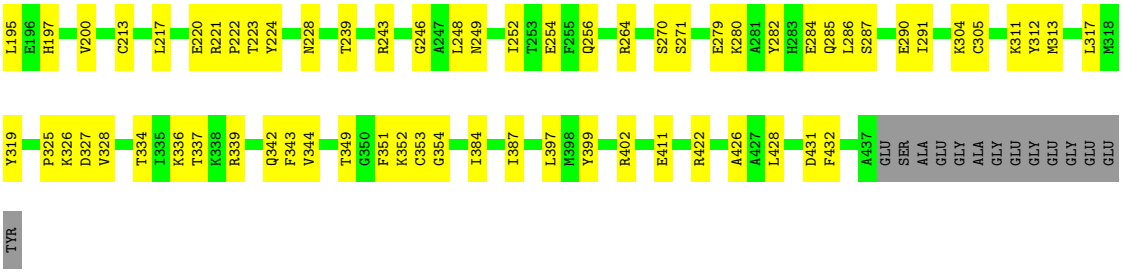
Chain U7:



• Molecule 2: Tubulin alpha

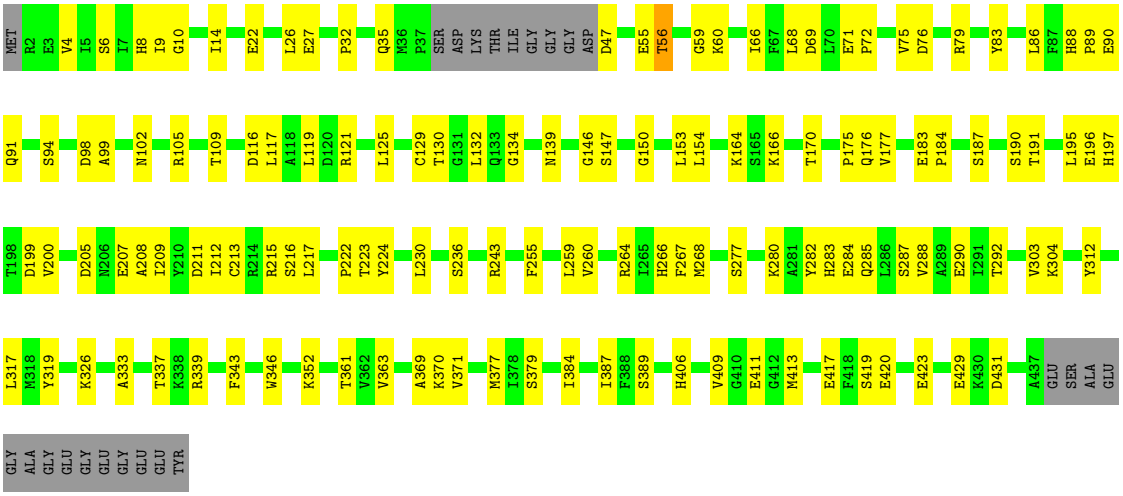
Chain U9:





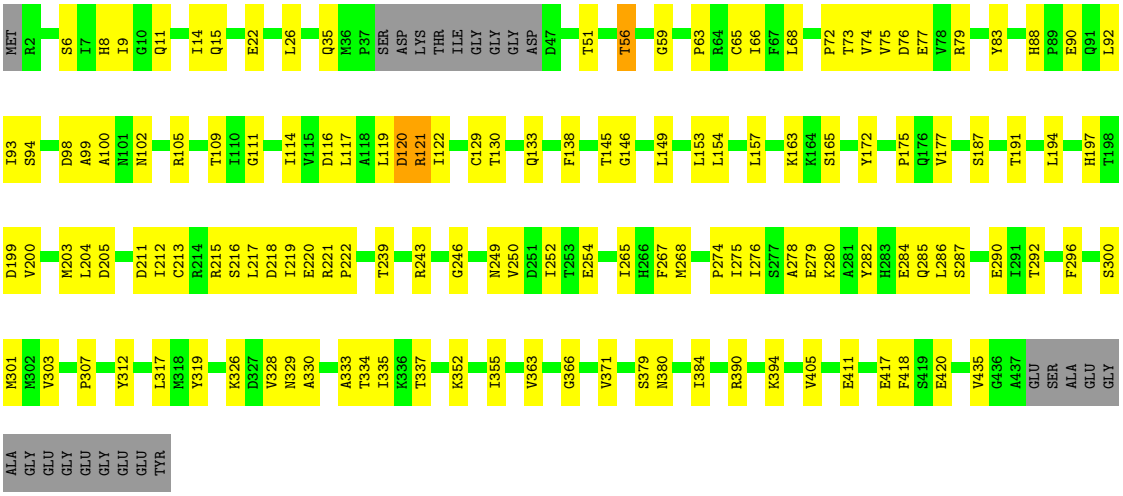
• Molecule 2: Tubulin alpha

Chain V1:



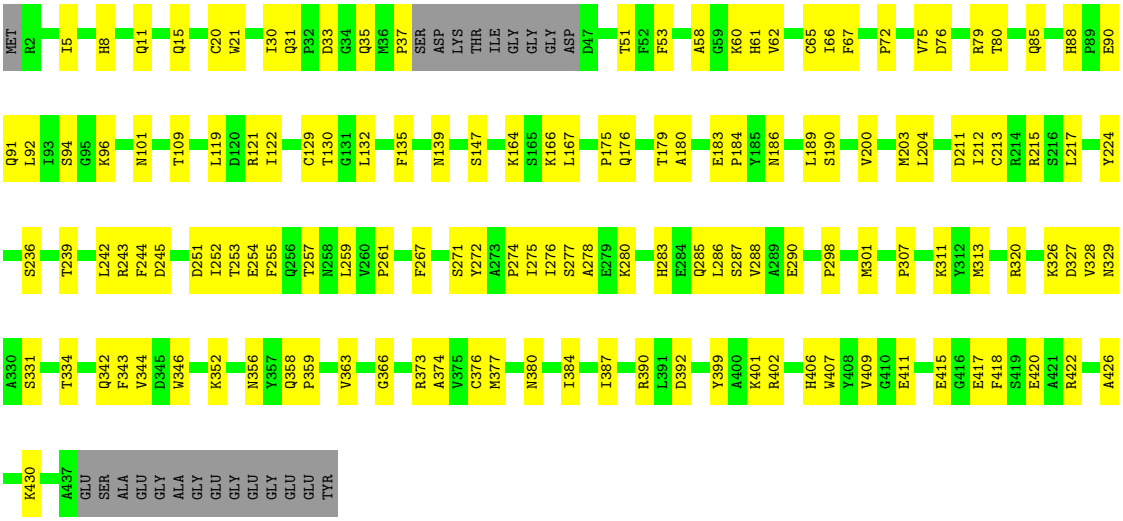
• Molecule 2: Tubulin alpha

Chain V3:



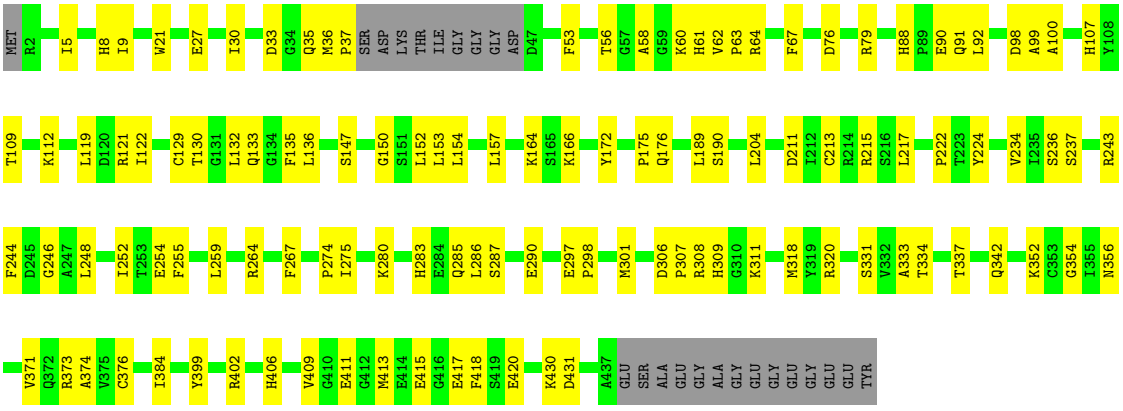
• Molecule 2: Tubulin alpha

Chain V7:



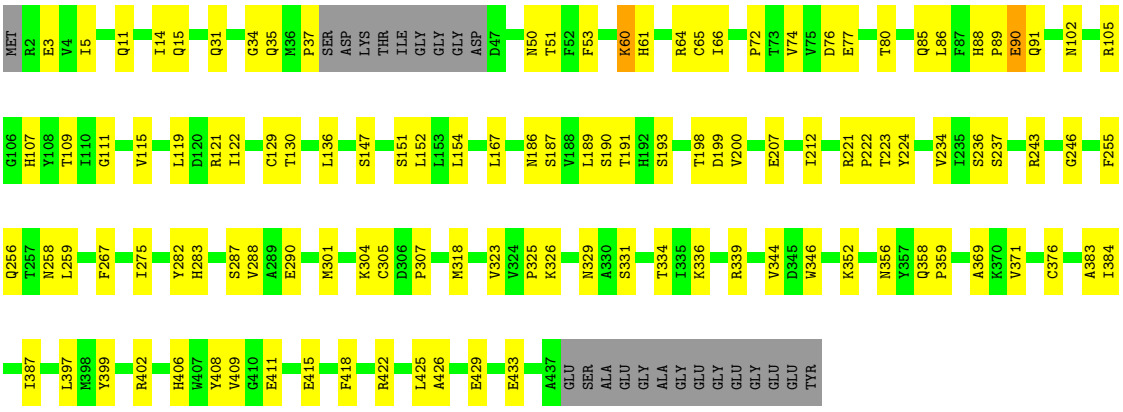
• Molecule 2: Tubulin alpha

Chain V9:



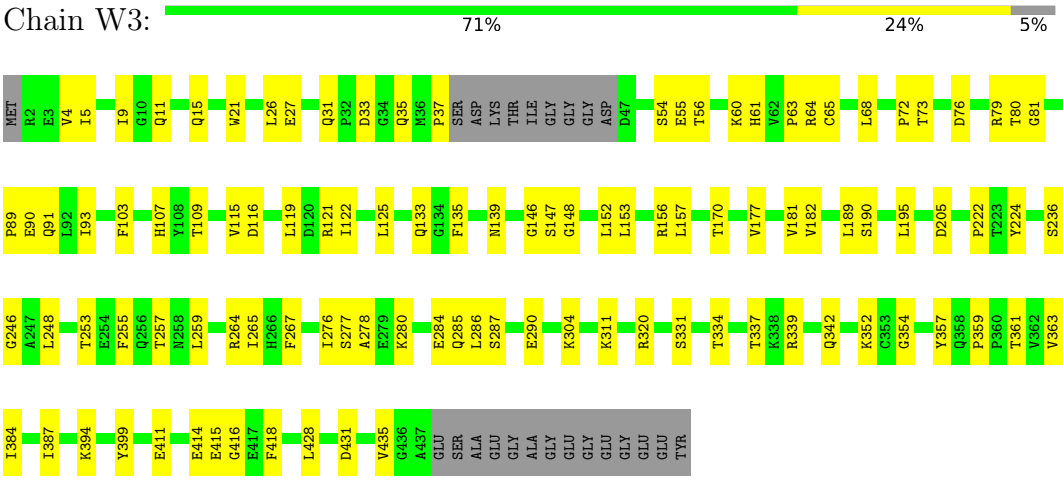
• Molecule 2: Tubulin alpha

Chain W1:



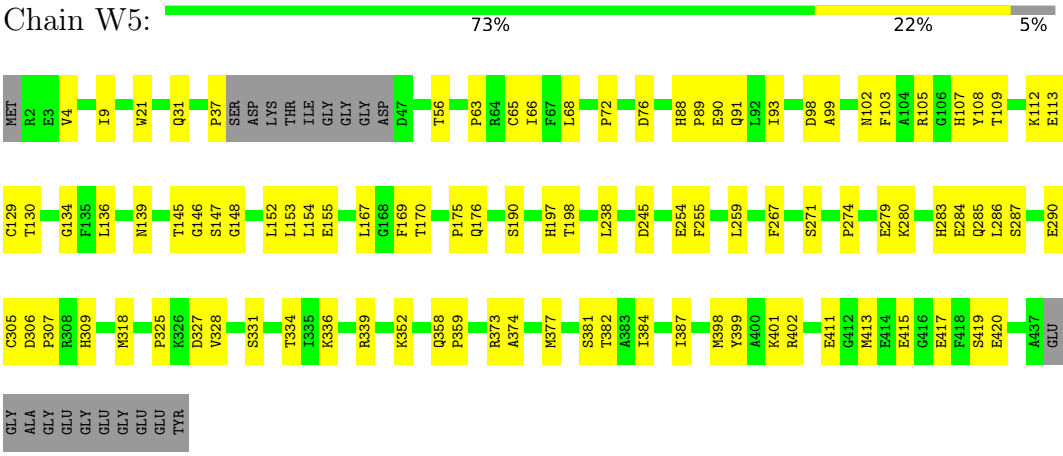
• Molecule 2: Tubulin alpha

Chain W3:



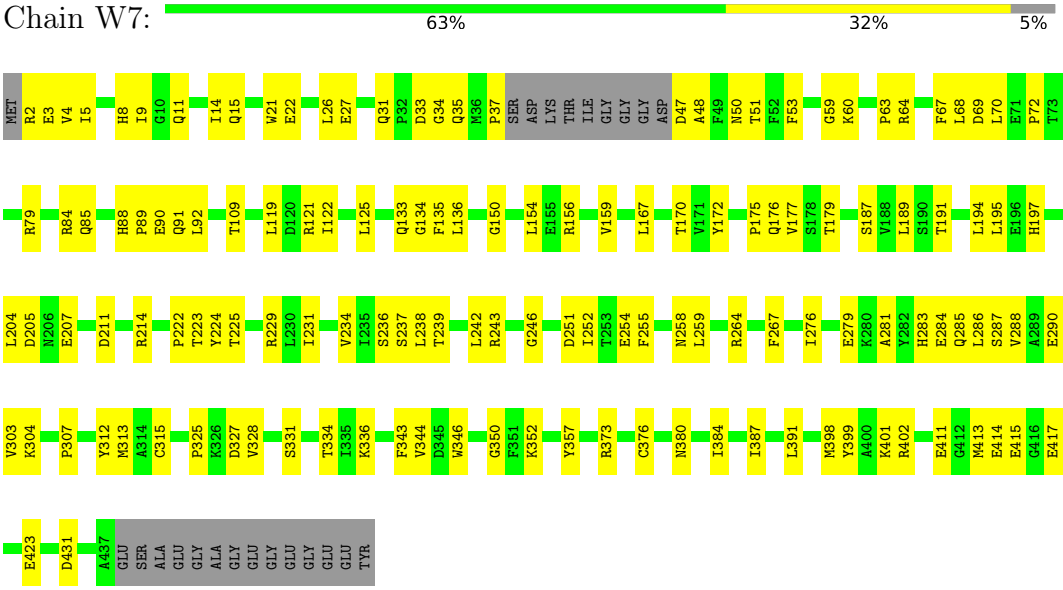
• Molecule 2: Tubulin alpha

Chain W5:



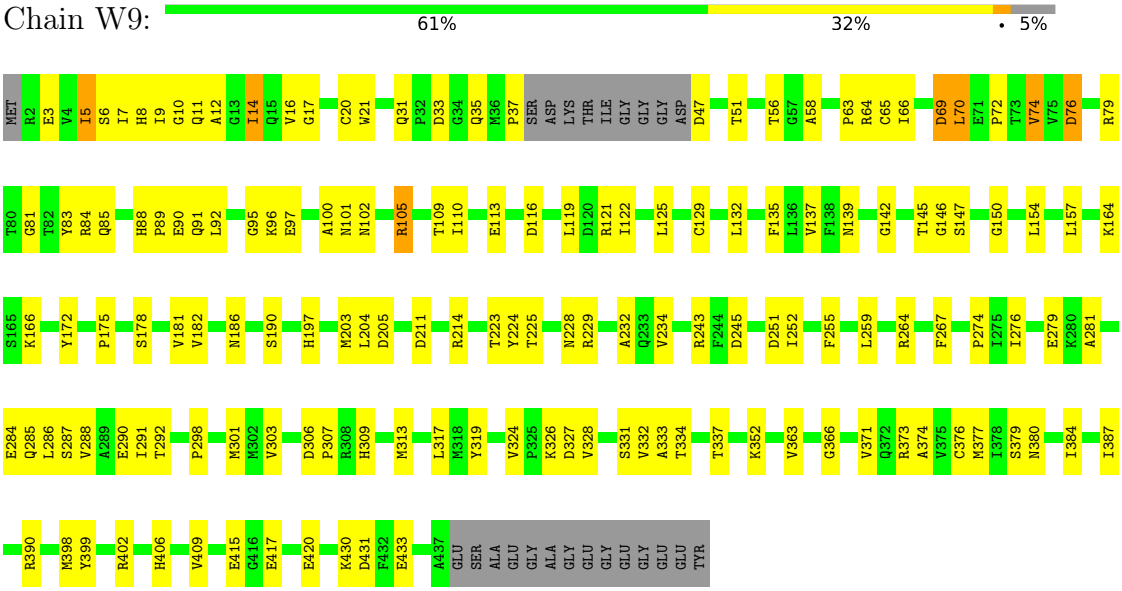
• Molecule 2: Tubulin alpha

Chain W7:



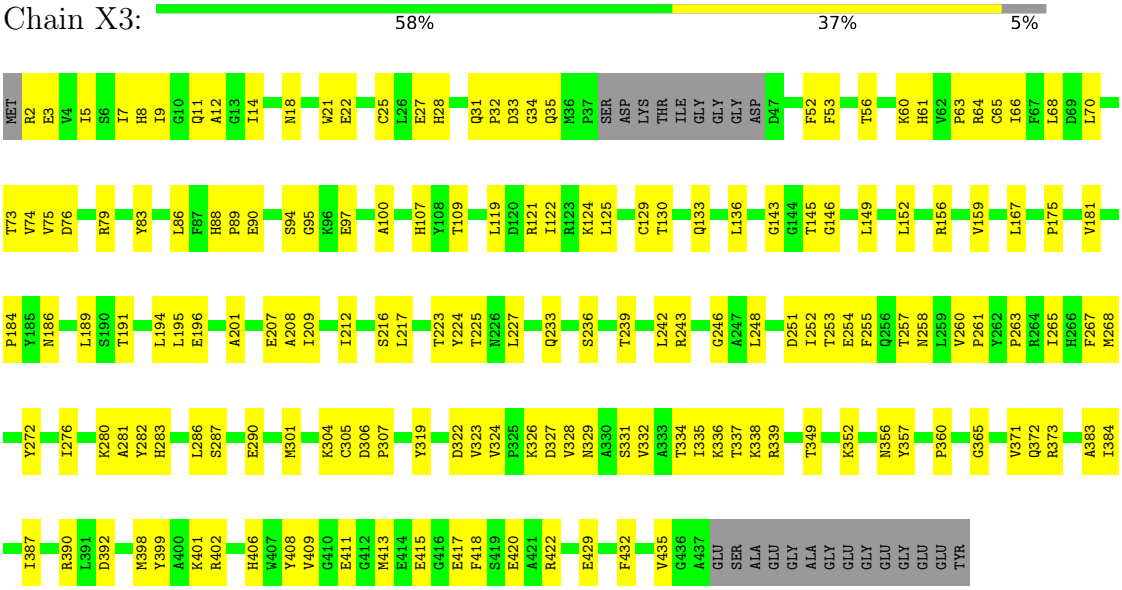
• Molecule 2: Tubulin alpha

Chain W9:



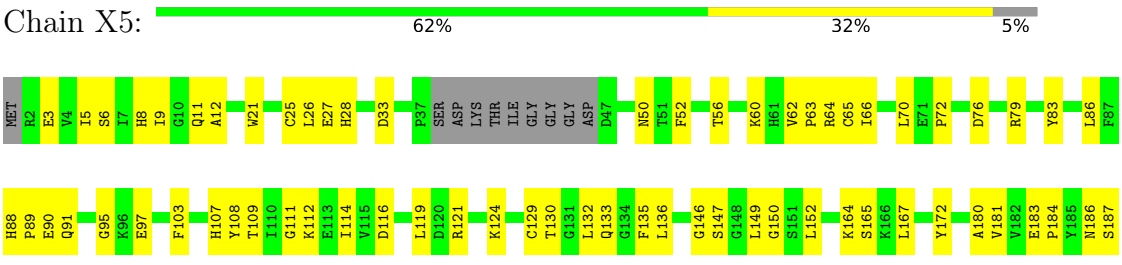
• Molecule 2: Tubulin alpha

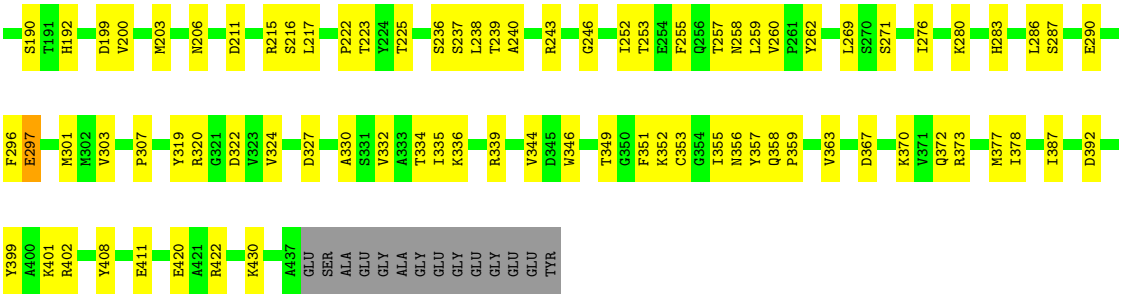
Chain X3:



• Molecule 2: Tubulin alpha

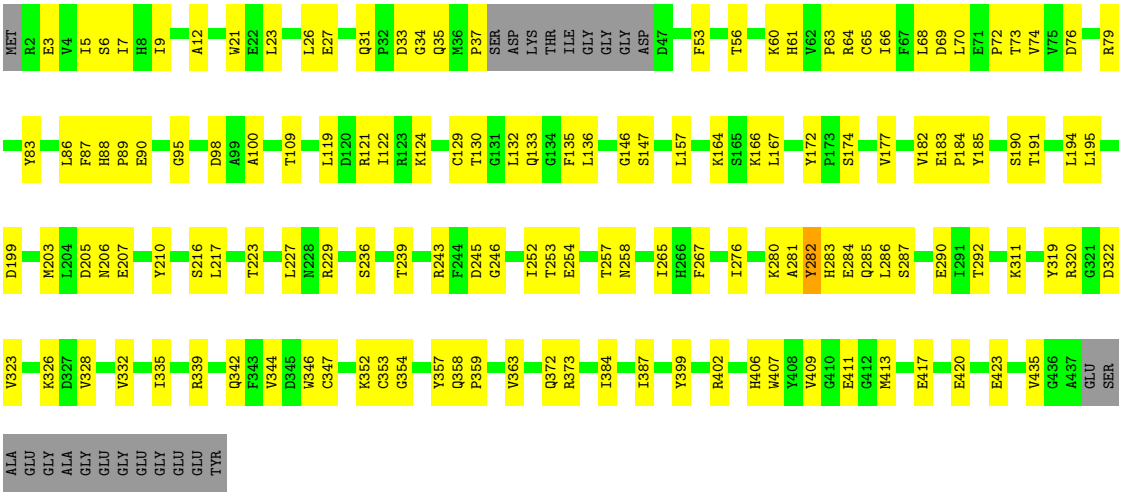
Chain X5:





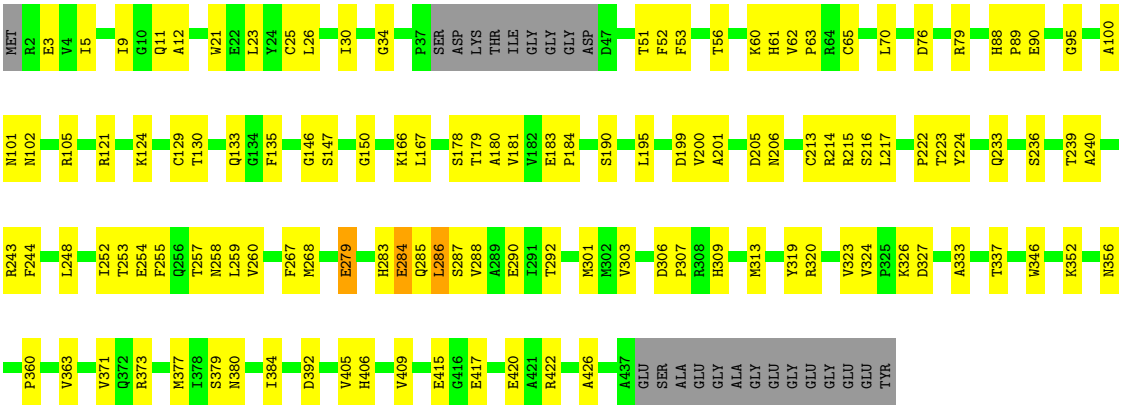
• Molecule 2: Tubulin alpha

Chain X7:



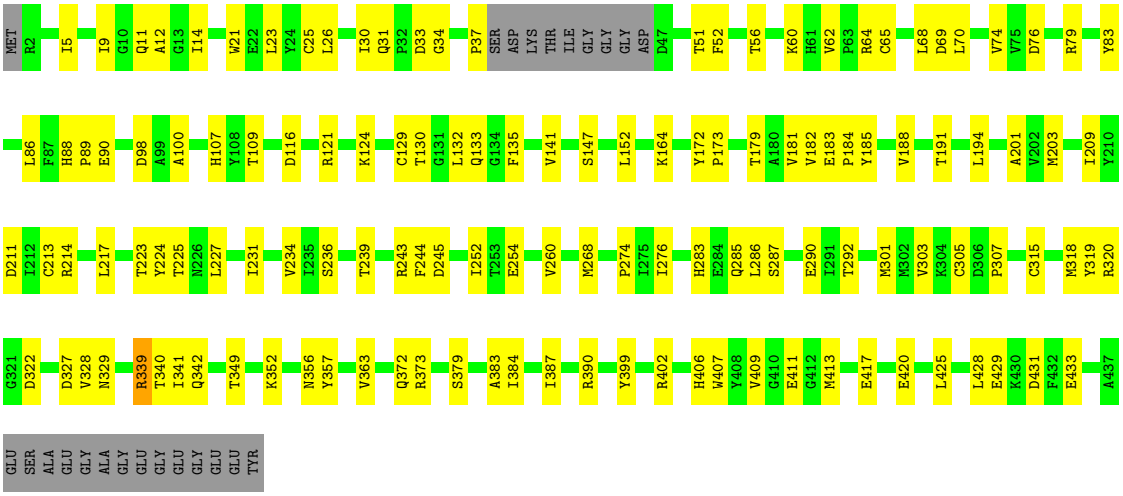
• Molecule 2: Tubulin alpha

Chain X9:



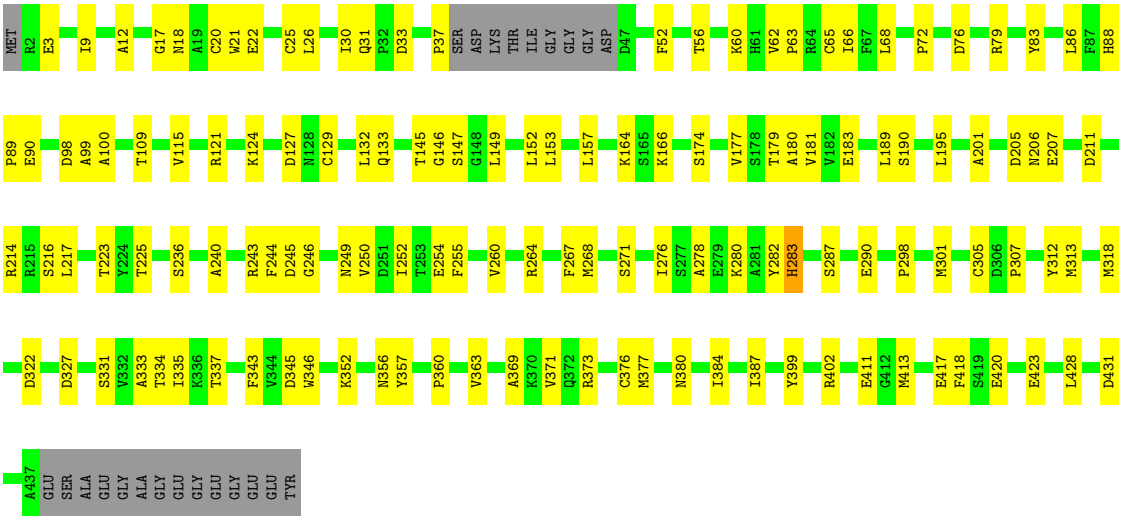
• Molecule 2: Tubulin alpha

Chain Y1:



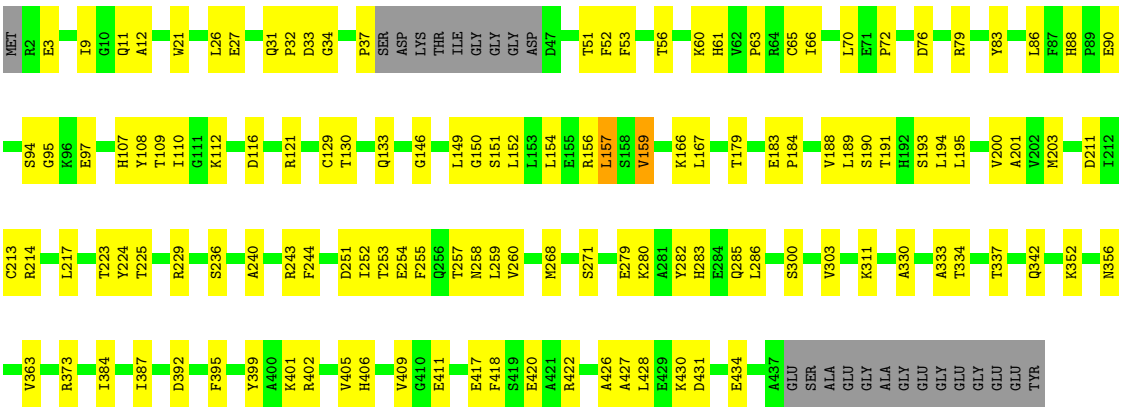
• Molecule 2: Tubulin alpha

Chain Y3:



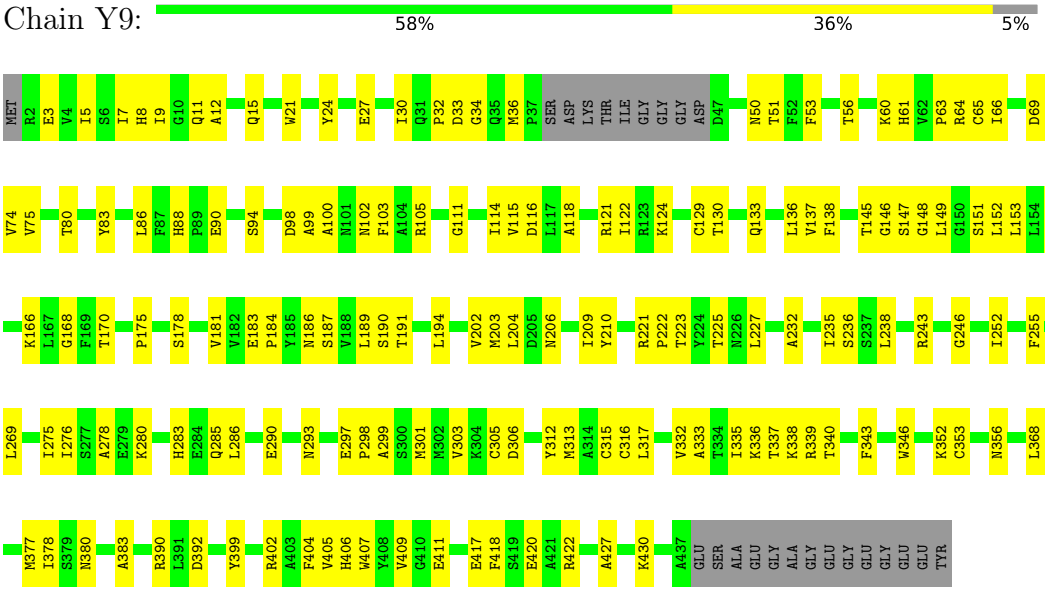
• Molecule 2: Tubulin alpha

Chain Y5:



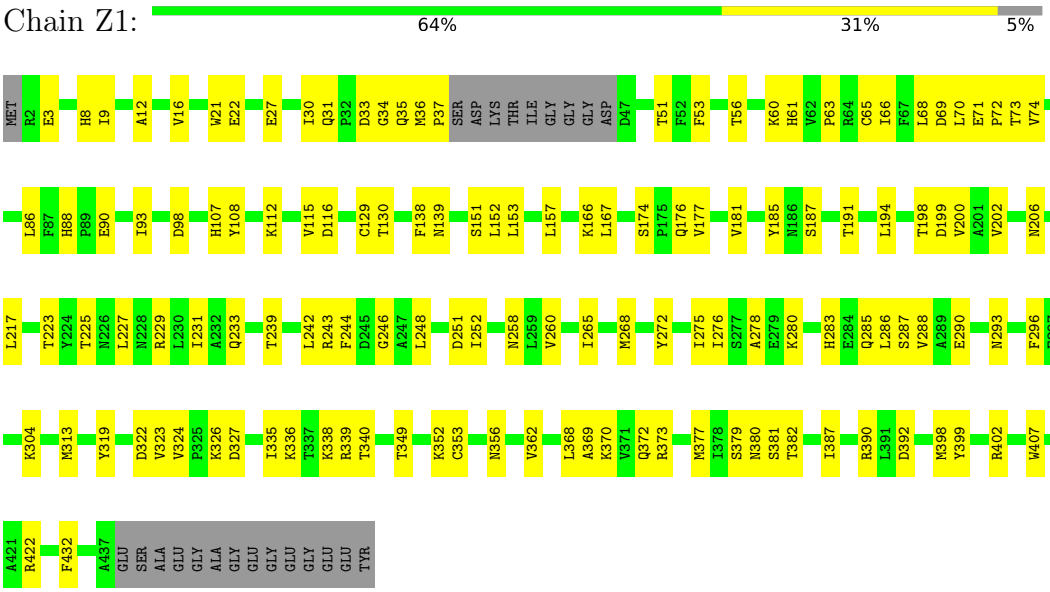
• Molecule 2: Tubulin alpha

Chain Y9:



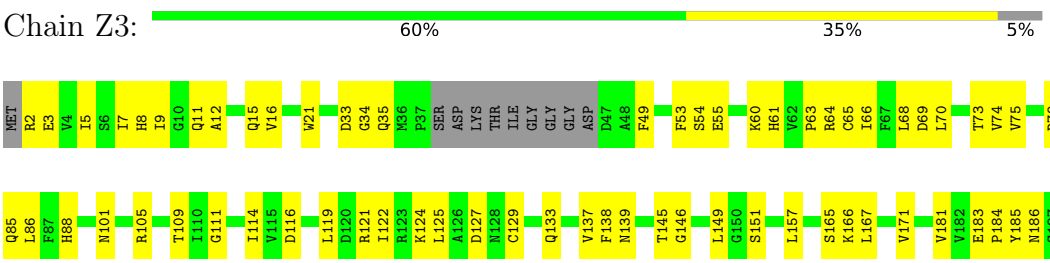
• Molecule 2: Tubulin alpha

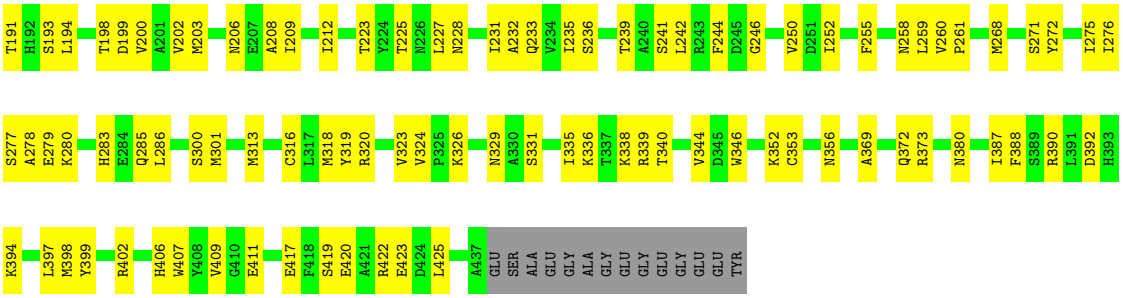
Chain Z1:



• Molecule 2: Tubulin alpha

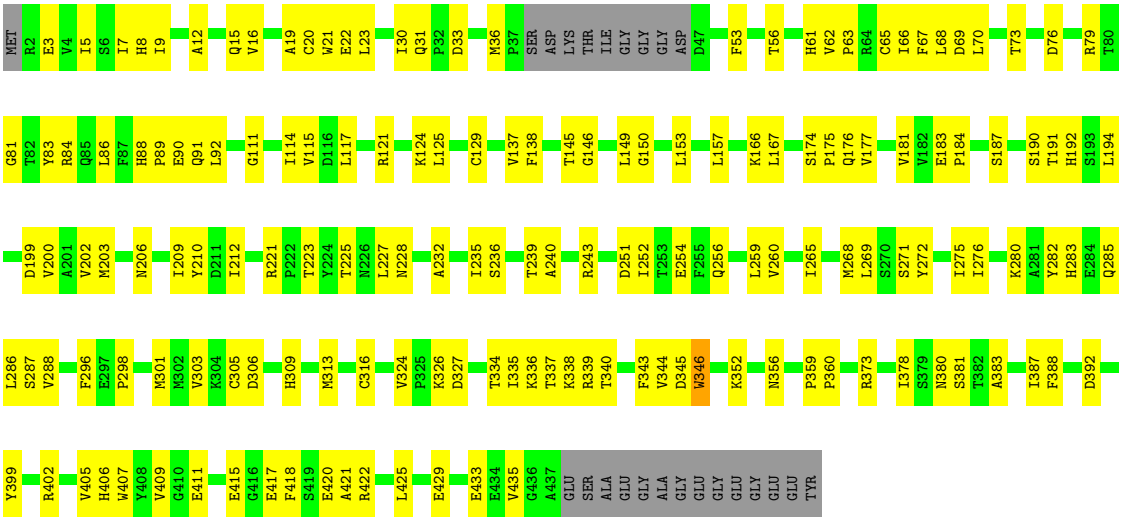
Chain Z3:





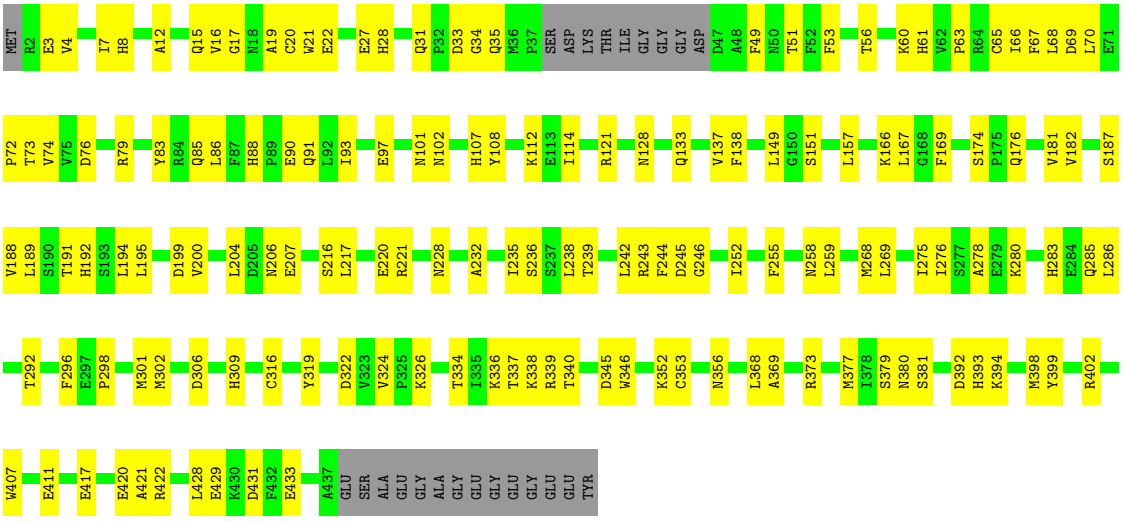
• Molecule 2: Tubulin alpha

Chain Z5:



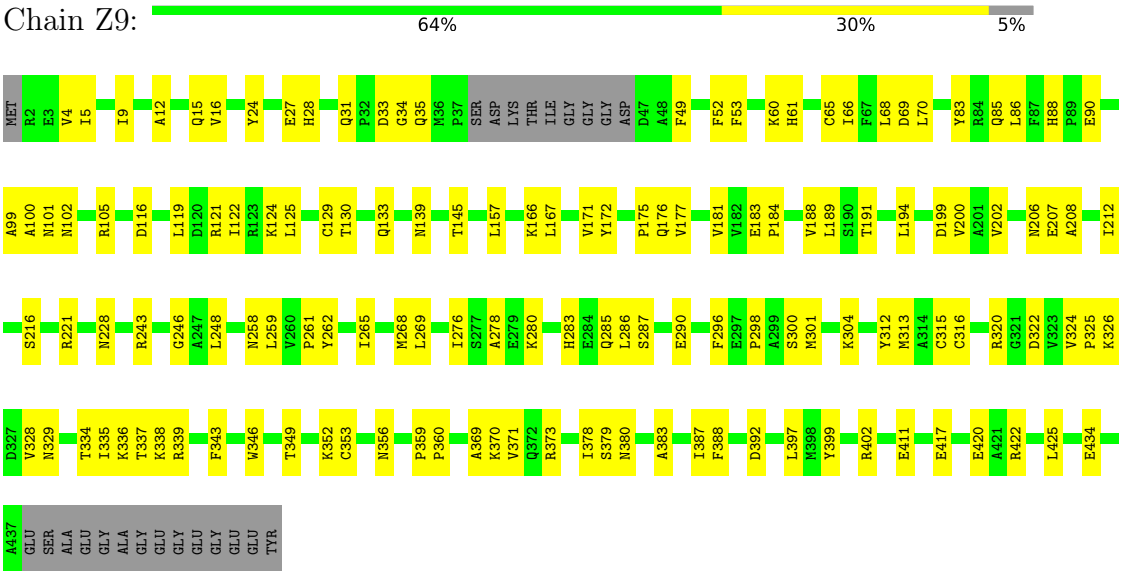
• Molecule 2: Tubulin alpha

Chain Z7:



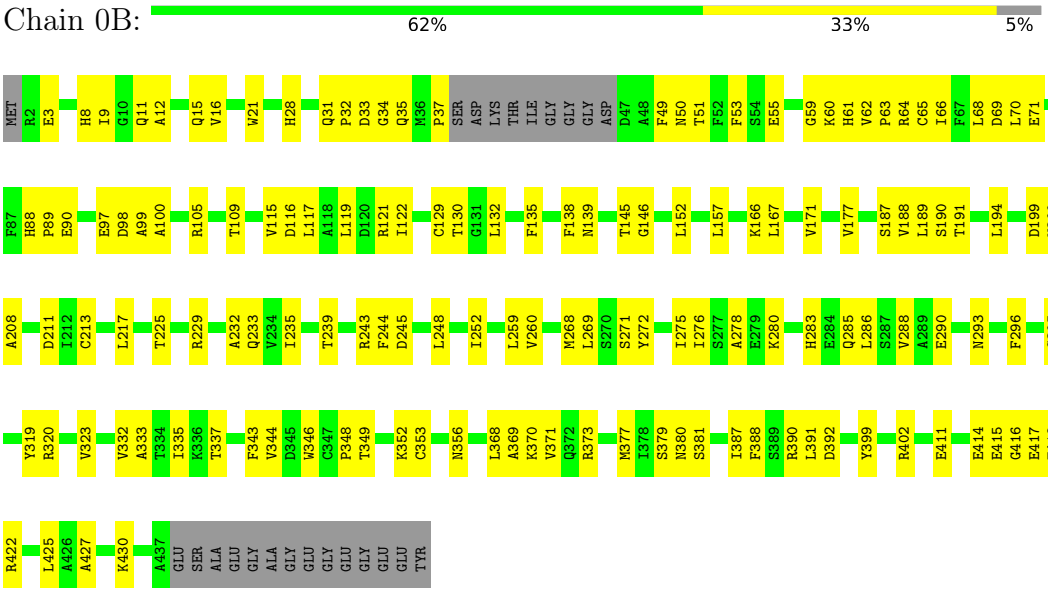
• Molecule 2: Tubulin alpha

Chain Z9:



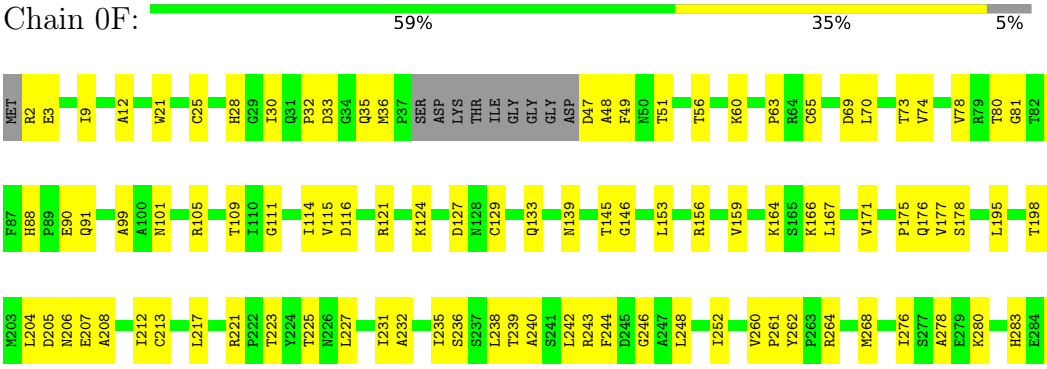
• Molecule 2: Tubulin alpha

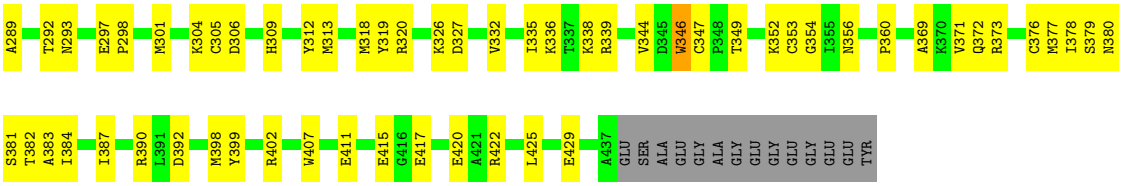
Chain 0B:



• Molecule 2: Tubulin alpha

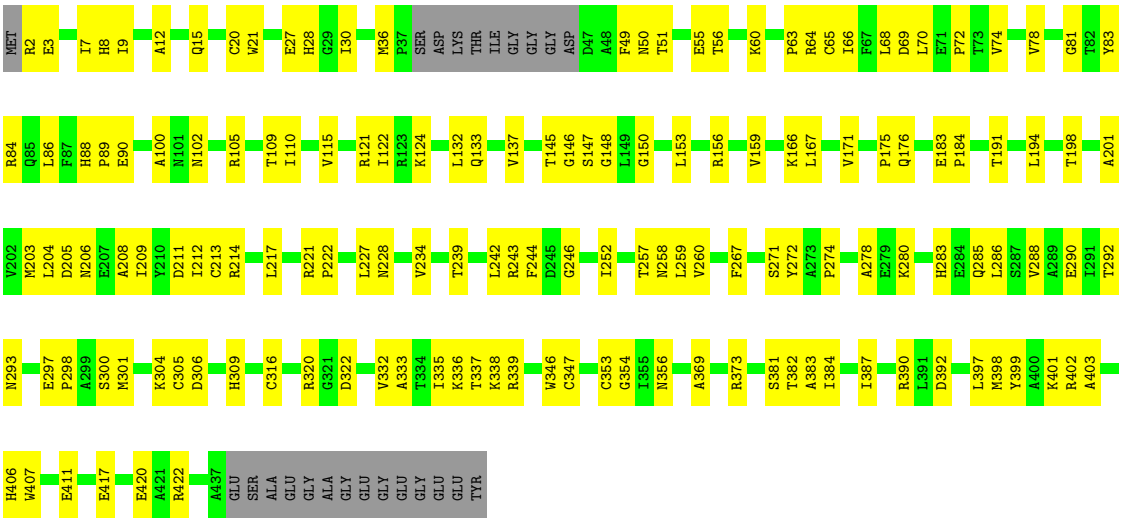
Chain 0F:





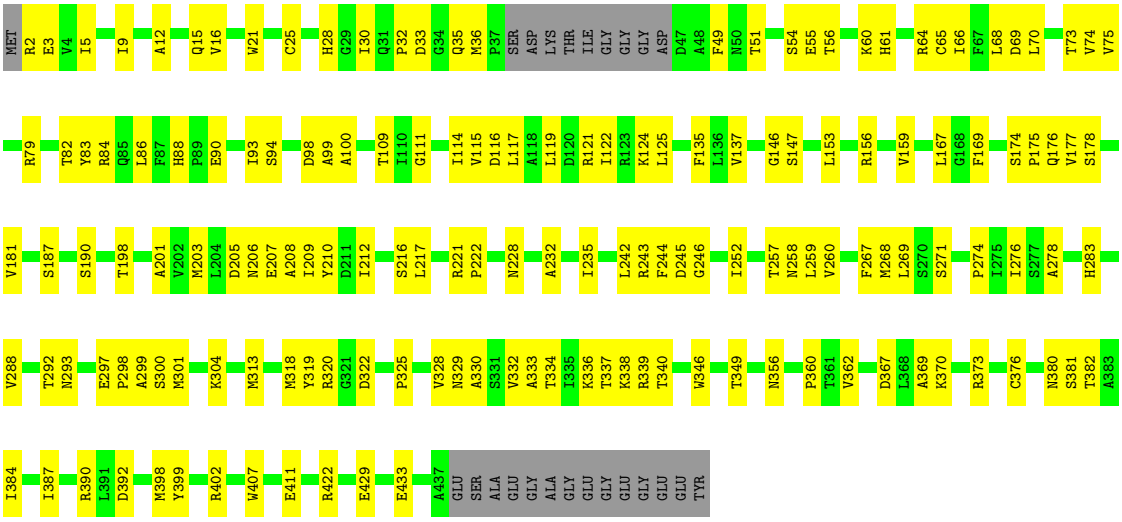
• Molecule 2: Tubulin alpha

Chain 0H:



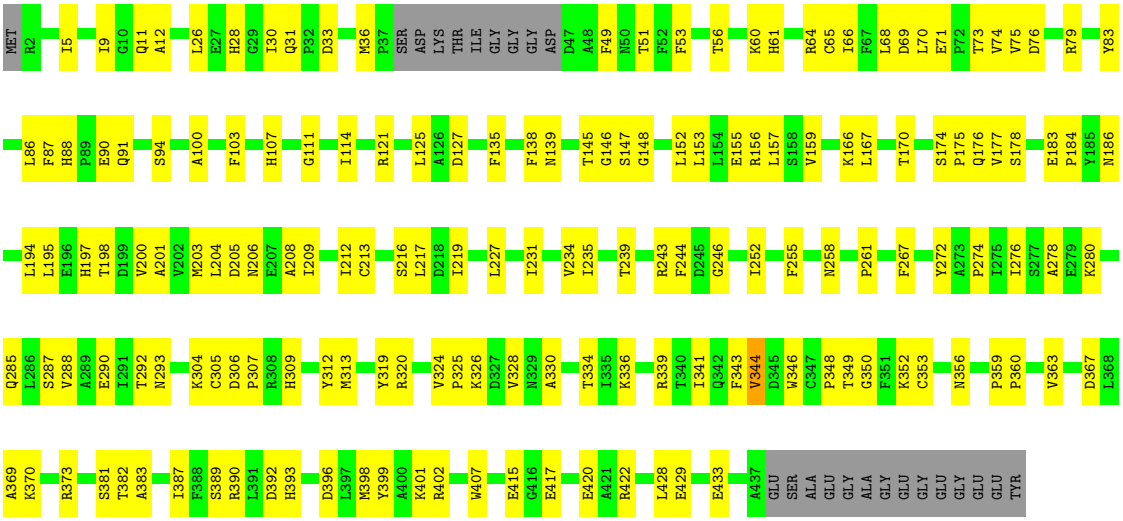
• Molecule 2: Tubulin alpha

Chain 0J:



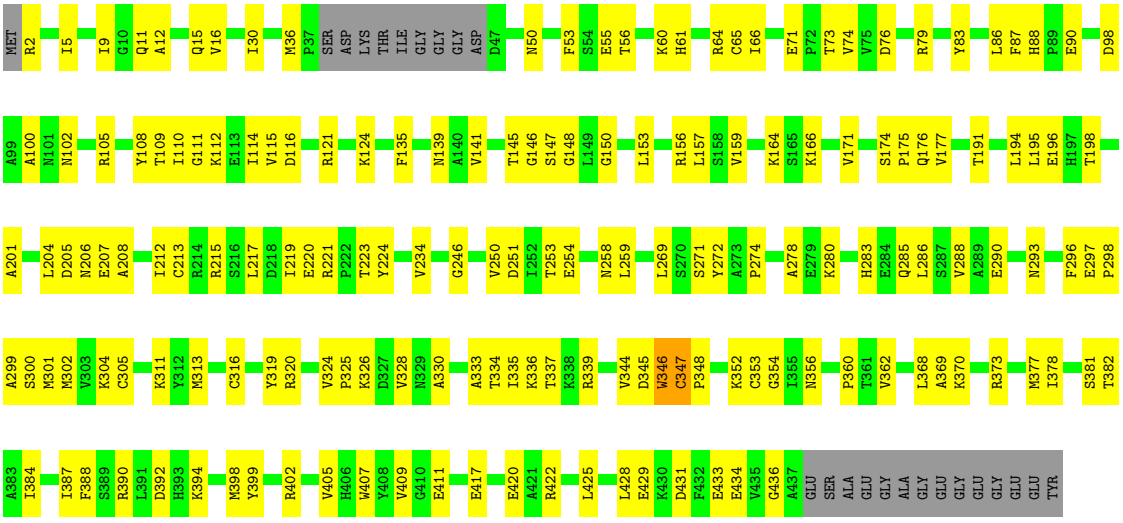
• Molecule 2: Tubulin alpha

Chain 0L:



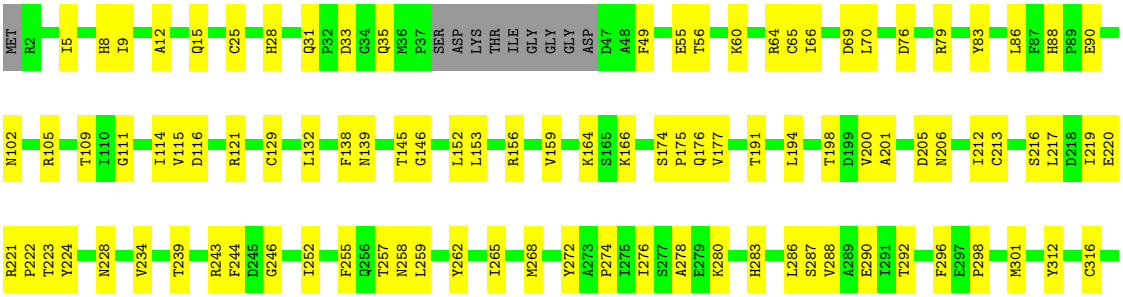
• Molecule 2: Tubulin alpha

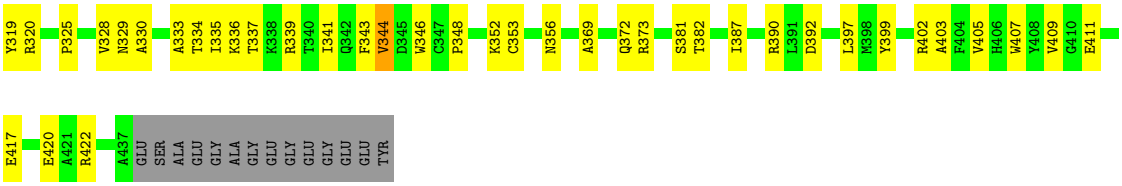
Chain 0N:



• Molecule 2: Tubulin alpha

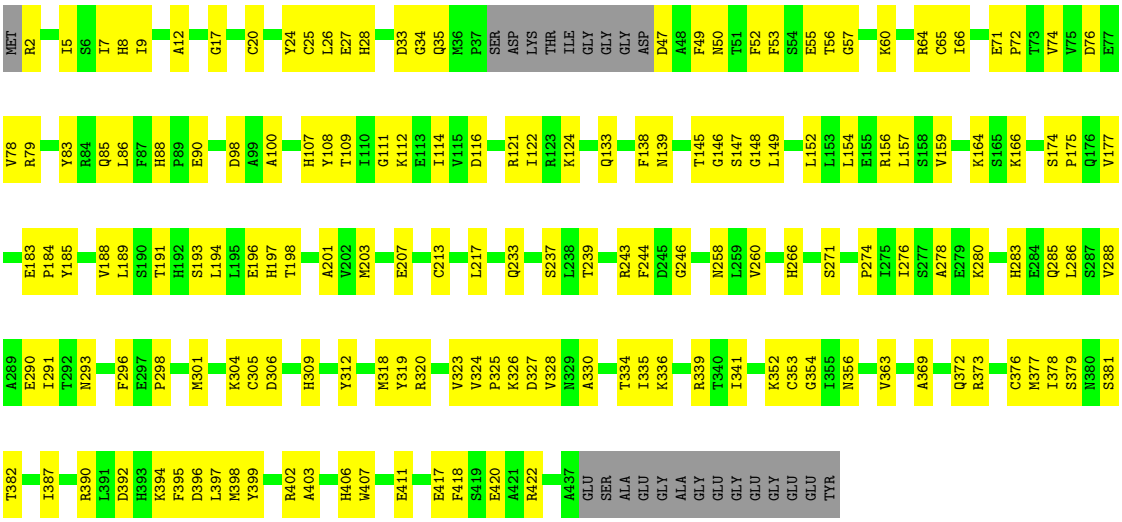
Chain 0P:





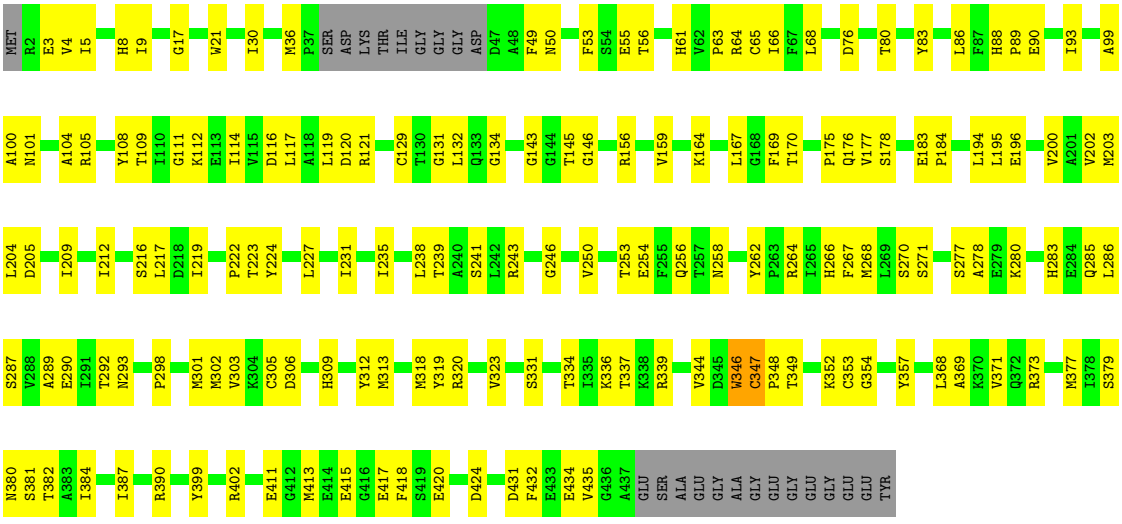
• Molecule 2: Tubulin alpha

Chain 0R:



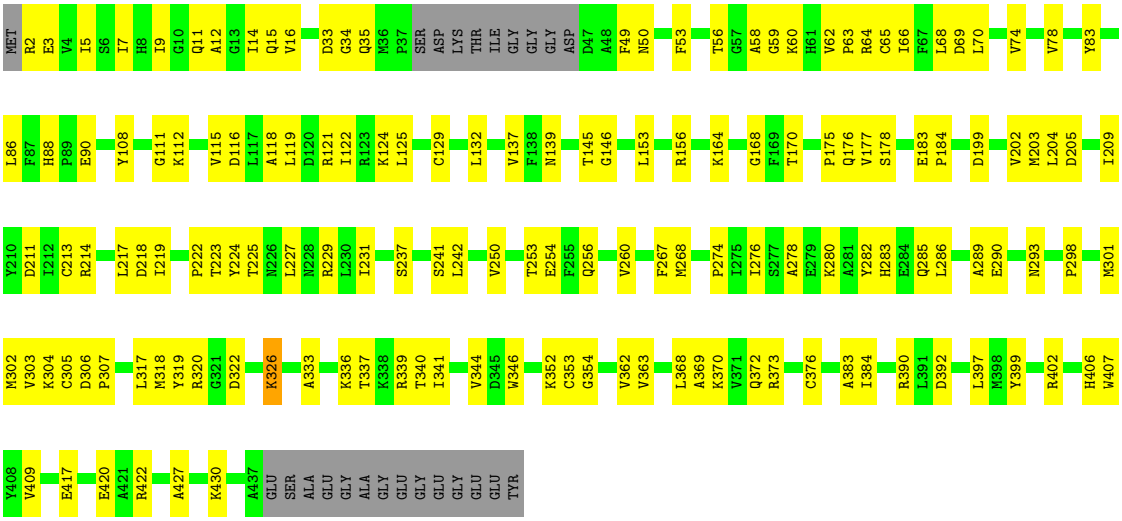
• Molecule 2: Tubulin alpha

Chain 0V:



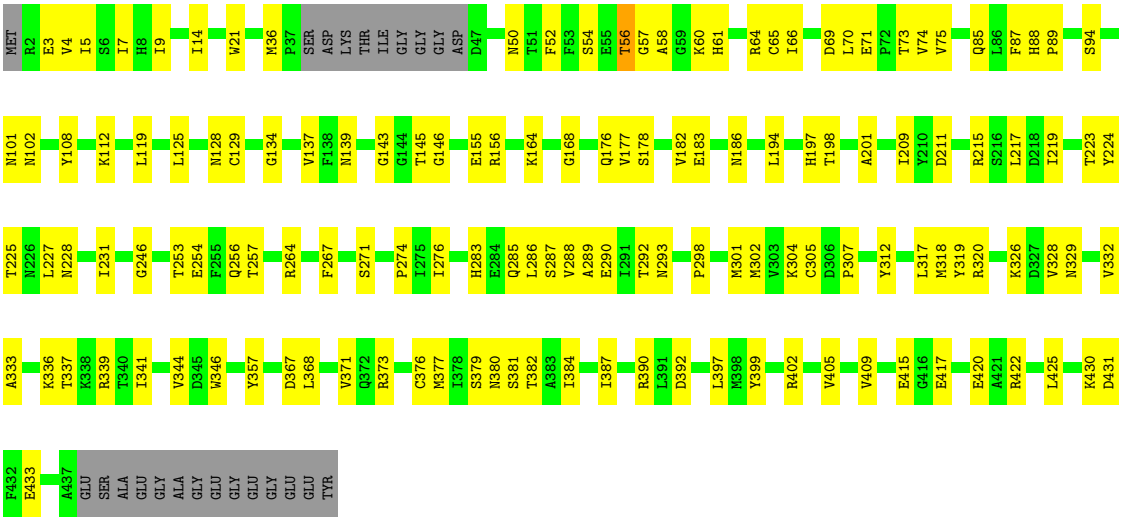
• Molecule 2: Tubulin alpha

Chain 0X:



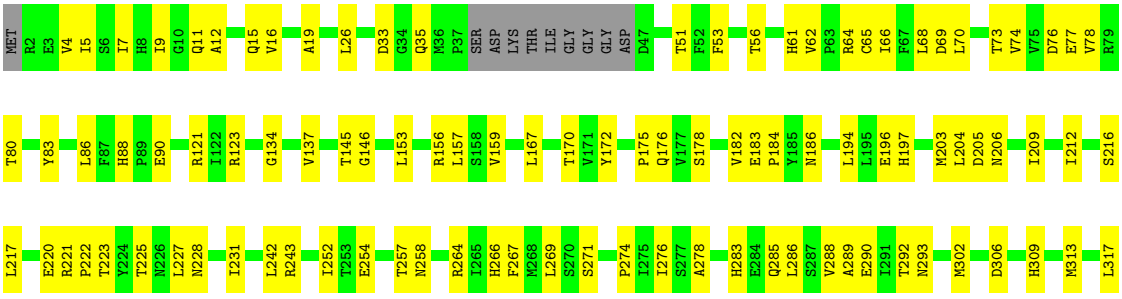
• Molecule 2: Tubulin alpha

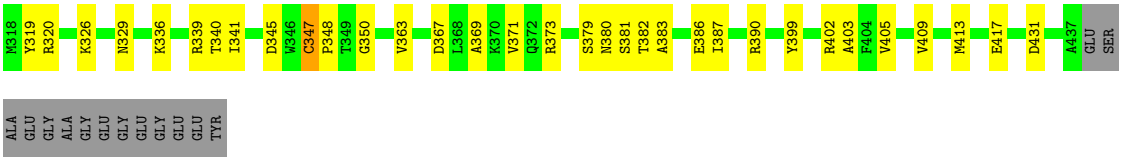
Chain 0Z:



• Molecule 2: Tubulin alpha

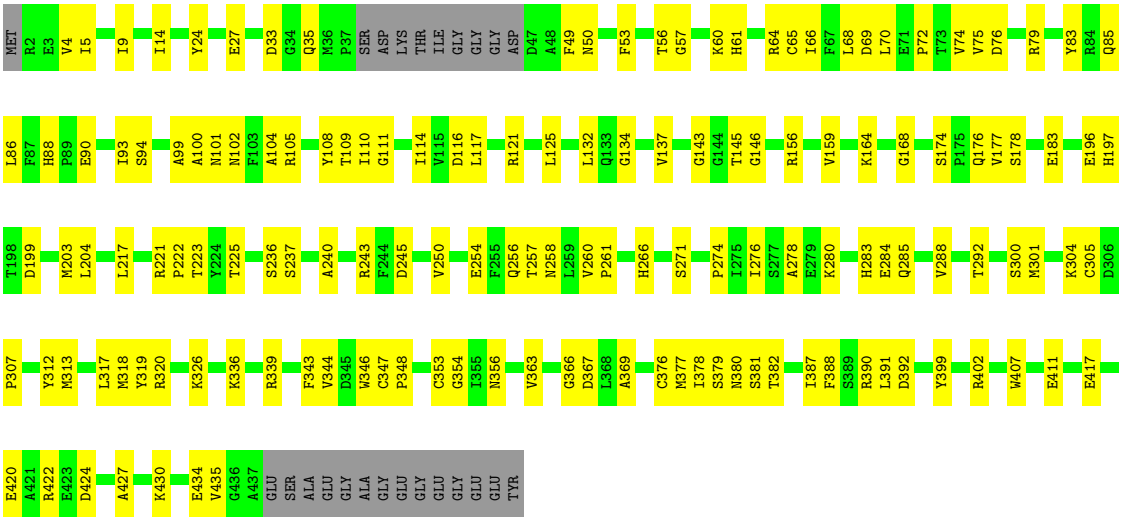
Chain 1B:





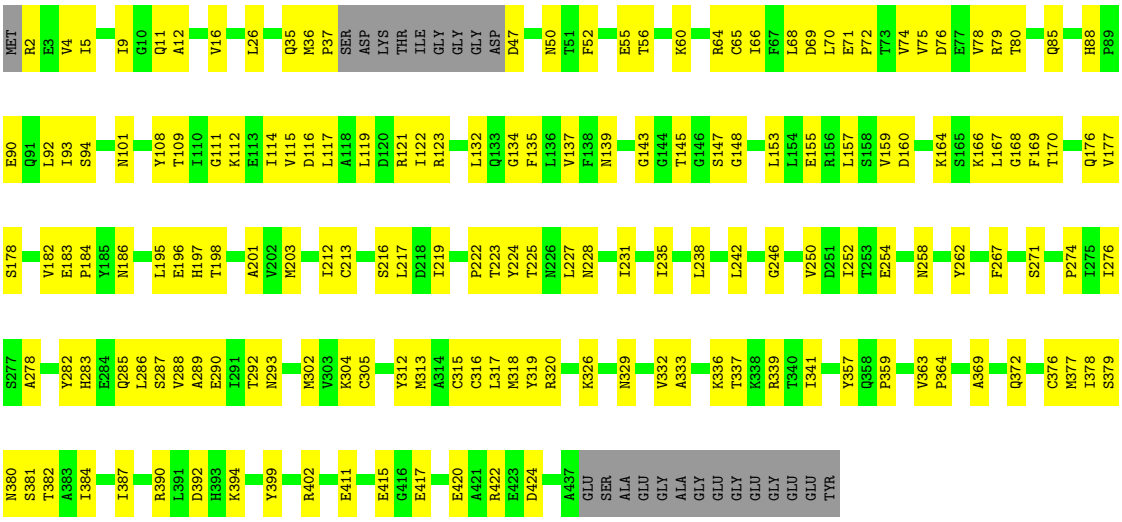
• Molecule 2: Tubulin alpha

Chain 1D:



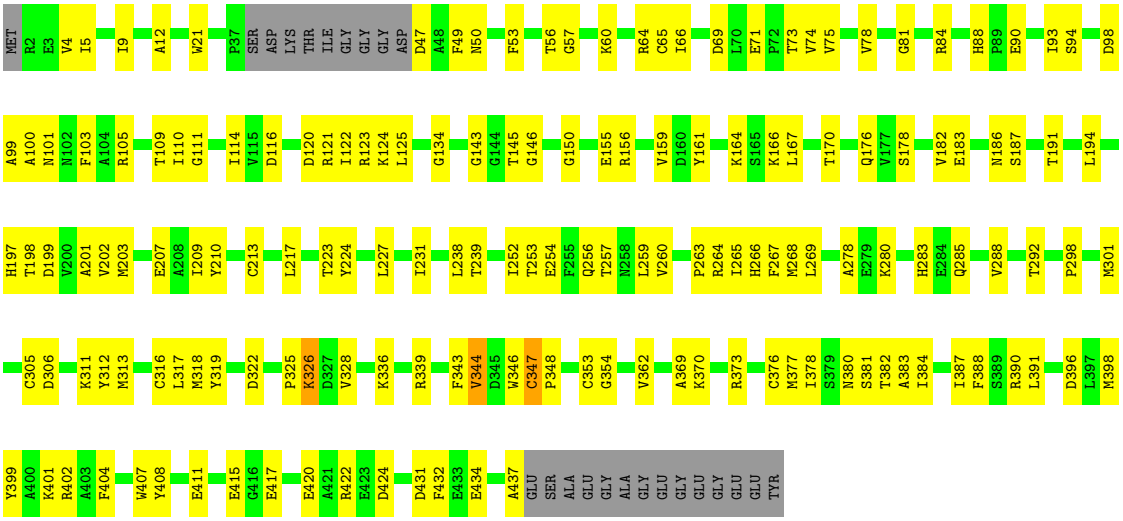
• Molecule 2: Tubulin alpha

Chain 1F:



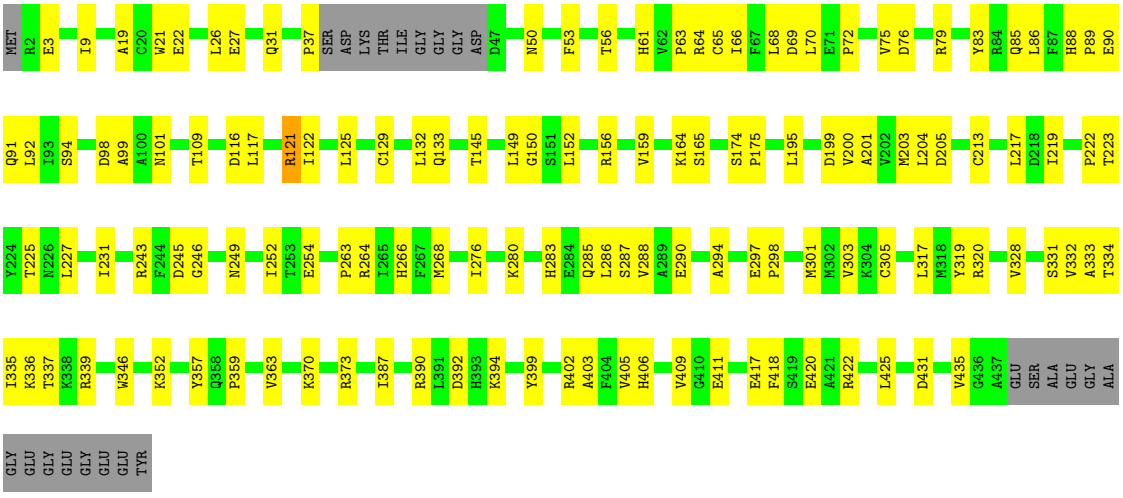
• Molecule 2: Tubulin alpha

Chain 1H:



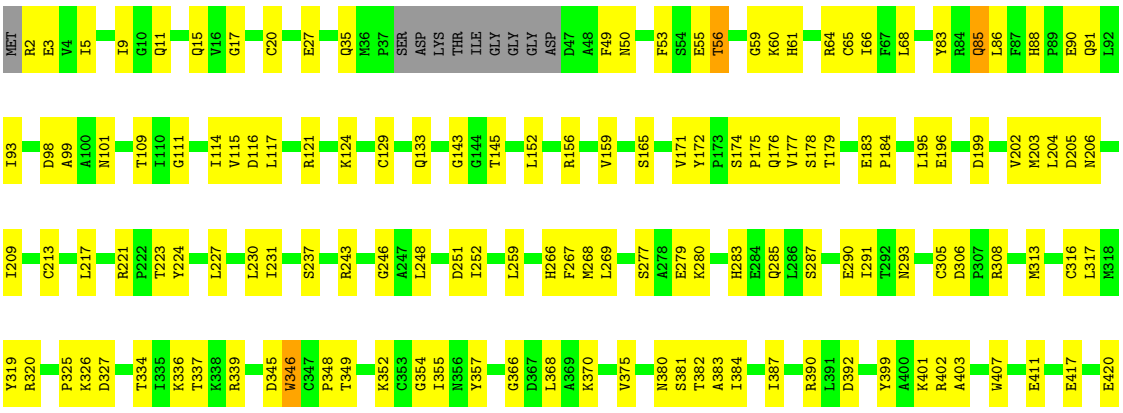
• Molecule 2: Tubulin alpha

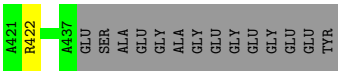
Chain 1L:



• Molecule 2: Tubulin alpha

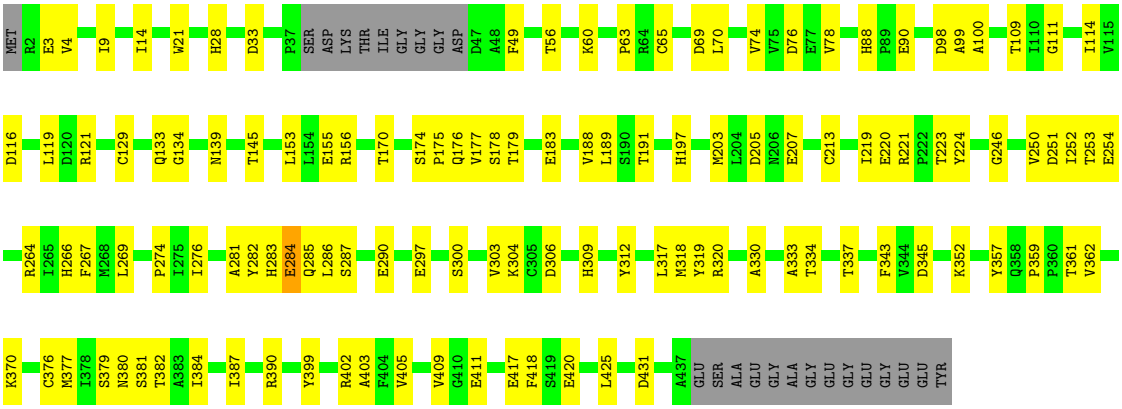
Chain 1N:





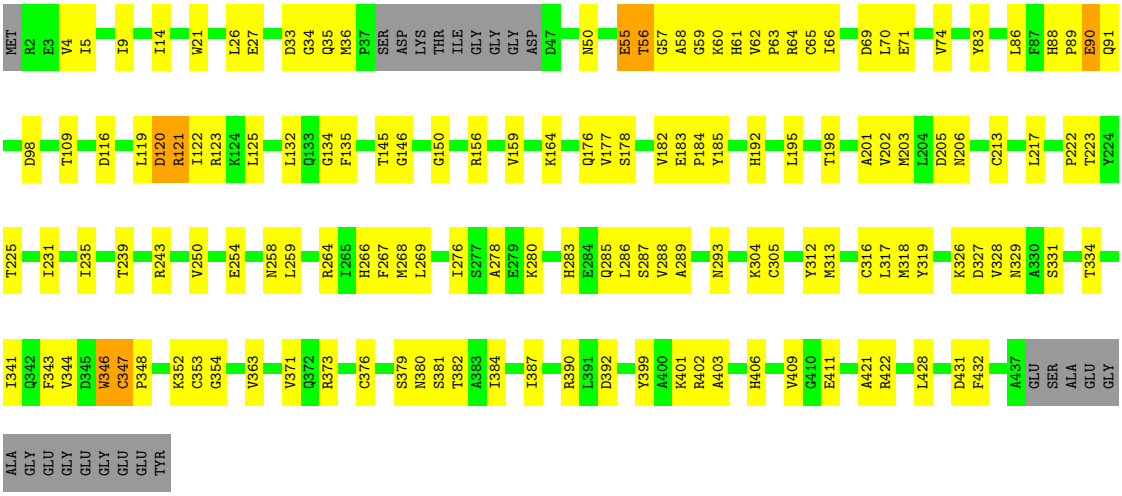
• Molecule 2: Tubulin alpha

Chain 1P:



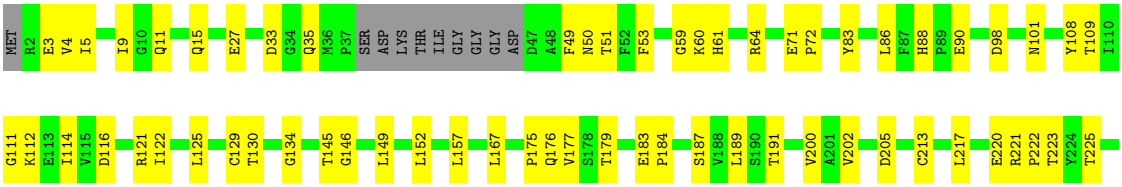
• Molecule 2: Tubulin alpha

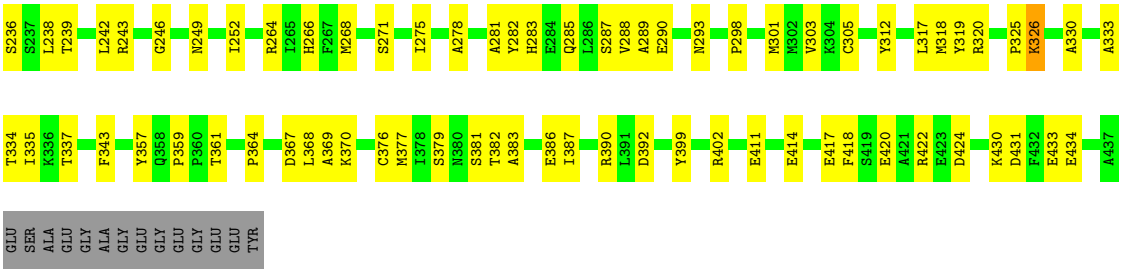
Chain 1R:



• Molecule 2: Tubulin alpha

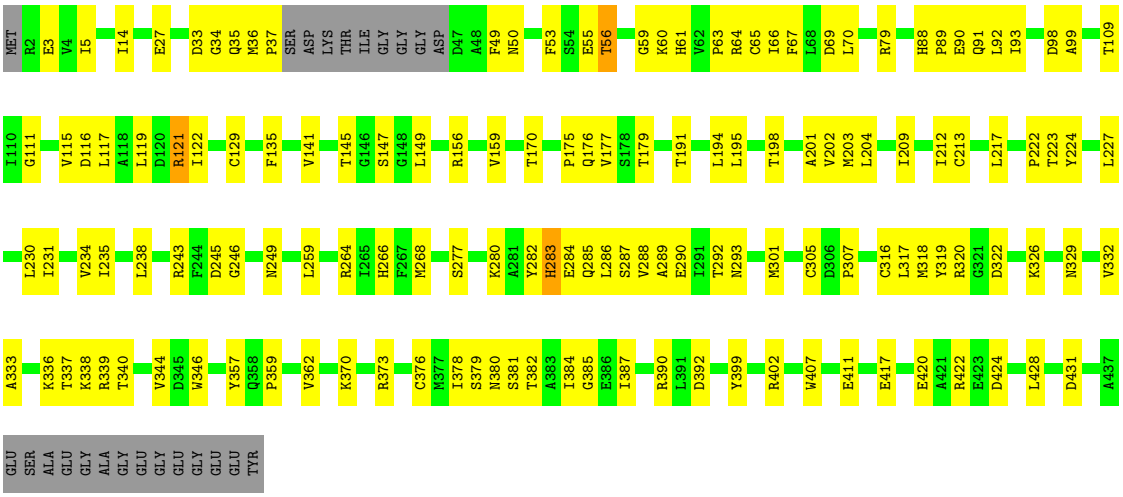
Chain 1T:





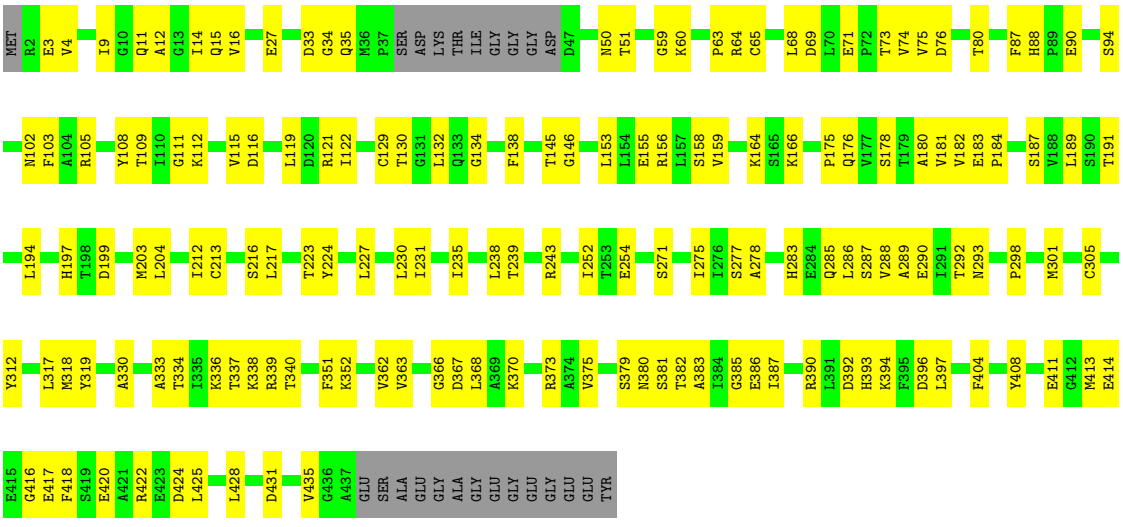
• Molecule 2: Tubulin alpha

Chain 1V:



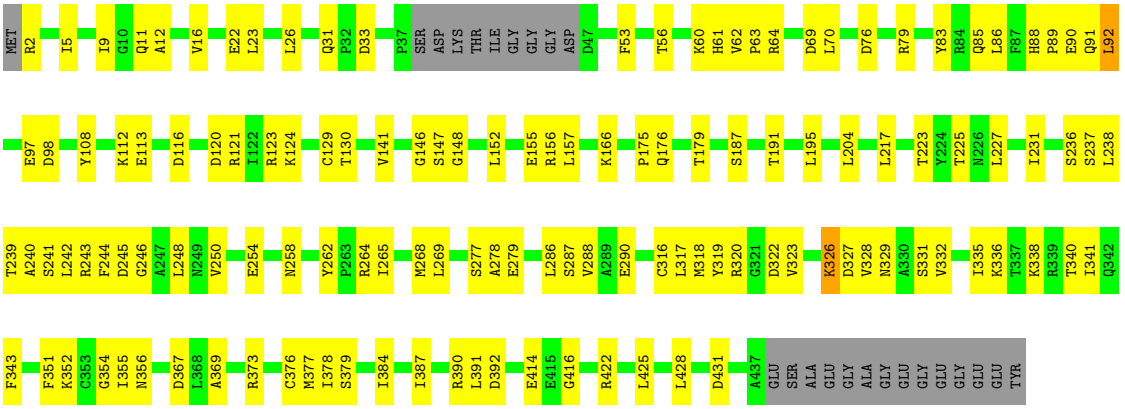
• Molecule 2: Tubulin alpha

Chain 1X:



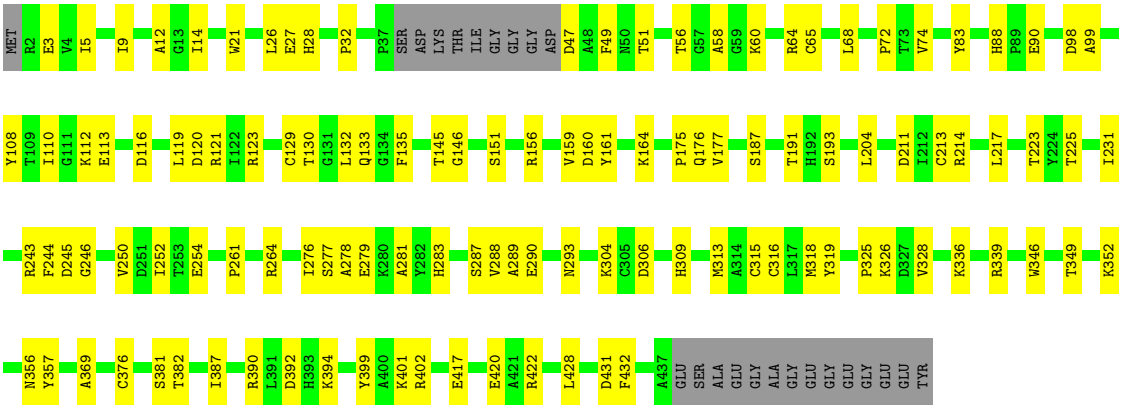
• Molecule 2: Tubulin alpha

Chain 1Z:



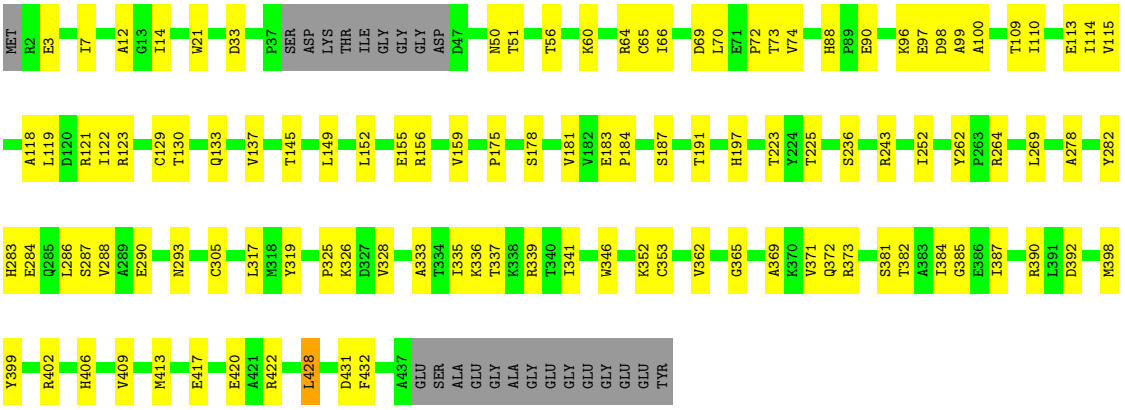
• Molecule 2: Tubulin alpha

Chain 2B:



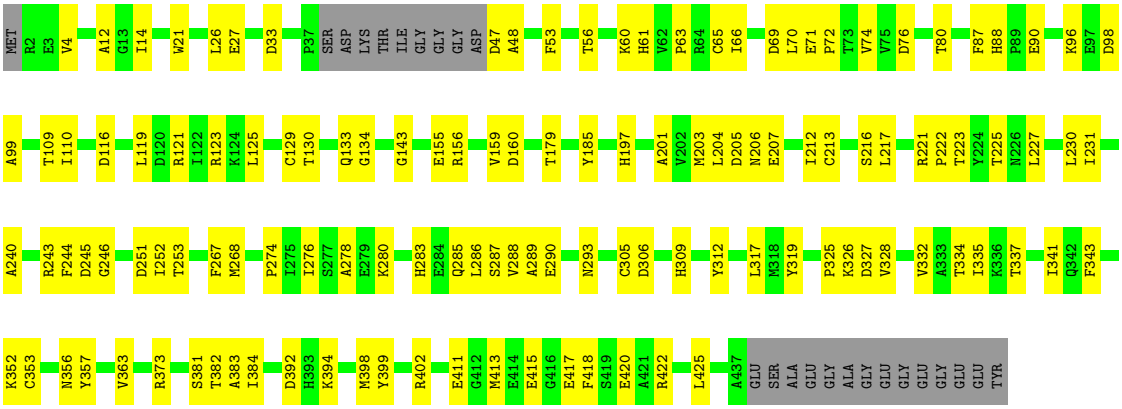
• Molecule 2: Tubulin alpha

Chain 2D:



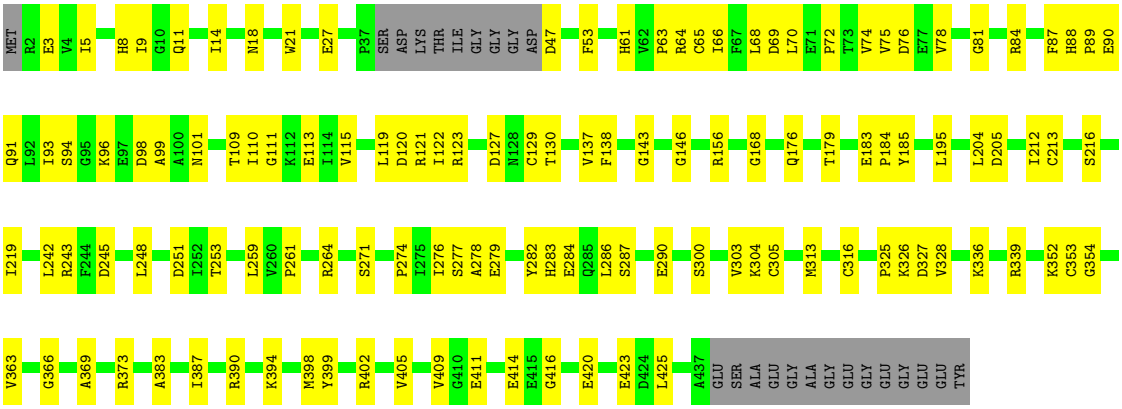
• Molecule 2: Tubulin alpha

Chain 2F:



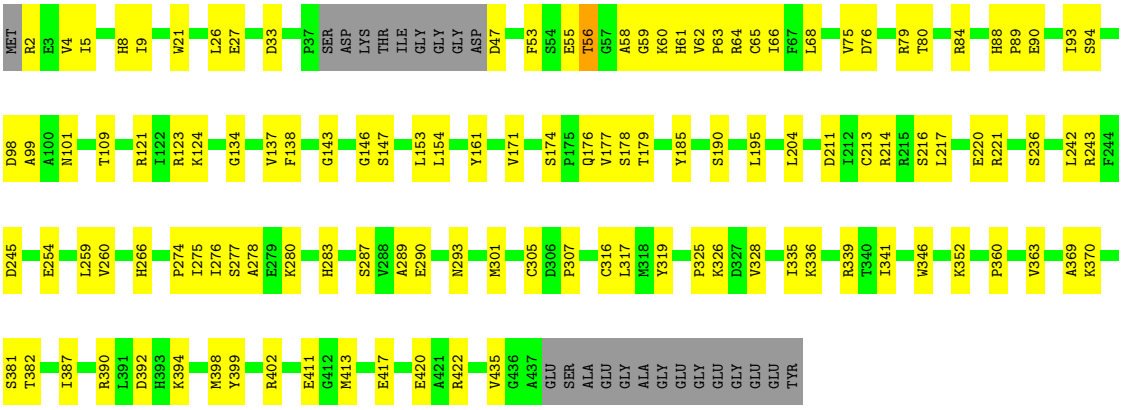
• Molecule 2: Tubulin alpha

Chain 2H:



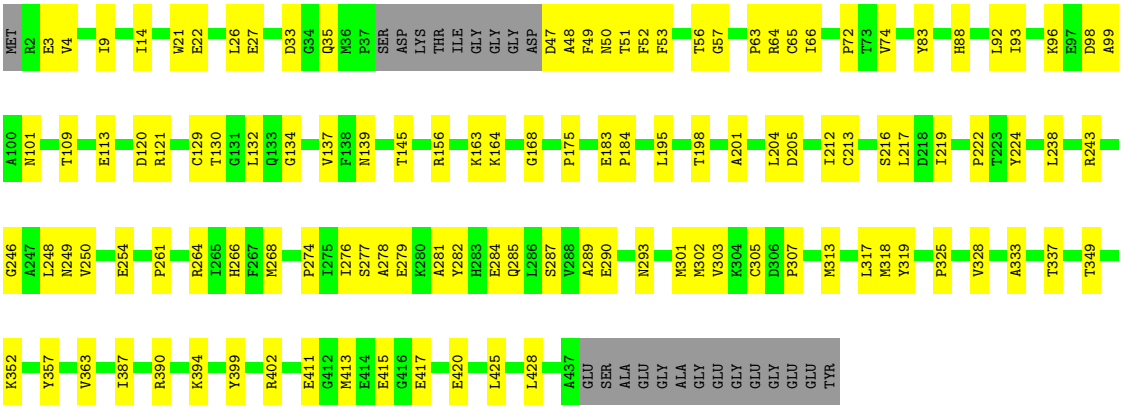
• Molecule 2: Tubulin alpha

Chain 2J:



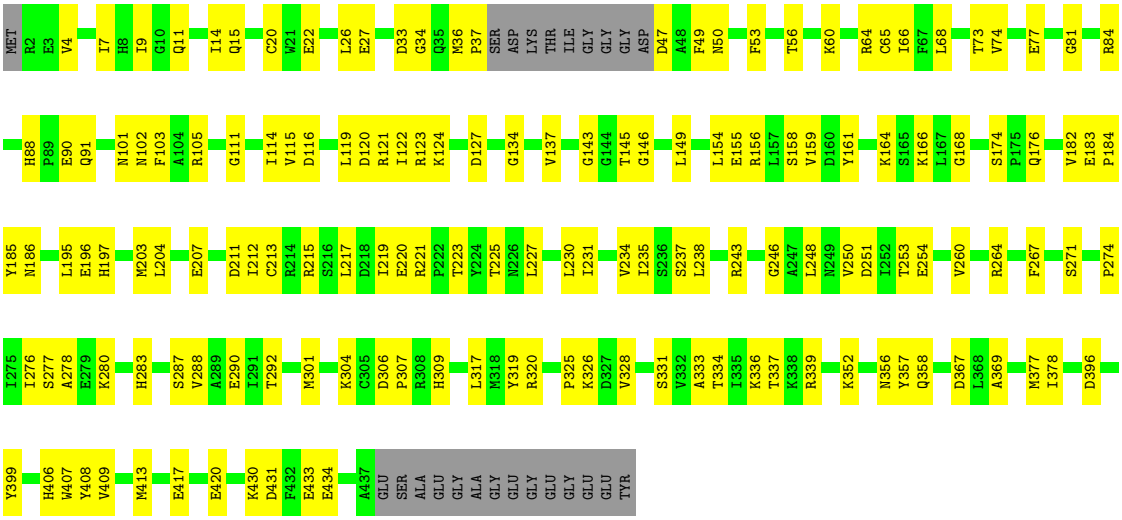
• Molecule 2: Tubulin alpha

Chain 2L:



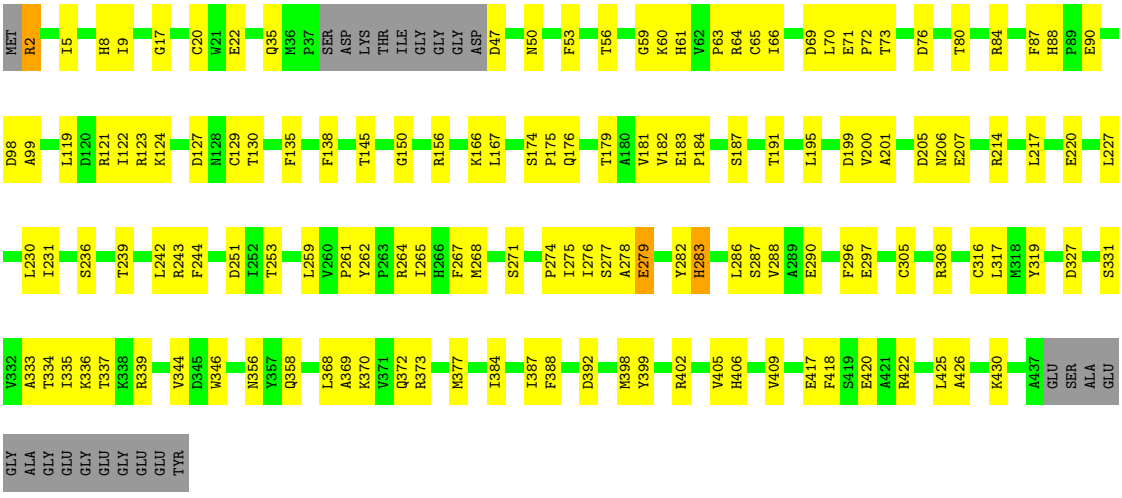
• Molecule 2: Tubulin alpha

Chain 2N:



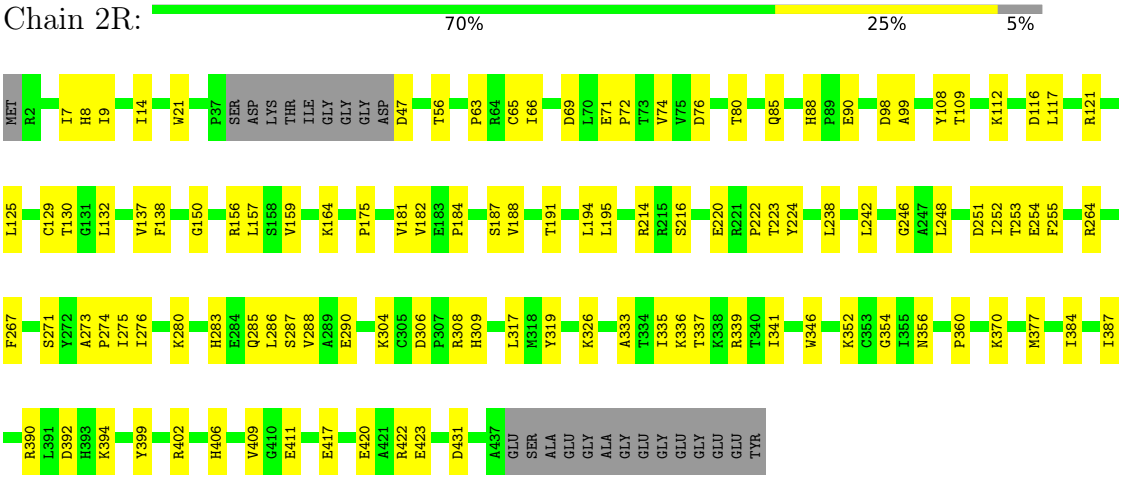
• Molecule 2: Tubulin alpha

Chain 2P:



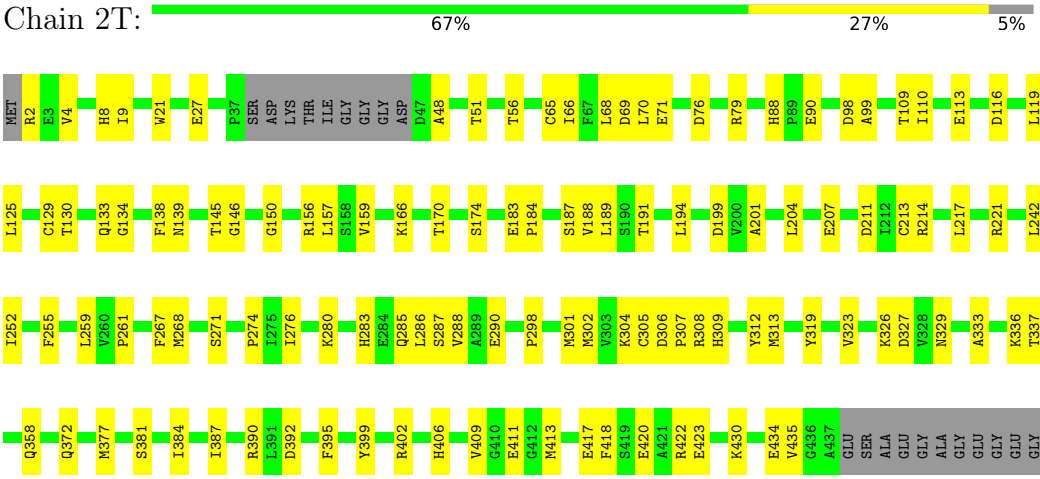
• Molecule 2: Tubulin alpha

Chain 2R:



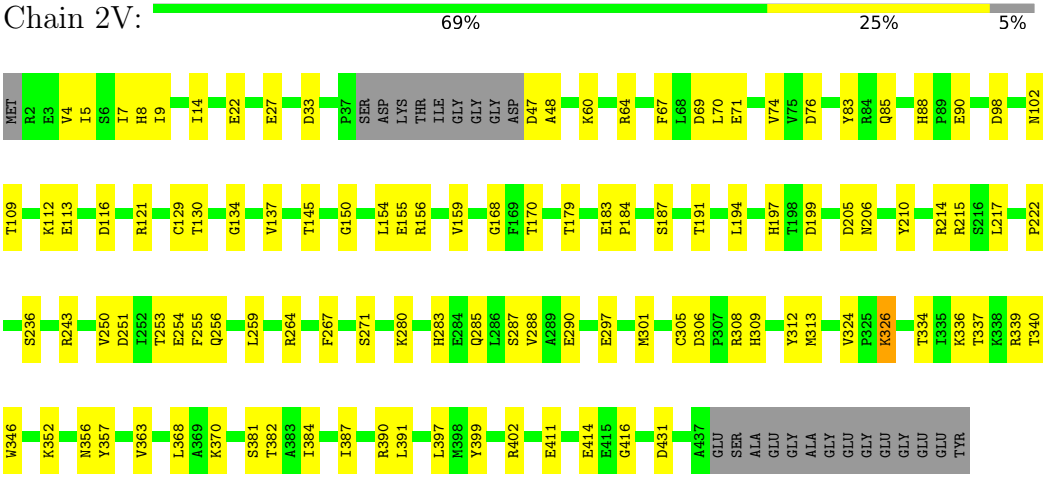
• Molecule 2: Tubulin alpha

Chain 2T:



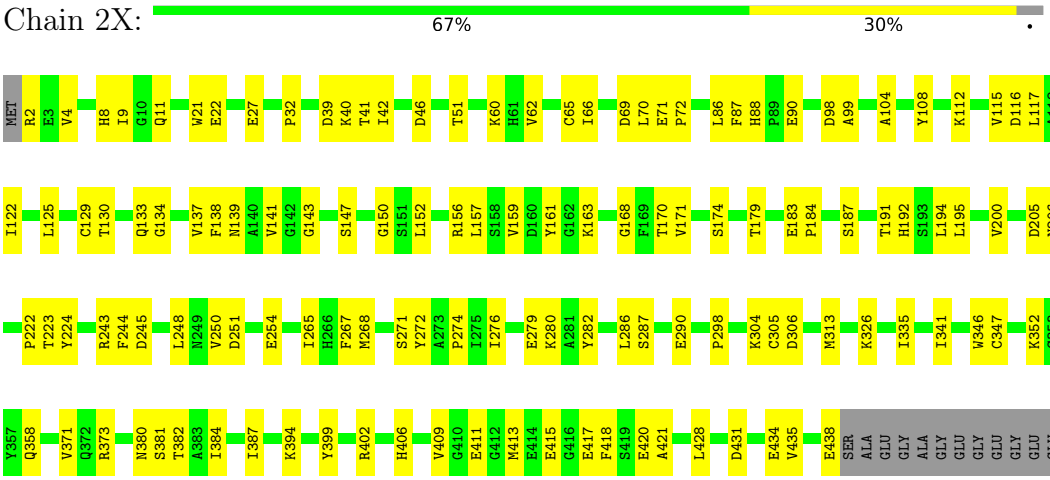
• Molecule 2: Tubulin alpha

Chain 2V:



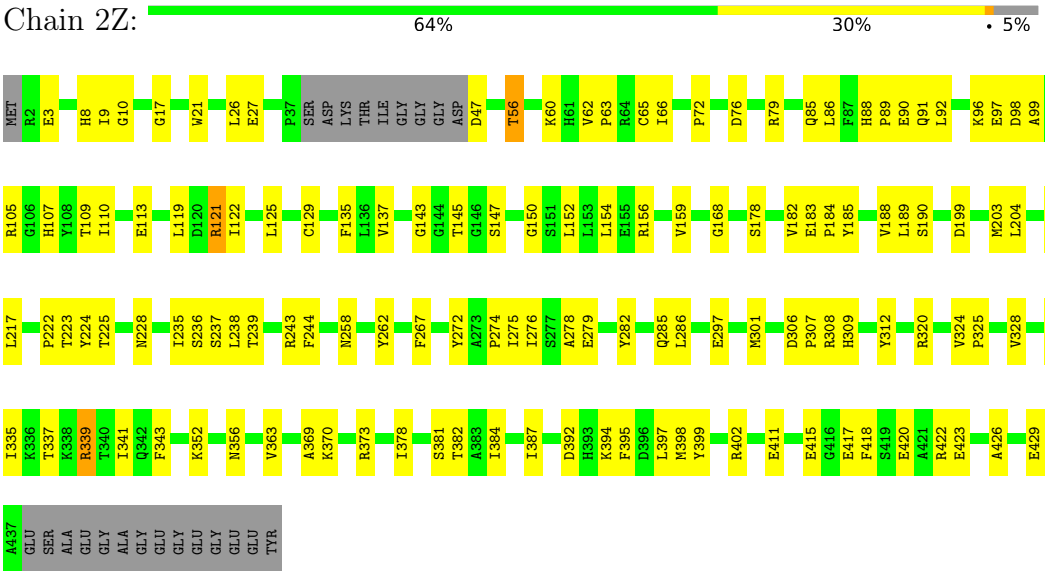
• Molecule 2: Tubulin alpha

Chain 2X:



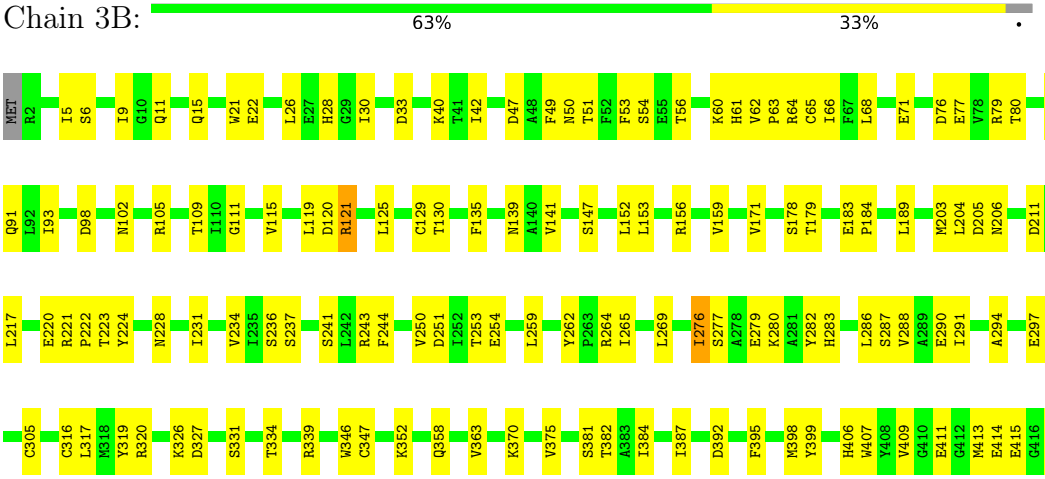
• Molecule 2: Tubulin alpha

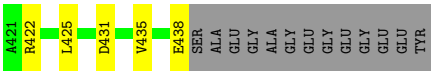
Chain 2Z:



• Molecule 2: Tubulin alpha

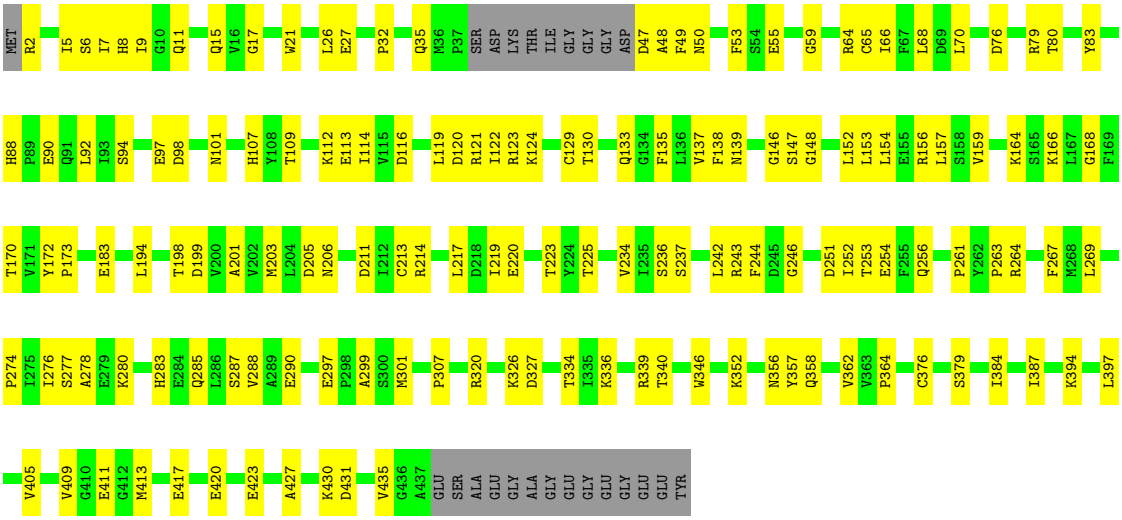
Chain 3B:





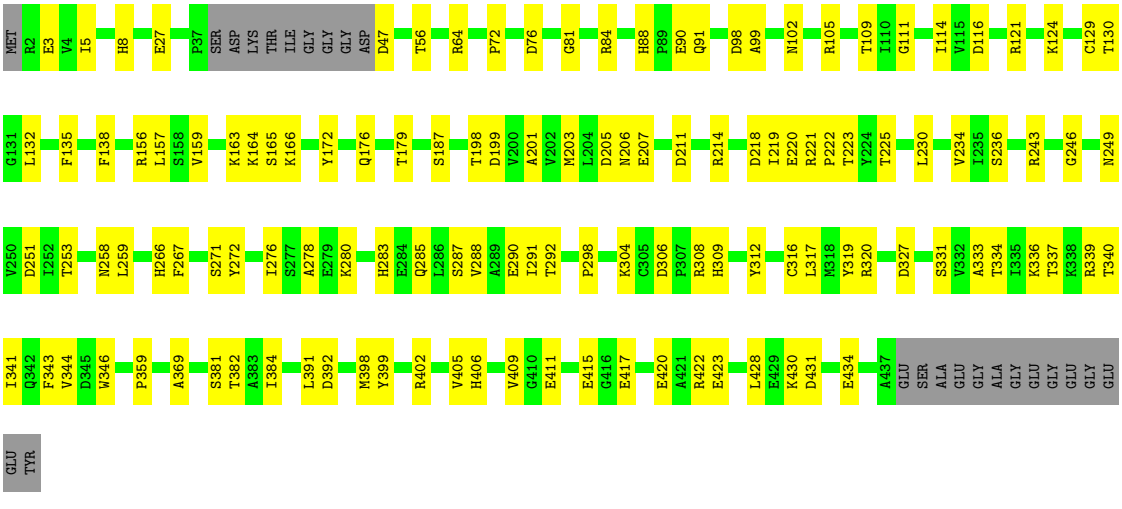
• Molecule 2: Tubulin alpha

Chain 3D:



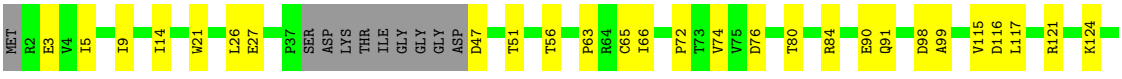
• Molecule 2: Tubulin alpha

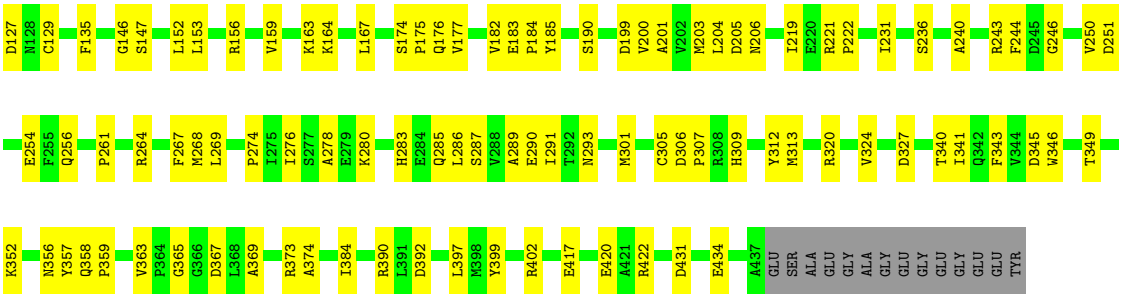
Chain 3F:



• Molecule 2: Tubulin alpha

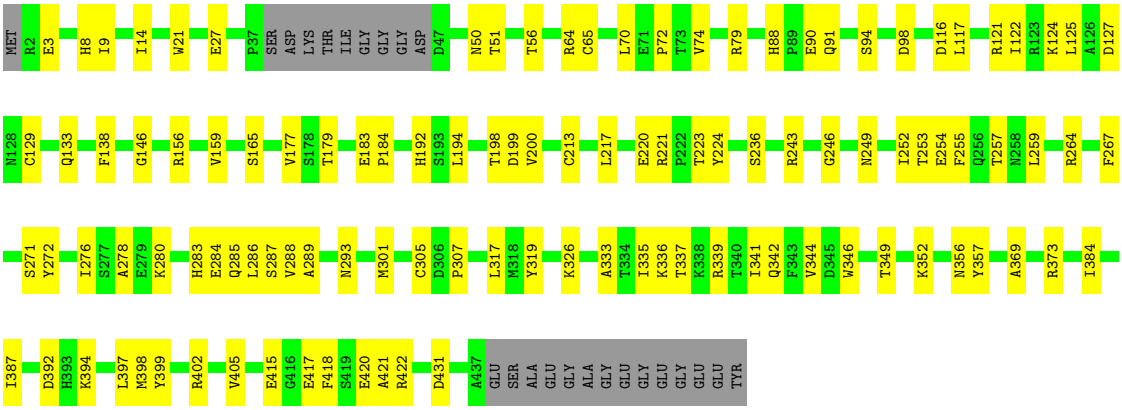
Chain 3H:





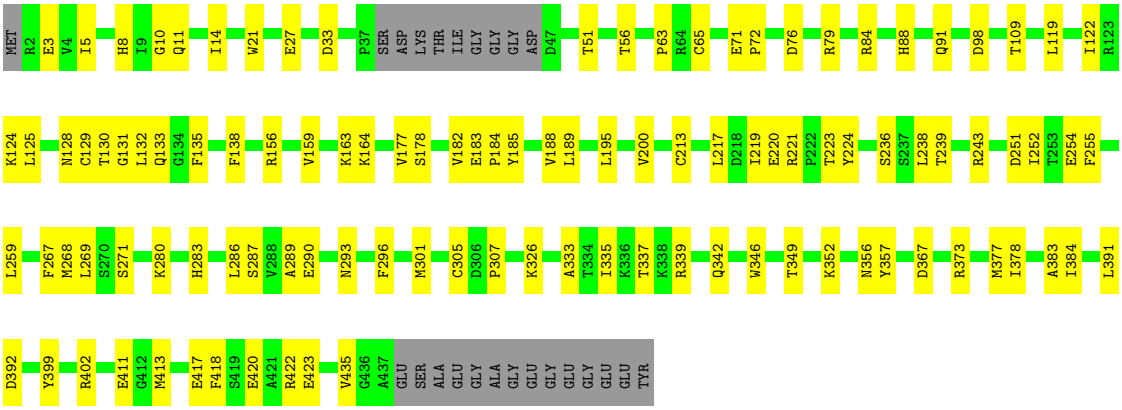
• Molecule 2: Tubulin alpha

Chain 3J:



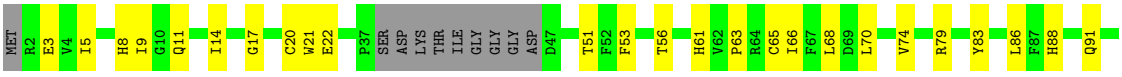
• Molecule 2: Tubulin alpha

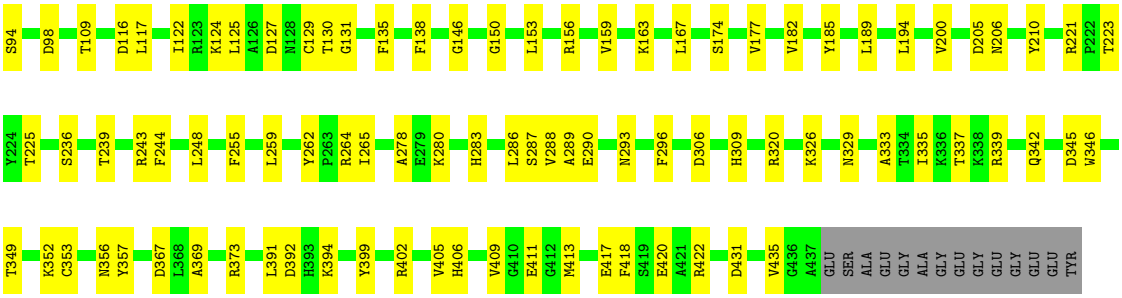
Chain 3L:



• Molecule 2: Tubulin alpha

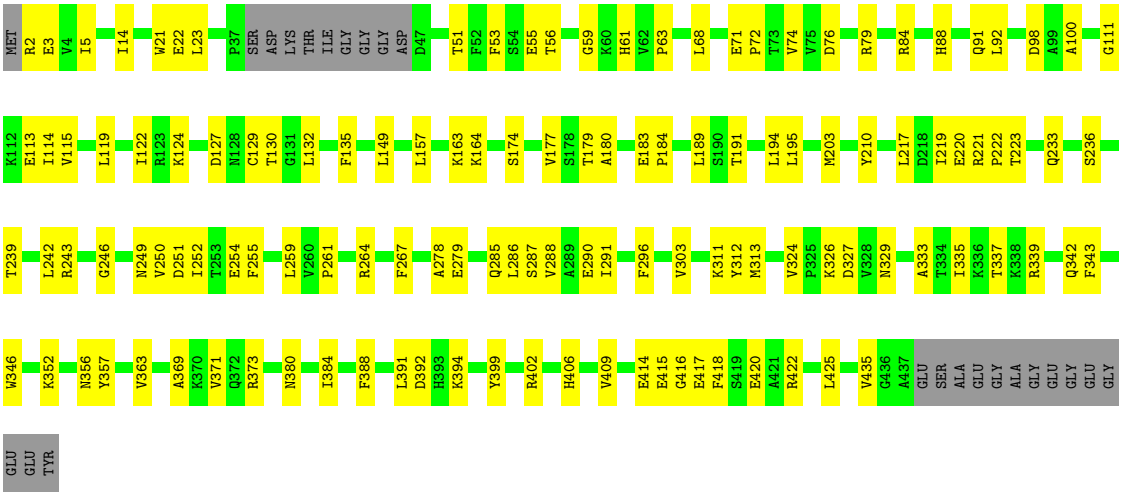
Chain 3N:





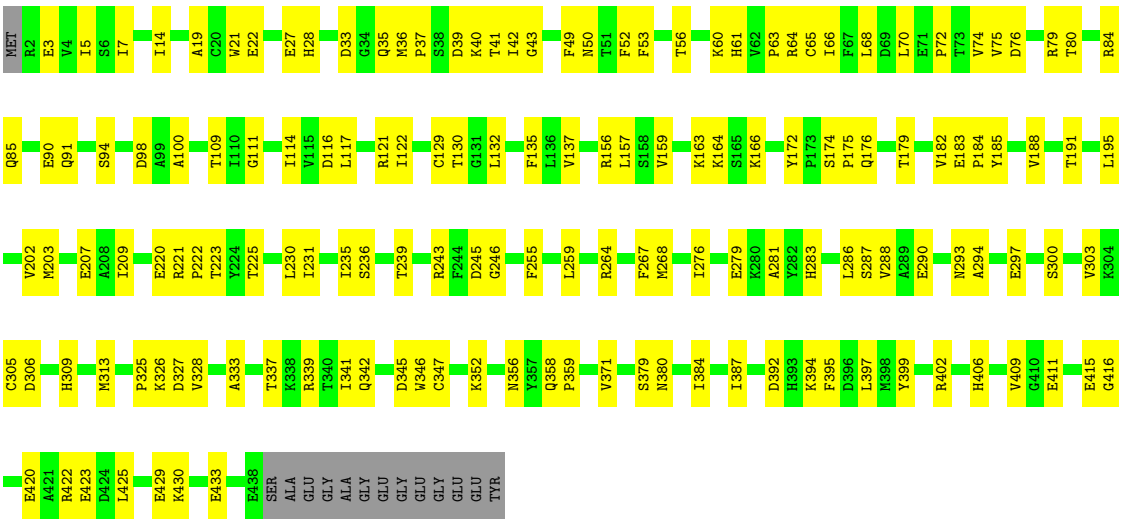
• Molecule 2: Tubulin alpha

Chain 3P:



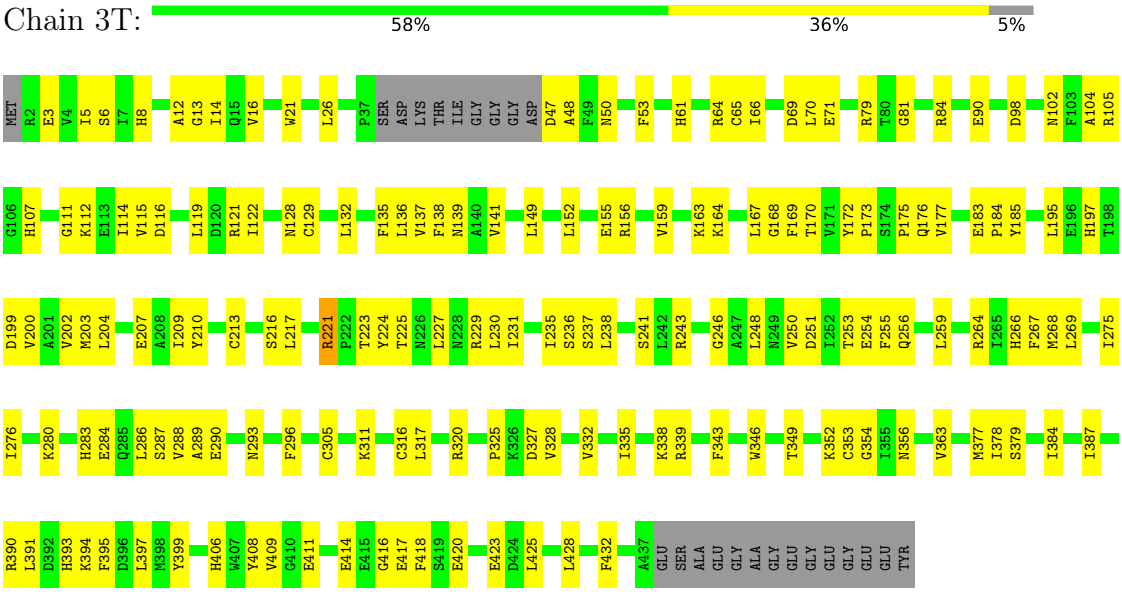
• Molecule 2: Tubulin alpha

Chain 3R:



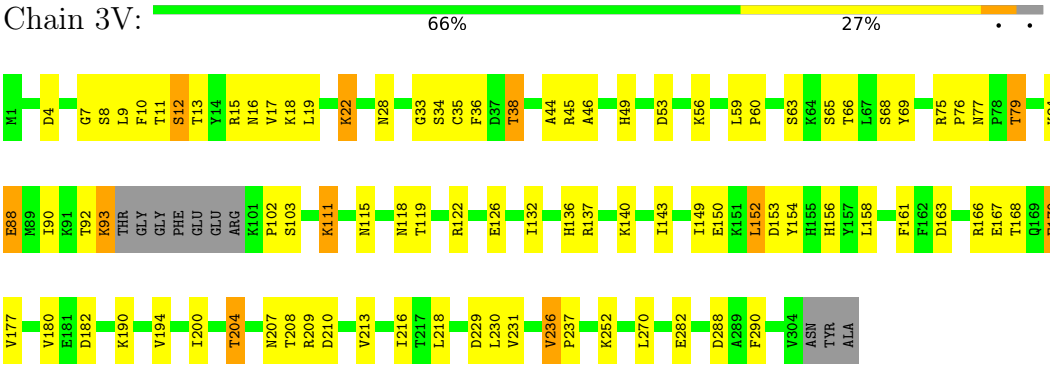
• Molecule 2: Tubulin alpha

Chain 3T:



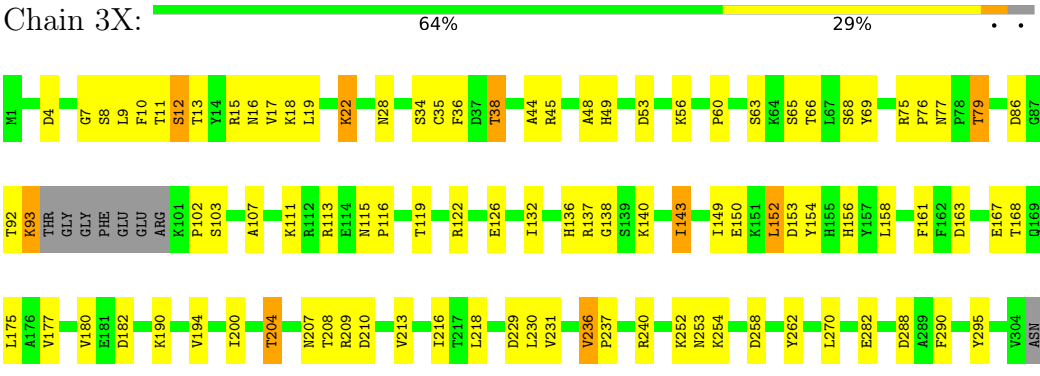
• Molecule 3: PACRG

Chain 3V:



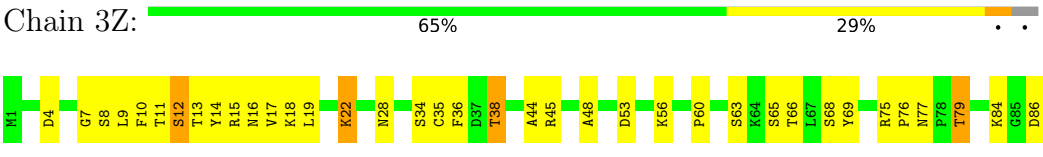
• Molecule 3: PACRG

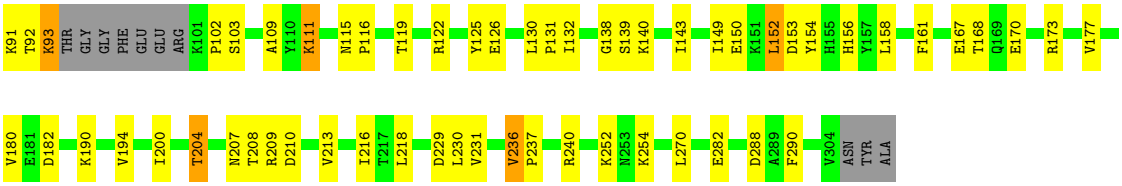
Chain 3X:

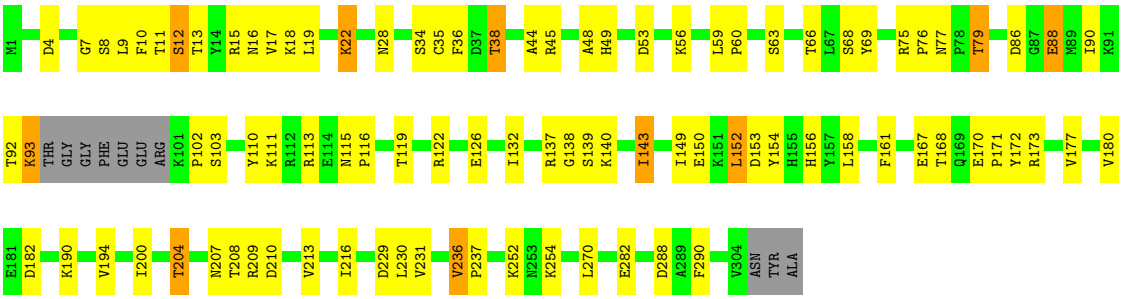


• Molecule 3: PACRG

Chain 3Z:





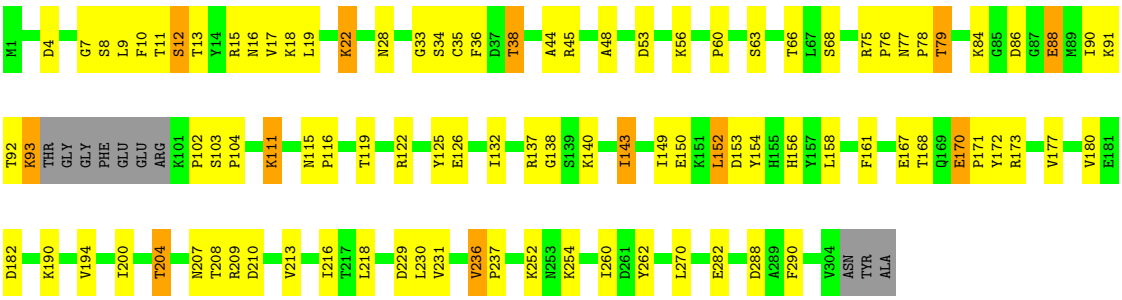


• Molecule 3: PACRG

Chain 4B:

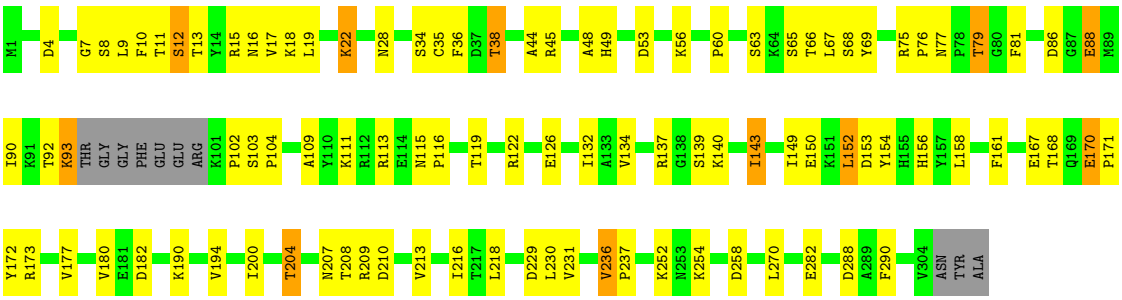
• Molecule 3: PACRG

Chain 4D:



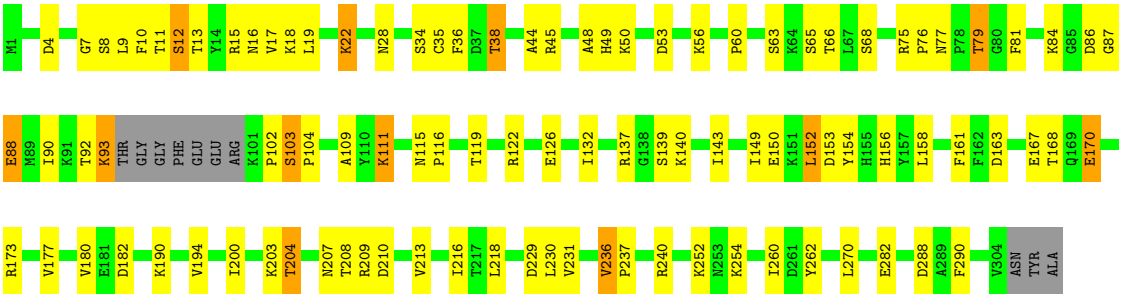
• Molecule 3: PACRG

Chain 4F:



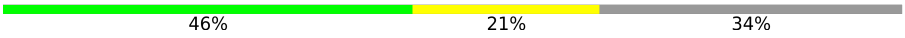
• Molecule 3: PACRG

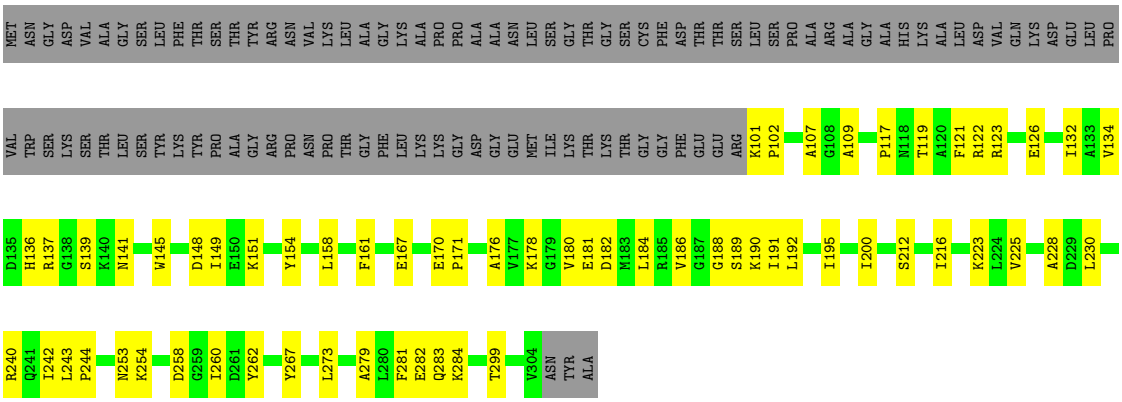
Chain 4H:



• Molecule 3: PACRG

Chain 4J:



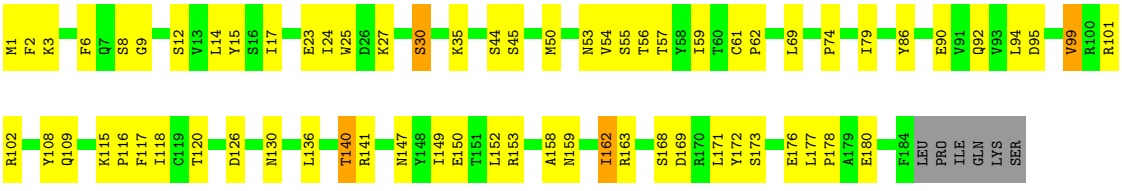


• Molecule 4: FAP20

Chain 3W:

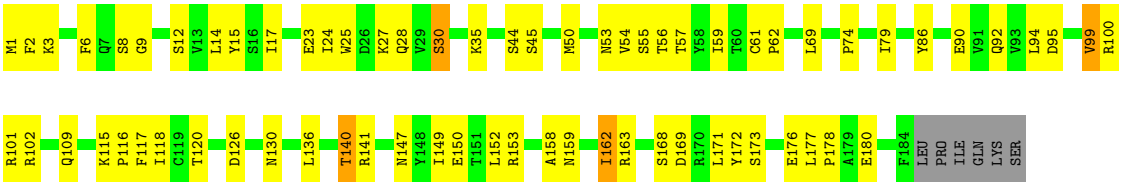
• Molecule 4: FAP20

Chain 3Y:



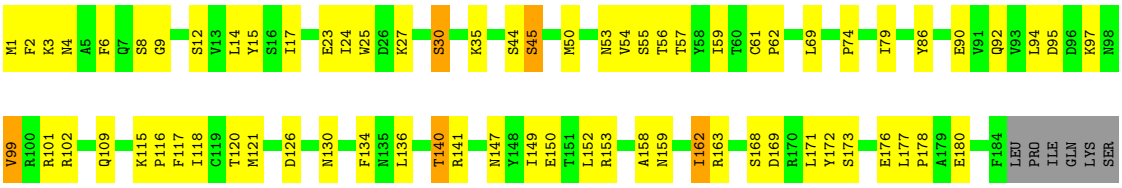
• Molecule 4: FAP20

Chain 4A:



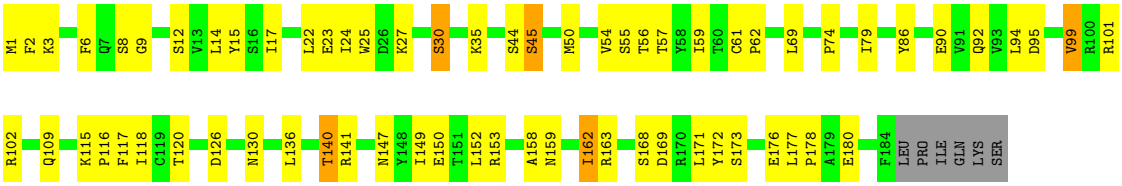
• Molecule 4: FAP20

Chain 4C:



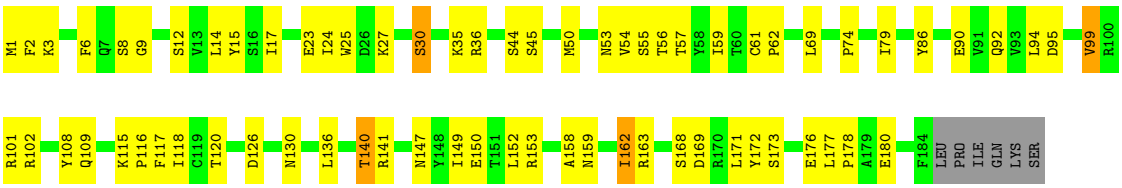
• Molecule 4: FAP20

Chain 4E:



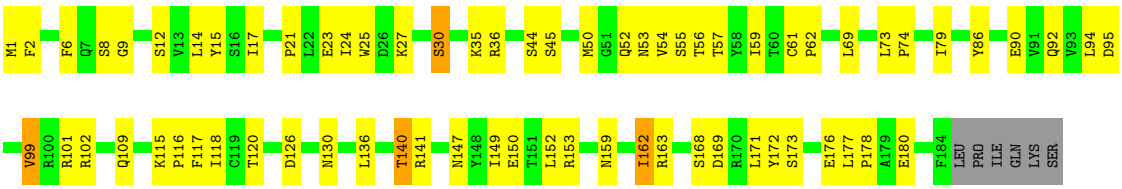
• Molecule 4: FAP20

Chain 4G:



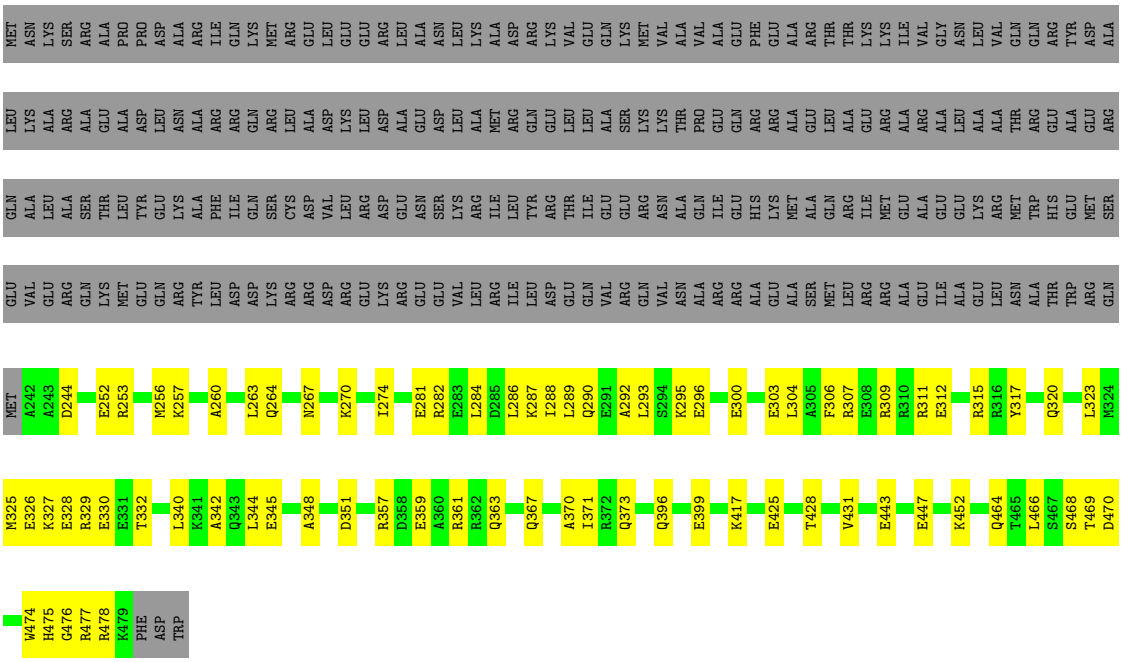
• Molecule 4: FAP20

Chain 4I:



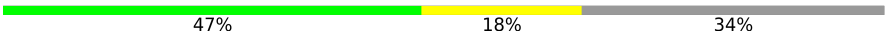
• Molecule 5: FAP53

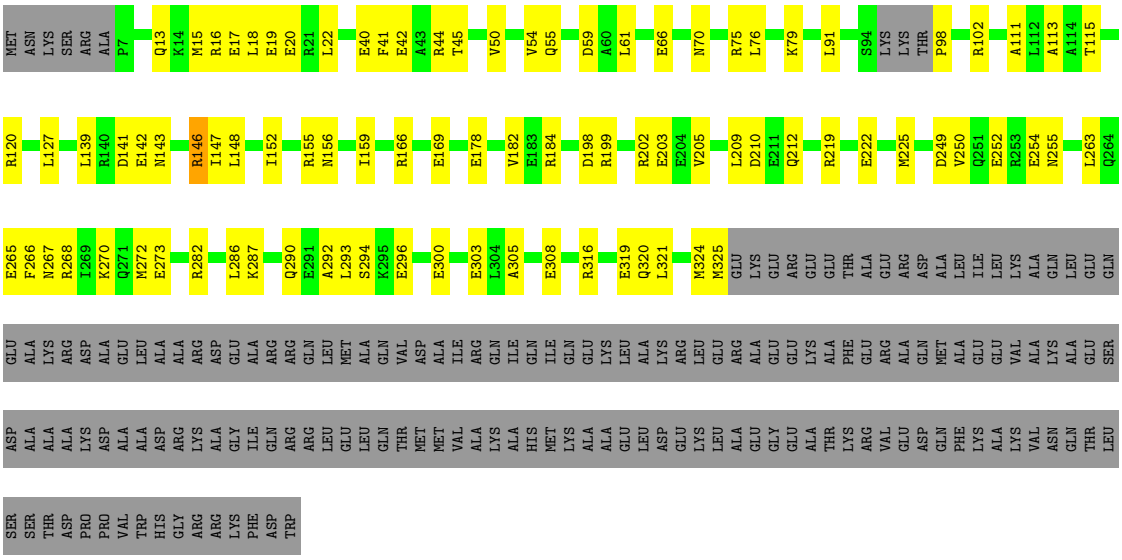
Chain 4L:



• Molecule 5: FAP53

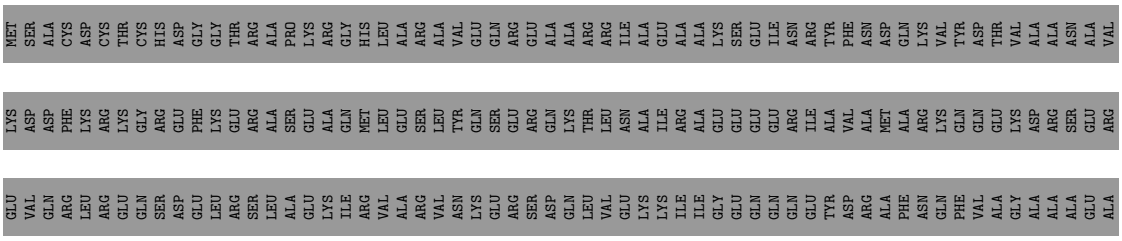
Chain 4M:

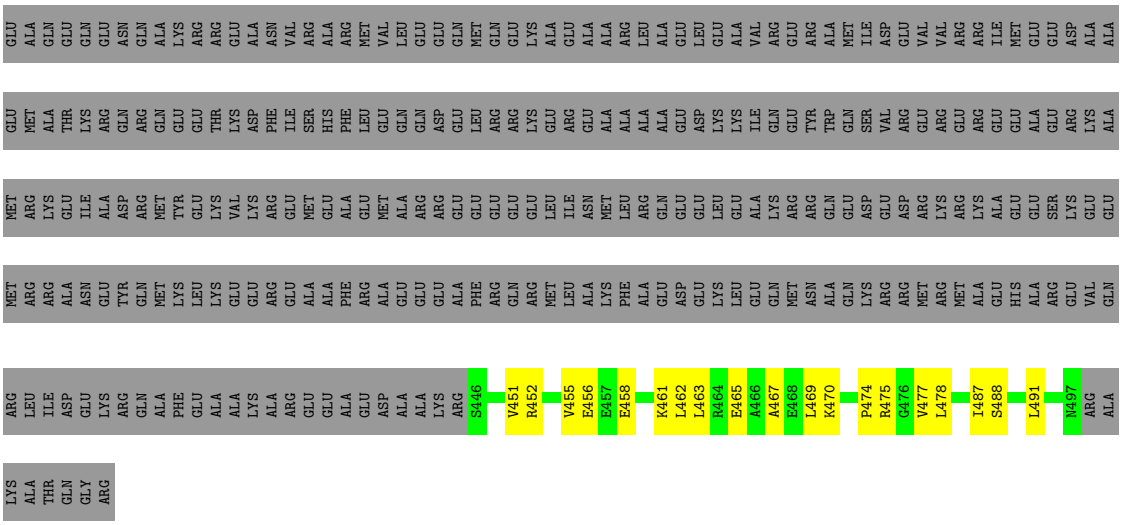




• Molecule 6: FAP127

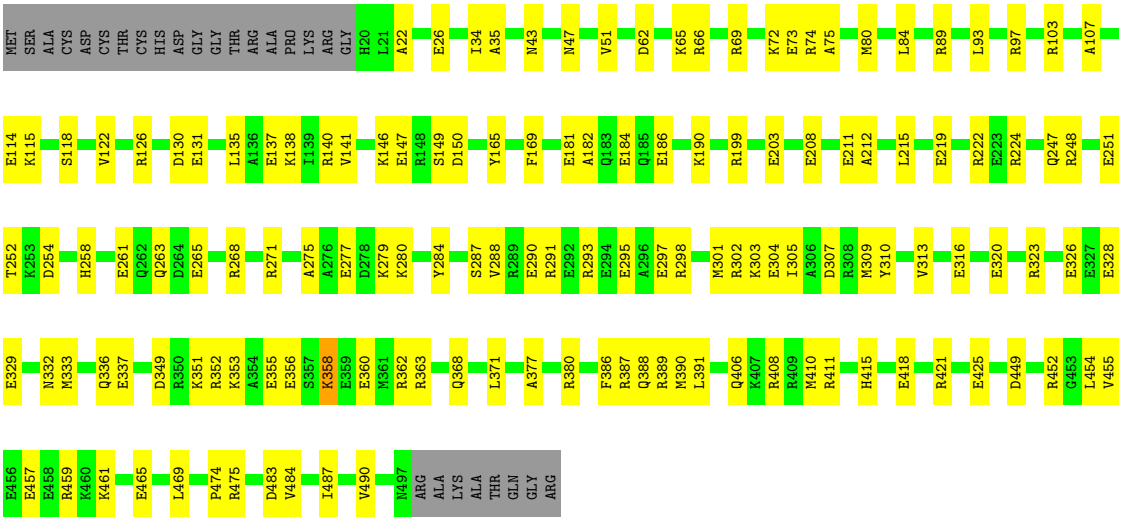
Chain 4N:





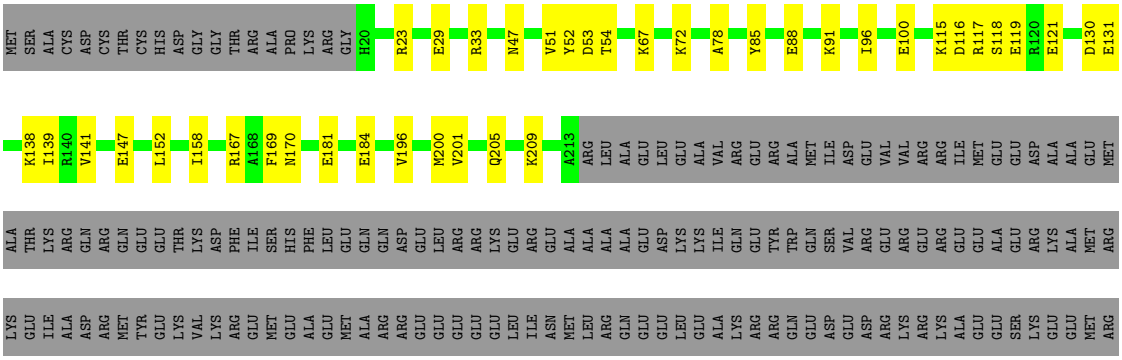
• Molecule 6: FAP127

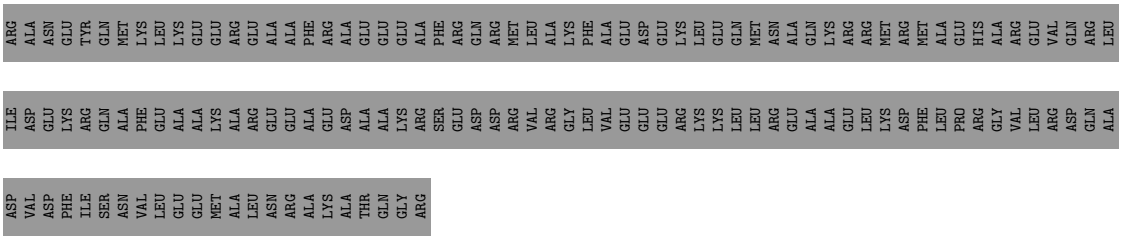
Chain 4O:

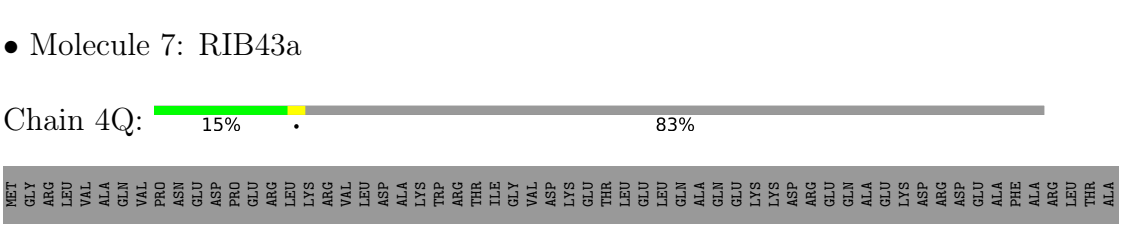


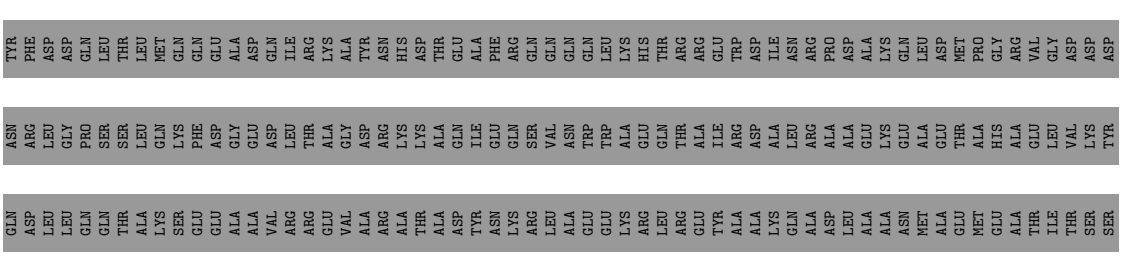
• Molecule 6: FAP127

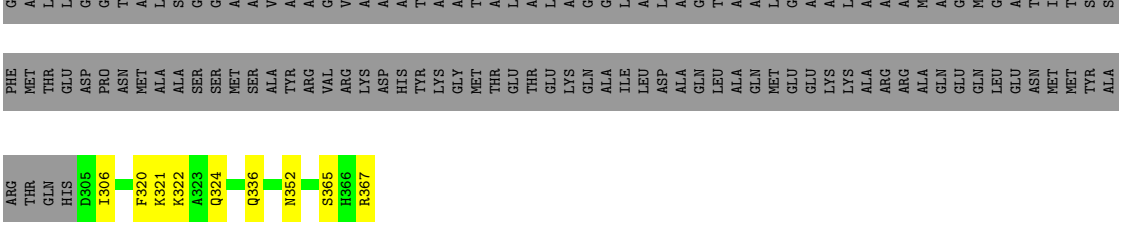
Chain 4P:

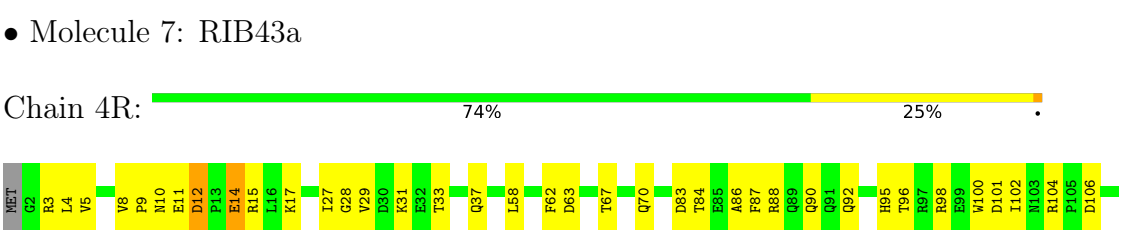


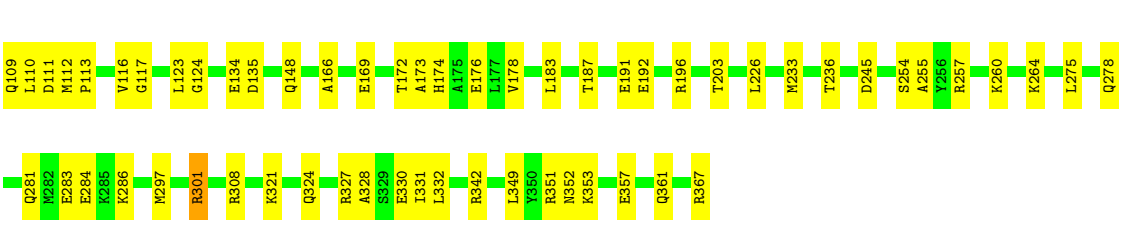


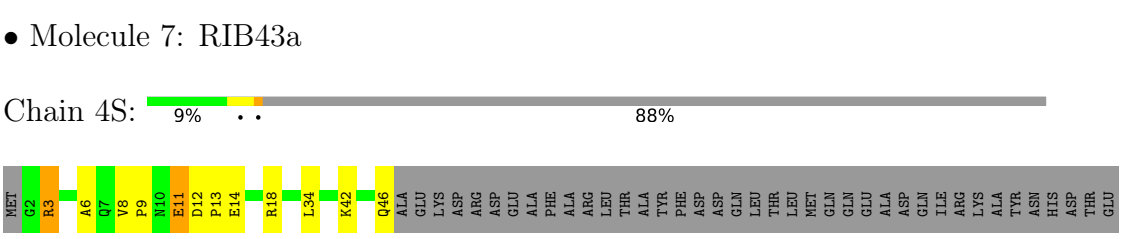












• Molecule 7: RIB43a

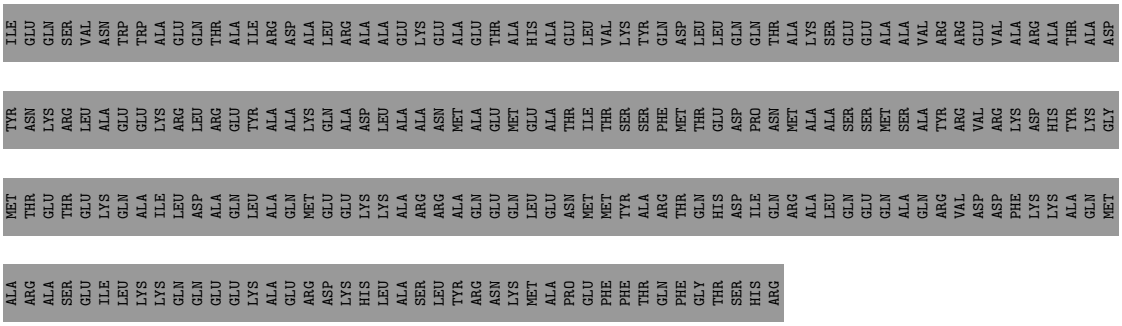
Chain 4Q:

• Molecule 7: RIB43a

Chain 4R:

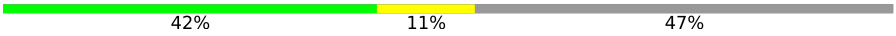
• Molecule 7: RIB43a

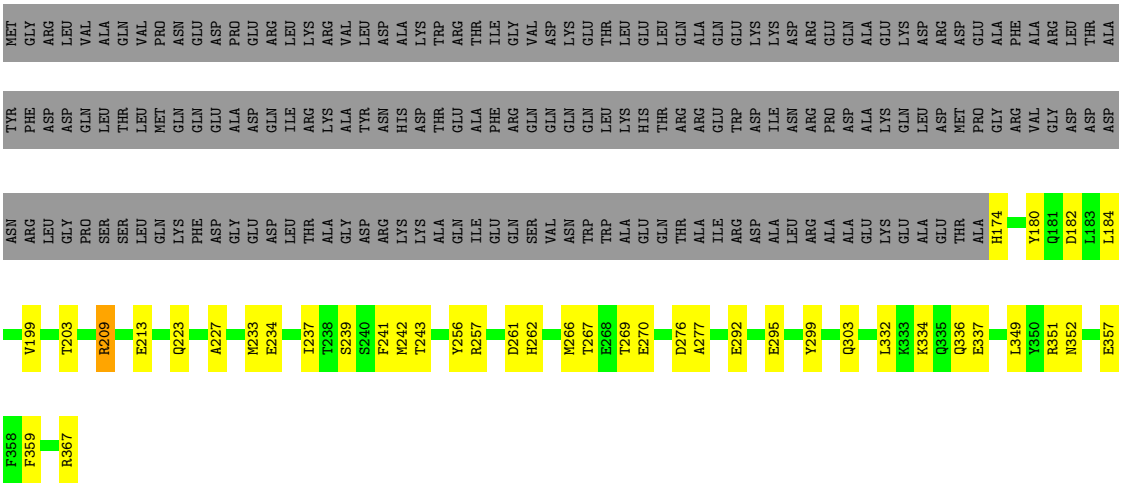
Chain 4S:



• Molecule 7: RIB43a

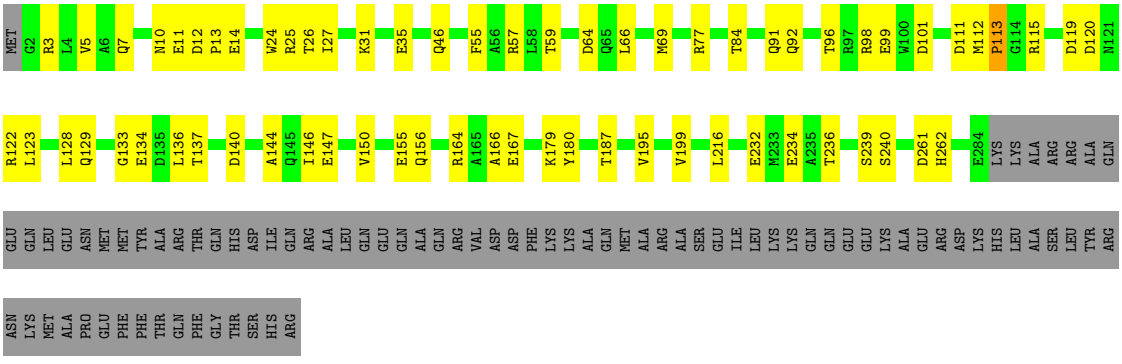
Chain 4T:





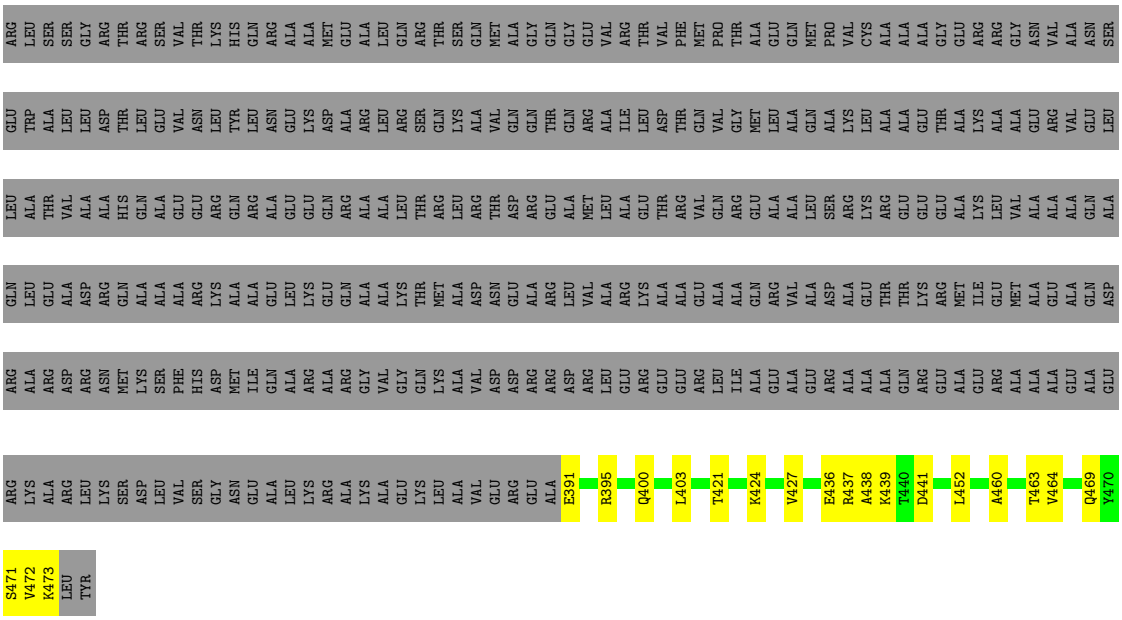
• Molecule 7: RIB43a

Chain 4U:



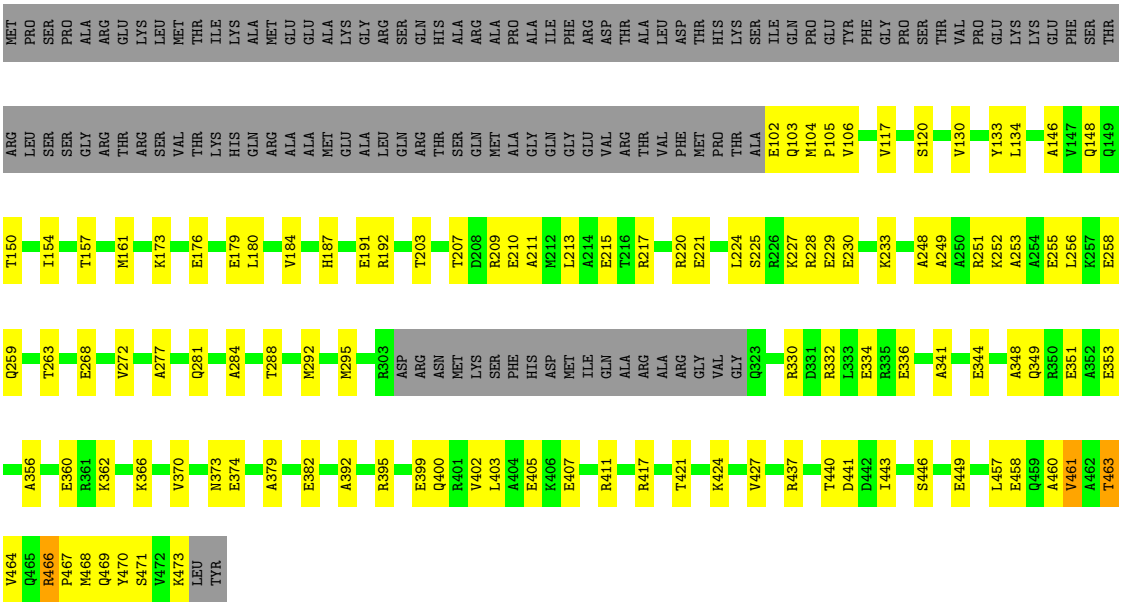
• Molecule 8: FAP112

Chain 4V:



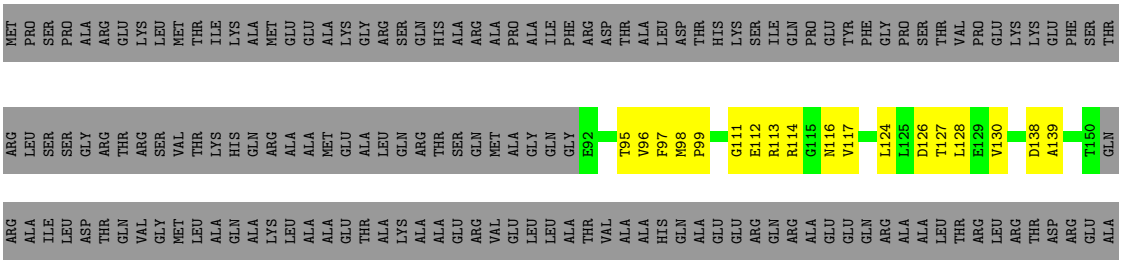
• Molecule 8: FAP112

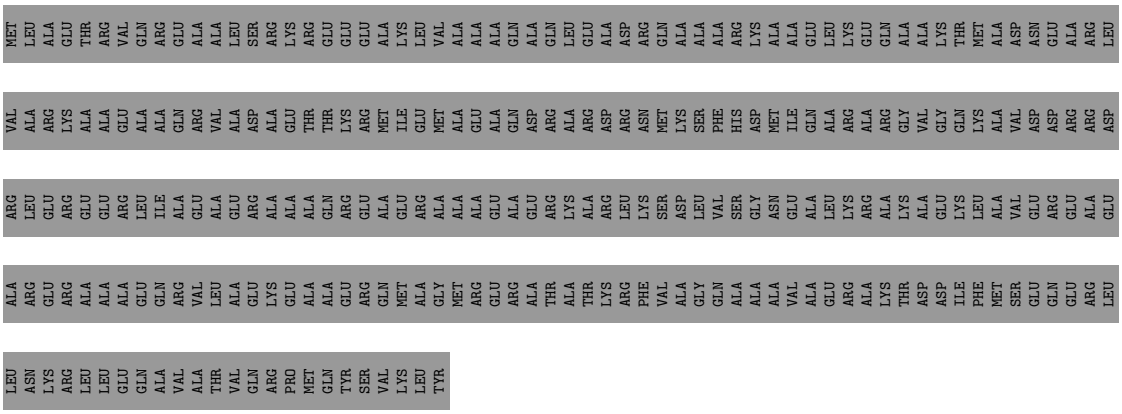
Chain 4W:



• Molecule 8: FAP112

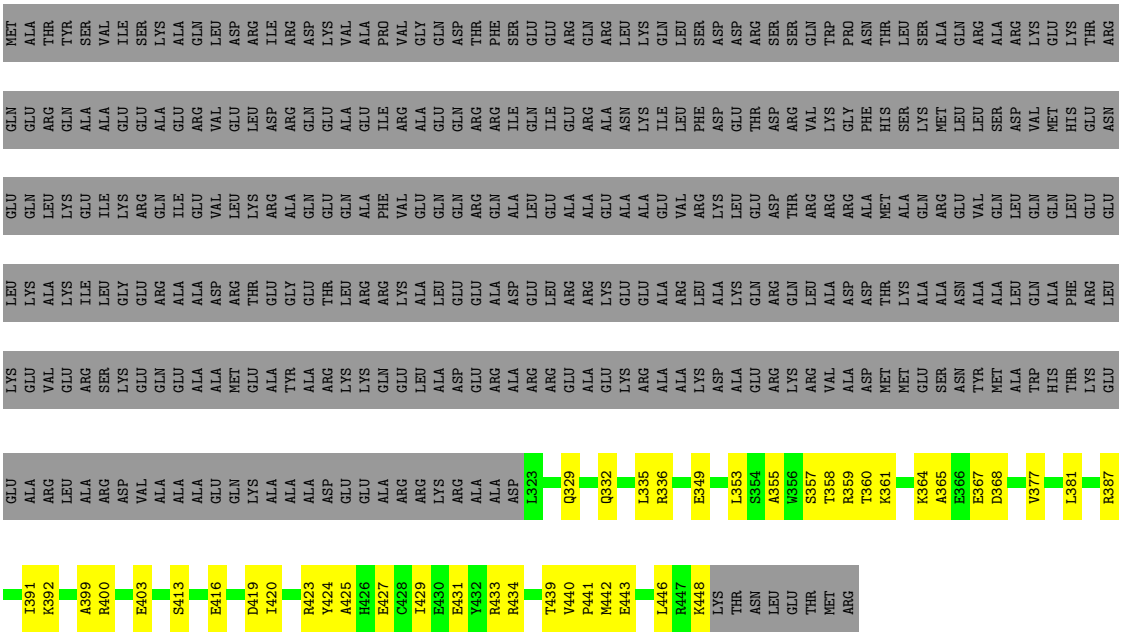
Chain 4X:





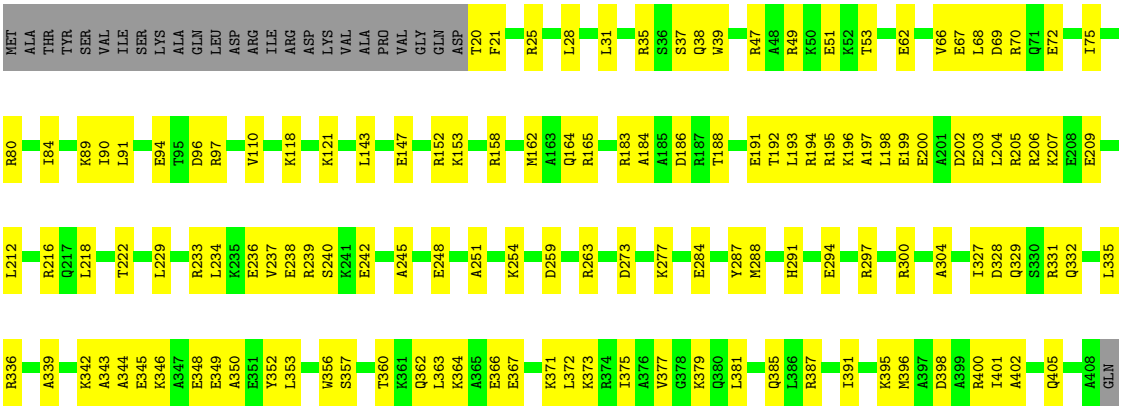
• Molecule 9: FAP210

Chain 4Y:



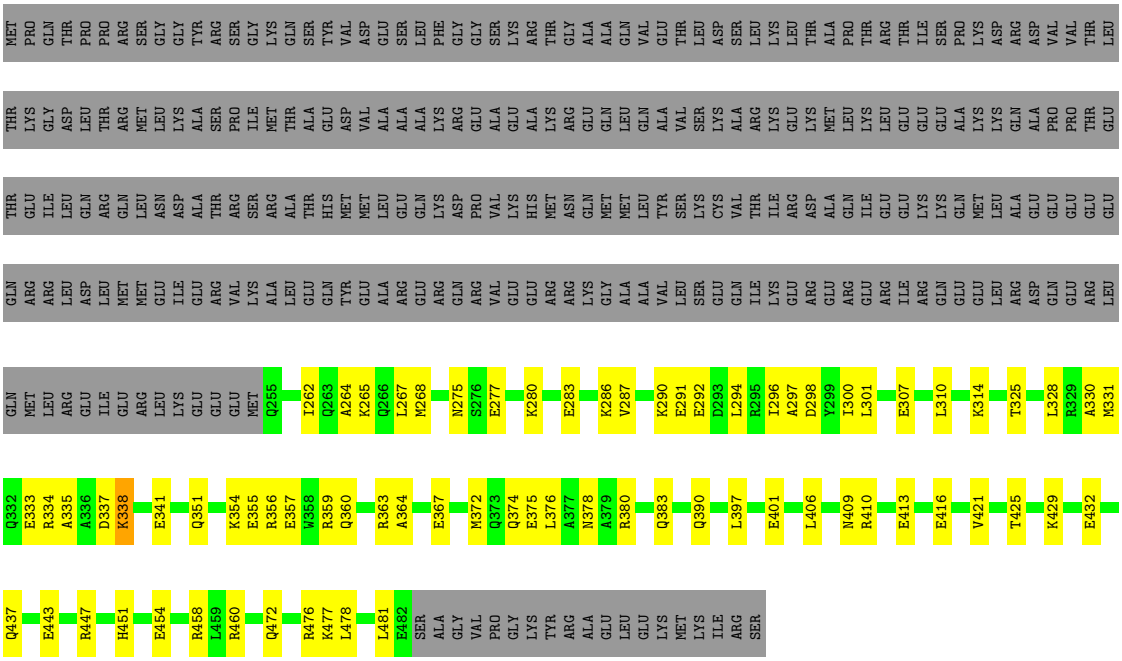
• Molecule 9: FAP210

Chain 4Z:



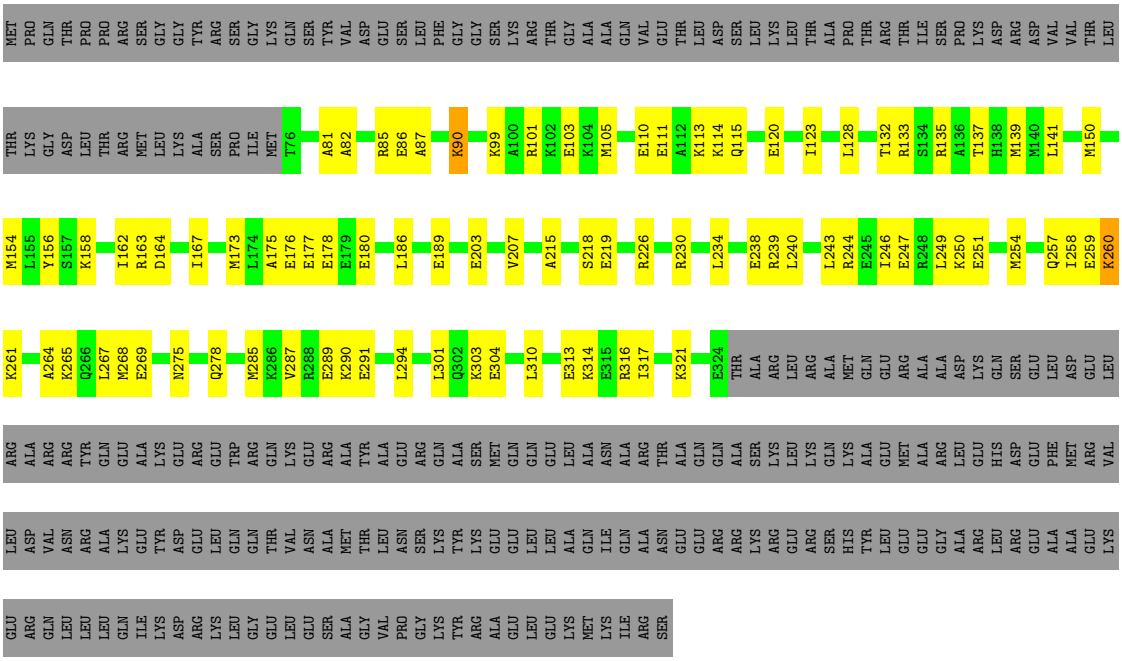
• Molecule 10: FAP45

Chain 5A:



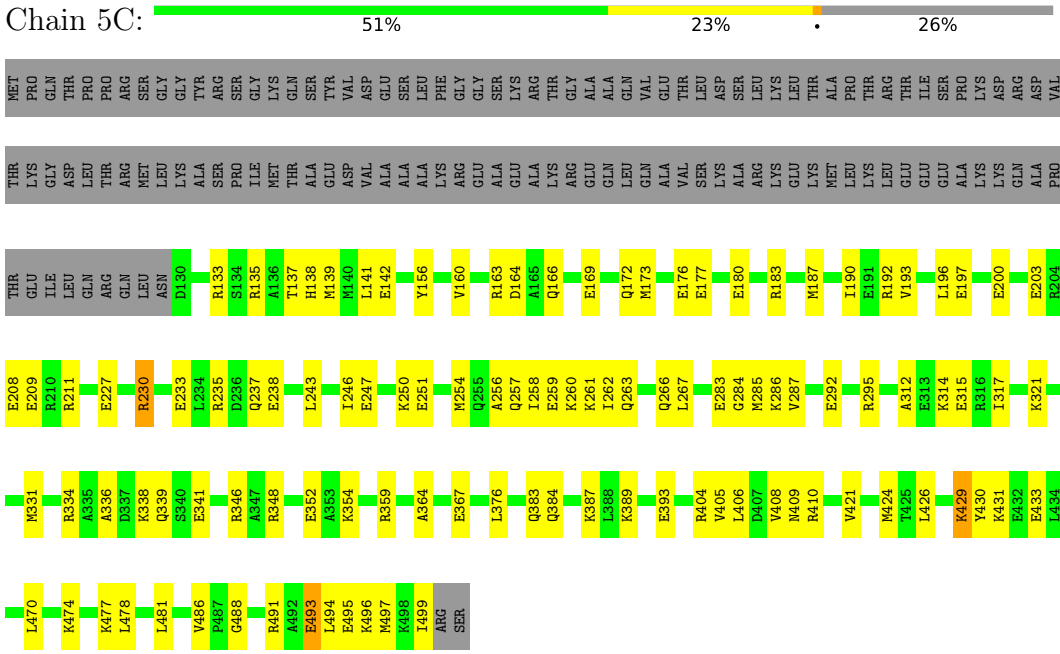
• Molecule 10: FAP45

Chain 5B:



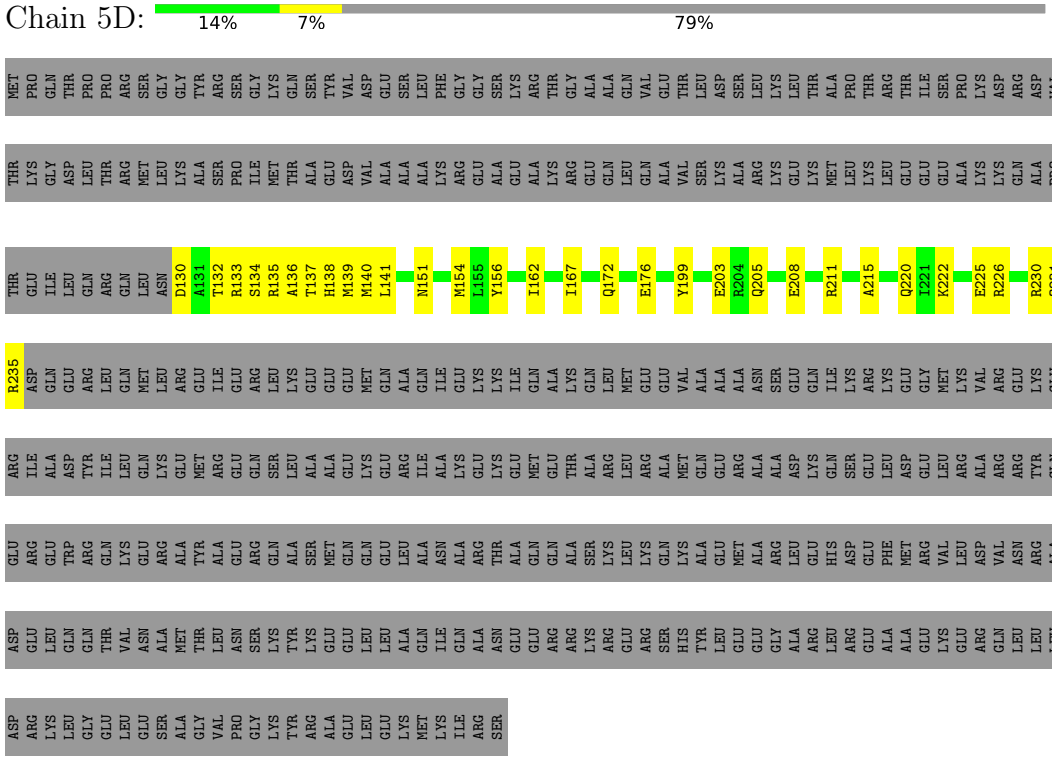
• Molecule 10: FAP45

Chain 5C:



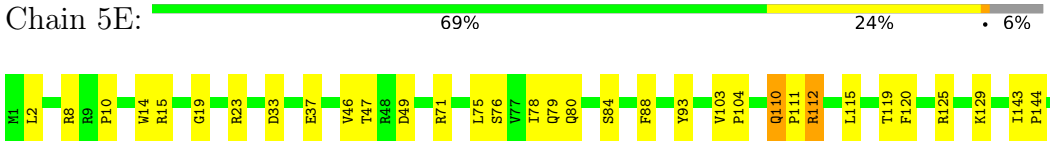
• Molecule 10: FAP45

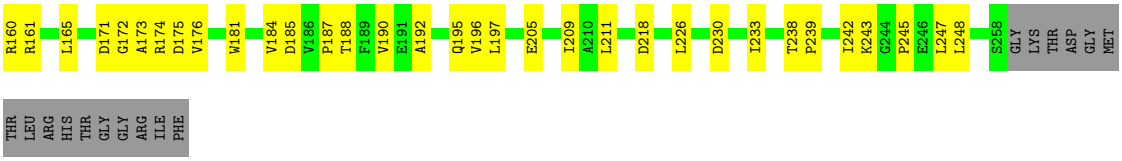
Chain 5D:



• Molecule 11: RIB30

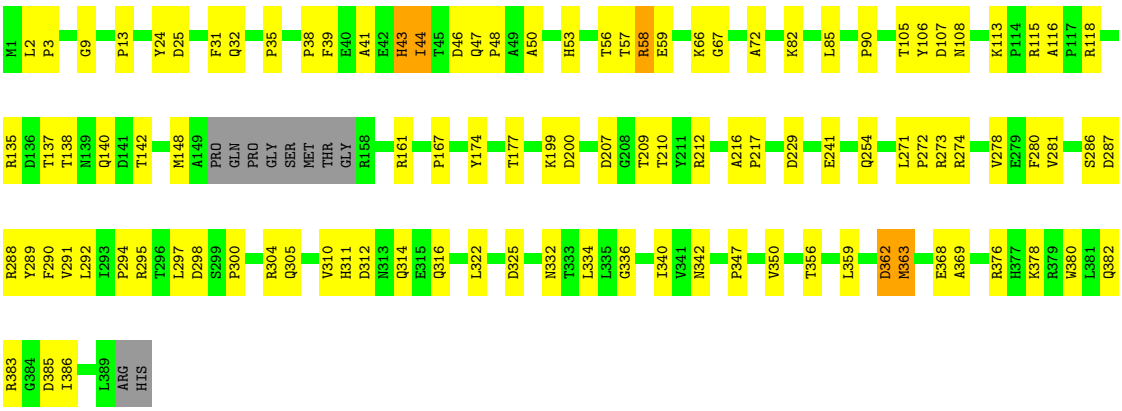
Chain 5E:





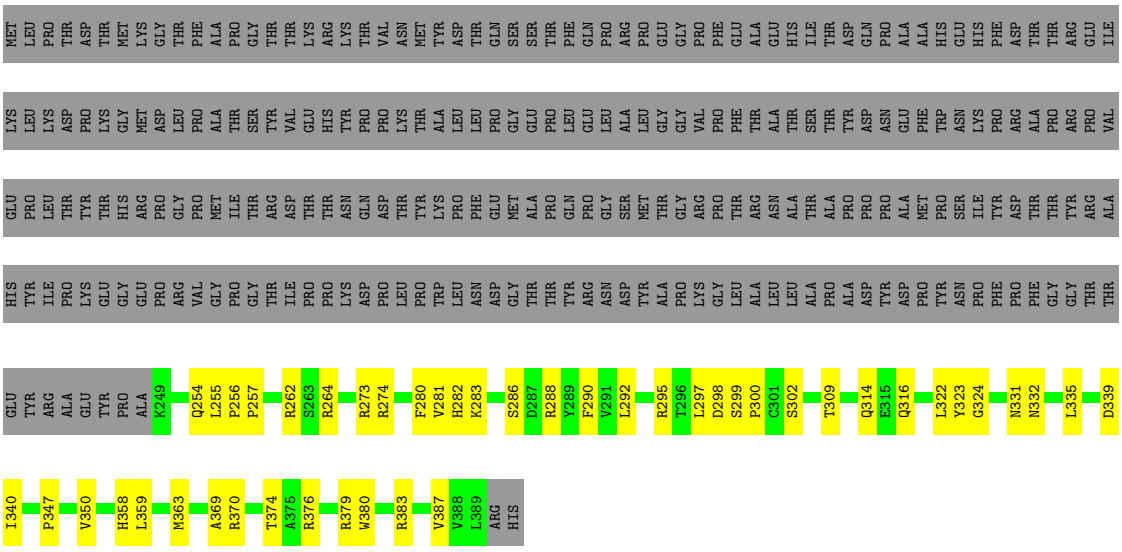
• Molecule 12: FAP363

Chain 5F:



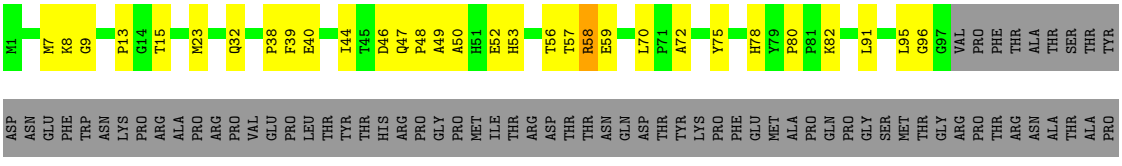
• Molecule 12: FAP363

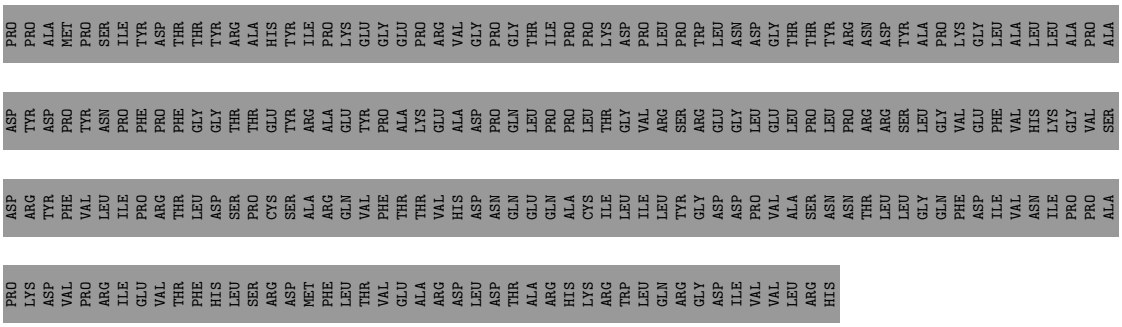
Chain 5G:



• Molecule 12: FAP363

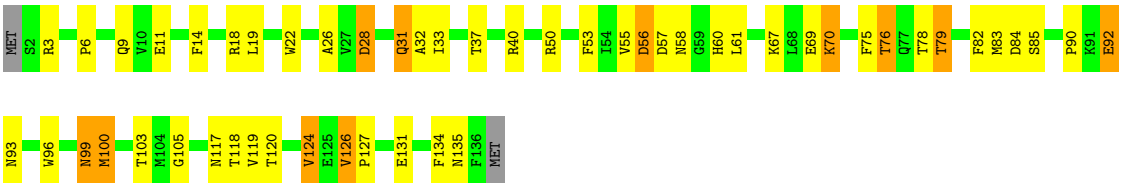
Chain 7B:





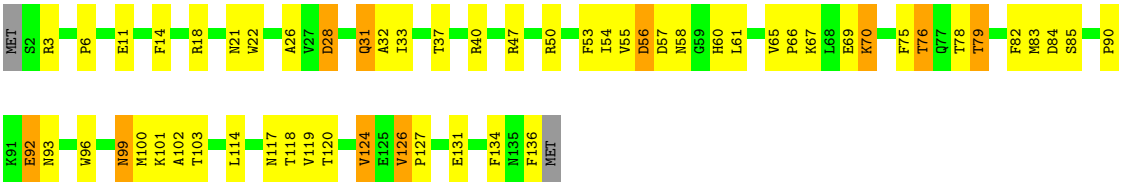
• Molecule 13: FAP126

Chain 5H:



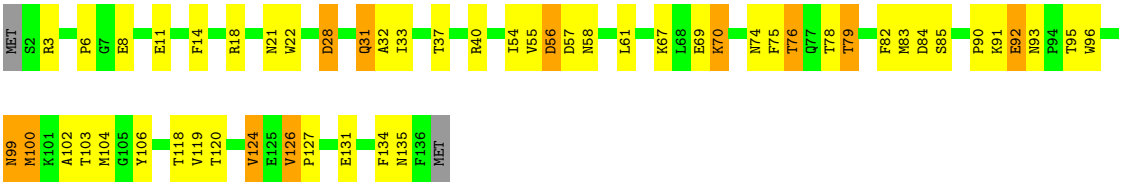
• Molecule 13: FAP126

Chain 5I:



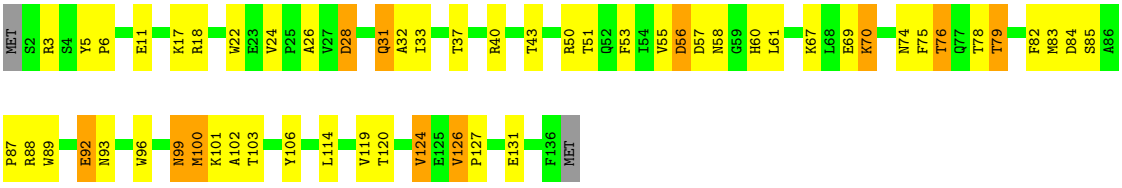
• Molecule 13: FAP126

Chain 5J:



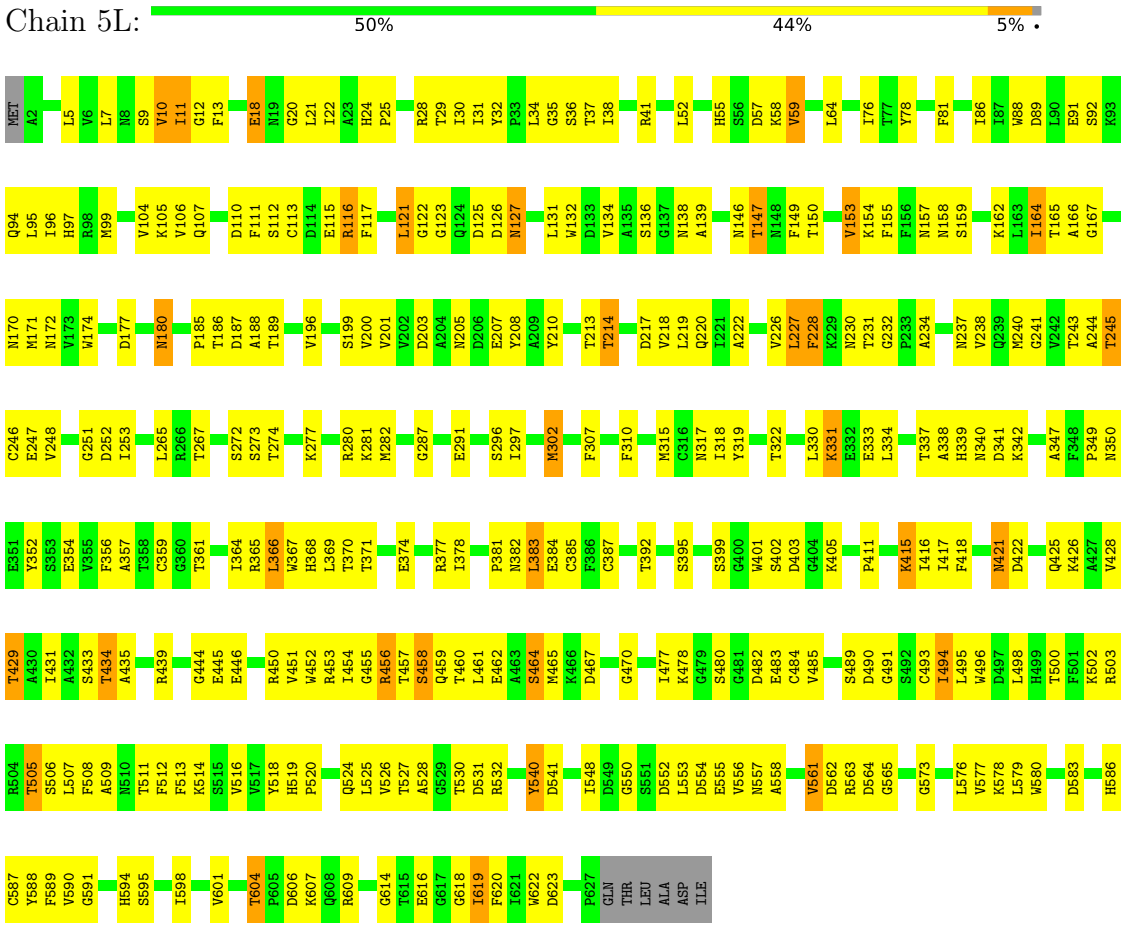
• Molecule 13: FAP126

Chain 5K:



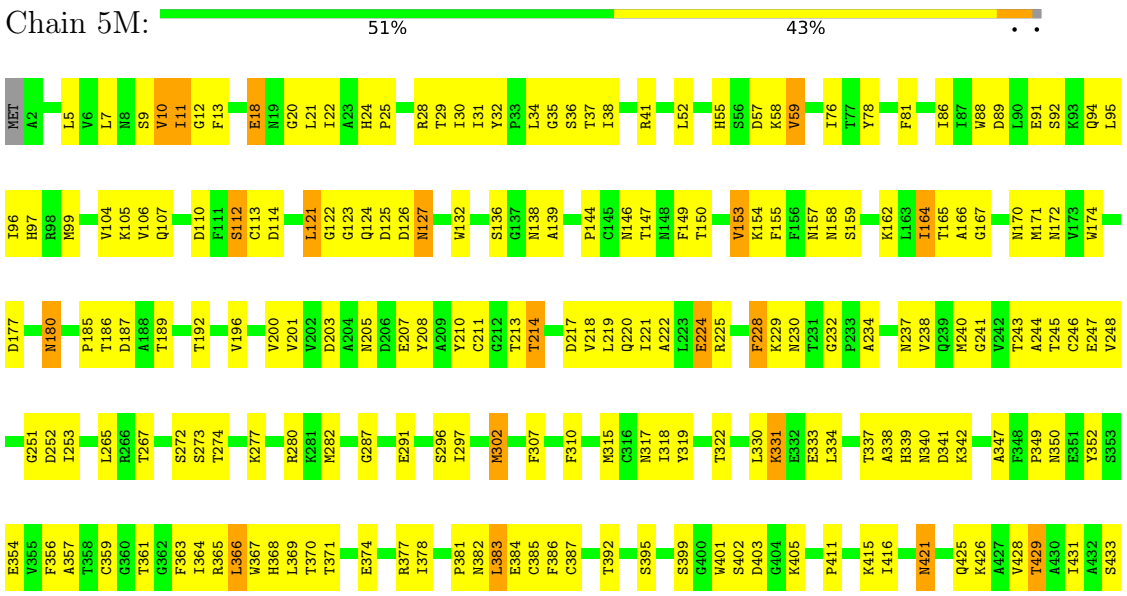
• Molecule 14: FAP52

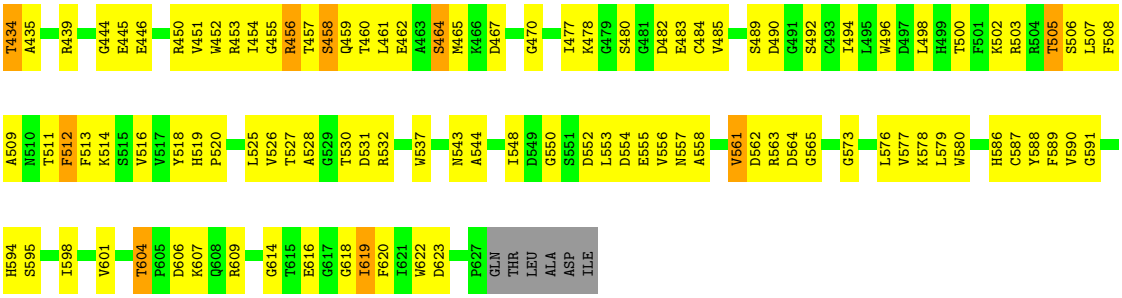
Chain 5L:



• Molecule 14: FAP52

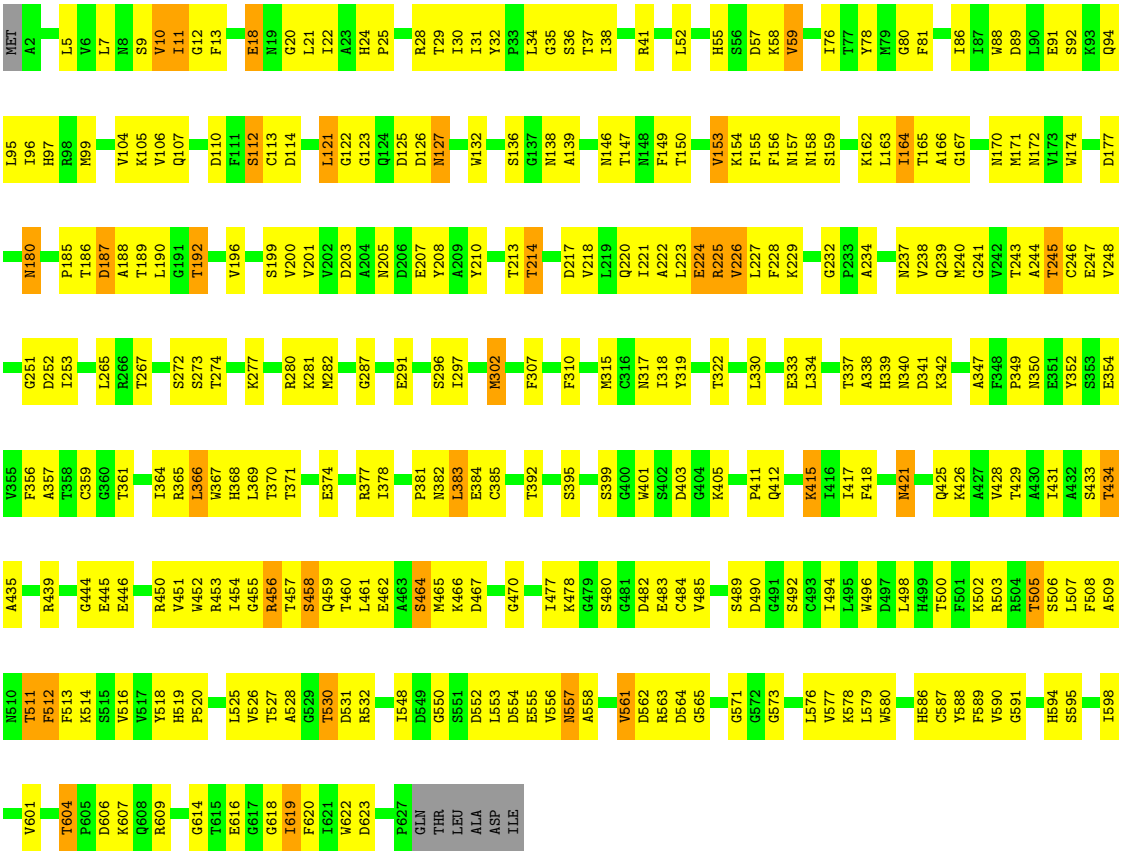
Chain 5M:





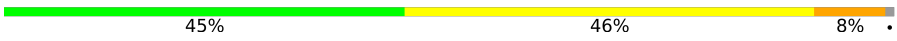
• Molecule 14: FAP52

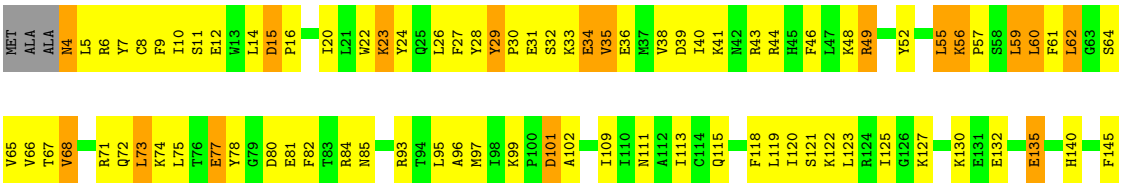
Chain 5N:

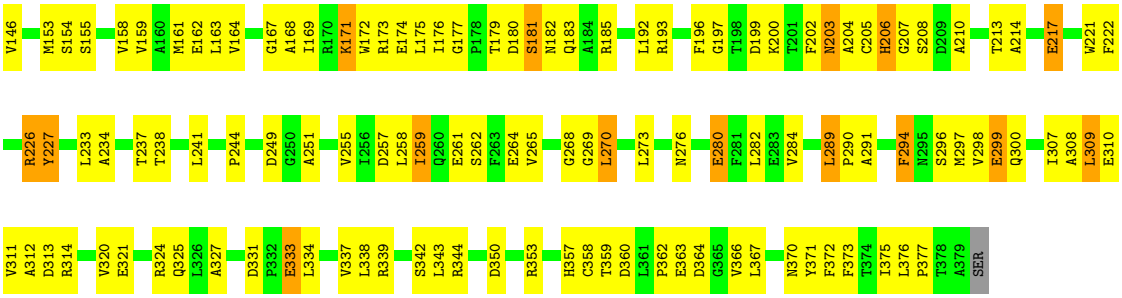


• Molecule 15: FAP67

Chain 5O:

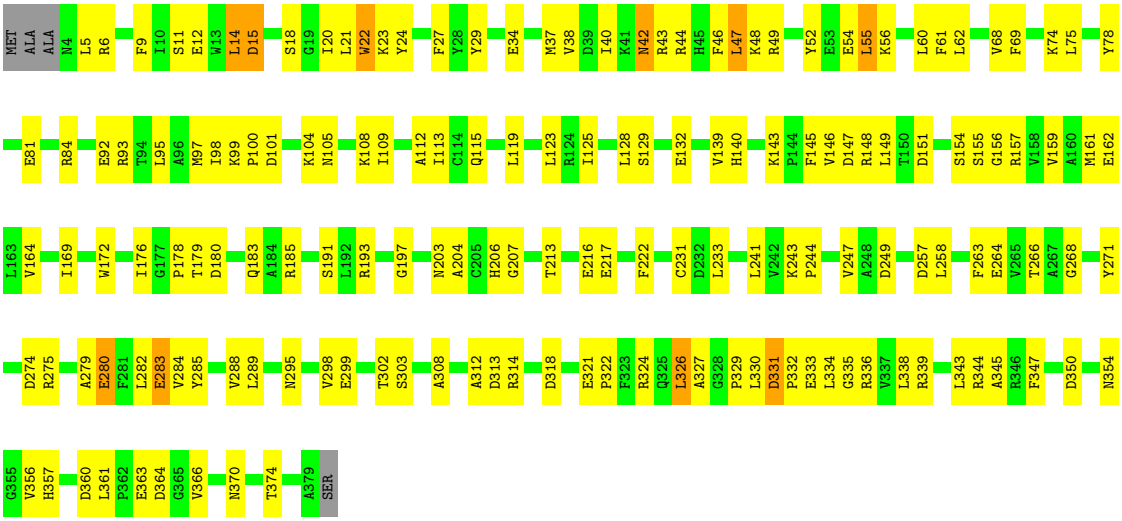






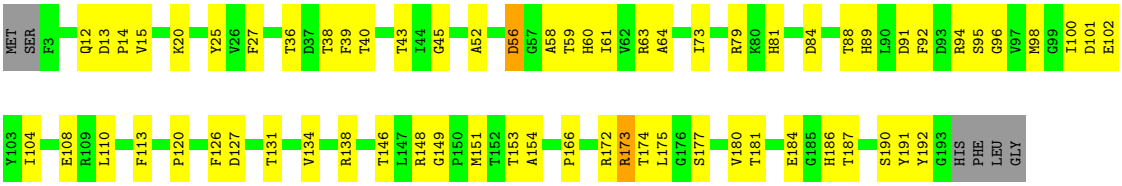
• Molecule 15: FAP67

Chain 5P:



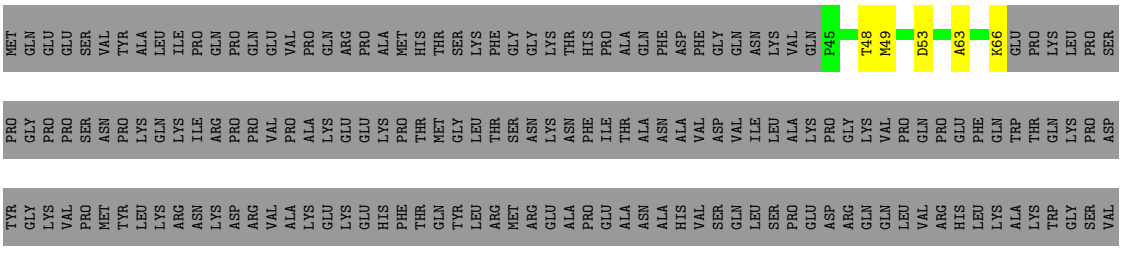
• Molecule 16: FAP85

Chain 5Q:



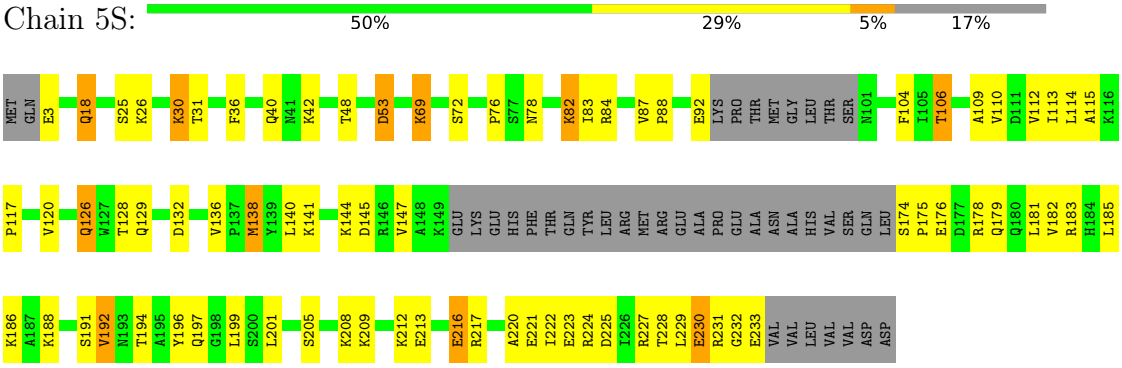
• Molecule 17: FAP106

Chain 5R:



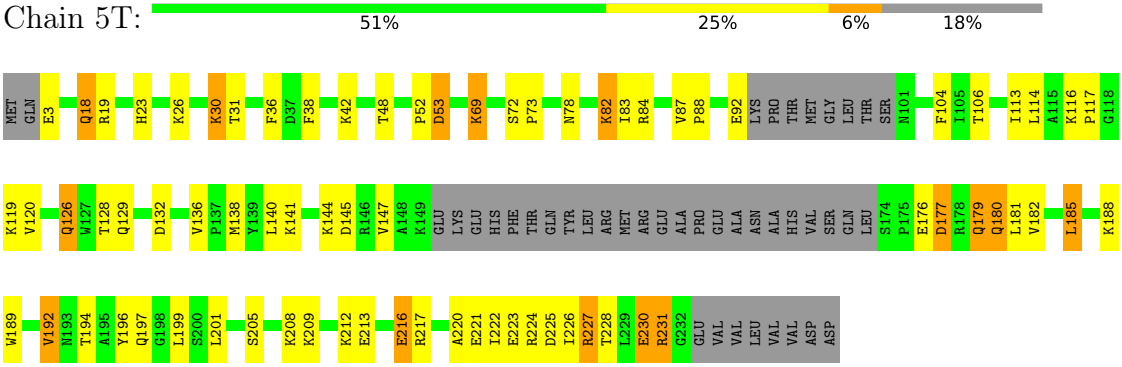
• Molecule 17: FAP106

Chain 5S:



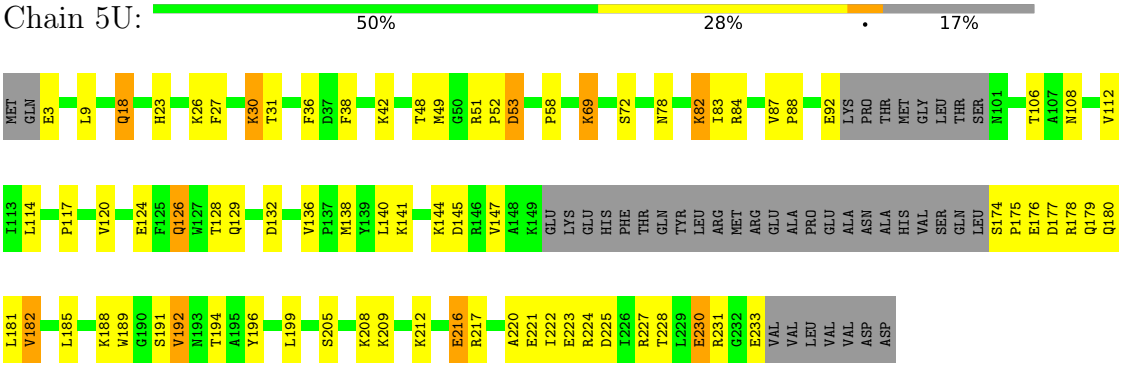
• Molecule 17: FAP106

Chain 5T:



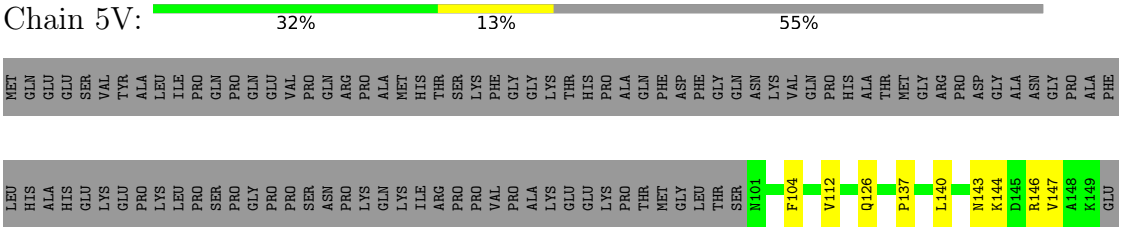
• Molecule 17: FAP106

Chain 5U:



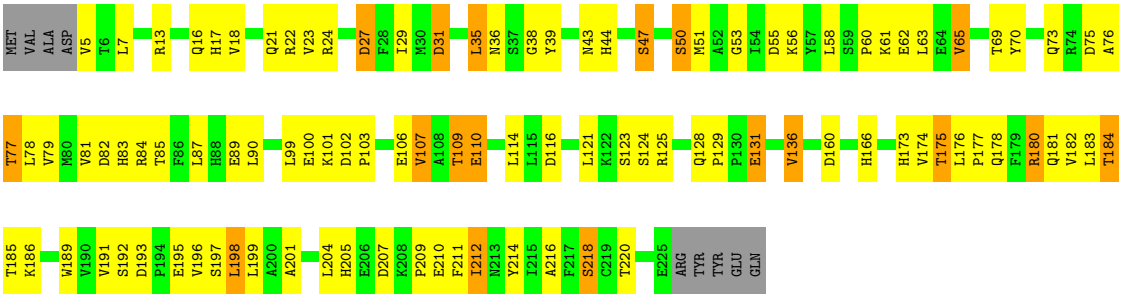
• Molecule 17: FAP106

Chain 5V:



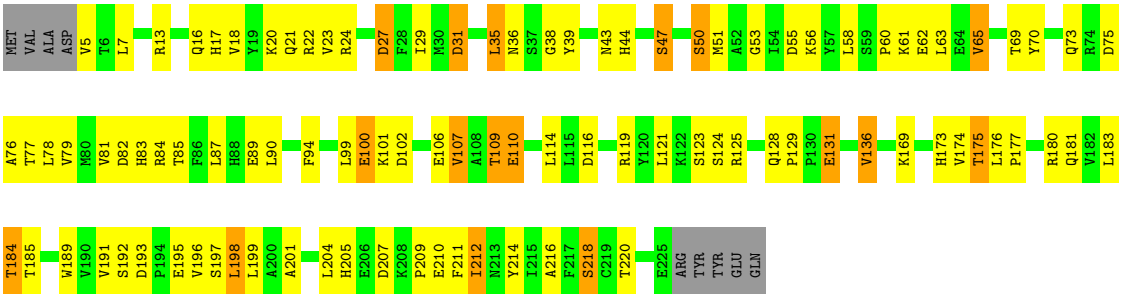
• Molecule 18: FAP115

Chain 5X:



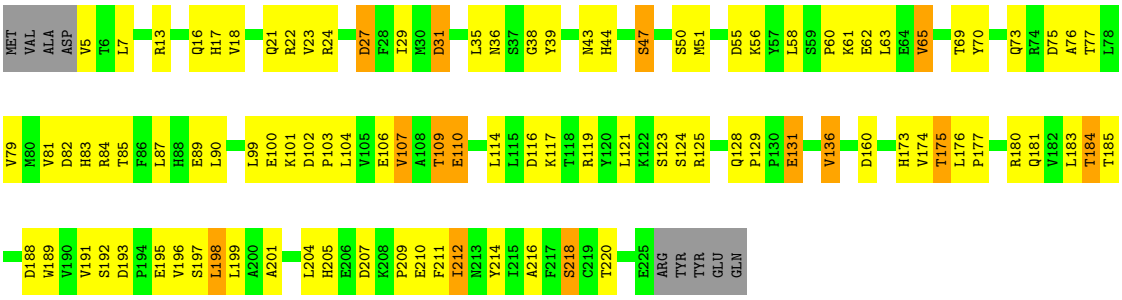
• Molecule 18: FAP115

Chain 5Y:



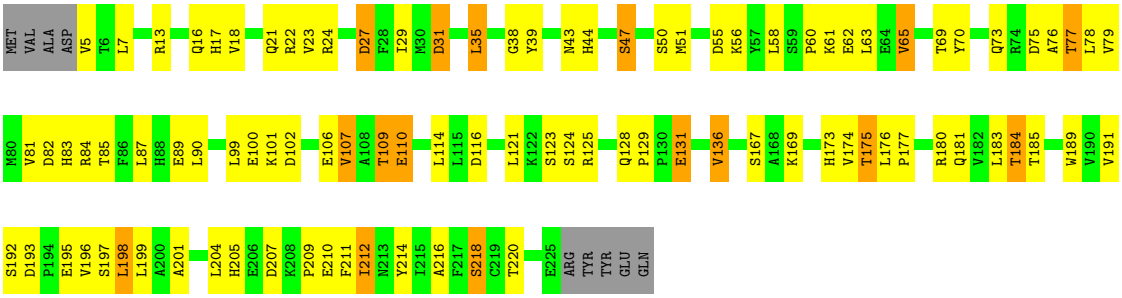
• Molecule 18: FAP115

Chain 5Z:



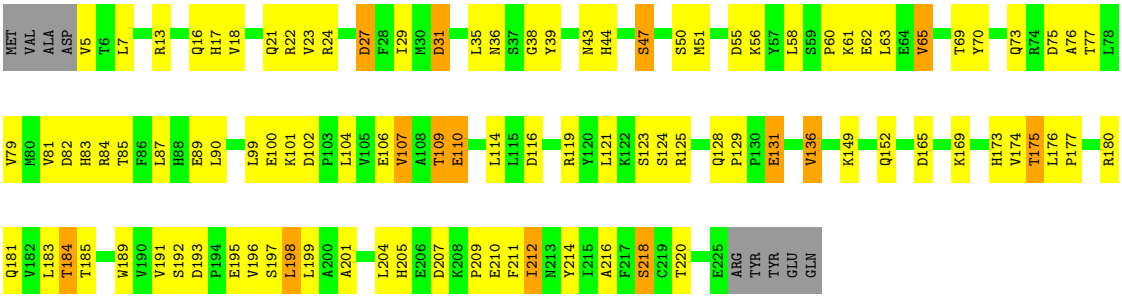
• Molecule 18: FAP115

Chain 6A:



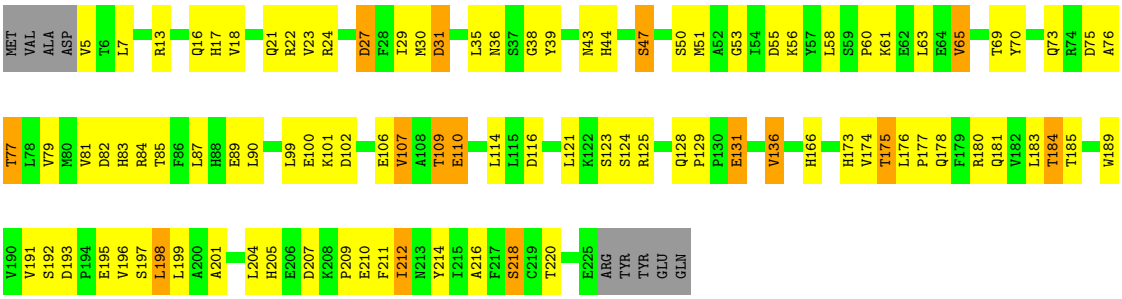
• Molecule 18: FAP115

Chain 6B:



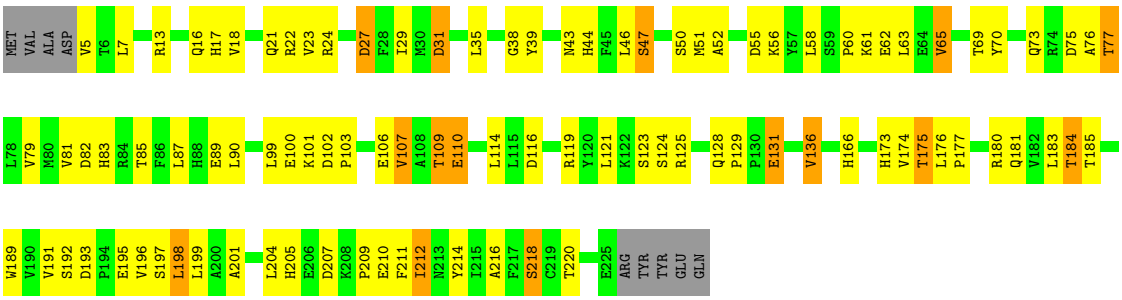
• Molecule 18: FAP115

Chain 6C:



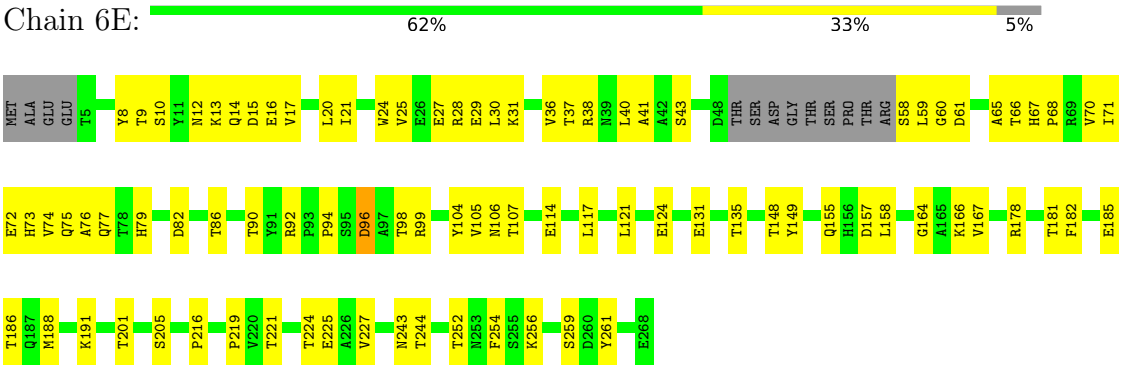
• Molecule 18: FAP115

Chain 6D:



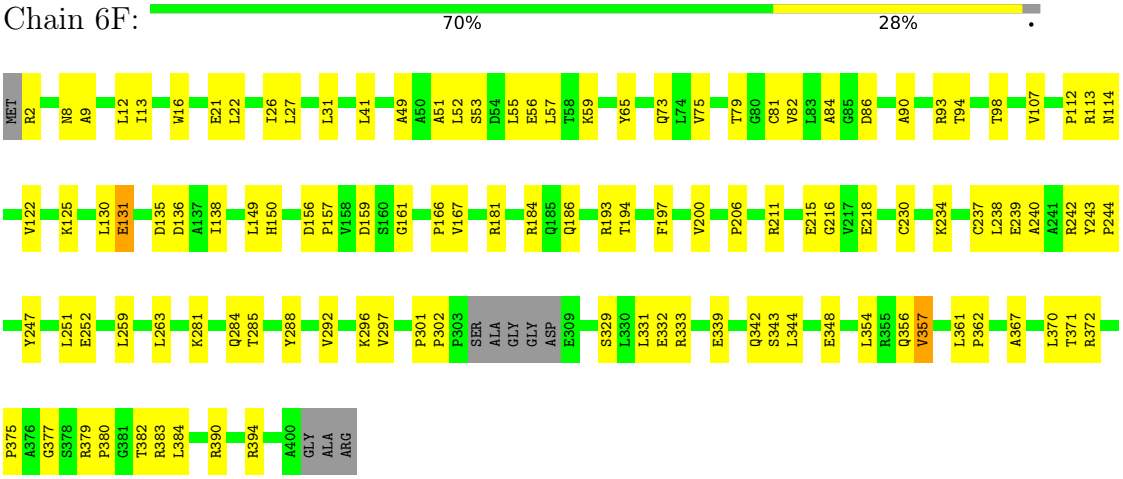
• Molecule 19: FAP143

Chain 6E:



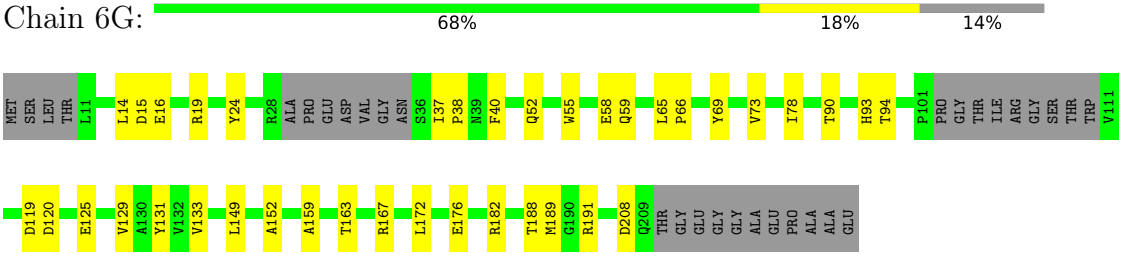
• Molecule 20: FAP161

Chain 6F:



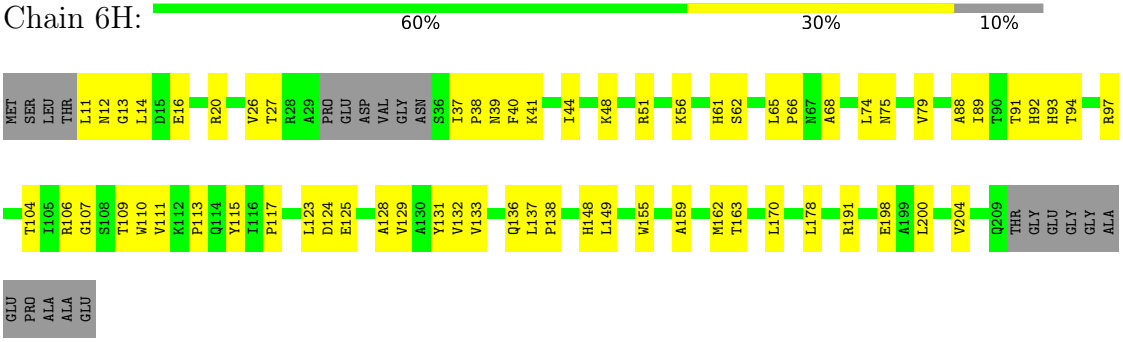
• Molecule 21: FAP166

Chain 6G:



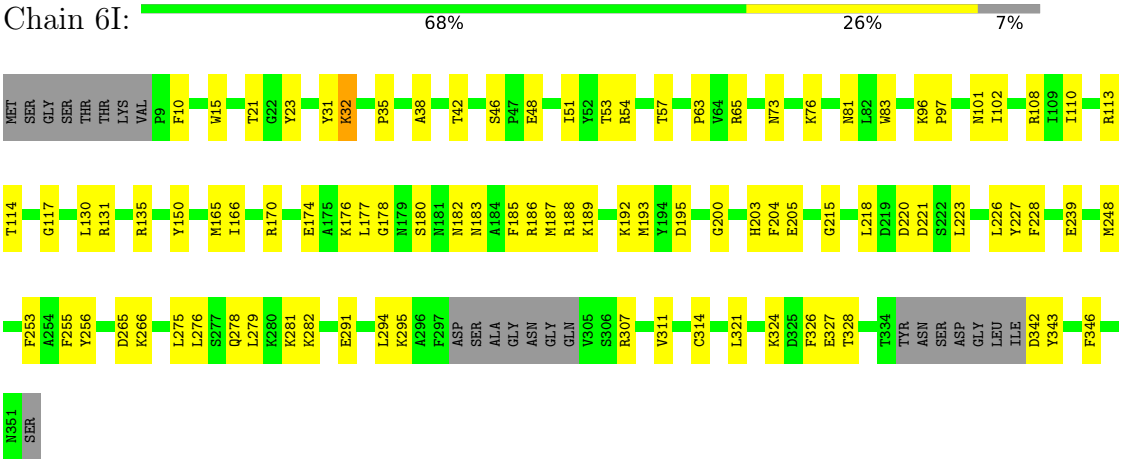
• Molecule 21: FAP166

Chain 6H:



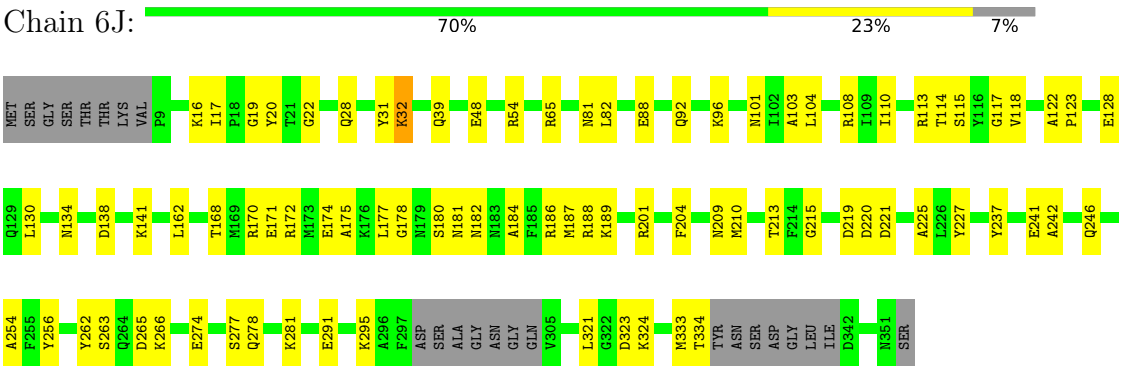
• Molecule 22: FAP252

Chain 6I:



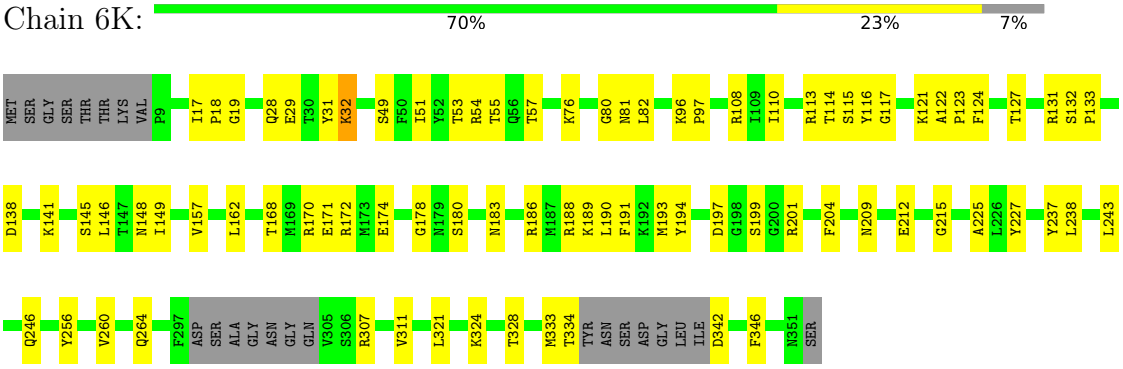
• Molecule 22: FAP252

Chain 6J:



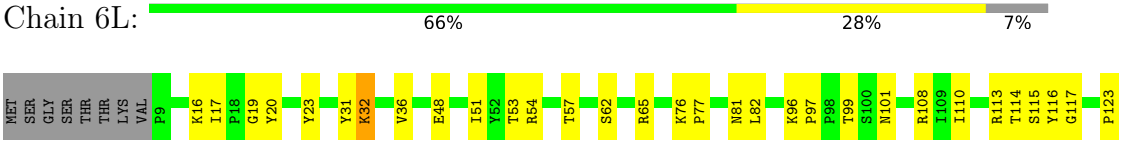
• Molecule 22: FAP252

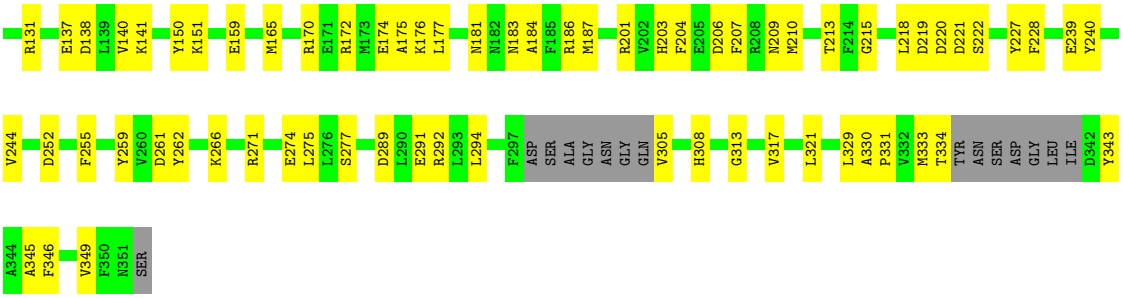
Chain 6K:



• Molecule 22: FAP252

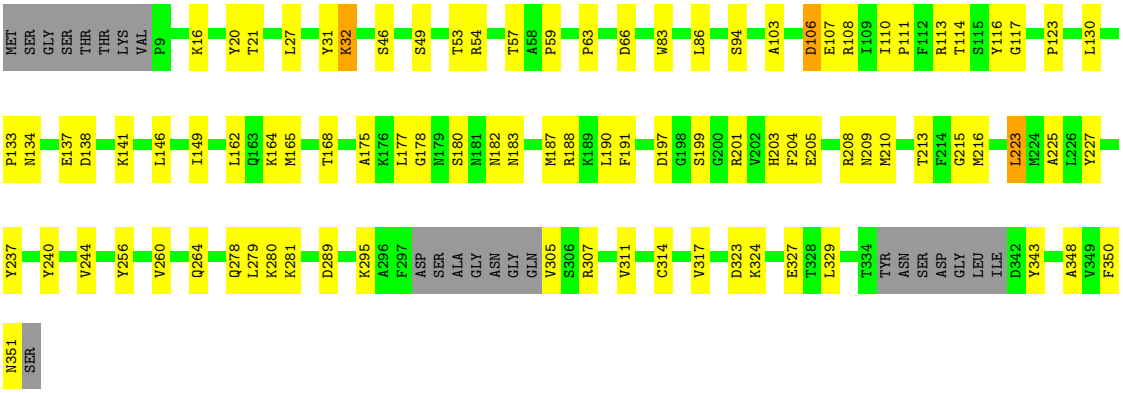
Chain 6L:





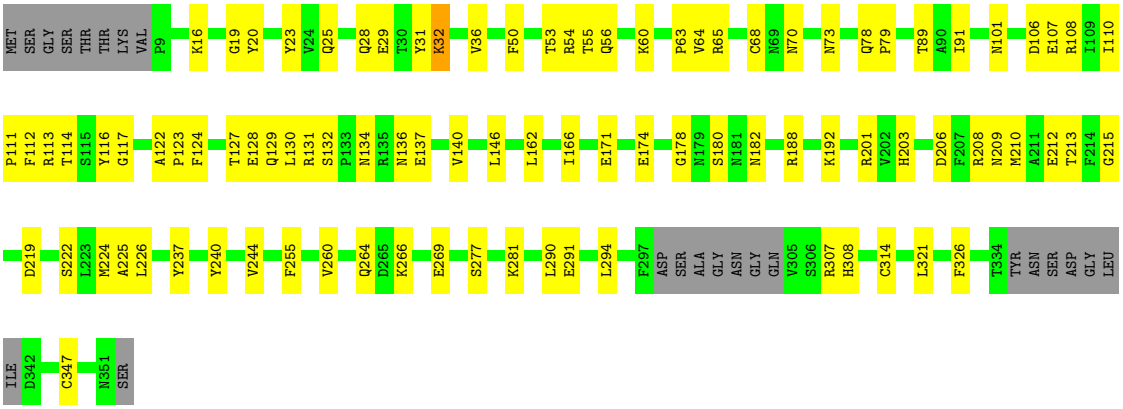
• Molecule 22: FAP252

Chain 6M:



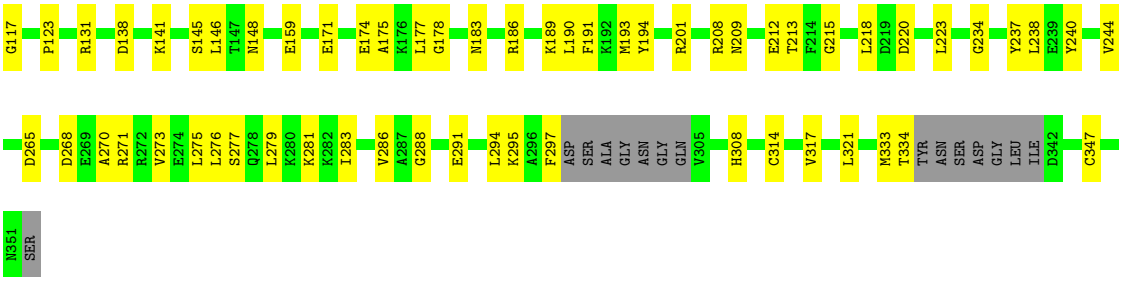
• Molecule 22: FAP252

Chain 6N:



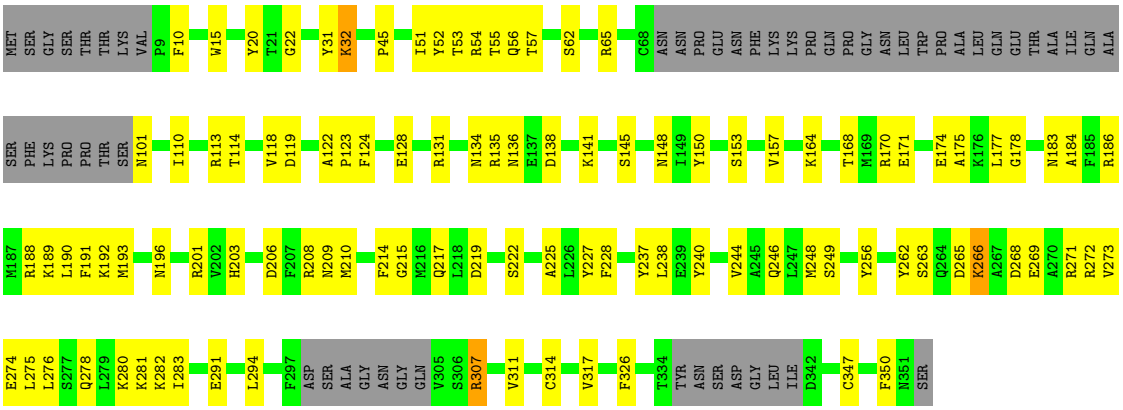
• Molecule 22: FAP252

Chain 6O:



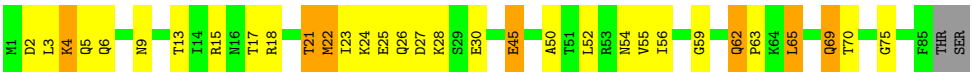
• Molecule 22: FAP252

Chain 6P:



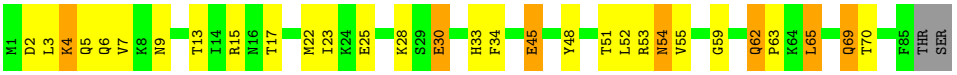
• Molecule 23: FAP276

Chain 6Q:



• Molecule 23: FAP276

Chain 6R:

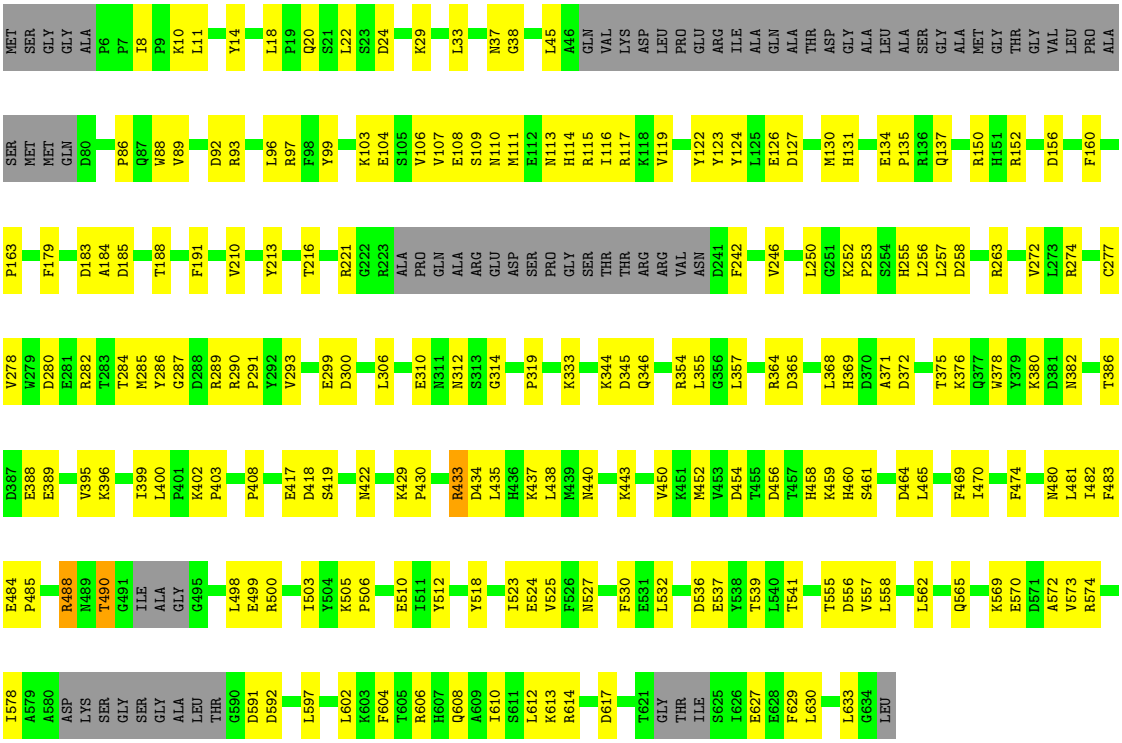


• Molecule 23: FAP276

Chain 6S:

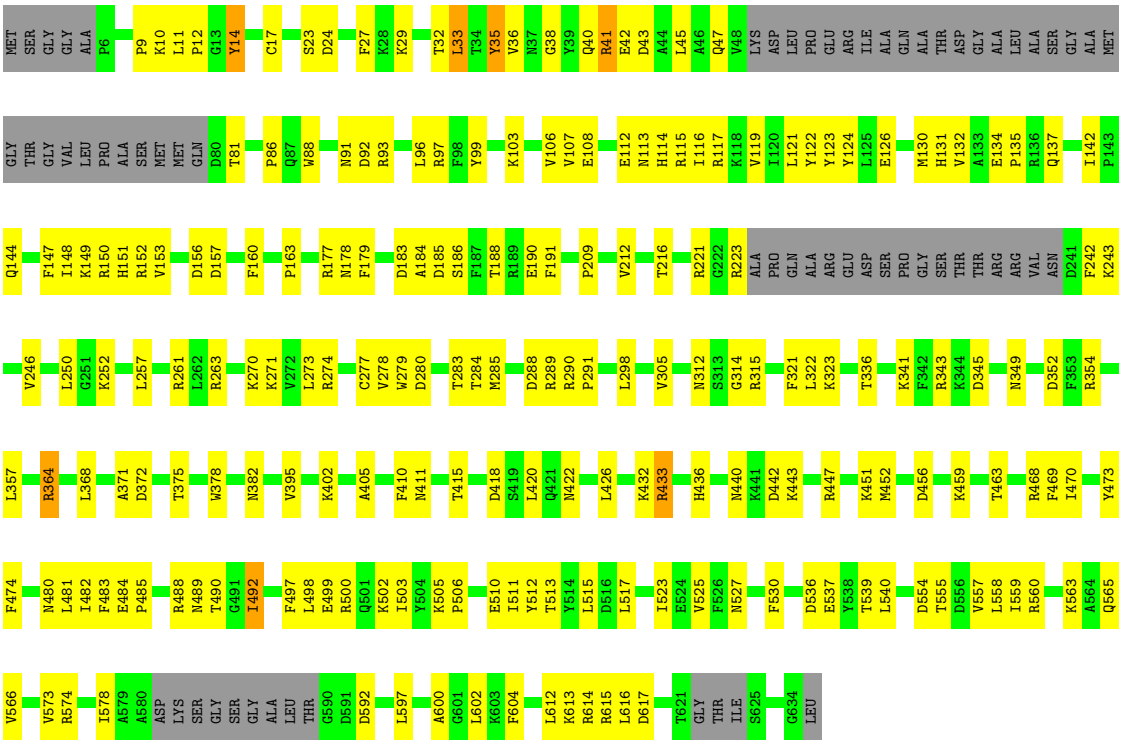
• Molecule 24: RIB72

Chain 6T:



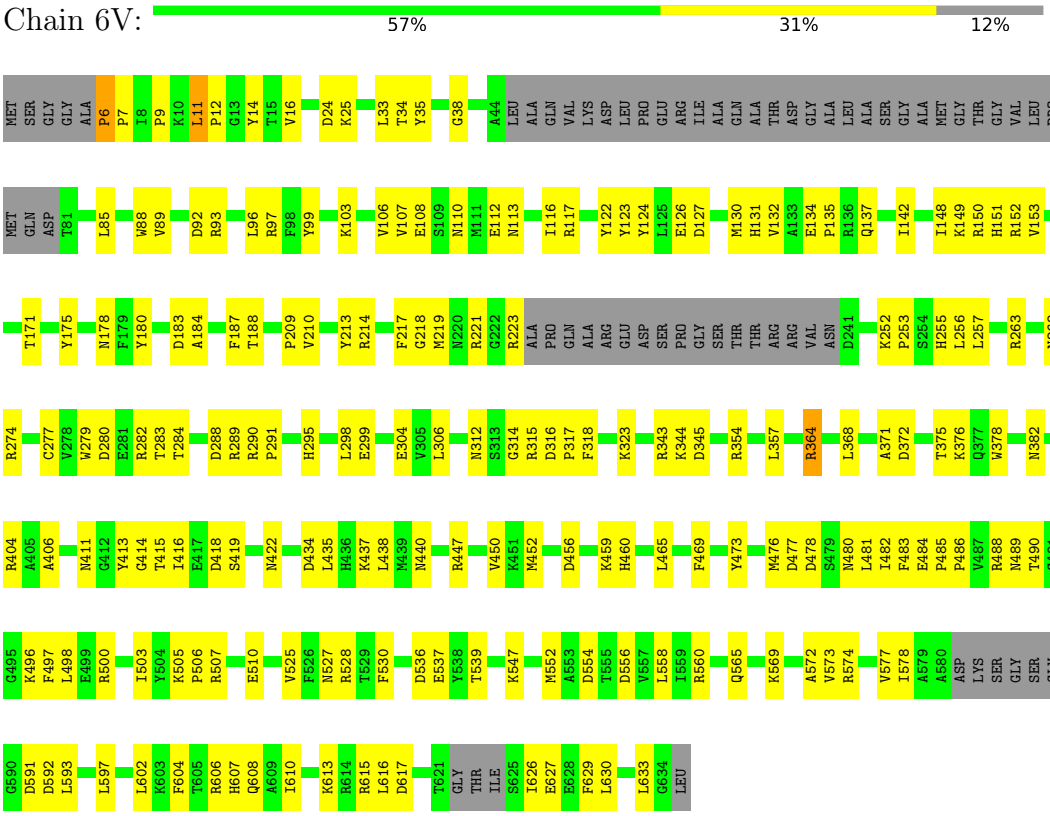
• Molecule 24: RIB72

Chain 6U:



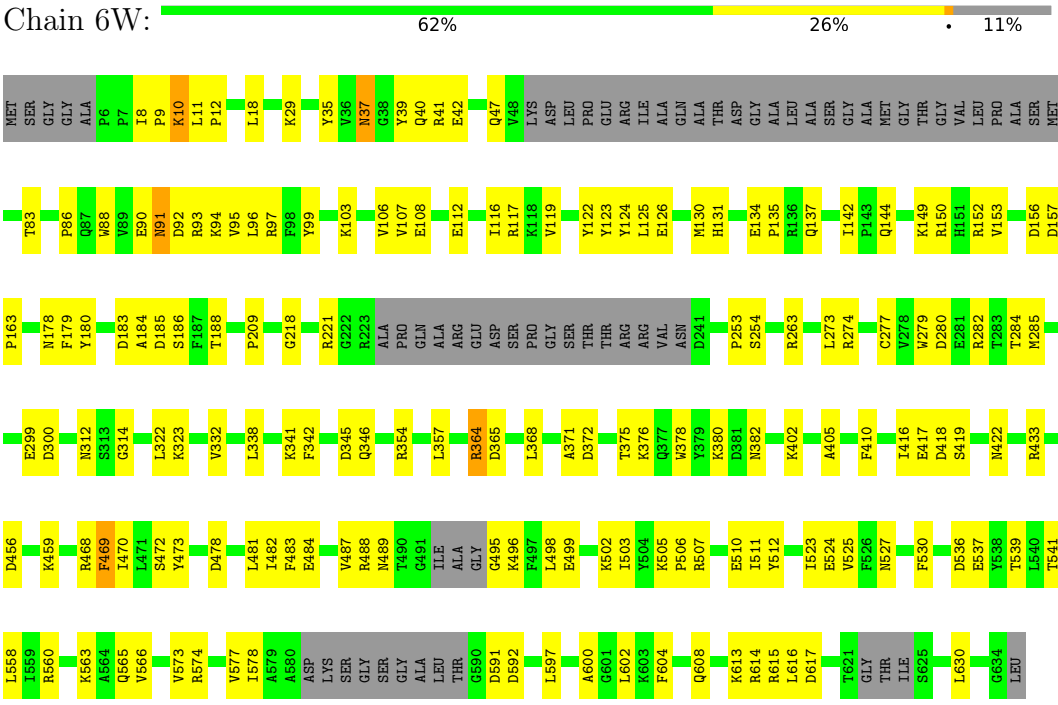
• Molecule 24: RIB72

Chain 6V:



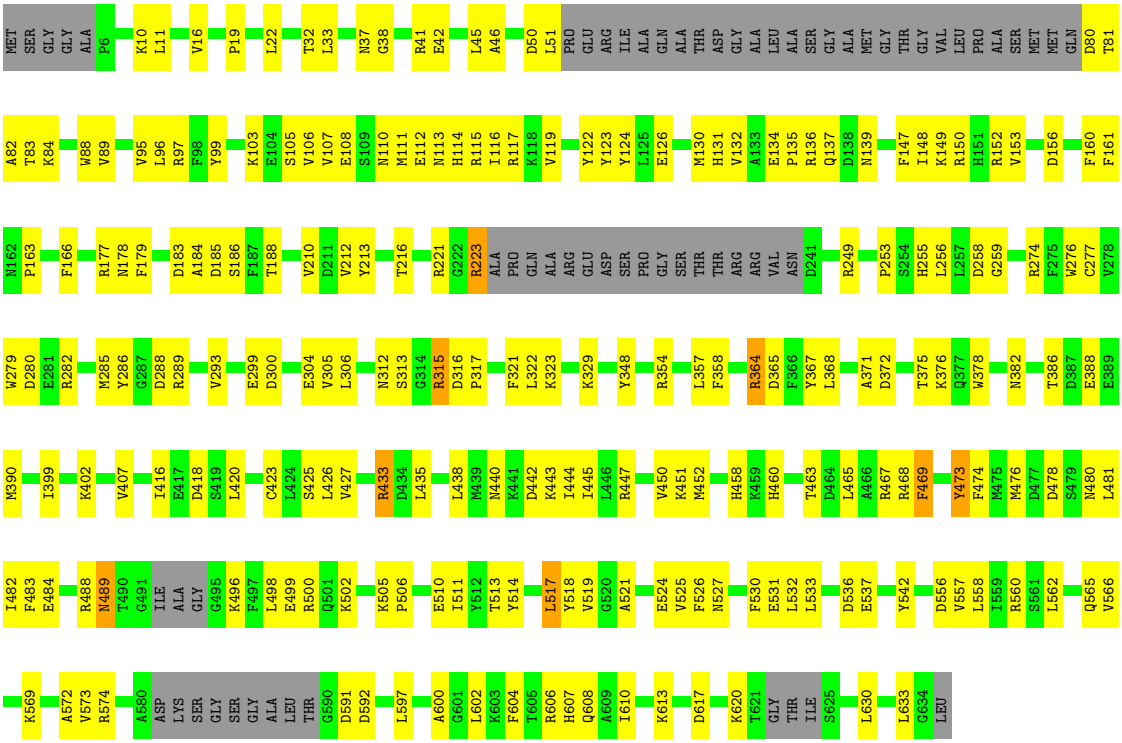
• Molecule 24: RIB72

Chain 6W:



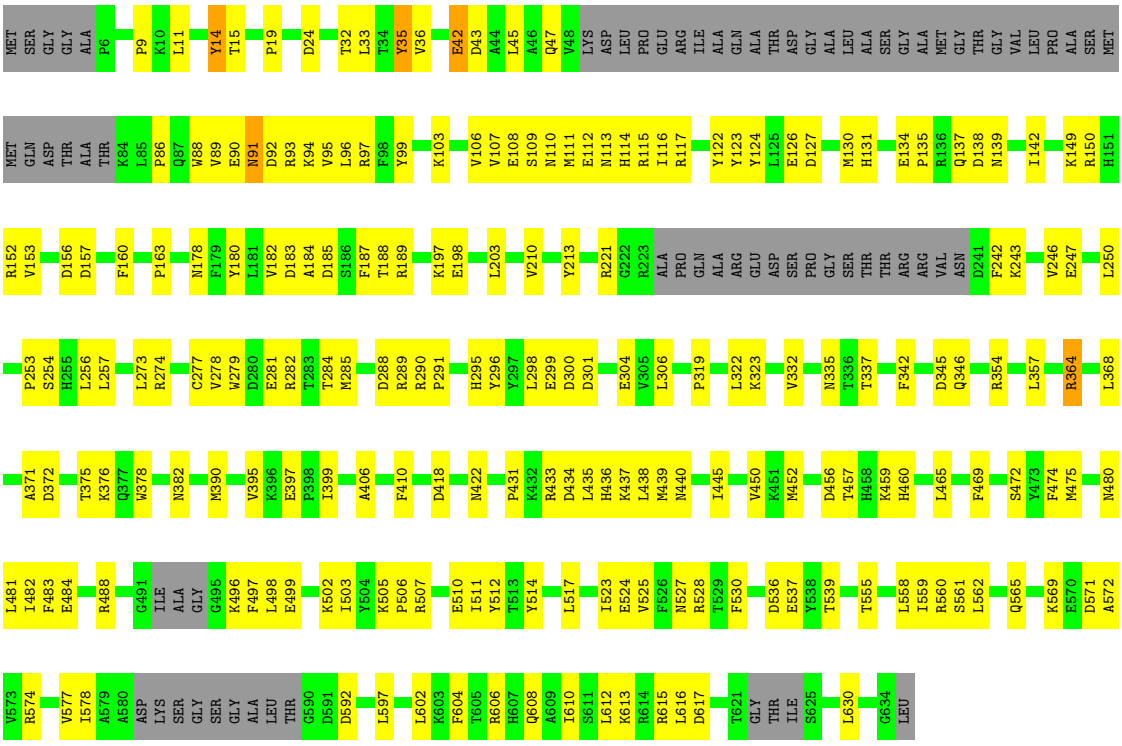
• Molecule 24: RIB72

Chain 6X:



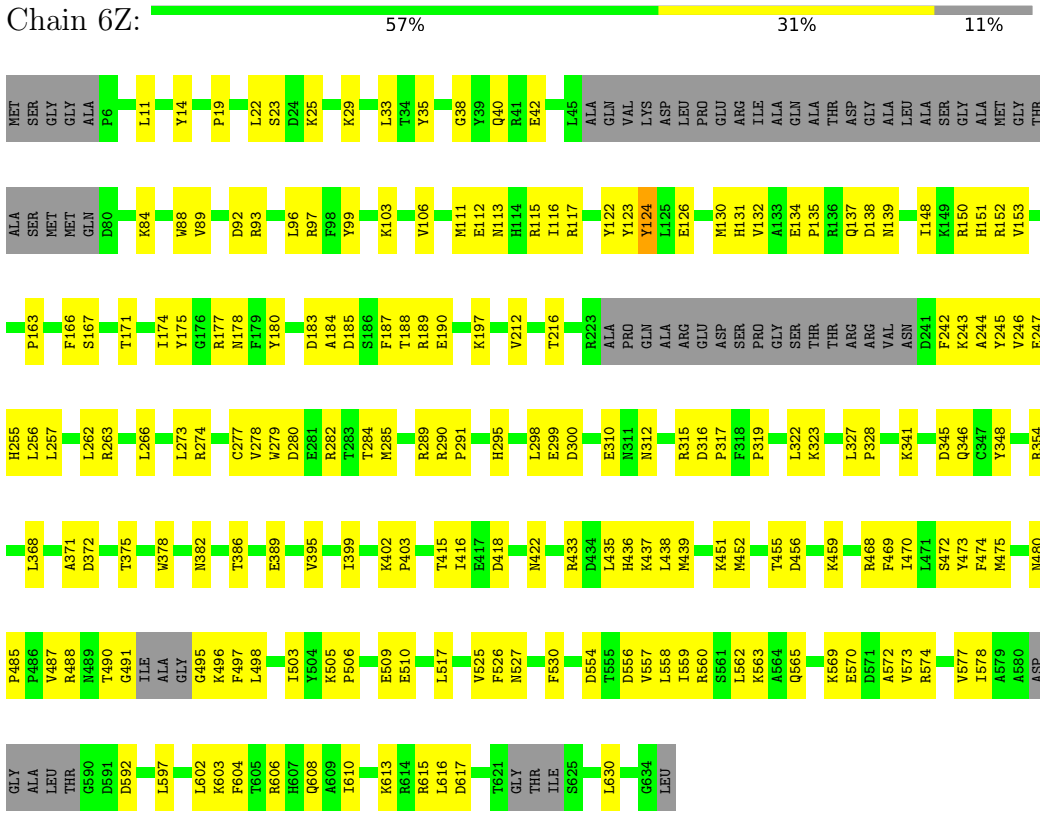
• Molecule 24: RIB72

Chain 6Y:



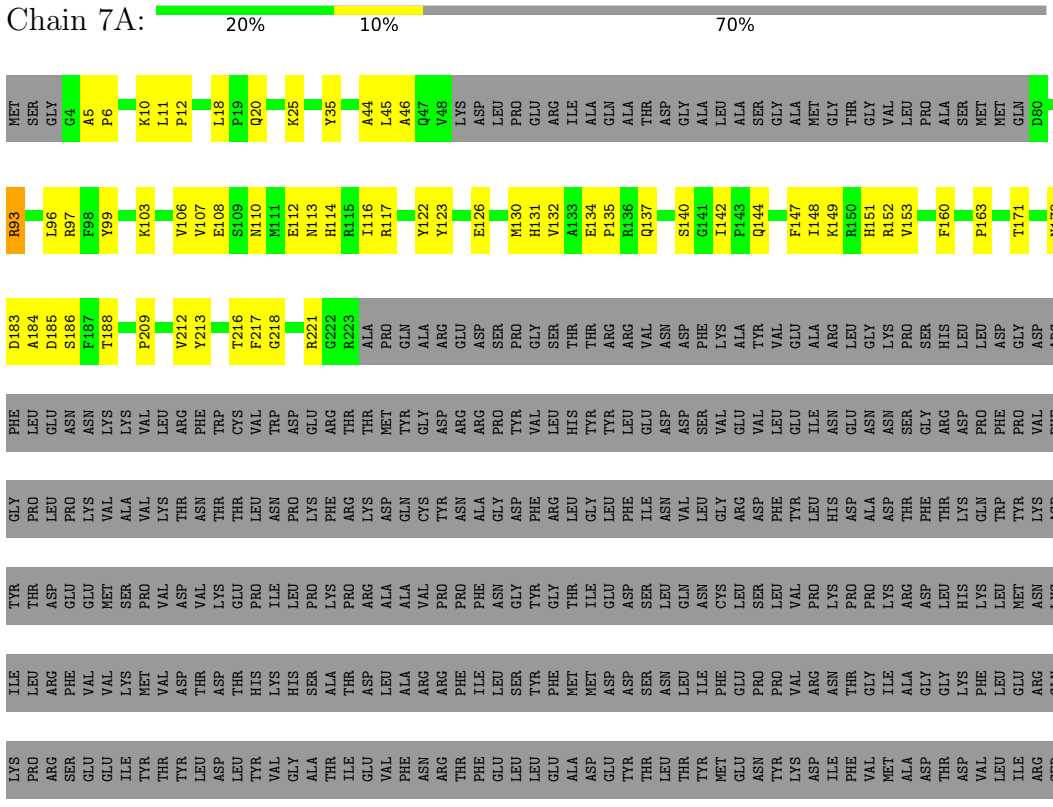
• Molecule 24: RIB72

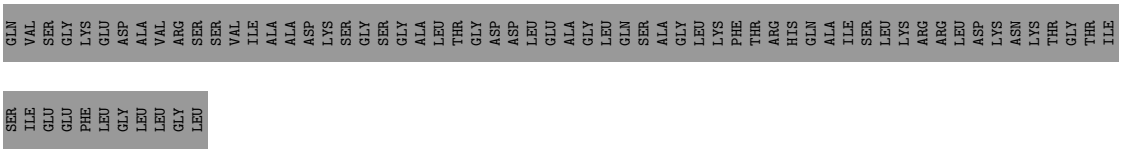
Chain 6Z:



• Molecule 24: RIB72

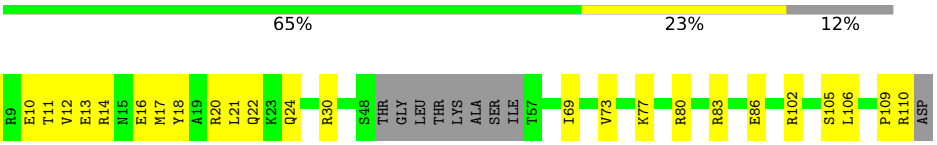
Chain 7A:





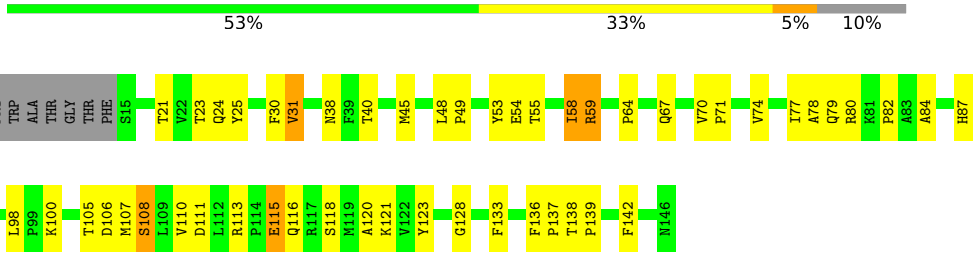
• Molecule 25: FAP141

Chain 7C:



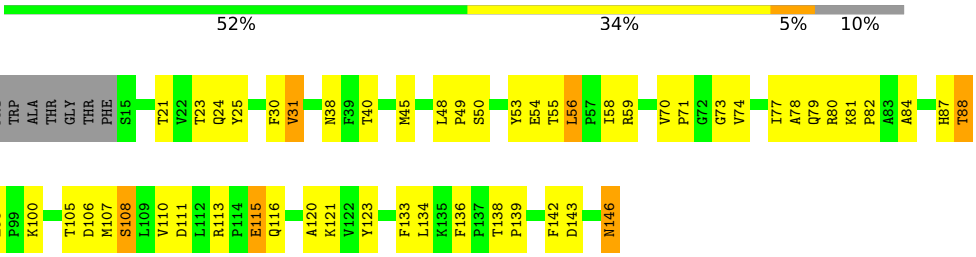
• Molecule 26: FAP222

Chain 7D:



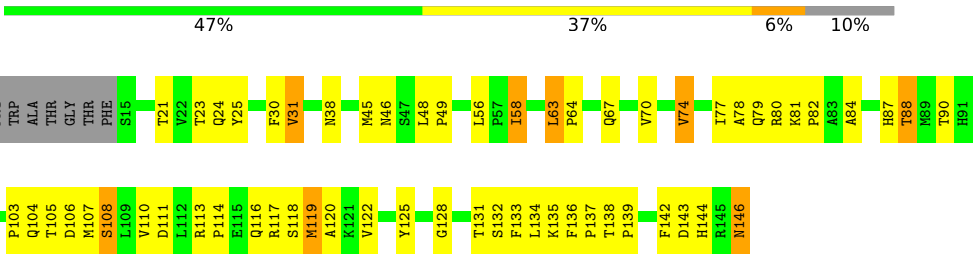
• Molecule 26: FAP222

Chain 7E:



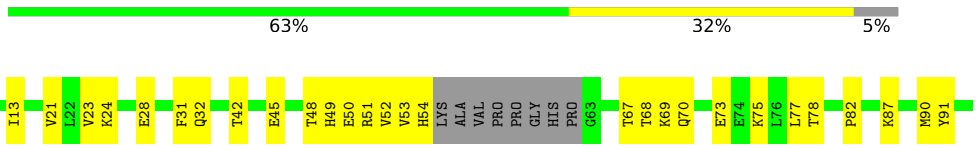
• Molecule 26: FAP222

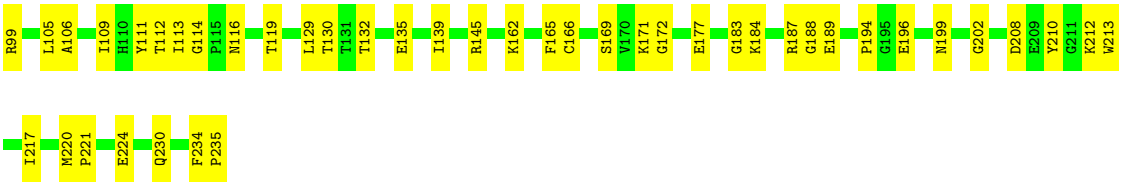
Chain 7F:



• Molecule 27: FAP95

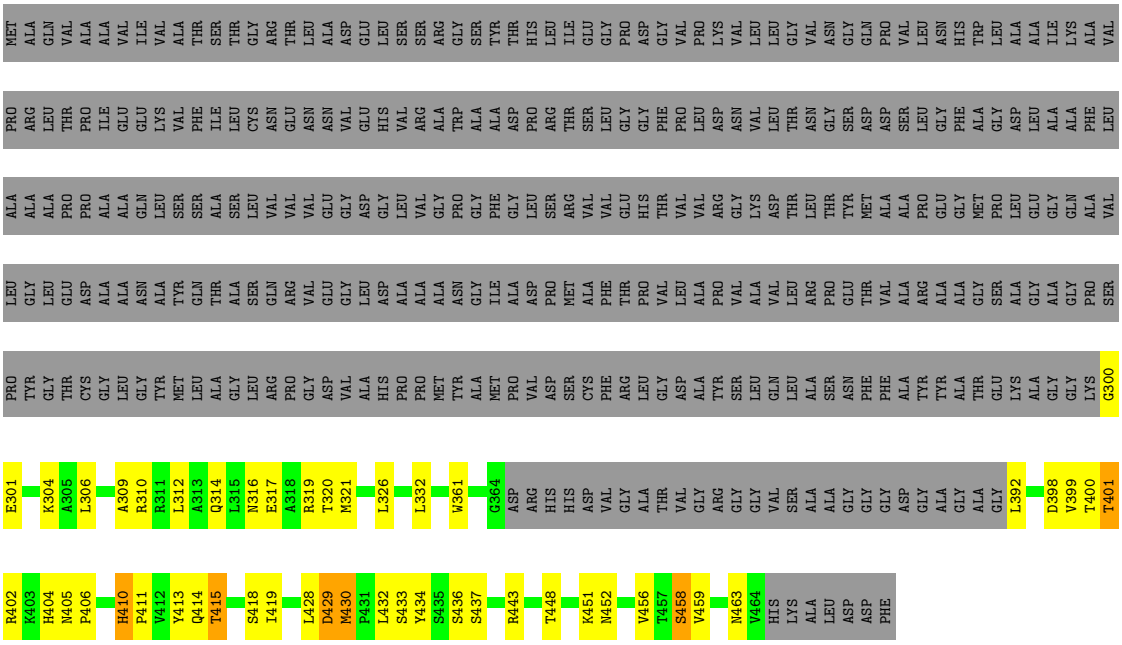
Chain 7G:





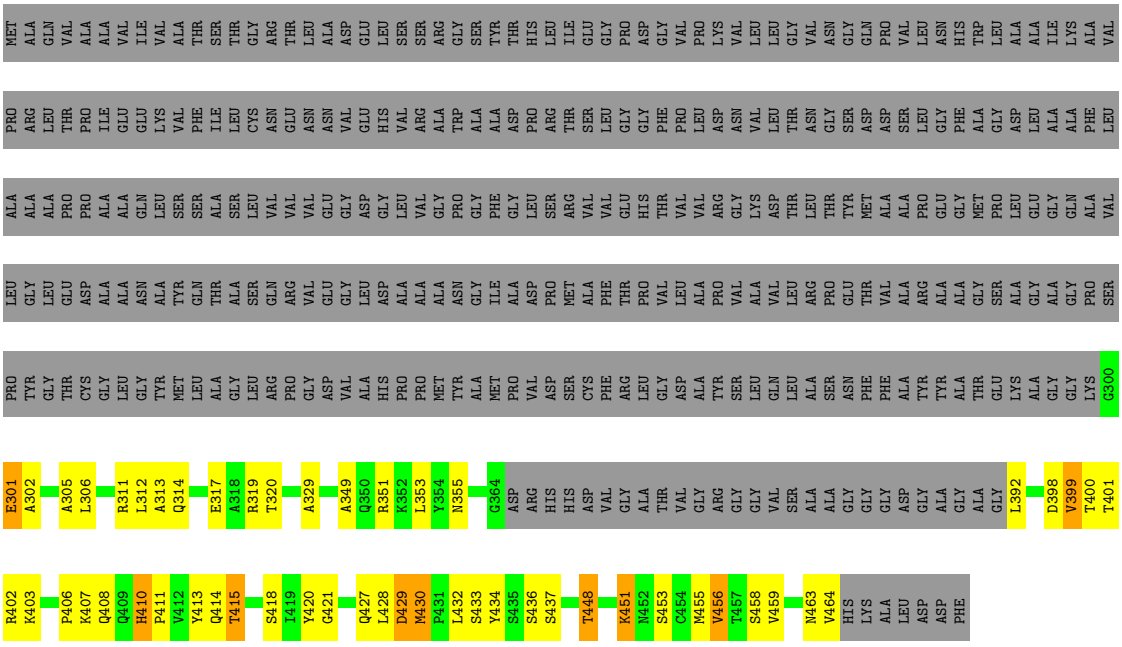
• Molecule 28: FAP182

Chain 7H:



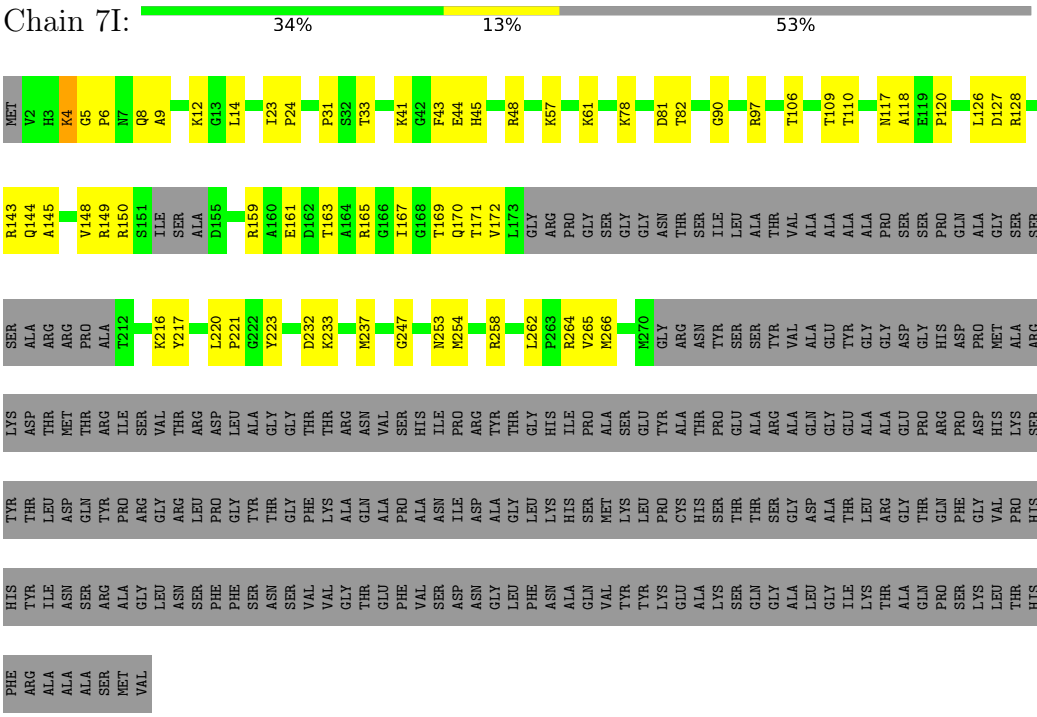
• Molecule 28: FAP182

Chain 7X:



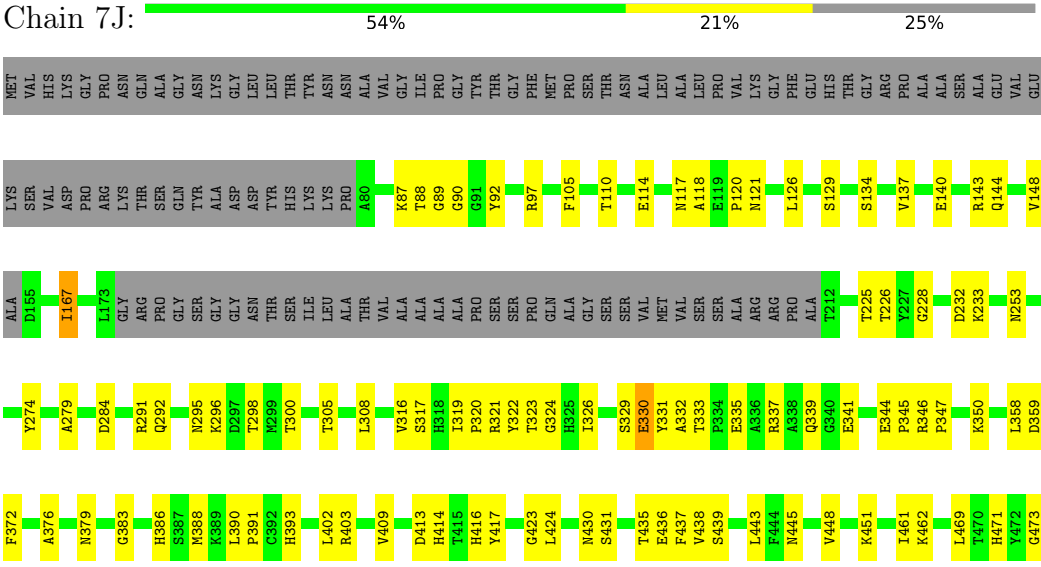
• Molecule 29: FAP129

Chain 7I:



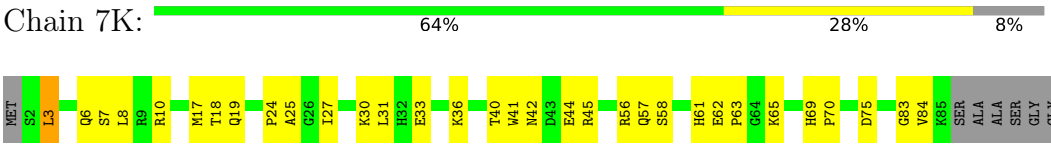
• Molecule 29: FAP129

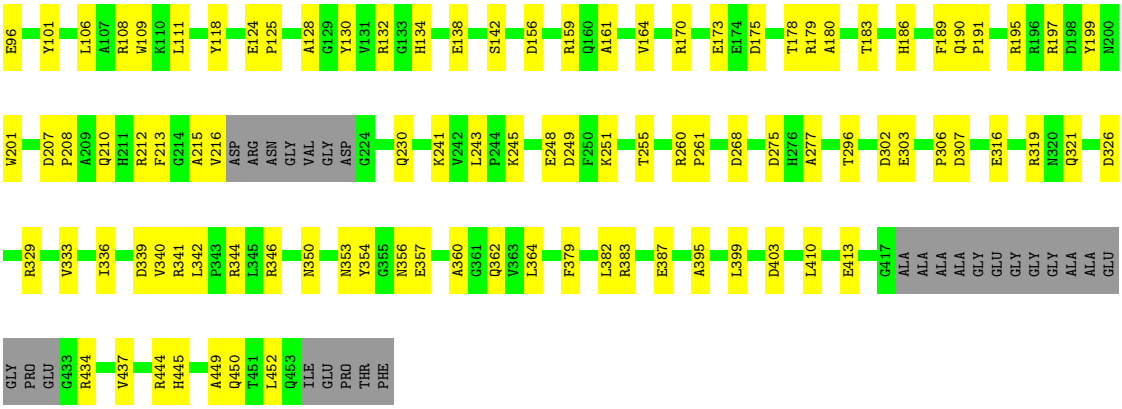
Chain 7J:



• Molecule 30: FAP21

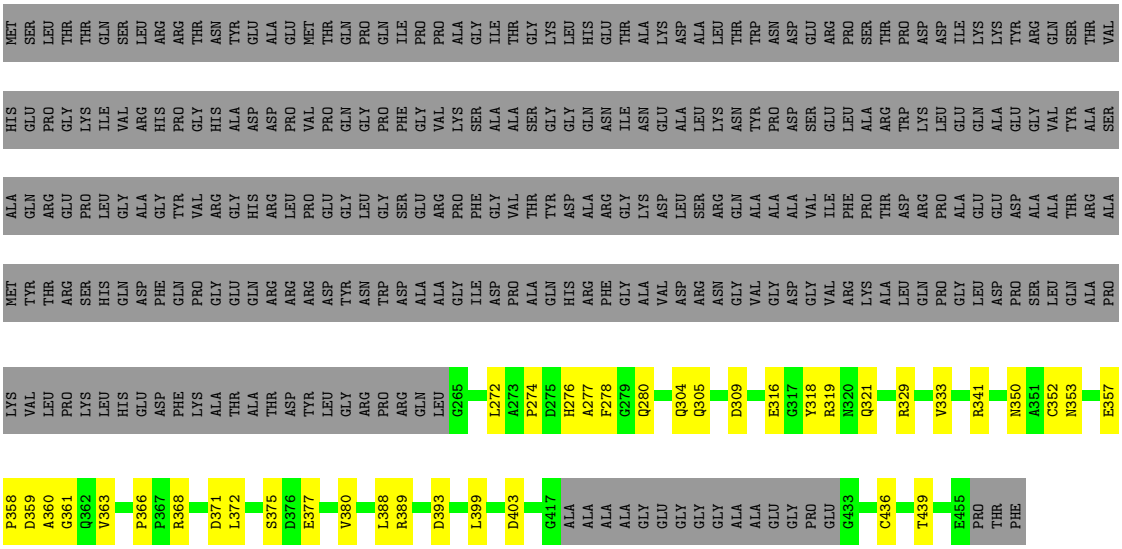
Chain 7K:





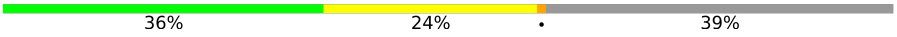
• Molecule 30: FAP21

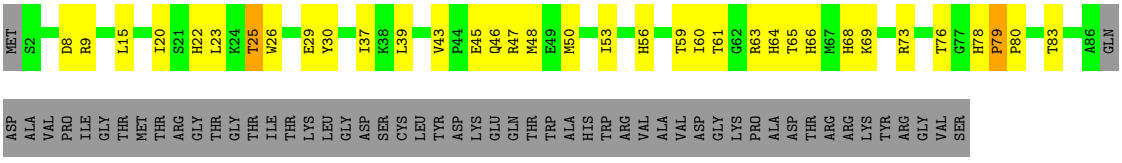
Chain 7L:



• Molecule 31: FAP273

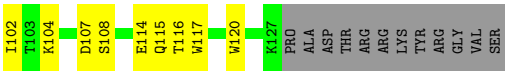
Chain 7M:





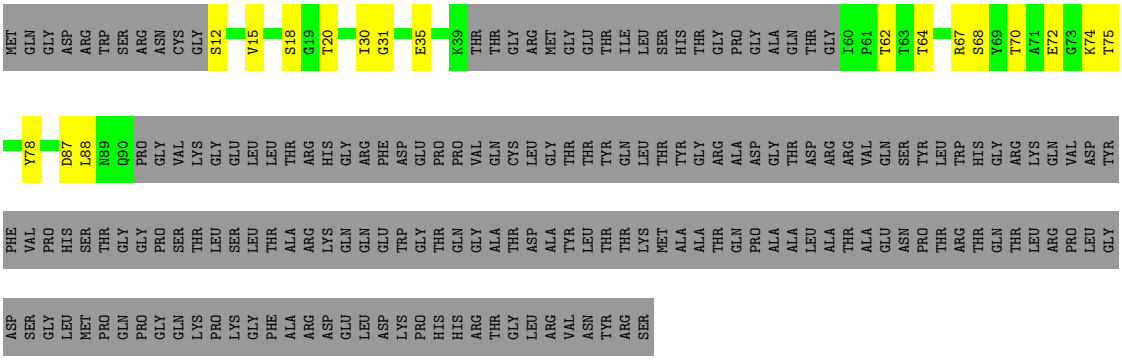
• Molecule 31: FAP273

Chain 7N:



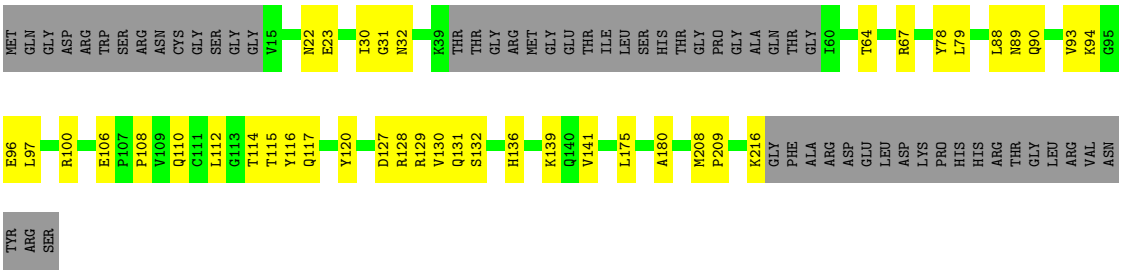
• Molecule 32: FAP107

Chain 7O:



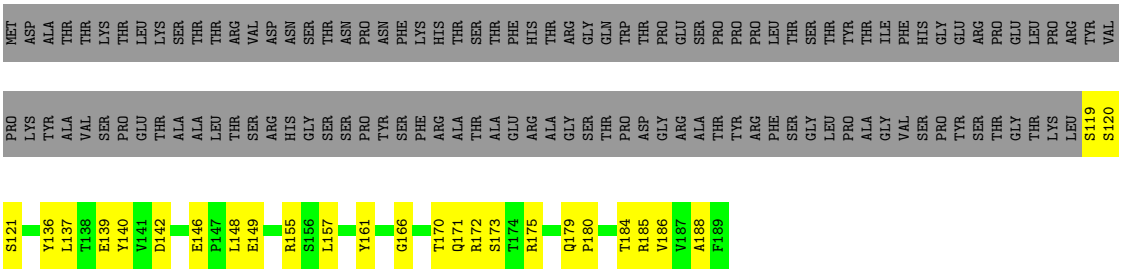
• Molecule 32: FAP107

Chain 7P:



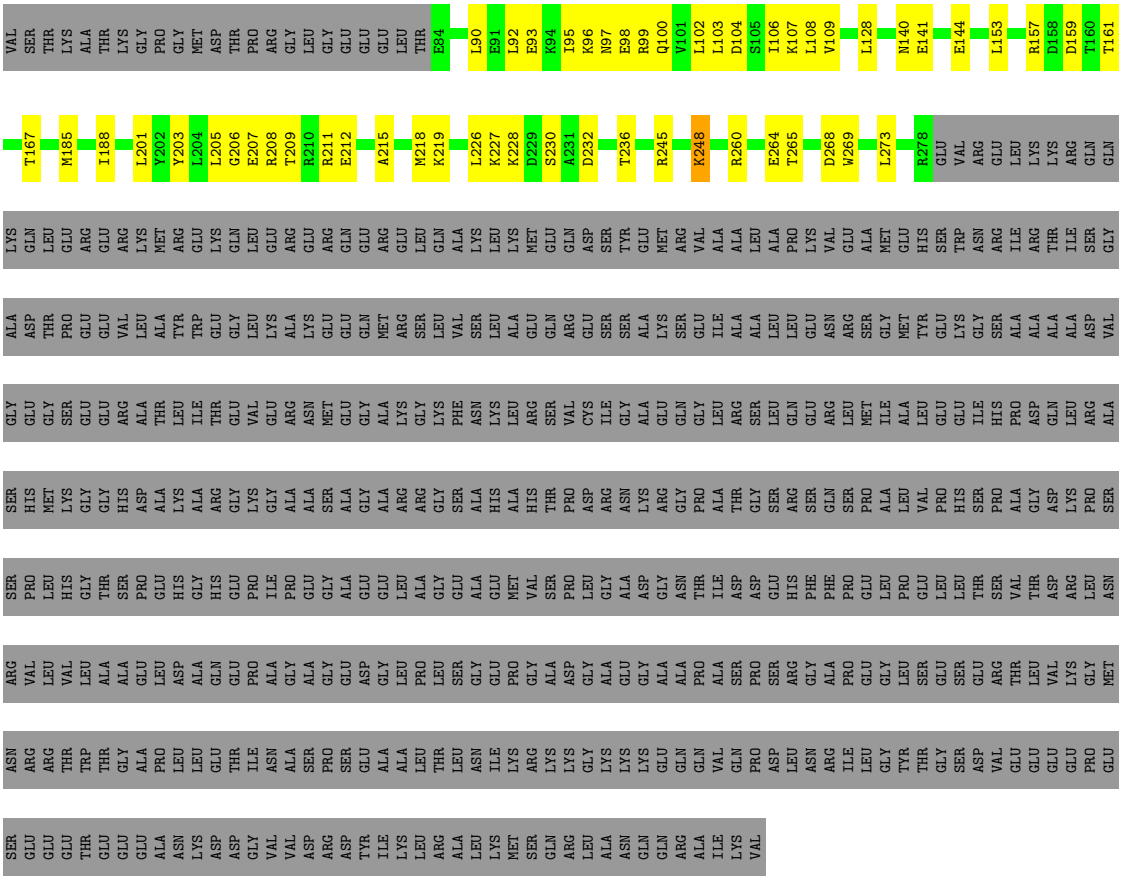
• Molecule 33: RIB21

Chain 7Q:



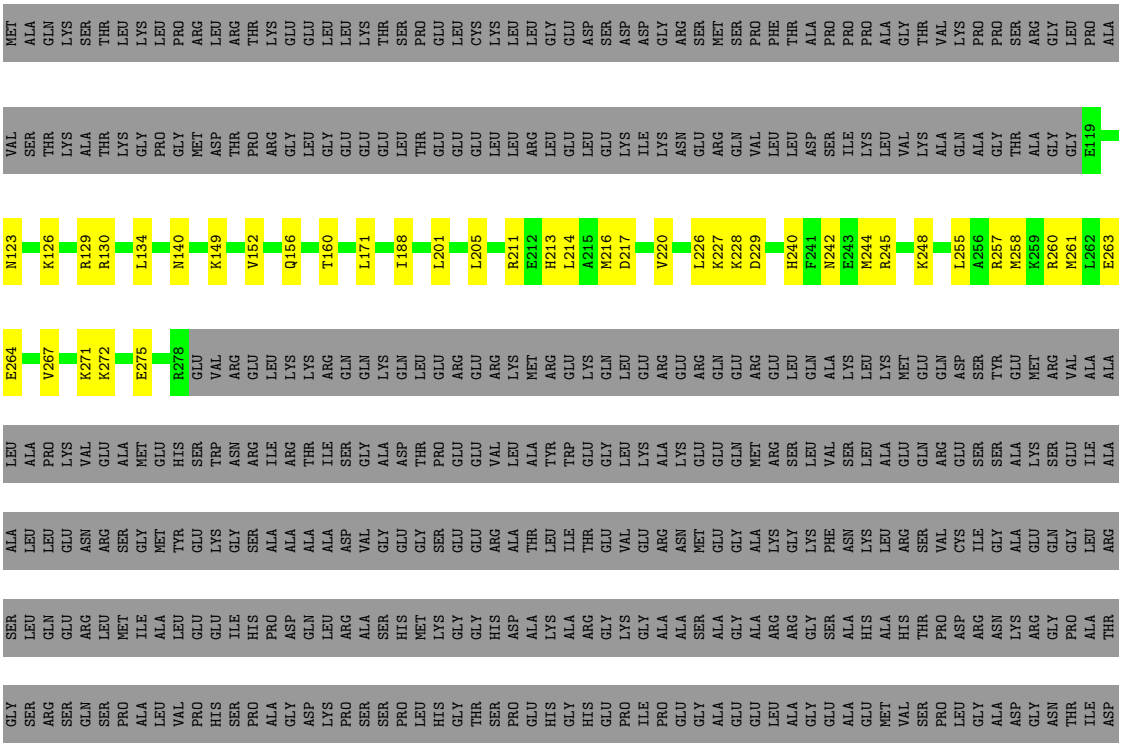
• Molecule 34: DC1

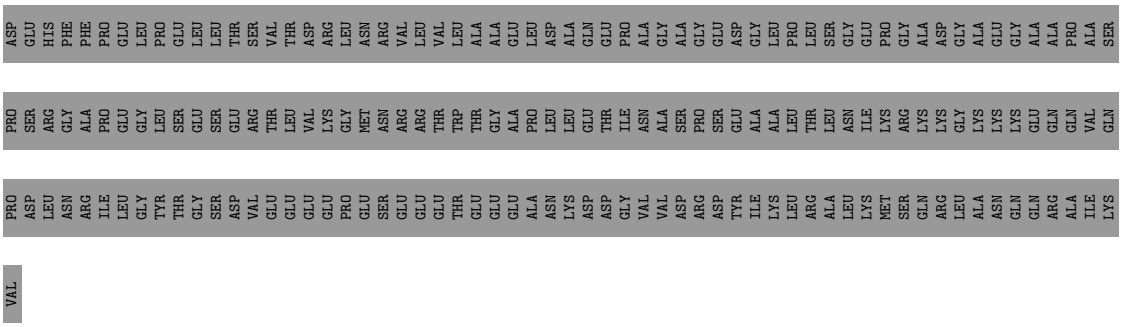
Chain 7R:



• Molecule 34: DC1

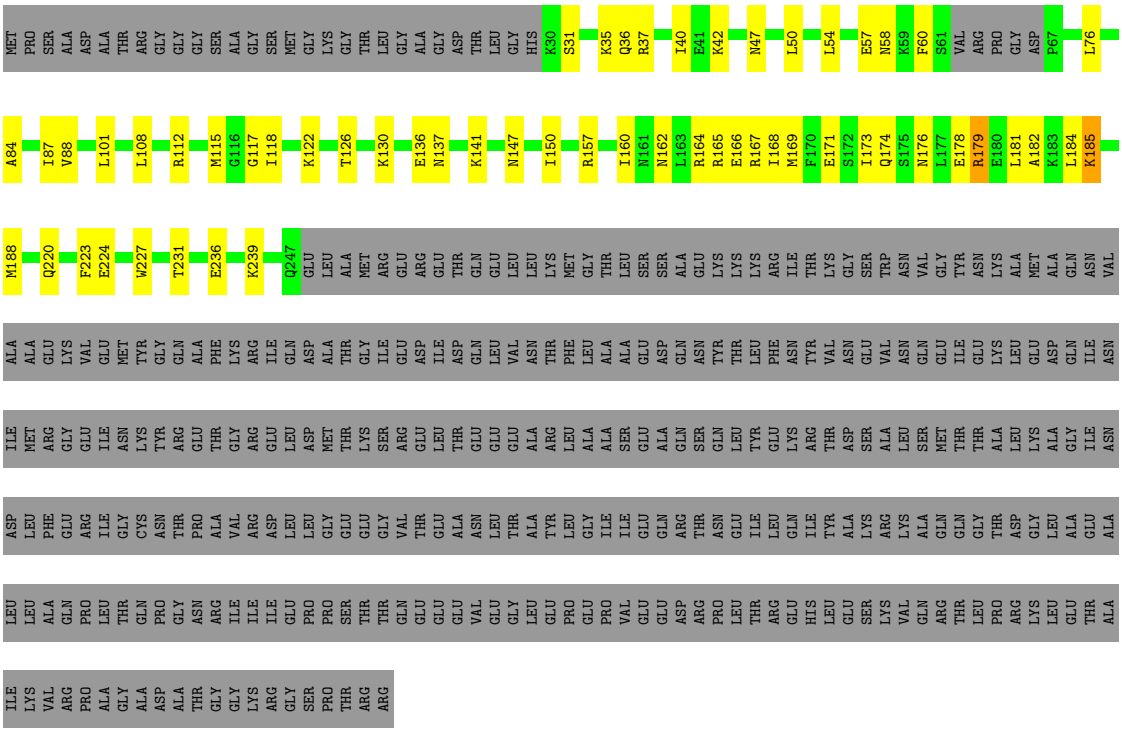
Chain 7S: 16% 5% 79%





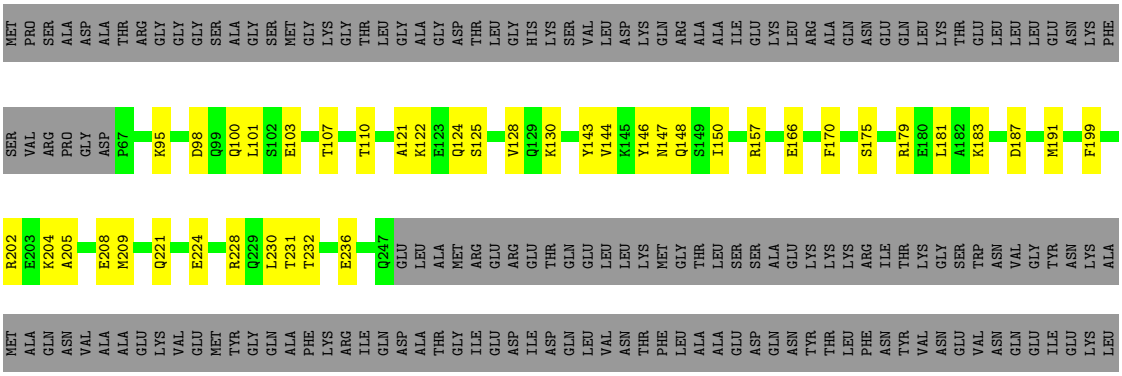
• Molecule 35: DC2

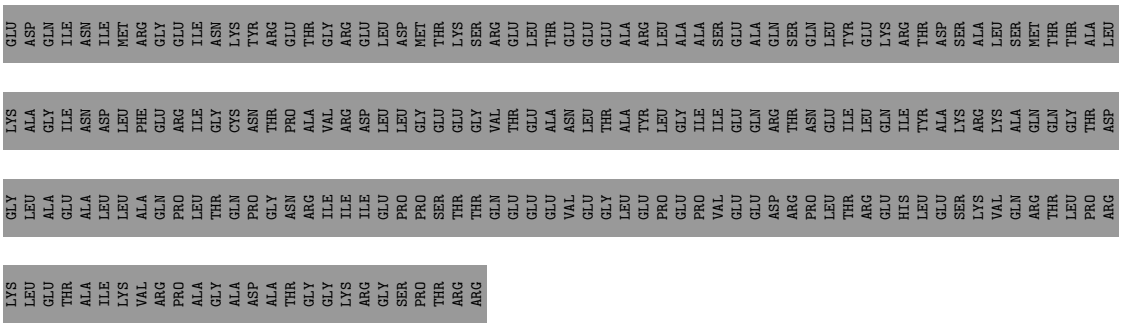
Chain 7T:



• Molecule 35: DC2

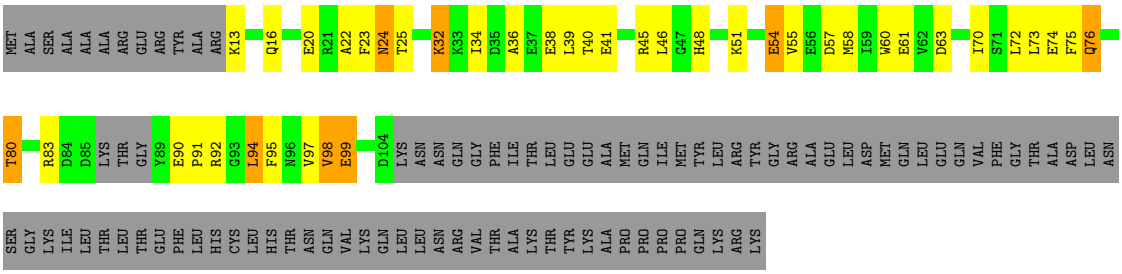
Chain 7U:





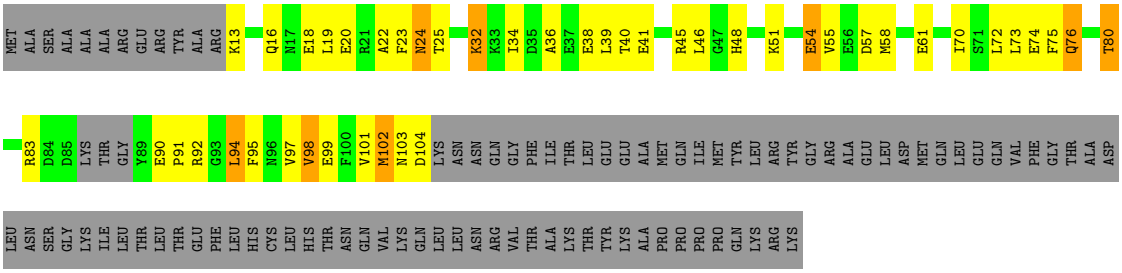
• Molecule 36: DC3

Chain 7V:



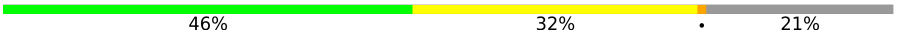
• Molecule 36: DC3

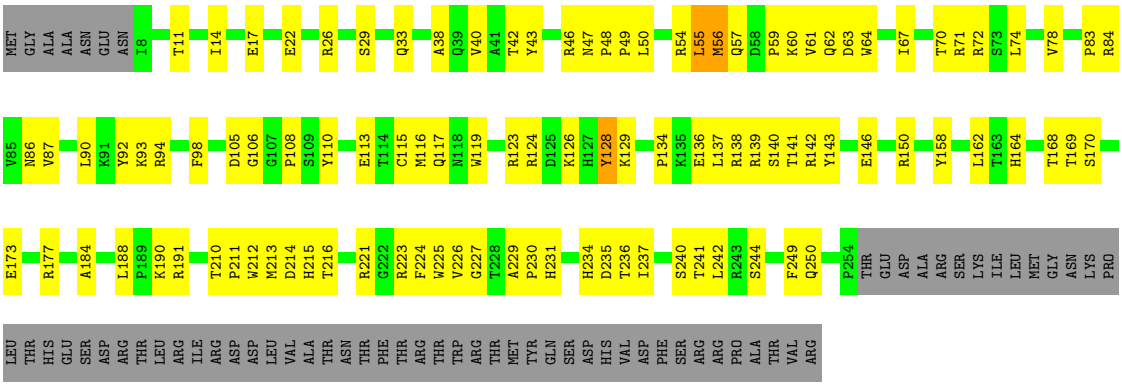
Chain 7W:



• Molecule 37: FAP68

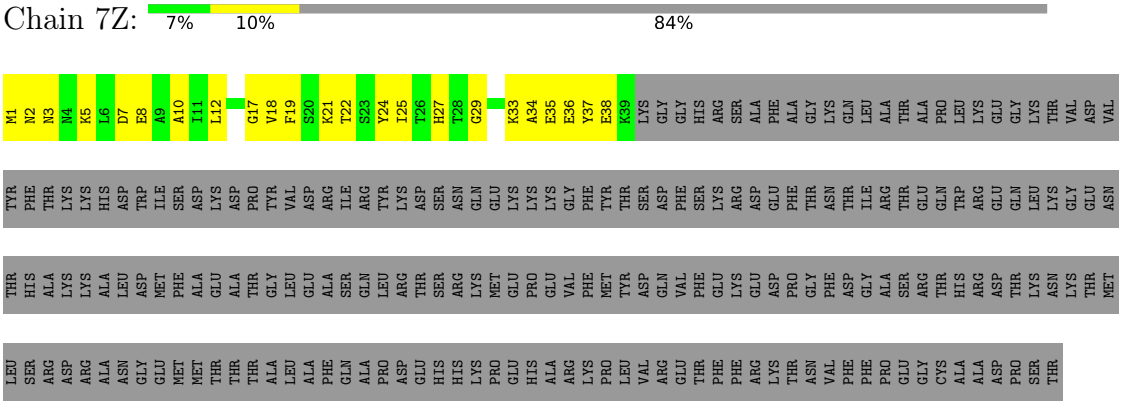
Chain 7Y:





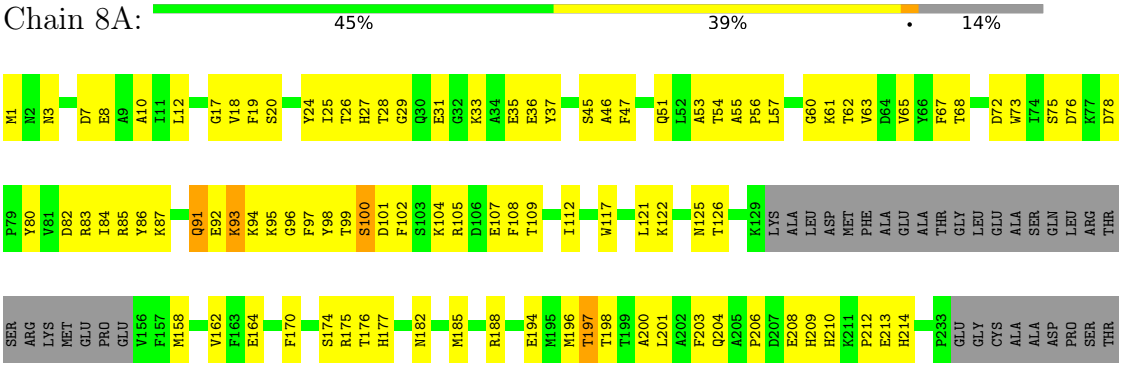
• Molecule 38: FAP90

Chain 7Z:



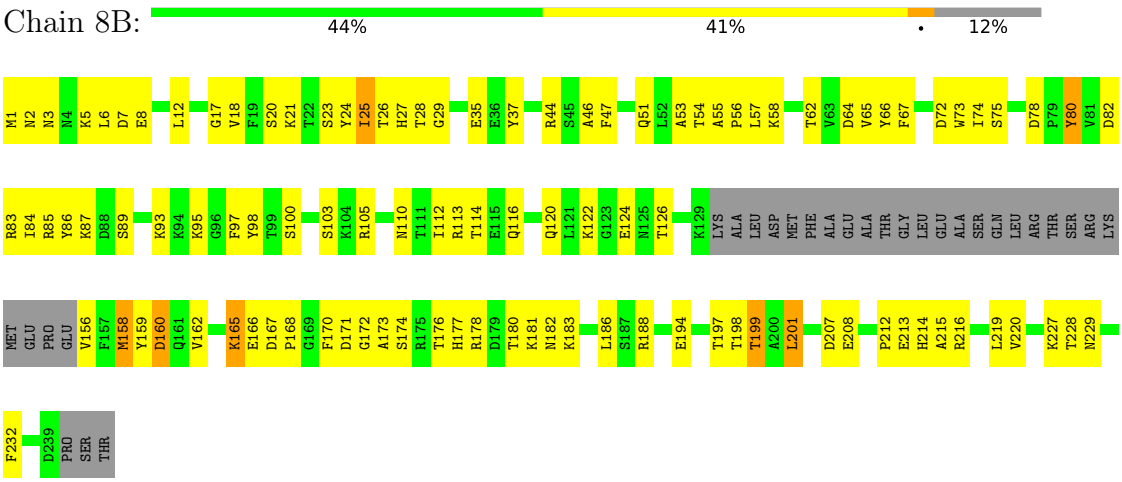
• Molecule 38: FAP90

Chain 8A:



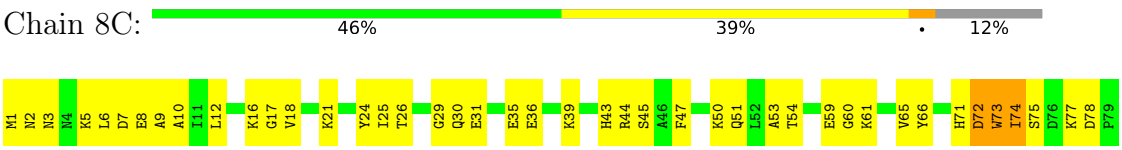
• Molecule 38: FAP90

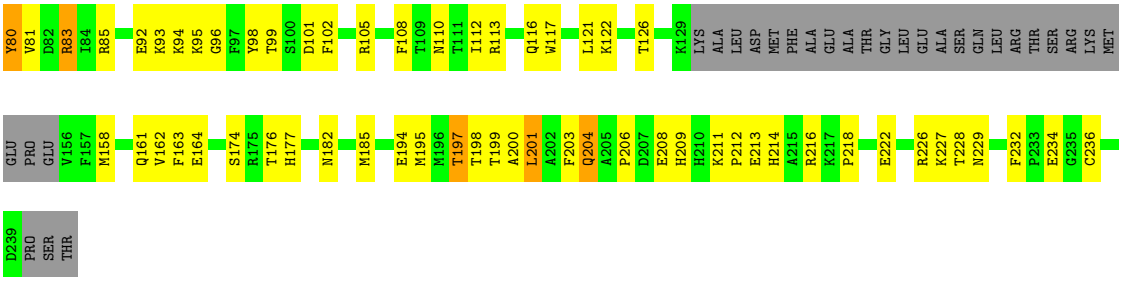
Chain 8B:



• Molecule 38: FAP90

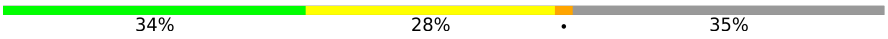
Chain 8C:

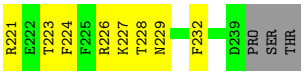




• Molecule 38: FAP90

Chain 8D:





4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	143765	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	38.9	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	3100	Depositor
Magnification	81000	Depositor
Image detector	GATAN K2 QUANTUM (4k x 4k)	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: GTP, GDP, MG

The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with $|Z| > 5$ is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	0A	0.33	0/3420	0.46	0/4628
1	0C	0.30	0/3420	0.45	0/4628
1	0E	0.31	0/3420	0.45	0/4628
1	0G	0.32	0/3420	0.45	0/4628
1	0I	0.32	0/3420	0.45	0/4628
1	0K	0.35	0/3420	0.47	0/4628
1	0M	0.34	0/3420	0.46	0/4628
1	0O	0.33	0/3420	0.46	0/4628
1	0Q	0.32	0/3420	0.44	0/4628
1	0S	0.30	0/3420	0.47	0/4628
1	0U	0.31	0/3420	0.46	0/4628
1	0W	0.33	0/3420	0.47	0/4628
1	0Y	0.33	0/3420	0.47	0/4628
1	1	0.43	0/1144	0.50	0/1538
1	1A	0.35	0/3420	0.47	0/4628
1	1C	0.35	0/3420	0.47	1/4628 (0.0%)
1	1E	0.33	0/3420	0.47	0/4628
1	1G	0.33	0/3420	0.46	0/4628
1	1K	0.32	0/3420	0.44	0/4628
1	1M	0.34	0/3420	0.45	0/4628
1	1O	0.34	0/3420	0.45	0/4628
1	1Q	0.37	0/3420	0.46	0/4628
1	1S	0.35	0/3420	0.45	0/4628
1	1U	0.34	0/3420	0.47	0/4628
1	1W	0.33	0/3420	0.44	0/4628
1	2A	0.35	0/3420	0.47	1/4628 (0.0%)
1	2C	0.37	0/3420	0.46	0/4628
1	2E	0.35	0/3420	0.45	0/4628
1	2G	0.38	0/3420	0.46	0/4628
1	2I	0.37	0/3420	0.46	0/4628
1	2K	0.37	0/3420	0.45	0/4628
1	2M	0.36	0/3420	0.46	0/4628

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
1	2Q	0.39	0/3420	0.48	0/4628
1	2S	0.39	0/3420	0.48	1/4628 (0.0%)
1	2U	0.39	0/3420	0.47	0/4628
1	2W	0.41	0/3420	0.47	0/4628
1	2Y	0.40	0/3420	0.48	0/4628
1	3	0.42	0/3471	0.48	0/4697
1	3A	0.41	0/3420	0.48	0/4628
1	3C	0.40	0/3420	0.47	0/4628
1	3G	0.38	0/3420	0.47	0/4628
1	3I	0.39	0/3420	0.47	0/4628
1	3K	0.40	0/3420	0.48	0/4628
1	3M	0.42	0/3420	0.50	1/4628 (0.0%)
1	3O	0.39	0/3420	0.50	0/4628
1	3Q	0.40	0/3420	0.50	0/4628
1	3S	0.43	0/3420	0.55	0/4628
1	5	0.41	0/3496	0.48	0/4730
1	7	0.43	0/3505	0.49	0/4742
1	9	0.44	0/3496	0.52	1/4730 (0.0%)
1	A1	0.40	0/3462	0.48	0/4685
1	A3	0.32	0/3484	0.44	0/4714
1	A5	0.38	0/3444	0.45	0/4661
1	A7	0.37	0/3420	0.46	0/4628
1	A9	0.40	0/3420	0.47	0/4628
1	B1	0.38	0/3420	0.45	0/4628
1	B3	0.40	0/3420	0.46	0/4628
1	B5	0.41	0/3420	0.47	0/4628
1	B8	0.37	0/3420	0.47	0/4628
1	C0	0.38	0/3420	0.46	0/4628
1	C2	0.35	0/3420	0.44	0/4628
1	C4	0.35	0/3420	0.45	0/4628
1	C6	0.40	0/3420	0.48	0/4628
1	C8	0.38	0/3420	0.48	0/4628
1	D0	0.41	0/3420	0.47	0/4628
1	D2	0.41	0/3420	0.49	1/4628 (0.0%)
1	D4	0.38	0/3420	0.48	0/4628
1	D6	0.38	0/3420	0.47	0/4628
1	D8	0.32	0/3420	0.46	0/4628
1	E0	0.34	0/3420	0.46	0/4628
1	E2	0.39	0/3420	0.48	0/4628
1	E4	0.35	0/3420	0.47	0/4628
1	E6	0.37	0/3420	0.47	0/4628
1	E8	0.38	0/3420	0.48	0/4628
1	F0	0.35	0/3420	0.47	0/4628

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
1	F2	0.36	0/3420	0.47	0/4628
1	F6	0.32	0/3420	0.47	1/4628 (0.0%)
1	F8	0.36	0/3420	0.46	0/4628
1	G0	0.34	0/3420	0.46	0/4628
1	G2	0.38	0/3420	0.47	0/4628
1	G4	0.35	0/3420	0.45	0/4628
1	G6	0.37	0/3420	0.48	0/4628
1	G8	0.34	0/3420	0.46	0/4628
1	H2	0.33	0/3420	0.46	0/4628
1	H4	0.36	0/3420	0.48	0/4628
1	H6	0.34	0/3420	0.45	0/4628
1	H8	0.38	0/3420	0.46	0/4628
1	I0	0.36	0/3420	0.46	0/4628
1	I2	0.36	0/3420	0.46	0/4628
1	I4	0.36	0/3420	0.47	0/4628
1	I8	0.37	0/3420	0.45	0/4628
1	J0	0.39	0/3420	0.46	0/4628
1	J2	0.38	0/3420	0.46	0/4628
1	J4	0.40	0/3420	0.46	0/4628
1	J6	0.38	0/3420	0.46	0/4628
1	J8	0.38	0/3420	0.45	0/4628
1	K0	0.35	0/3420	0.45	0/4628
1	K4	0.37	0/3420	0.46	0/4628
1	K6	0.38	0/3420	0.46	0/4628
1	K8	0.38	0/3420	0.45	0/4628
1	L0	0.40	0/3420	0.46	0/4628
1	L2	0.37	0/3420	0.46	0/4628
1	L4	0.39	0/3420	0.46	0/4628
1	L6	0.37	0/3420	0.46	0/4628
1	M0	0.37	0/3420	0.46	0/4628
1	M2	0.37	0/3420	0.46	0/4628
1	M4	0.36	0/3420	0.46	0/4628
1	M6	0.39	0/3420	0.47	0/4628
1	M8	0.36	0/3420	0.48	0/4628
1	N0	0.39	0/3420	0.47	0/4628
1	N2	0.36	0/3420	0.48	1/4628 (0.0%)
1	N6	0.40	0/3420	0.46	0/4628
1	N8	0.41	0/3420	0.47	0/4628
1	O0	0.37	0/3420	0.47	0/4628
1	O2	0.42	0/3420	0.49	0/4628
1	O4	0.42	0/3420	0.48	0/4628
1	O6	0.43	0/3420	0.47	0/4628
1	O8	0.41	1/3420 (0.0%)	0.46	0/4628

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
1	P4	0.42	0/3420	0.47	0/4628
1	P6	0.40	0/3420	0.46	0/4628
1	P8	0.41	0/3420	0.46	0/4628
1	Q0	0.42	0/3420	0.48	1/4628 (0.0%)
1	Q2	0.41	0/3420	0.46	0/4628
1	Q4	0.42	0/3420	0.47	0/4628
1	Q6	0.40	0/3420	0.46	0/4628
1	Q8	0.33	0/3366	0.49	0/4556
1	R0	0.42	0/3475	0.48	0/4702
1	R2	0.40	0/3420	0.50	1/4628 (0.0%)
1	R4	0.43	0/3444	0.48	0/4661
1	R6	0.42	0/3420	0.47	0/4628
1	R8	0.41	0/3453	0.47	0/4673
1	S0	0.41	0/3420	0.48	0/4628
1	S2	0.41	0/3453	0.49	0/4673
1	S4	0.37	0/3428	0.49	0/4639
1	S6	0.41	0/3420	0.48	1/4628 (0.0%)
1	S8	0.41	0/3420	0.48	0/4628
1	T0	0.42	0/3420	0.49	0/4628
1	T2	0.44	0/3420	0.49	0/4628
1	T4	0.40	0/3420	0.46	0/4628
1	T6	0.44	1/3420 (0.0%)	0.54	0/4628
1	T8	0.38	0/3420	0.46	0/4628
1	U2	0.36	0/3420	0.47	0/4628
1	U4	0.37	0/3420	0.46	0/4628
1	U6	0.37	0/3420	0.47	0/4628
1	U8	0.39	0/3444	0.49	0/4661
1	V0	0.37	0/3420	0.45	0/4628
1	V2	0.37	0/3420	0.47	0/4628
1	V4	0.36	0/3420	0.45	0/4628
1	V6	0.33	0/3420	0.46	0/4628
1	V8	0.36	0/3420	0.47	0/4628
1	W0	0.37	0/3420	0.46	0/4628
1	W2	0.37	0/3420	0.46	0/4628
1	W4	0.40	0/3420	0.48	0/4628
1	W6	0.36	0/3420	0.45	0/4628
1	W8	0.38	0/3420	0.48	0/4628
1	X0	0.36	0/3420	0.46	0/4628
1	X2	0.31	0/3420	0.45	0/4628
1	X4	0.34	0/3420	0.46	0/4628
1	X6	0.35	0/3420	0.46	0/4628
1	X8	0.36	0/3420	0.47	0/4628
1	Y0	0.37	0/3420	0.47	0/4628

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
1	Y2	0.34	0/3420	0.46	0/4628
1	Y4	0.39	0/3420	0.47	0/4628
1	Y6	0.33	0/3420	0.45	0/4628
1	Y8	0.29	0/3420	0.46	0/4628
1	Z0	0.32	0/3420	0.46	0/4628
1	Z2	0.32	0/3420	0.46	0/4628
1	Z4	0.34	0/3420	0.48	0/4628
1	Z6	0.34	0/3420	0.47	0/4628
1	Z8	0.32	0/3420	0.46	0/4628
2	0B	0.32	0/3389	0.46	0/4595
2	0F	0.32	0/3389	0.47	0/4595
2	0H	0.32	0/3389	0.46	0/4595
2	0J	0.34	0/3389	0.48	0/4595
2	0L	0.35	0/3389	0.49	1/4595 (0.0%)
2	0N	0.33	0/3389	0.47	0/4595
2	0P	0.34	0/3389	0.48	0/4595
2	0R	0.32	0/3389	0.47	0/4595
2	0V	0.35	0/3389	0.47	0/4595
2	0X	0.33	0/3389	0.47	0/4595
2	0Z	0.36	0/3389	0.47	0/4595
2	1B	0.35	0/3389	0.47	0/4595
2	1D	0.34	0/3389	0.48	0/4595
2	1F	0.34	0/3389	0.47	0/4595
2	1H	0.32	0/3389	0.47	0/4595
2	1L	0.34	0/3389	0.48	0/4595
2	1N	0.36	0/3389	0.48	0/4595
2	1P	0.37	0/3389	0.48	0/4595
2	1R	0.38	0/3389	0.49	0/4595
2	1T	0.34	0/3389	0.47	0/4595
2	1V	0.35	0/3389	0.48	0/4595
2	1X	0.32	0/3389	0.47	0/4595
2	1Z	0.33	0/3389	0.47	0/4595
2	2	0.41	0/3448	0.49	1/4675 (0.0%)
2	2B	0.38	0/3389	0.49	0/4595
2	2D	0.35	0/3389	0.47	1/4595 (0.0%)
2	2F	0.37	0/3389	0.48	1/4595 (0.0%)
2	2H	0.38	0/3389	0.50	0/4595
2	2J	0.38	0/3389	0.50	0/4595
2	2L	0.39	0/3389	0.48	0/4595
2	2N	0.33	0/3389	0.49	0/4595
2	2P	0.38	0/3389	0.49	0/4595
2	2R	0.40	0/3389	0.48	0/4595
2	2T	0.39	0/3389	0.48	0/4595

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
2	2V	0.41	0/3389	0.49	0/4595
2	2X	0.41	0/3457	0.49	1/4687 (0.0%)
2	2Z	0.41	0/3389	0.49	0/4595
2	3B	0.43	0/3455	0.52	0/4684
2	3D	0.36	0/3389	0.48	0/4595
2	3F	0.37	0/3389	0.49	0/4595
2	3H	0.39	0/3389	0.49	0/4595
2	3J	0.39	0/3389	0.48	0/4595
2	3L	0.41	0/3389	0.49	0/4595
2	3N	0.41	0/3389	0.50	0/4595
2	3P	0.39	0/3389	0.50	0/4595
2	3R	0.40	0/3457	0.53	0/4687
2	3T	0.36	0/3389	0.55	0/4595
2	4	0.43	0/3448	0.52	0/4675
2	6	0.41	0/3448	0.49	0/4675
2	8	0.44	0/3448	0.51	0/4675
2	A0	0.41	0/3448	0.49	0/4675
2	A2	0.35	0/3448	0.50	0/4675
2	A4	0.41	0/3448	0.49	0/4675
2	A8	0.39	0/3389	0.48	0/4595
2	B0	0.39	0/3389	0.48	0/4595
2	B2	0.40	0/3389	0.47	0/4595
2	B4	0.42	0/3389	0.48	0/4595
2	B7	0.38	0/3389	0.50	0/4595
2	B9	0.40	0/3389	0.48	1/4595 (0.0%)
2	C1	0.37	0/3389	0.47	0/4595
2	C5	0.39	0/3448	0.48	0/4675
2	C7	0.40	0/3448	0.48	0/4675
2	C9	0.41	0/3389	0.50	0/4595
2	D1	0.42	0/3389	0.51	1/4595 (0.0%)
2	D3	0.37	0/3395	0.47	0/4603
2	D5	0.40	0/3389	0.49	0/4595
2	D7	0.37	0/3395	0.48	0/4603
2	E1	0.37	0/3395	0.48	0/4603
2	E3	0.37	0/3389	0.47	0/4595
2	E5	0.39	0/3389	0.49	0/4595
2	E7	0.38	0/3395	0.50	0/4603
2	E9	0.35	0/3389	0.49	0/4595
2	F1	0.37	0/3389	0.49	0/4595
2	F3	0.34	0/3389	0.49	0/4595
2	F5	0.31	0/3389	0.46	0/4595
2	F7	0.36	0/3389	0.47	0/4595
2	F9	0.35	0/3448	0.46	0/4675

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
2	G1	0.38	0/3448	0.50	0/4675
2	G3	0.39	0/3448	0.51	0/4675
2	G5	0.34	0/3389	0.47	0/4595
2	G7	0.35	0/3389	0.47	0/4595
2	G9	0.33	0/3389	0.47	0/4595
2	H1	0.31	0/3389	0.47	0/4595
2	H3	0.38	0/3389	0.48	0/4595
2	H5	0.35	0/3389	0.47	1/4595 (0.0%)
2	H7	0.38	0/3389	0.48	0/4595
2	H9	0.38	0/3389	0.48	0/4595
2	I1	0.35	0/3389	0.49	0/4595
2	I3	0.36	0/3389	0.47	0/4595
2	I5	0.31	0/3389	0.46	0/4595
2	I7	0.35	0/3403	0.47	0/4614
2	I9	0.40	0/3395	0.49	0/4603
2	J1	0.37	0/3389	0.47	0/4595
2	J3	0.43	0/3397	0.52	0/4606
2	J5	0.42	0/3457	0.52	2/4687 (0.0%)
2	J7	0.39	0/3389	0.48	0/4595
2	J9	0.37	0/3457	0.48	0/4687
2	K1	0.32	0/3389	0.46	0/4595
2	K3	0.35	0/3389	0.48	0/4595
2	K5	0.39	0/3389	0.48	0/4595
2	K7	0.36	0/3389	0.47	0/4595
2	K9	0.41	0/3389	0.50	0/4595
2	L1	0.38	0/3389	0.47	0/4595
2	L3	0.39	0/3389	0.49	0/4595
2	L5	0.39	0/3389	0.49	0/4595
2	L7	0.31	0/3389	0.47	0/4595
2	L9	0.35	0/3389	0.47	0/4595
2	M1	0.37	0/3389	0.49	0/4595
2	M3	0.37	0/3448	0.48	0/4675
2	M5	0.40	0/3389	0.49	0/4595
2	M7	0.38	0/3448	0.49	0/4675
2	M9	0.41	0/3457	0.50	0/4687
2	N1	0.40	0/3395	0.53	0/4603
2	N3	0.30	0/3389	0.47	0/4595
2	N5	0.38	0/3389	0.50	0/4595
2	N7	0.41	0/3389	0.50	0/4595
2	N9	0.39	0/3389	0.50	0/4595
2	O1	0.41	0/3389	0.50	0/4595
2	O3	0.42	0/3389	0.51	0/4595
2	O5	0.41	0/3389	0.50	0/4595

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
2	O7	0.42	0/3411	0.52	0/4624
2	O9	0.38	0/3389	0.47	0/4595
2	P3	0.41	0/3389	0.49	1/4595 (0.0%)
2	P5	0.42	0/3448	0.51	0/4675
2	P7	0.41	0/3389	0.48	0/4595
2	P9	0.42	0/3448	0.49	0/4675
2	Q1	0.42	0/3389	0.50	0/4595
2	Q3	0.42	0/3389	0.51	0/4595
2	Q5	0.43	0/3389	0.50	0/4595
2	Q9	0.40	0/3389	0.48	0/4595
2	R1	0.41	0/3389	0.50	0/4595
2	R3	0.41	0/3398	0.51	0/4607
2	R5	0.42	0/3448	0.51	0/4675
2	R7	0.42	0/3389	0.49	0/4595
2	R9	0.42	0/3448	0.49	0/4675
2	S1	0.43	0/3404	0.55	2/4615 (0.0%)
2	S5	0.40	0/3389	0.48	0/4595
2	S7	0.42	0/3448	0.55	1/4675 (0.0%)
2	S9	0.41	0/3389	0.49	0/4595
2	T1	0.43	0/3389	0.50	0/4595
2	T3	0.44	0/3389	0.50	0/4595
2	T5	0.41	0/3389	0.49	0/4595
2	T7	0.41	0/3389	0.50	0/4595
2	U1	0.35	0/3389	0.47	0/4595
2	U3	0.37	0/3389	0.48	0/4595
2	U5	0.36	0/3389	0.48	0/4595
2	U7	0.39	0/3389	0.50	0/4595
2	U9	0.38	0/3389	0.49	0/4595
2	V1	0.38	0/3389	0.50	0/4595
2	V3	0.38	0/3389	0.49	0/4595
2	V7	0.36	0/3389	0.47	0/4595
2	V9	0.37	0/3389	0.48	0/4595
2	W1	0.38	0/3389	0.49	0/4595
2	W3	0.41	0/3389	0.50	0/4595
2	W5	0.39	0/3389	0.49	0/4595
2	W7	0.39	0/3389	0.50	0/4595
2	W9	0.43	0/3389	0.55	0/4595
2	X3	0.33	0/3389	0.49	0/4595
2	X5	0.36	0/3389	0.49	0/4595
2	X7	0.34	0/3389	0.50	1/4595 (0.0%)
2	X9	0.37	0/3389	0.49	0/4595
2	Y1	0.35	0/3389	0.49	1/4595 (0.0%)
2	Y3	0.35	0/3389	0.48	0/4595

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
2	Y5	0.35	0/3389	0.48	0/4595
2	Y9	0.32	0/3389	0.47	0/4595
2	Z1	0.31	0/3389	0.47	0/4595
2	Z3	0.34	0/3389	0.48	0/4595
2	Z5	0.36	0/3389	0.49	0/4595
2	Z7	0.33	0/3389	0.47	0/4595
2	Z9	0.32	0/3389	0.46	0/4595
3	3V	0.39	0/2383	0.50	0/3226
3	3X	0.38	0/2383	0.49	0/3226
3	3Z	0.38	0/2383	0.49	0/3226
3	4B	0.38	0/2383	0.49	0/3226
3	4D	0.38	0/2383	0.49	0/3226
3	4F	0.39	0/2383	0.49	0/3226
3	4H	0.38	0/2383	0.49	0/3226
3	4J	0.30	0/1682	0.47	0/2279
4	3W	0.41	0/1548	0.48	0/2090
4	3Y	0.41	0/1548	0.48	0/2090
4	4A	0.41	0/1548	0.48	0/2090
4	4C	0.41	0/1548	0.48	0/2090
4	4E	0.41	0/1548	0.48	0/2090
4	4G	0.41	0/1548	0.48	0/2090
4	4I	0.41	0/1548	0.48	0/2090
5	4L	0.34	0/1931	0.46	0/2570
5	4M	0.35	0/2638	0.45	0/3512
6	4N	0.30	0/424	0.46	0/567
6	4O	0.32	0/4020	0.43	0/5336
6	4P	0.35	0/1597	0.40	0/2126
7	4Q	0.35	0/532	0.39	0/706
7	4R	0.39	0/3021	0.47	0/4049
7	4S	0.41	0/374	0.50	0/501
7	4T	0.36	0/1592	0.43	0/2125
7	4U	0.38	1/2314 (0.0%)	0.47	1/3110 (0.0%)
8	4V	0.29	0/656	0.43	0/875
8	4W	0.30	0/2757	0.43	0/3687
8	4X	0.32	0/467	0.51	0/632
9	4Y	0.31	0/1014	0.42	0/1357
9	4Z	0.31	0/3176	0.47	0/4229
10	5A	0.33	0/1912	0.46	0/2536
10	5B	0.31	0/2081	0.44	0/2756
10	5C	0.33	0/3120	0.43	0/4136
10	5D	0.32	0/905	0.42	0/1198
11	5E	0.34	0/2021	0.51	0/2754
12	5F	0.38	0/3116	0.54	3/4267 (0.1%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\|>5$	RMSZ	$\#\|Z\|>5$
12	5G	0.35	0/1148	0.54	0/1564
12	7B	0.37	0/775	0.55	0/1055
13	5H	0.39	0/1098	0.54	0/1490
13	5I	0.39	0/1098	0.54	0/1490
13	5J	0.39	0/1098	0.54	0/1490
13	5K	0.39	0/1098	0.54	0/1490
14	5L	0.40	0/4851	0.57	0/6582
14	5M	0.40	0/4851	0.57	1/6582 (0.0%)
14	5N	0.40	0/4851	0.59	1/6582 (0.0%)
15	5O	0.43	0/2991	0.62	0/4048
15	5P	0.38	0/2991	0.53	0/4048
16	5Q	0.38	0/1564	0.49	0/2126
17	5R	0.30	0/168	0.44	0/226
17	5S	0.38	0/1612	0.58	0/2177
17	5T	0.40	0/1603	0.56	0/2165
17	5U	0.37	0/1612	0.57	0/2177
17	5V	0.38	0/893	0.49	0/1198
18	5X	0.40	0/1835	0.51	0/2488
18	5Y	0.40	0/1835	0.50	0/2488
18	5Z	0.40	0/1835	0.50	0/2488
18	6A	0.40	0/1835	0.50	0/2488
18	6B	0.40	0/1835	0.50	0/2488
18	6C	0.40	0/1835	0.50	0/2488
18	6D	0.40	0/1835	0.50	0/2488
19	6E	0.42	0/1991	0.57	1/2713 (0.0%)
20	6F	0.44	0/3010	0.54	0/4102
21	6G	0.34	0/1450	0.51	0/1970
21	6H	0.31	0/1527	0.49	0/2078
22	6I	0.31	0/2678	0.46	0/3618
22	6J	0.34	0/2678	0.45	0/3618
22	6K	0.34	0/2678	0.46	0/3618
22	6L	0.37	0/2678	0.45	0/3618
22	6M	0.34	0/2678	0.45	0/3618
22	6N	0.33	0/2678	0.45	0/3618
22	6O	0.35	0/2678	0.46	0/3618
22	6P	0.31	0/2416	0.47	0/3256
23	6Q	0.42	0/710	0.55	0/957
23	6R	0.46	0/710	0.58	0/957
23	6S	0.44	0/710	0.55	0/957
24	6T	0.36	0/4696	0.49	0/6341
24	6U	0.39	0/4730	0.49	0/6389
24	6V	0.38	0/4675	0.51	0/6312
24	6W	0.40	0/4712	0.48	0/6363

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
24	6X	0.42	0/4737	0.53	0/6396
24	6Y	0.38	0/4685	0.50	0/6325
24	6Z	0.38	0/4691	0.49	0/6334
24	7A	0.37	0/1557	0.47	0/2105
25	7C	0.37	0/802	0.50	0/1074
26	7D	0.40	0/1045	0.60	1/1416 (0.1%)
26	7E	0.39	0/1045	0.58	0/1416
26	7F	0.45	0/1045	0.55	0/1416
27	7G	0.37	0/1771	0.48	0/2406
28	7H	0.37	0/1066	0.53	0/1444
28	7X	0.36	0/1066	0.53	0/1444
29	7I	0.35	0/1752	0.48	0/2377
29	7J	0.38	0/2803	0.49	0/3802
30	7K	0.34	0/3351	0.48	0/4541
30	7L	0.32	0/1358	0.46	0/1836
31	7M	0.34	0/678	0.56	1/921 (0.1%)
31	7N	0.35	0/1000	0.59	1/1359 (0.1%)
32	7O	0.33	0/448	0.53	0/603
32	7P	0.36	0/1428	0.49	0/1939
33	7Q	0.37	0/578	0.50	0/783
34	7R	0.28	0/1629	0.42	0/2171
34	7S	0.27	0/1357	0.41	0/1808
35	7T	0.29	0/1748	0.41	0/2324
35	7U	0.29	0/1486	0.40	0/1977
36	7V	0.33	0/745	0.54	0/999
36	7W	0.32	0/745	0.54	0/999
37	7Y	0.39	0/2025	0.56	0/2749
38	7Z	0.38	0/301	0.55	0/401
38	8A	0.40	0/1729	0.55	0/2316
38	8B	0.39	0/1766	0.51	0/2366
38	8C	0.40	0/1766	0.54	0/2366
38	8D	0.42	0/1342	0.57	0/1799
All	All	0.38	3/1377068 (0.0%)	0.48	37/1864119 (0.0%)

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	T6	60	VAL	CB-CG1	5.93	1.65	1.52
7	4U	113	PRO	N-CD	5.70	1.55	1.47
1	O8	281	TYR	CD2-CE2	-5.05	1.31	1.39

The worst 5 of 37 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
2	D1	357	TYR	C-N-CA	-5.94	106.85	121.70
31	7N	78	HIS	CB-CA-C	5.91	122.21	110.40
2	B9	276	ILE	CG1-CB-CG2	-5.89	98.43	111.40
26	7D	128	GLY	N-CA-C	5.88	127.80	113.10
2	S1	283	HIS	CB-CA-C	5.79	121.98	110.40

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	0A	3346	0	3238	108	0
1	0C	3346	0	3238	102	0
1	0E	3346	0	3240	136	0
1	0G	3346	0	3240	126	0
1	0I	3346	0	3238	117	0
1	0K	3346	0	3238	128	0
1	0M	3346	0	3238	120	0
1	0O	3346	0	3238	138	0
1	0Q	3346	0	3238	110	0
1	0S	3346	0	3238	125	0
1	0U	3346	0	3240	113	0
1	0W	3346	0	3240	113	0
1	0Y	3346	0	3238	97	0
1	1	1120	0	1071	15	0
1	1A	3346	0	3238	90	0
1	1C	3346	0	3238	106	0
1	1E	3346	0	3240	112	0
1	1G	3346	0	3238	106	0
1	1K	3346	0	3240	99	0
1	1M	3346	0	3240	97	0
1	1O	3346	0	3240	94	0
1	1Q	3346	0	3239	100	0
1	1S	3346	0	3238	83	0
1	1U	3346	0	3240	103	0
1	1W	3346	0	3238	92	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	2A	3346	0	3238	108	0
1	2C	3346	0	3238	97	0
1	2E	3346	0	3238	103	0
1	2G	3346	0	3238	77	0
1	2I	3346	0	3238	108	0
1	2K	3346	0	3238	76	0
1	2M	3346	0	3240	109	0
1	2Q	3346	0	3236	157	0
1	2S	3346	0	3238	86	0
1	2U	3346	0	3238	99	0
1	2W	3346	0	3239	76	0
1	2Y	3346	0	3238	121	0
1	3	3397	0	3275	22	0
1	3A	3346	0	3238	113	0
1	3C	3346	0	3238	143	0
1	3G	3346	0	3238	92	0
1	3I	3346	0	3239	95	0
1	3K	3346	0	3239	114	0
1	3M	3346	0	3239	106	0
1	3O	3346	0	3239	103	0
1	3Q	3346	0	3240	106	0
1	3S	3346	0	3239	148	0
1	5	3421	0	3295	32	0
1	7	3430	0	3299	17	0
1	9	3421	0	3295	32	0
1	A1	3388	0	3268	14	0
1	A3	3410	0	3286	65	0
1	A5	3370	0	3259	11	0
1	A7	3346	0	3240	14	0
1	A9	3346	0	3238	9	0
1	B1	3346	0	3240	12	0
1	B3	3346	0	3240	9	0
1	B5	3346	0	3238	12	0
1	B8	3346	0	3240	19	0
1	C0	3346	0	3238	4	0
1	C2	3346	0	3240	9	0
1	C4	3346	0	3240	6	0
1	C6	3346	0	3240	7	0
1	C8	3346	0	3239	6	0
1	D0	3346	0	3240	8	0
1	D2	3346	0	3240	6	0
1	D4	3346	0	3240	12	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	D6	3346	0	3240	10	0
1	D8	3346	0	3240	3	0
1	E0	3346	0	3240	11	0
1	E2	3346	0	3240	16	0
1	E4	3346	0	3238	9	0
1	E6	3346	0	3238	22	0
1	E8	3346	0	3239	12	0
1	F0	3346	0	3238	6	0
1	F2	3346	0	3240	10	0
1	F6	3346	0	3240	12	0
1	F8	3346	0	3238	11	0
1	G0	3346	0	3238	17	0
1	G2	3346	0	3240	123	0
1	G4	3346	0	3238	96	0
1	G6	3346	0	3240	127	0
1	G8	3346	0	3240	118	0
1	H2	3346	0	3238	98	0
1	H4	3346	0	3240	98	0
1	H6	3346	0	3238	99	0
1	H8	3346	0	3238	73	0
1	I0	3346	0	3238	98	0
1	I2	3346	0	3240	106	0
1	I4	3346	0	3237	126	0
1	I8	3346	0	3238	97	0
1	J0	3346	0	3238	89	0
1	J2	3346	0	3238	82	0
1	J4	3346	0	3238	79	0
1	J6	3346	0	3239	82	0
1	J8	3346	0	3239	70	0
1	K0	3346	0	3238	76	0
1	K4	3346	0	3239	83	0
1	K6	3346	0	3239	71	0
1	K8	3346	0	3240	83	0
1	L0	3346	0	3240	76	0
1	L2	3346	0	3238	82	0
1	L4	3346	0	3239	100	0
1	L6	3346	0	3238	110	0
1	M0	3346	0	3239	86	0
1	M2	3346	0	3238	84	0
1	M4	3346	0	3238	85	0
1	M6	3346	0	3238	119	0
1	M8	3346	0	3240	81	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	N0	3346	0	3238	85	0
1	N2	3346	0	3240	104	0
1	N6	3346	0	3239	85	0
1	N8	3346	0	3239	86	0
1	O0	3346	0	3238	73	0
1	O2	3346	0	3239	97	0
1	O4	3346	0	3237	101	0
1	O6	3346	0	3239	76	0
1	O8	3346	0	3239	75	0
1	P4	3346	0	3238	103	0
1	P6	3346	0	3238	69	0
1	P8	3346	0	3239	80	0
1	Q0	3346	0	3240	73	0
1	Q2	3346	0	3238	86	0
1	Q4	3346	0	3238	85	0
1	Q6	3346	0	3239	77	0
1	Q8	3293	0	3182	122	0
1	R0	3401	0	3278	89	0
1	R2	3346	0	3238	97	0
1	R4	3370	0	3257	102	0
1	R6	3346	0	3238	91	0
1	R8	3379	0	3264	89	0
1	S0	3346	0	3239	100	0
1	S2	3379	0	3263	96	0
1	S4	3354	0	3244	144	0
1	S6	3346	0	3240	101	0
1	S8	3346	0	3239	116	0
1	T0	3346	0	3240	107	0
1	T2	3346	0	3239	122	0
1	T4	3346	0	3238	109	0
1	T6	3346	0	3239	157	0
1	T8	3346	0	3239	99	0
1	U2	3346	0	3239	87	0
1	U4	3346	0	3238	83	0
1	U6	3346	0	3238	99	0
1	U8	3370	0	3259	89	0
1	V0	3346	0	3240	80	0
1	V2	3346	0	3238	92	0
1	V4	3346	0	3240	79	0
1	V6	3346	0	3240	135	0
1	V8	3346	0	3238	93	0
1	W0	3346	0	3238	85	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	W2	3346	0	3238	83	0
1	W4	3346	0	3238	93	0
1	W6	3346	0	3240	82	0
1	W8	3346	0	3238	86	0
1	X0	3346	0	3238	120	0
1	X2	3346	0	3240	124	0
1	X4	3346	0	3238	110	0
1	X6	3346	0	3238	105	0
1	X8	3346	0	3240	90	0
1	Y0	3346	0	3239	101	0
1	Y2	3346	0	3240	79	0
1	Y4	3346	0	3239	92	0
1	Y6	3346	0	3239	74	0
1	Y8	3346	0	3240	130	0
1	Z0	3346	0	3238	135	0
1	Z2	3346	0	3239	131	0
1	Z4	3346	0	3240	110	0
1	Z6	3346	0	3238	116	0
1	Z8	3346	0	3240	142	0
2	0B	3318	0	3259	112	0
2	0F	3318	0	3259	123	0
2	0H	3318	0	3259	118	0
2	0J	3318	0	3259	122	0
2	0L	3318	0	3259	129	0
2	0N	3318	0	3259	138	0
2	0P	3318	0	3259	101	0
2	0R	3318	0	3259	125	0
2	0V	3318	0	3259	122	0
2	0X	3318	0	3259	116	0
2	0Z	3318	0	3259	124	0
2	1B	3318	0	3259	96	0
2	1D	3318	0	3259	123	0
2	1F	3318	0	3259	125	0
2	1H	3318	0	3259	123	0
2	1L	3318	0	3259	101	0
2	1N	3318	0	3259	116	0
2	1P	3318	0	3259	93	0
2	1R	3318	0	3259	111	0
2	1T	3318	0	3259	95	0
2	1V	3318	0	3259	114	0
2	1X	3318	0	3259	110	0
2	1Z	3318	0	3259	118	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	2	3376	0	3313	19	0
2	2B	3318	0	3259	95	0
2	2D	3318	0	3259	85	0
2	2F	3318	0	3259	106	0
2	2H	3318	0	3259	124	0
2	2J	3318	0	3259	95	0
2	2L	3318	0	3259	96	0
2	2N	3318	0	3259	123	0
2	2P	3318	0	3259	118	0
2	2R	3318	0	3259	85	0
2	2T	3318	0	3259	107	0
2	2V	3318	0	3259	95	0
2	2X	3385	0	3319	112	0
2	2Z	3318	0	3259	130	0
2	3B	3383	0	3314	142	0
2	3D	3318	0	3259	124	0
2	3F	3318	0	3259	95	0
2	3H	3318	0	3259	96	0
2	3J	3318	0	3259	90	0
2	3L	3318	0	3259	82	0
2	3N	3318	0	3259	99	0
2	3P	3318	0	3259	102	0
2	3R	3385	0	3319	110	0
2	3T	3318	0	3259	139	0
2	4	3376	0	3313	32	0
2	6	3376	0	3313	10	0
2	8	3376	0	3312	56	0
2	A0	3376	0	3313	13	0
2	A2	3376	0	3312	69	0
2	A4	3376	0	3313	12	0
2	A8	3318	0	3259	8	0
2	B0	3318	0	3259	8	0
2	B2	3318	0	3259	8	0
2	B4	3318	0	3259	9	0
2	B7	3318	0	3259	10	0
2	B9	3318	0	3259	9	0
2	C1	3318	0	3259	7	0
2	C5	3376	0	3313	14	0
2	C7	3376	0	3313	4	0
2	C9	3318	0	3259	8	0
2	D1	3318	0	3259	6	0
2	D3	3324	0	3264	4	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	D5	3318	0	3259	9	0
2	D7	3324	0	3264	10	0
2	E1	3324	0	3264	9	0
2	E3	3318	0	3259	7	0
2	E5	3318	0	3259	31	0
2	E7	3324	0	3264	26	0
2	E9	3318	0	3259	17	0
2	F1	3318	0	3259	11	0
2	F3	3318	0	3259	11	0
2	F5	3318	0	3259	11	0
2	F7	3318	0	3259	12	0
2	F9	3376	0	3313	12	0
2	G1	3376	0	3313	70	0
2	G3	3376	0	3313	133	0
2	G5	3318	0	3259	107	0
2	G7	3318	0	3259	116	0
2	G9	3318	0	3259	149	0
2	H1	3318	0	3259	117	0
2	H3	3318	0	3259	107	0
2	H5	3318	0	3259	86	0
2	H7	3318	0	3259	85	0
2	H9	3318	0	3259	83	0
2	I1	3318	0	3259	104	0
2	I3	3318	0	3259	96	0
2	I5	3318	0	3259	135	0
2	I7	3332	0	3268	106	0
2	I9	3324	0	3264	110	0
2	J1	3318	0	3259	108	0
2	J3	3326	0	3263	103	0
2	J5	3385	0	3319	101	0
2	J7	3318	0	3259	128	0
2	J9	3385	0	3319	127	0
2	K1	3318	0	3259	135	0
2	K3	3318	0	3259	106	0
2	K5	3318	0	3259	85	0
2	K7	3318	0	3259	86	0
2	K9	3318	0	3259	89	0
2	L1	3318	0	3259	72	0
2	L3	3318	0	3259	115	0
2	L5	3318	0	3259	99	0
2	L7	3318	0	3259	124	0
2	L9	3318	0	3259	82	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	M1	3318	0	3259	86	0
2	M3	3376	0	3313	129	0
2	M5	3318	0	3259	110	0
2	M7	3376	0	3313	106	0
2	M9	3385	0	3319	115	0
2	N1	3324	0	3264	106	0
2	N3	3318	0	3259	128	0
2	N5	3318	0	3259	96	0
2	N7	3318	0	3259	105	0
2	N9	3318	0	3259	105	0
2	O1	3318	0	3259	92	0
2	O3	3318	0	3259	125	0
2	O5	3318	0	3259	108	0
2	O7	3340	0	3274	122	0
2	O9	3318	0	3259	78	0
2	P3	3318	0	3259	95	0
2	P5	3376	0	3313	112	0
2	P7	3318	0	3259	82	0
2	P9	3376	0	3313	92	0
2	Q1	3318	0	3259	70	0
2	Q3	3318	0	3259	96	0
2	Q5	3318	0	3259	94	0
2	Q9	3318	0	3259	111	0
2	R1	3318	0	3259	95	0
2	R3	3327	0	3265	83	0
2	R5	3376	0	3313	100	0
2	R7	3318	0	3259	81	0
2	R9	3376	0	3313	102	0
2	S1	3333	0	3270	98	0
2	S5	3318	0	3259	86	0
2	S7	3376	0	3313	105	0
2	S9	3318	0	3259	110	0
2	T1	3318	0	3259	107	0
2	T3	3318	0	3259	94	0
2	T5	3318	0	3259	100	0
2	T7	3318	0	3259	98	0
2	U1	3318	0	3259	83	0
2	U3	3318	0	3259	72	0
2	U5	3318	0	3259	89	0
2	U7	3318	0	3259	83	0
2	U9	3318	0	3259	113	0
2	V1	3318	0	3259	101	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
2	V3	3318	0	3259	94	0
2	V7	3318	0	3259	102	0
2	V9	3318	0	3259	85	0
2	W1	3318	0	3259	98	0
2	W3	3318	0	3259	80	0
2	W5	3318	0	3259	76	0
2	W7	3318	0	3259	118	0
2	W9	3318	0	3259	150	0
2	X3	3318	0	3259	124	0
2	X5	3318	0	3259	115	0
2	X7	3318	0	3259	121	0
2	X9	3318	0	3259	98	0
2	Y1	3318	0	3259	95	0
2	Y3	3318	0	3259	116	0
2	Y5	3318	0	3259	102	0
2	Y9	3318	0	3259	118	0
2	Z1	3318	0	3259	105	0
2	Z3	3318	0	3259	119	0
2	Z5	3318	0	3259	128	0
2	Z7	3318	0	3259	116	0
2	Z9	3318	0	3259	108	0
3	3V	2329	0	2356	83	0
3	3X	2329	0	2356	90	0
3	3Z	2329	0	2356	79	0
3	4B	2329	0	2356	76	0
3	4D	2329	0	2356	84	0
3	4F	2329	0	2356	86	0
3	4H	2329	0	2356	84	0
3	4J	1643	0	1662	50	0
4	3W	1515	0	1526	49	0
4	3Y	1515	0	1526	46	0
4	4A	1515	0	1526	43	0
4	4C	1515	0	1526	47	0
4	4E	1515	0	1526	42	0
4	4G	1515	0	1526	51	0
4	4I	1515	0	1526	43	0
5	4L	1921	0	1936	75	0
5	4M	2622	0	2653	110	0
6	4N	422	0	422	13	0
6	4O	3995	0	3956	111	0
6	4P	1588	0	1574	37	0
7	4Q	525	0	521	15	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
7	4R	2982	0	2914	102	0
7	4S	371	0	380	20	0
7	4T	1574	0	1556	42	0
7	4U	2285	0	2221	66	0
8	4V	653	0	667	19	0
8	4W	2750	0	2805	116	0
8	4X	462	0	459	48	0
9	4Y	1004	0	1032	28	0
9	4Z	3158	0	3201	130	0
10	5A	1902	0	1930	65	0
10	5B	2074	0	2132	82	0
10	5C	3103	0	3156	110	0
10	5D	901	0	914	26	0
11	5E	1981	0	1969	58	0
12	5F	3020	0	2948	105	0
12	5G	1123	0	1132	34	0
12	7B	753	0	735	41	0
13	5H	1069	0	1048	45	0
13	5I	1069	0	1048	49	0
13	5J	1069	0	1048	44	0
13	5K	1069	0	1048	50	0
14	5L	4757	0	4692	251	0
14	5M	4757	0	4691	242	0
14	5N	4757	0	4692	244	0
15	5O	2927	0	2895	247	0
15	5P	2927	0	2895	188	0
16	5Q	1523	0	1453	78	0
17	5R	162	0	149	8	0
17	5S	1572	0	1577	63	0
17	5T	1563	0	1571	66	0
17	5U	1572	0	1577	62	0
17	5V	879	0	901	39	0
18	5X	1793	0	1800	78	0
18	5Y	1793	0	1800	72	0
18	5Z	1793	0	1800	66	0
18	6A	1793	0	1800	74	0
18	6B	1793	0	1800	72	0
18	6C	1793	0	1800	75	0
18	6D	1793	0	1800	66	0
19	6E	1952	0	1910	117	0
20	6F	2950	0	2946	111	0
21	6G	1420	0	1394	35	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
21	6H	1493	0	1466	64	0
22	6I	2617	0	2556	66	0
22	6J	2617	0	2556	70	0
22	6K	2617	0	2556	80	0
22	6L	2617	0	2556	98	0
22	6M	2617	0	2556	81	0
22	6N	2617	0	2556	79	0
22	6O	2617	0	2556	78	0
22	6P	2366	0	2311	84	0
23	6Q	694	0	690	30	0
23	6R	694	0	690	41	0
23	6S	694	0	690	27	0
24	6T	4590	0	4521	203	0
24	6U	4623	0	4558	209	0
24	6V	4569	0	4501	195	0
24	6W	4606	0	4538	187	0
24	6X	4631	0	4566	291	0
24	6Y	4579	0	4515	206	0
24	6Z	4585	0	4516	200	0
24	7A	1518	0	1462	61	0
25	7C	794	0	816	30	0
26	7D	1016	0	993	80	0
26	7E	1016	0	993	82	0
26	7F	1016	0	994	133	0
27	7G	1728	0	1670	91	0
28	7H	1046	0	1046	53	0
28	7X	1046	0	1046	64	0
29	7I	1716	0	1685	72	0
29	7J	2741	0	2638	165	0
30	7K	3276	0	3173	165	0
30	7L	1333	0	1289	36	0
31	7M	662	0	657	40	0
31	7N	977	0	965	54	0
32	7O	443	0	425	22	0
32	7P	1398	0	1368	40	0
33	7Q	567	0	551	27	0
34	7R	1619	0	1650	45	0
34	7S	1347	0	1357	33	0
35	7T	1738	0	1787	53	0
35	7U	1476	0	1506	34	0
36	7V	735	0	696	33	0
36	7W	735	0	696	42	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
37	7Y	1971	0	1898	143	0
38	7Z	298	0	291	35	0
38	8A	1691	0	1638	195	0
38	8B	1728	0	1666	168	0
38	8C	1728	0	1666	193	0
38	8D	1311	0	1252	139	0
39	0A	28	0	12	1	0
39	0C	28	0	12	2	0
39	0E	28	0	12	3	0
39	0G	28	0	12	2	0
39	0I	28	0	12	1	0
39	0K	28	0	12	1	0
39	0M	28	0	12	1	0
39	0O	28	0	12	1	0
39	0Q	28	0	12	1	0
39	0S	28	0	12	2	0
39	0U	28	0	12	1	0
39	0W	28	0	12	2	0
39	0Y	28	0	12	1	0
39	1A	28	0	12	2	0
39	1C	28	0	12	1	0
39	1E	28	0	12	0	0
39	1G	28	0	12	0	0
39	1K	28	0	12	1	0
39	1M	28	0	12	1	0
39	1O	28	0	12	1	0
39	1Q	28	0	12	1	0
39	1S	28	0	12	1	0
39	1U	28	0	12	0	0
39	1W	28	0	12	2	0
39	2	28	0	12	0	0
39	2A	28	0	12	0	0
39	2C	28	0	12	1	0
39	2E	28	0	12	1	0
39	2G	28	0	12	3	0
39	2I	28	0	12	0	0
39	2K	28	0	12	2	0
39	2M	28	0	12	2	0
39	2Q	28	0	12	0	0
39	2S	28	0	12	0	0
39	2U	28	0	12	0	0
39	2W	28	0	12	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
39	2Y	28	0	12	0	0
39	3	28	0	12	2	0
39	3A	28	0	12	1	0
39	3C	28	0	12	1	0
39	3G	28	0	12	0	0
39	3I	28	0	12	1	0
39	3K	28	0	12	1	0
39	3M	28	0	12	0	0
39	3O	28	0	12	1	0
39	3Q	28	0	12	1	0
39	3S	28	0	12	1	0
39	5	28	0	12	1	0
39	7	28	0	12	3	0
39	9	28	0	12	1	0
39	A1	28	0	12	0	0
39	A3	28	0	12	0	0
39	A5	28	0	12	1	0
39	A7	28	0	12	2	0
39	A9	28	0	12	0	0
39	B1	28	0	12	1	0
39	B3	28	0	12	1	0
39	B5	28	0	12	0	0
39	B8	28	0	12	2	0
39	C0	28	0	12	0	0
39	C2	28	0	12	0	0
39	C4	28	0	12	3	0
39	C6	28	0	12	3	0
39	C8	28	0	12	3	0
39	D0	28	0	12	5	0
39	D2	28	0	12	2	0
39	D4	28	0	12	3	0
39	D6	28	0	12	3	0
39	D8	28	0	12	1	0
39	E0	28	0	12	4	0
39	E2	28	0	12	2	0
39	E4	28	0	12	0	0
39	E6	28	0	12	1	0
39	E8	28	0	12	1	0
39	F0	28	0	12	2	0
39	F2	28	0	12	3	0
39	F6	28	0	12	0	0
39	F8	28	0	12	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
39	G0	28	0	12	0	0
39	G2	28	0	12	0	0
39	G4	28	0	12	1	0
39	G6	28	0	12	0	0
39	G8	28	0	12	1	0
39	H2	28	0	12	1	0
39	H4	28	0	12	1	0
39	H6	28	0	12	1	0
39	H8	28	0	12	0	0
39	I0	28	0	12	0	0
39	I2	28	0	12	0	0
39	I4	28	0	12	0	0
39	I8	28	0	12	0	0
39	J0	28	0	12	0	0
39	J2	28	0	12	1	0
39	J4	28	0	12	0	0
39	J6	28	0	12	1	0
39	J8	28	0	12	1	0
39	K0	28	0	12	0	0
39	K4	28	0	12	1	0
39	K6	28	0	12	0	0
39	K8	28	0	12	0	0
39	L0	28	0	12	0	0
39	L2	28	0	12	1	0
39	L4	28	0	12	2	0
39	L6	28	0	12	1	0
39	M0	28	0	12	0	0
39	M2	28	0	12	0	0
39	M4	28	0	12	0	0
39	M6	28	0	12	0	0
39	M8	28	0	12	0	0
39	N0	28	0	12	0	0
39	N2	28	0	12	1	0
39	N6	28	0	12	2	0
39	N8	28	0	12	3	0
39	O0	28	0	12	0	0
39	O2	28	0	12	2	0
39	O4	28	0	12	0	0
39	O6	28	0	12	1	0
39	O8	28	0	12	1	0
39	P4	28	0	12	1	0
39	P6	28	0	12	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
39	P8	28	0	12	2	0
39	Q0	28	0	12	0	0
39	Q2	28	0	12	1	0
39	Q4	28	0	12	1	0
39	Q6	28	0	12	2	0
39	Q8	28	0	12	0	0
39	R0	28	0	12	0	0
39	R2	28	0	12	0	0
39	R4	28	0	12	1	0
39	R6	28	0	12	1	0
39	R8	28	0	12	0	0
39	S0	28	0	12	0	0
39	S2	28	0	12	1	0
39	S4	28	0	12	1	0
39	S6	28	0	12	0	0
39	S8	28	0	12	1	0
39	T0	28	0	12	2	0
39	T2	28	0	12	0	0
39	T4	28	0	12	0	0
39	T6	28	0	12	3	0
39	T8	28	0	12	0	0
39	U2	28	0	12	1	0
39	U4	28	0	12	0	0
39	U6	28	0	12	0	0
39	U8	28	0	12	0	0
39	V0	28	0	12	0	0
39	V2	28	0	12	0	0
39	V4	28	0	12	1	0
39	V6	28	0	12	1	0
39	V8	28	0	12	1	0
39	W0	28	0	12	2	0
39	W2	28	0	12	1	0
39	W4	28	0	12	0	0
39	W6	28	0	12	0	0
39	W8	28	0	12	2	0
39	X0	28	0	12	2	0
39	X2	28	0	12	3	0
39	X4	28	0	12	2	0
39	X6	28	0	12	3	0
39	X8	28	0	12	1	0
39	Y0	28	0	12	2	0
39	Y2	28	0	12	2	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
39	Y4	28	0	12	3	0
39	Y6	28	0	12	2	0
39	Y8	28	0	12	2	0
39	Z0	28	0	12	2	0
39	Z2	28	0	12	3	0
39	Z4	28	0	12	1	0
39	Z6	28	0	12	2	0
39	Z8	28	0	12	3	0
40	0A	1	0	0	0	0
40	0B	1	0	0	0	0
40	0F	1	0	0	0	0
40	0H	1	0	0	0	0
40	0J	1	0	0	0	0
40	0L	1	0	0	0	0
40	0N	1	0	0	0	0
40	0P	1	0	0	0	0
40	0R	1	0	0	0	0
40	0W	1	0	0	0	0
40	0X	1	0	0	0	0
40	1A	1	0	0	0	0
40	1B	1	0	0	0	0
40	1D	1	0	0	0	0
40	1F	1	0	0	0	0
40	1H	1	0	0	0	0
40	1L	1	0	0	0	0
40	1N	1	0	0	0	0
40	1P	1	0	0	0	0
40	1R	1	0	0	0	0
40	1T	1	0	0	0	0
40	1V	1	0	0	0	0
40	1X	1	0	0	0	0
40	1Z	1	0	0	0	0
40	2	1	0	0	0	0
40	2B	1	0	0	0	0
40	2D	1	0	0	0	0
40	2F	1	0	0	0	0
40	2H	1	0	0	0	0
40	2J	1	0	0	0	0
40	2L	1	0	0	0	0
40	2N	1	0	0	0	0
40	2P	1	0	0	0	0
40	2R	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
40	2T	1	0	0	0	0
40	2V	1	0	0	0	0
40	2X	1	0	0	0	0
40	2Z	1	0	0	0	0
40	3B	1	0	0	0	0
40	3D	1	0	0	0	0
40	3F	1	0	0	0	0
40	3H	1	0	0	0	0
40	3K	1	0	0	0	0
40	3L	1	0	0	0	0
40	3N	1	0	0	0	0
40	3P	1	0	0	0	0
40	3R	1	0	0	0	0
40	3T	1	0	0	0	0
40	4	1	0	0	0	0
40	6	1	0	0	0	0
40	8	1	0	0	0	0
40	A0	1	0	0	0	0
40	A2	1	0	0	0	0
40	A4	1	0	0	0	0
40	A8	1	0	0	0	0
40	B0	1	0	0	0	0
40	B2	1	0	0	0	0
40	B4	1	0	0	0	0
40	B7	1	0	0	0	0
40	B9	1	0	0	0	0
40	C1	1	0	0	0	0
40	C5	1	0	0	0	0
40	C7	1	0	0	0	0
40	C9	1	0	0	0	0
40	D1	1	0	0	0	0
40	D3	1	0	0	0	0
40	D5	1	0	0	0	0
40	D7	1	0	0	0	0
40	E1	1	0	0	0	0
40	E3	1	0	0	0	0
40	E5	1	0	0	0	0
40	E7	1	0	0	0	0
40	E9	1	0	0	0	0
40	F1	1	0	0	0	0
40	F3	1	0	0	0	0
40	F5	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
40	F7	1	0	0	0	0
40	F9	1	0	0	0	0
40	G1	1	0	0	0	0
40	G3	1	0	0	0	0
40	G5	1	0	0	0	0
40	G7	1	0	0	0	0
40	G9	1	0	0	0	0
40	H2	1	0	0	0	0
40	H3	1	0	0	0	0
40	H5	1	0	0	0	0
40	H8	1	0	0	0	0
40	H9	1	0	0	0	0
40	I1	1	0	0	0	0
40	I3	1	0	0	0	0
40	I5	1	0	0	0	0
40	I7	1	0	0	0	0
40	I9	1	0	0	0	0
40	J1	1	0	0	0	0
40	J4	1	0	0	0	0
40	J5	1	0	0	0	0
40	J7	1	0	0	0	0
40	J9	1	0	0	0	0
40	K1	1	0	0	0	0
40	K3	1	0	0	0	0
40	K5	1	0	0	0	0
40	K7	1	0	0	0	0
40	K9	1	0	0	0	0
40	L1	1	0	0	0	0
40	L3	1	0	0	0	0
40	L5	1	0	0	0	0
40	L7	1	0	0	0	0
40	L9	1	0	0	0	0
40	M1	1	0	0	0	0
40	M3	1	0	0	0	0
40	M5	1	0	0	0	0
40	M7	1	0	0	0	0
40	M9	1	0	0	0	0
40	N1	1	0	0	0	0
40	N3	1	0	0	0	0
40	N6	1	0	0	0	0
40	N7	1	0	0	0	0
40	O0	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
40	O1	1	0	0	0	0
40	O3	1	0	0	0	0
40	O5	1	0	0	0	0
40	O8	1	0	0	0	0
40	O9	1	0	0	0	0
40	P4	1	0	0	0	0
40	P6	1	0	0	0	0
40	P7	1	0	0	0	0
40	P9	1	0	0	0	0
40	Q1	1	0	0	0	0
40	Q3	1	0	0	0	0
40	Q5	1	0	0	0	0
40	Q9	1	0	0	0	0
40	R1	1	0	0	0	0
40	R3	1	0	0	0	0
40	R6	1	0	0	0	0
40	R7	1	0	0	0	0
40	R9	1	0	0	0	0
40	S1	1	0	0	0	0
40	S5	1	0	0	0	0
40	S7	1	0	0	0	0
40	S9	1	0	0	0	0
40	T1	1	0	0	0	0
40	T3	1	0	0	0	0
40	T5	1	0	0	0	0
40	T7	1	0	0	0	0
40	U1	1	0	0	0	0
40	U3	1	0	0	0	0
40	U5	1	0	0	0	0
40	U7	1	0	0	0	0
40	U9	1	0	0	0	0
40	V2	1	0	0	0	0
40	V3	1	0	0	0	0
40	V7	1	0	0	0	0
40	V9	1	0	0	0	0
40	W2	1	0	0	0	0
40	W3	1	0	0	0	0
40	W5	1	0	0	0	0
40	W8	1	0	0	0	0
40	W9	1	0	0	0	0
40	X3	1	0	0	0	0
40	X5	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
40	X7	1	0	0	0	0
40	X9	1	0	0	0	0
40	Y1	1	0	0	0	0
40	Y3	1	0	0	0	0
40	Y5	1	0	0	0	0
40	Y9	1	0	0	0	0
40	Z2	1	0	0	0	0
40	Z3	1	0	0	0	0
40	Z5	1	0	0	0	0
40	Z7	1	0	0	0	0
41	0A	32	0	12	2	0
41	0C	32	0	12	3	0
41	0F	32	0	12	3	0
41	0I	32	0	12	3	0
41	0K	32	0	12	2	0
41	0M	32	0	12	3	0
41	0O	32	0	12	2	0
41	0Q	32	0	12	3	0
41	0S	32	0	12	2	0
41	0V	32	0	12	1	0
41	0Y	32	0	12	1	0
41	1A	32	0	12	1	0
41	1C	32	0	12	1	0
41	1D	32	0	12	1	0
41	1G	32	0	12	1	0
41	1H	32	0	12	2	0
41	1L	32	0	12	1	0
41	1N	32	0	12	1	0
41	1Q	32	0	12	1	0
41	1S	32	0	12	1	0
41	1T	32	0	12	1	0
41	1W	32	0	12	1	0
41	1X	32	0	12	1	0
41	2A	32	0	12	0	0
41	2C	32	0	12	2	0
41	2E	32	0	12	2	0
41	2G	32	0	12	2	0
41	2I	32	0	12	1	0
41	2K	32	0	12	0	0
41	2L	32	0	12	1	0
41	2N	32	0	12	1	0
41	2Q	32	0	12	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
41	2S	32	0	12	0	0
41	2U	32	0	12	1	0
41	2W	32	0	12	1	0
41	2Y	32	0	12	0	0
41	3	32	0	12	1	0
41	3A	32	0	12	0	0
41	3C	32	0	12	0	0
41	3D	32	0	12	2	0
41	3G	32	0	12	0	0
41	3I	32	0	12	0	0
41	3K	32	0	12	0	0
41	3M	32	0	12	1	0
41	3O	32	0	12	1	0
41	3P	32	0	12	0	0
41	3S	32	0	12	0	0
41	3T	32	0	12	0	0
41	4	32	0	12	1	0
41	7	32	0	12	0	0
41	8	32	0	12	1	0
41	A1	32	0	12	2	0
41	A2	32	0	12	1	0
41	A4	32	0	12	2	0
41	A9	32	0	12	1	0
41	B0	32	0	12	2	0
41	B2	32	0	12	0	0
41	B5	32	0	12	2	0
41	B7	32	0	12	1	0
41	C0	32	0	12	2	0
41	C1	32	0	12	2	0
41	C5	32	0	12	2	0
41	C8	32	0	12	1	0
41	C9	32	0	12	5	0
41	D1	32	0	12	1	0
41	D3	32	0	12	2	0
41	D5	32	0	12	1	0
41	D7	32	0	12	2	0
41	E1	32	0	12	3	0
41	E4	32	0	12	1	0
41	E6	32	0	12	2	0
41	E8	32	0	12	3	0
41	F0	32	0	12	2	0
41	F1	32	0	12	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
41	F3	32	0	12	2	0
41	F5	32	0	12	2	0
41	F8	32	0	12	1	0
41	G0	32	0	12	3	0
41	G1	32	0	12	2	0
41	G4	32	0	12	2	0
41	G5	32	0	12	3	0
41	G7	32	0	12	2	0
41	G9	32	0	12	1	0
41	H2	32	0	12	1	0
41	H3	32	0	12	1	0
41	H6	32	0	12	1	0
41	H8	32	0	12	1	0
41	I0	32	0	12	1	0
41	I1	32	0	12	1	0
41	I4	32	0	12	2	0
41	I5	32	0	12	0	0
41	I8	32	0	12	1	0
41	J0	32	0	12	1	0
41	J2	32	0	12	1	0
41	J4	32	0	12	1	0
41	J6	32	0	12	1	0
41	J8	32	0	12	1	0
41	K0	32	0	12	2	0
41	K1	32	0	12	0	0
41	K4	32	0	12	2	0
41	K6	32	0	12	3	0
41	K7	32	0	12	2	0
41	K9	32	0	12	2	0
41	L2	32	0	12	2	0
41	L4	32	0	12	3	0
41	L6	32	0	12	1	0
41	L7	32	0	12	0	0
41	M0	32	0	12	0	0
41	M2	32	0	12	0	0
41	M4	32	0	12	0	0
41	M6	32	0	12	0	0
41	M7	32	0	12	1	0
41	N0	32	0	12	1	0
41	N1	32	0	12	0	0
41	N3	32	0	12	0	0
41	N6	32	0	12	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
41	N8	32	0	12	2	0
41	O0	32	0	12	1	0
41	O2	32	0	12	0	0
41	O4	32	0	12	2	0
41	O6	32	0	12	1	0
41	O8	32	0	12	1	0
41	O9	32	0	12	1	0
41	P4	32	0	12	3	0
41	P6	32	0	12	2	0
41	P8	32	0	12	2	0
41	P9	32	0	12	2	0
41	Q2	32	0	12	1	0
41	Q4	32	0	12	1	0
41	Q6	32	0	12	1	0
41	R0	32	0	12	1	0
41	R2	32	0	12	1	0
41	R4	32	0	12	0	0
41	R6	32	0	12	1	0
41	R8	32	0	12	0	0
41	S0	32	0	12	1	0
41	S2	32	0	12	1	0
41	S5	32	0	12	0	0
41	S8	32	0	12	1	0
41	S9	32	0	12	2	0
41	T2	32	0	12	2	0
41	T4	32	0	12	3	0
41	T6	32	0	12	3	0
41	T8	32	0	12	2	0
41	U2	32	0	12	0	0
41	U4	32	0	12	1	0
41	U6	32	0	12	1	0
41	U7	32	0	12	0	0
41	U9	32	0	12	0	0
41	V2	32	0	12	0	0
41	V3	32	0	12	0	0
41	V8	32	0	12	0	0
41	W0	32	0	12	0	0
41	W2	32	0	12	0	0
41	W4	32	0	12	0	0
41	W5	32	0	12	1	0
41	W8	32	0	12	0	0
41	X0	32	0	12	1	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
41	X4	32	0	12	3	0
41	X6	32	0	12	3	0
41	X7	32	0	12	2	0
41	Y0	32	0	12	3	0
41	Y1	32	0	12	2	0
41	Y4	32	0	12	2	0
41	Y6	32	0	12	2	0
41	Z0	32	0	12	1	0
41	Z2	32	0	12	2	0
41	Z3	32	0	12	2	0
41	Z6	32	0	12	2	0
41	Z7	32	0	12	2	0
All	All	1358547	0	1321887	33425	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 12.

The worst 5 of 33425 close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:3S:362:LYS:CE	38:8D:166:GLU:HG3	1.25	1.64
2:E5:282:TYR:CZ	22:6K:82:LEU:HD23	1.38	1.57
24:6X:451:LYS:CD	24:6X:468:ARG:HH12	1.02	1.56
2:S1:88:HIS:CD2	2:S1:89:PRO:HD2	1.42	1.51
2:E5:282:TYR:CE1	22:6K:82:LEU:CD2	1.93	1.49

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	0A	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	0C	367/379 (97%)	367 (100%)	0	100 100
1	0E	367/379 (97%)	365 (100%)	2 (0%)	88 94
1	0G	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	0I	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	0K	367/379 (97%)	365 (100%)	2 (0%)	88 94
1	0M	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	0O	367/379 (97%)	367 (100%)	0	100 100
1	0Q	367/379 (97%)	367 (100%)	0	100 100
1	0S	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	0U	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	0W	367/379 (97%)	367 (100%)	0	100 100
1	0Y	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	1	122/379 (32%)	118 (97%)	4 (3%)	38 66
1	1A	367/379 (97%)	367 (100%)	0	100 100
1	1C	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	1E	367/379 (97%)	367 (100%)	0	100 100
1	1G	367/379 (97%)	367 (100%)	0	100 100
1	1K	367/379 (97%)	367 (100%)	0	100 100
1	1M	367/379 (97%)	364 (99%)	3 (1%)	81 91
1	1O	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	1Q	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	1S	367/379 (97%)	367 (100%)	0	100 100
1	1U	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	1W	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	2A	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	2C	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	2E	367/379 (97%)	367 (100%)	0	100 100
1	2G	367/379 (97%)	367 (100%)	0	100 100
1	2I	367/379 (97%)	367 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	2K	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	2M	367/379 (97%)	367 (100%)	0	100 100
1	2Q	367/379 (97%)	365 (100%)	2 (0%)	88 94
1	2S	367/379 (97%)	365 (100%)	2 (0%)	88 94
1	2U	367/379 (97%)	365 (100%)	2 (0%)	88 94
1	2W	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	2Y	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	3	372/379 (98%)	370 (100%)	2 (0%)	88 94
1	3A	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	3C	367/379 (97%)	365 (100%)	2 (0%)	88 94
1	3G	367/379 (97%)	367 (100%)	0	100 100
1	3I	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	3K	367/379 (97%)	367 (100%)	0	100 100
1	3M	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	3O	367/379 (97%)	365 (100%)	2 (0%)	88 94
1	3Q	367/379 (97%)	367 (100%)	0	100 100
1	3S	367/379 (97%)	367 (100%)	0	100 100
1	5	374/379 (99%)	372 (100%)	2 (0%)	88 94
1	7	375/379 (99%)	373 (100%)	2 (0%)	88 94
1	9	374/379 (99%)	373 (100%)	1 (0%)	92 97
1	A1	371/379 (98%)	370 (100%)	1 (0%)	92 97
1	A3	373/379 (98%)	372 (100%)	1 (0%)	92 97
1	A5	369/379 (97%)	369 (100%)	0	100 100
1	A7	367/379 (97%)	367 (100%)	0	100 100
1	A9	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	B1	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	B3	367/379 (97%)	367 (100%)	0	100 100
1	B5	367/379 (97%)	365 (100%)	2 (0%)	88 94
1	B8	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	C0	367/379 (97%)	367 (100%)	0	100 100
1	C2	367/379 (97%)	366 (100%)	1 (0%)	92 97

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	C4	367/379 (97%)	367 (100%)	0	100	100
1	C6	367/379 (97%)	367 (100%)	0	100	100
1	C8	367/379 (97%)	367 (100%)	0	100	100
1	D0	367/379 (97%)	367 (100%)	0	100	100
1	D2	367/379 (97%)	367 (100%)	0	100	100
1	D4	367/379 (97%)	365 (100%)	2 (0%)	88	94
1	D6	367/379 (97%)	366 (100%)	1 (0%)	92	97
1	D8	367/379 (97%)	367 (100%)	0	100	100
1	E0	367/379 (97%)	366 (100%)	1 (0%)	92	97
1	E2	367/379 (97%)	366 (100%)	1 (0%)	92	97
1	E4	367/379 (97%)	367 (100%)	0	100	100
1	E6	367/379 (97%)	367 (100%)	0	100	100
1	E8	367/379 (97%)	367 (100%)	0	100	100
1	F0	367/379 (97%)	367 (100%)	0	100	100
1	F2	367/379 (97%)	367 (100%)	0	100	100
1	F6	367/379 (97%)	367 (100%)	0	100	100
1	F8	367/379 (97%)	365 (100%)	2 (0%)	88	94
1	G0	367/379 (97%)	366 (100%)	1 (0%)	92	97
1	G2	367/379 (97%)	366 (100%)	1 (0%)	92	97
1	G4	367/379 (97%)	366 (100%)	1 (0%)	92	97
1	G6	367/379 (97%)	367 (100%)	0	100	100
1	G8	367/379 (97%)	367 (100%)	0	100	100
1	H2	367/379 (97%)	367 (100%)	0	100	100
1	H4	367/379 (97%)	367 (100%)	0	100	100
1	H6	367/379 (97%)	366 (100%)	1 (0%)	92	97
1	H8	367/379 (97%)	365 (100%)	2 (0%)	88	94
1	I0	367/379 (97%)	367 (100%)	0	100	100
1	I2	367/379 (97%)	367 (100%)	0	100	100
1	I4	367/379 (97%)	367 (100%)	0	100	100
1	I8	367/379 (97%)	367 (100%)	0	100	100
1	J0	367/379 (97%)	367 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	J2	367/379 (97%)	367 (100%)	0	100	100
1	J4	367/379 (97%)	367 (100%)	0	100	100
1	J6	367/379 (97%)	367 (100%)	0	100	100
1	J8	367/379 (97%)	367 (100%)	0	100	100
1	K0	367/379 (97%)	366 (100%)	1 (0%)	92	97
1	K4	367/379 (97%)	367 (100%)	0	100	100
1	K6	367/379 (97%)	366 (100%)	1 (0%)	92	97
1	K8	367/379 (97%)	367 (100%)	0	100	100
1	L0	367/379 (97%)	366 (100%)	1 (0%)	92	97
1	L2	367/379 (97%)	367 (100%)	0	100	100
1	L4	367/379 (97%)	367 (100%)	0	100	100
1	L6	367/379 (97%)	367 (100%)	0	100	100
1	M0	367/379 (97%)	367 (100%)	0	100	100
1	M2	367/379 (97%)	367 (100%)	0	100	100
1	M4	367/379 (97%)	366 (100%)	1 (0%)	92	97
1	M6	367/379 (97%)	367 (100%)	0	100	100
1	M8	367/379 (97%)	366 (100%)	1 (0%)	92	97
1	N0	367/379 (97%)	366 (100%)	1 (0%)	92	97
1	N2	367/379 (97%)	367 (100%)	0	100	100
1	N6	367/379 (97%)	367 (100%)	0	100	100
1	N8	367/379 (97%)	367 (100%)	0	100	100
1	O0	367/379 (97%)	367 (100%)	0	100	100
1	O2	367/379 (97%)	365 (100%)	2 (0%)	88	94
1	O4	367/379 (97%)	367 (100%)	0	100	100
1	O6	367/379 (97%)	365 (100%)	2 (0%)	88	94
1	O8	367/379 (97%)	367 (100%)	0	100	100
1	P4	367/379 (97%)	367 (100%)	0	100	100
1	P6	367/379 (97%)	367 (100%)	0	100	100
1	P8	367/379 (97%)	367 (100%)	0	100	100
1	Q0	367/379 (97%)	367 (100%)	0	100	100
1	Q2	367/379 (97%)	366 (100%)	1 (0%)	92	97

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	Q4	367/379 (97%)	367 (100%)	0	100 100
1	Q6	367/379 (97%)	367 (100%)	0	100 100
1	Q8	361/379 (95%)	359 (99%)	2 (1%)	86 94
1	R0	372/379 (98%)	372 (100%)	0	100 100
1	R2	367/379 (97%)	365 (100%)	2 (0%)	88 94
1	R4	369/379 (97%)	368 (100%)	1 (0%)	92 97
1	R6	367/379 (97%)	367 (100%)	0	100 100
1	R8	370/379 (98%)	370 (100%)	0	100 100
1	S0	367/379 (97%)	365 (100%)	2 (0%)	88 94
1	S2	370/379 (98%)	370 (100%)	0	100 100
1	S4	368/379 (97%)	368 (100%)	0	100 100
1	S6	367/379 (97%)	367 (100%)	0	100 100
1	S8	367/379 (97%)	367 (100%)	0	100 100
1	T0	367/379 (97%)	367 (100%)	0	100 100
1	T2	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	T4	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	T6	367/379 (97%)	364 (99%)	3 (1%)	81 91
1	T8	367/379 (97%)	367 (100%)	0	100 100
1	U2	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	U4	367/379 (97%)	365 (100%)	2 (0%)	88 94
1	U6	367/379 (97%)	367 (100%)	0	100 100
1	U8	369/379 (97%)	367 (100%)	2 (0%)	88 94
1	V0	367/379 (97%)	367 (100%)	0	100 100
1	V2	367/379 (97%)	364 (99%)	3 (1%)	81 91
1	V4	367/379 (97%)	367 (100%)	0	100 100
1	V6	367/379 (97%)	367 (100%)	0	100 100
1	V8	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	W0	367/379 (97%)	367 (100%)	0	100 100
1	W2	367/379 (97%)	367 (100%)	0	100 100
1	W4	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	W6	367/379 (97%)	367 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	W8	367/379 (97%)	364 (99%)	3 (1%)	81 91
1	X0	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	X2	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	X4	367/379 (97%)	367 (100%)	0	100 100
1	X6	367/379 (97%)	367 (100%)	0	100 100
1	X8	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	Y0	367/379 (97%)	367 (100%)	0	100 100
1	Y2	367/379 (97%)	367 (100%)	0	100 100
1	Y4	367/379 (97%)	367 (100%)	0	100 100
1	Y6	367/379 (97%)	365 (100%)	2 (0%)	88 94
1	Y8	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	Z0	367/379 (97%)	367 (100%)	0	100 100
1	Z2	367/379 (97%)	367 (100%)	0	100 100
1	Z4	367/379 (97%)	367 (100%)	0	100 100
1	Z6	367/379 (97%)	366 (100%)	1 (0%)	92 97
1	Z8	367/379 (97%)	367 (100%)	0	100 100
2	0B	359/374 (96%)	359 (100%)	0	100 100
2	0F	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	0H	359/374 (96%)	359 (100%)	0	100 100
2	0J	359/374 (96%)	359 (100%)	0	100 100
2	0L	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	0N	359/374 (96%)	356 (99%)	3 (1%)	81 91
2	0P	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	0R	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	0V	359/374 (96%)	357 (99%)	2 (1%)	86 94
2	0X	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	0Z	359/374 (96%)	357 (99%)	2 (1%)	86 94
2	1B	359/374 (96%)	357 (99%)	2 (1%)	86 94
2	1D	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	1F	359/374 (96%)	359 (100%)	0	100 100
2	1H	359/374 (96%)	356 (99%)	3 (1%)	81 91

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	1L	359/374 (96%)	357 (99%)	2 (1%)	86 94
2	1N	359/374 (96%)	356 (99%)	3 (1%)	81 91
2	1P	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	1R	359/374 (96%)	351 (98%)	8 (2%)	52 75
2	1T	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	1V	359/374 (96%)	355 (99%)	4 (1%)	73 86
2	1X	359/374 (96%)	359 (100%)	0	100 100
2	1Z	359/374 (96%)	357 (99%)	2 (1%)	86 94
2	2	365/374 (98%)	365 (100%)	0	100 100
2	2B	359/374 (96%)	359 (100%)	0	100 100
2	2D	359/374 (96%)	359 (100%)	0	100 100
2	2F	359/374 (96%)	359 (100%)	0	100 100
2	2H	359/374 (96%)	359 (100%)	0	100 100
2	2J	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	2L	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	2N	359/374 (96%)	359 (100%)	0	100 100
2	2P	359/374 (96%)	356 (99%)	3 (1%)	81 91
2	2R	359/374 (96%)	359 (100%)	0	100 100
2	2T	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	2V	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	2X	366/374 (98%)	366 (100%)	0	100 100
2	2Z	359/374 (96%)	356 (99%)	3 (1%)	81 91
2	3B	365/374 (98%)	362 (99%)	3 (1%)	81 91
2	3D	359/374 (96%)	359 (100%)	0	100 100
2	3F	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	3H	359/374 (96%)	359 (100%)	0	100 100
2	3J	359/374 (96%)	359 (100%)	0	100 100
2	3L	359/374 (96%)	359 (100%)	0	100 100
2	3N	359/374 (96%)	359 (100%)	0	100 100
2	3P	359/374 (96%)	359 (100%)	0	100 100
2	3R	366/374 (98%)	366 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	3T	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	4	365/374 (98%)	365 (100%)	0	100 100
2	6	365/374 (98%)	365 (100%)	0	100 100
2	8	365/374 (98%)	365 (100%)	0	100 100
2	A0	365/374 (98%)	365 (100%)	0	100 100
2	A2	365/374 (98%)	363 (100%)	2 (0%)	88 94
2	A4	365/374 (98%)	357 (98%)	8 (2%)	52 75
2	A8	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	B0	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	B2	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	B4	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	B7	359/374 (96%)	357 (99%)	2 (1%)	86 94
2	B9	359/374 (96%)	359 (100%)	0	100 100
2	C1	359/374 (96%)	359 (100%)	0	100 100
2	C5	365/374 (98%)	365 (100%)	0	100 100
2	C7	365/374 (98%)	363 (100%)	2 (0%)	88 94
2	C9	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	D1	359/374 (96%)	357 (99%)	2 (1%)	86 94
2	D3	360/374 (96%)	360 (100%)	0	100 100
2	D5	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	D7	360/374 (96%)	360 (100%)	0	100 100
2	E1	360/374 (96%)	358 (99%)	2 (1%)	86 94
2	E3	359/374 (96%)	359 (100%)	0	100 100
2	E5	359/374 (96%)	357 (99%)	2 (1%)	86 94
2	E7	360/374 (96%)	358 (99%)	2 (1%)	86 94
2	E9	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	F1	359/374 (96%)	356 (99%)	3 (1%)	81 91
2	F3	359/374 (96%)	359 (100%)	0	100 100
2	F5	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	F7	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	F9	365/374 (98%)	365 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
2	G1	365/374 (98%)	362 (99%)	3 (1%)	81 91
2	G3	365/374 (98%)	362 (99%)	3 (1%)	81 91
2	G5	359/374 (96%)	359 (100%)	0	100 100
2	G7	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	G9	359/374 (96%)	359 (100%)	0	100 100
2	H1	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	H3	359/374 (96%)	359 (100%)	0	100 100
2	H5	359/374 (96%)	359 (100%)	0	100 100
2	H7	359/374 (96%)	359 (100%)	0	100 100
2	H9	359/374 (96%)	359 (100%)	0	100 100
2	I1	359/374 (96%)	357 (99%)	2 (1%)	86 94
2	I3	359/374 (96%)	359 (100%)	0	100 100
2	I5	359/374 (96%)	359 (100%)	0	100 100
2	I7	361/374 (96%)	361 (100%)	0	100 100
2	I9	360/374 (96%)	356 (99%)	4 (1%)	73 86
2	J1	359/374 (96%)	359 (100%)	0	100 100
2	J3	360/374 (96%)	359 (100%)	1 (0%)	92 97
2	J5	366/374 (98%)	366 (100%)	0	100 100
2	J7	359/374 (96%)	354 (99%)	5 (1%)	67 83
2	J9	366/374 (98%)	366 (100%)	0	100 100
2	K1	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	K3	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	K5	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	K7	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	K9	359/374 (96%)	357 (99%)	2 (1%)	86 94
2	L1	359/374 (96%)	358 (100%)	1 (0%)	92 97
2	L3	359/374 (96%)	355 (99%)	4 (1%)	73 86
2	L5	359/374 (96%)	359 (100%)	0	100 100
2	L7	359/374 (96%)	357 (99%)	2 (1%)	86 94
2	L9	359/374 (96%)	359 (100%)	0	100 100
2	M1	359/374 (96%)	359 (100%)	0	100 100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	M3	365/374 (98%)	361 (99%)	4 (1%)	73	86
2	M5	359/374 (96%)	358 (100%)	1 (0%)	92	97
2	M7	365/374 (98%)	363 (100%)	2 (0%)	88	94
2	M9	366/374 (98%)	365 (100%)	1 (0%)	92	97
2	N1	360/374 (96%)	360 (100%)	0	100	100
2	N3	359/374 (96%)	356 (99%)	3 (1%)	81	91
2	N5	359/374 (96%)	357 (99%)	2 (1%)	86	94
2	N7	359/374 (96%)	356 (99%)	3 (1%)	81	91
2	N9	359/374 (96%)	358 (100%)	1 (0%)	92	97
2	O1	359/374 (96%)	357 (99%)	2 (1%)	86	94
2	O3	359/374 (96%)	357 (99%)	2 (1%)	86	94
2	O5	359/374 (96%)	356 (99%)	3 (1%)	81	91
2	O7	361/374 (96%)	360 (100%)	1 (0%)	92	97
2	O9	359/374 (96%)	359 (100%)	0	100	100
2	P3	359/374 (96%)	359 (100%)	0	100	100
2	P5	365/374 (98%)	362 (99%)	3 (1%)	81	91
2	P7	359/374 (96%)	357 (99%)	2 (1%)	86	94
2	P9	365/374 (98%)	365 (100%)	0	100	100
2	Q1	359/374 (96%)	359 (100%)	0	100	100
2	Q3	359/374 (96%)	357 (99%)	2 (1%)	86	94
2	Q5	359/374 (96%)	359 (100%)	0	100	100
2	Q9	359/374 (96%)	359 (100%)	0	100	100
2	R1	359/374 (96%)	357 (99%)	2 (1%)	86	94
2	R3	360/374 (96%)	360 (100%)	0	100	100
2	R5	365/374 (98%)	363 (100%)	2 (0%)	88	94
2	R7	359/374 (96%)	359 (100%)	0	100	100
2	R9	365/374 (98%)	365 (100%)	0	100	100
2	S1	361/374 (96%)	358 (99%)	3 (1%)	81	91
2	S5	359/374 (96%)	358 (100%)	1 (0%)	92	97
2	S7	365/374 (98%)	364 (100%)	1 (0%)	92	97
2	S9	359/374 (96%)	355 (99%)	4 (1%)	73	86

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	T1	359/374 (96%)	359 (100%)	0	100	100
2	T3	359/374 (96%)	354 (99%)	5 (1%)	67	83
2	T5	359/374 (96%)	357 (99%)	2 (1%)	86	94
2	T7	359/374 (96%)	357 (99%)	2 (1%)	86	94
2	U1	359/374 (96%)	359 (100%)	0	100	100
2	U3	359/374 (96%)	359 (100%)	0	100	100
2	U5	359/374 (96%)	359 (100%)	0	100	100
2	U7	359/374 (96%)	357 (99%)	2 (1%)	86	94
2	U9	359/374 (96%)	358 (100%)	1 (0%)	92	97
2	V1	359/374 (96%)	357 (99%)	2 (1%)	86	94
2	V3	359/374 (96%)	355 (99%)	4 (1%)	73	86
2	V7	359/374 (96%)	359 (100%)	0	100	100
2	V9	359/374 (96%)	359 (100%)	0	100	100
2	W1	359/374 (96%)	357 (99%)	2 (1%)	86	94
2	W3	359/374 (96%)	358 (100%)	1 (0%)	92	97
2	W5	359/374 (96%)	358 (100%)	1 (0%)	92	97
2	W7	359/374 (96%)	359 (100%)	0	100	100
2	W9	359/374 (96%)	350 (98%)	9 (2%)	47	72
2	X3	359/374 (96%)	359 (100%)	0	100	100
2	X5	359/374 (96%)	357 (99%)	2 (1%)	86	94
2	X7	359/374 (96%)	357 (99%)	2 (1%)	86	94
2	X9	359/374 (96%)	356 (99%)	3 (1%)	81	91
2	Y1	359/374 (96%)	358 (100%)	1 (0%)	92	97
2	Y3	359/374 (96%)	357 (99%)	2 (1%)	86	94
2	Y5	359/374 (96%)	357 (99%)	2 (1%)	86	94
2	Y9	359/374 (96%)	359 (100%)	0	100	100
2	Z1	359/374 (96%)	359 (100%)	0	100	100
2	Z3	359/374 (96%)	359 (100%)	0	100	100
2	Z5	359/374 (96%)	357 (99%)	2 (1%)	86	94
2	Z7	359/374 (96%)	359 (100%)	0	100	100
2	Z9	359/374 (96%)	359 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	3V	251/258 (97%)	229 (91%)	22 (9%)	10	33
3	3X	251/258 (97%)	229 (91%)	22 (9%)	10	33
3	3Z	251/258 (97%)	229 (91%)	22 (9%)	10	33
3	4B	251/258 (97%)	229 (91%)	22 (9%)	10	33
3	4D	251/258 (97%)	229 (91%)	22 (9%)	10	33
3	4F	251/258 (97%)	229 (91%)	22 (9%)	10	33
3	4H	251/258 (97%)	229 (91%)	22 (9%)	10	33
3	4J	178/258 (69%)	178 (100%)	0	100	100
4	3W	170/176 (97%)	159 (94%)	11 (6%)	17	46
4	3Y	170/176 (97%)	159 (94%)	11 (6%)	17	46
4	4A	170/176 (97%)	159 (94%)	11 (6%)	17	46
4	4C	170/176 (97%)	159 (94%)	11 (6%)	17	46
4	4E	170/176 (97%)	159 (94%)	11 (6%)	17	46
4	4G	170/176 (97%)	159 (94%)	11 (6%)	17	46
4	4I	170/176 (97%)	159 (94%)	11 (6%)	17	46
5	4L	191/399 (48%)	190 (100%)	1 (0%)	88	94
5	4M	267/399 (67%)	266 (100%)	1 (0%)	91	95
6	4N	46/422 (11%)	45 (98%)	1 (2%)	52	75
6	4O	403/422 (96%)	402 (100%)	1 (0%)	93	98
6	4P	159/422 (38%)	159 (100%)	0	100	100
7	4Q	54/306 (18%)	54 (100%)	0	100	100
7	4R	305/306 (100%)	300 (98%)	5 (2%)	62	81
7	4S	40/306 (13%)	38 (95%)	2 (5%)	24	54
7	4T	160/306 (52%)	159 (99%)	1 (1%)	86	94
7	4U	234/306 (76%)	234 (100%)	0	100	100
8	4V	63/362 (17%)	63 (100%)	0	100	100
8	4W	261/362 (72%)	258 (99%)	3 (1%)	73	86
8	4X	49/362 (14%)	48 (98%)	1 (2%)	55	77
9	4Y	98/374 (26%)	98 (100%)	0	100	100
9	4Z	309/374 (83%)	309 (100%)	0	100	100
10	5A	194/433 (45%)	193 (100%)	1 (0%)	88	94

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
10	5B	220/433 (51%)	218 (99%)	2 (1%)	78 90
10	5C	323/433 (75%)	320 (99%)	3 (1%)	78 90
10	5D	97/433 (22%)	97 (100%)	0	100 100
11	5E	211/223 (95%)	209 (99%)	2 (1%)	78 90
12	5F	332/340 (98%)	328 (99%)	4 (1%)	71 85
12	5G	127/340 (37%)	126 (99%)	1 (1%)	81 91
12	7B	83/340 (24%)	82 (99%)	1 (1%)	71 85
13	5H	119/121 (98%)	100 (84%)	19 (16%)	2 10
13	5I	119/121 (98%)	100 (84%)	19 (16%)	2 10
13	5J	119/121 (98%)	100 (84%)	19 (16%)	2 10
13	5K	119/121 (98%)	100 (84%)	19 (16%)	2 10
14	5L	511/517 (99%)	450 (88%)	61 (12%)	5 19
14	5M	511/517 (99%)	453 (89%)	58 (11%)	5 21
14	5N	511/517 (99%)	450 (88%)	61 (12%)	5 19
15	5O	307/309 (99%)	262 (85%)	45 (15%)	3 12
15	5P	307/309 (99%)	291 (95%)	16 (5%)	23 53
16	5Q	162/167 (97%)	160 (99%)	2 (1%)	71 85
17	5R	15/206 (7%)	15 (100%)	0	100 100
17	5S	169/206 (82%)	141 (83%)	28 (17%)	2 8
17	5T	168/206 (82%)	137 (82%)	31 (18%)	1 5
17	5U	169/206 (82%)	139 (82%)	30 (18%)	2 6
17	5V	94/206 (46%)	92 (98%)	2 (2%)	53 76
18	5X	202/210 (96%)	169 (84%)	33 (16%)	2 9
18	5Y	202/210 (96%)	170 (84%)	32 (16%)	2 10
18	5Z	202/210 (96%)	170 (84%)	32 (16%)	2 10
18	6A	202/210 (96%)	170 (84%)	32 (16%)	2 10
18	6B	202/210 (96%)	170 (84%)	32 (16%)	2 10
18	6C	202/210 (96%)	170 (84%)	32 (16%)	2 10
18	6D	202/210 (96%)	170 (84%)	32 (16%)	2 10
19	6E	211/222 (95%)	209 (99%)	2 (1%)	78 90
20	6F	310/314 (99%)	308 (99%)	2 (1%)	86 94

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
21	6G	150/171 (88%)	150 (100%)	0	100 100
21	6H	157/171 (92%)	157 (100%)	0	100 100
22	6I	285/303 (94%)	283 (99%)	2 (1%)	84 92
22	6J	285/303 (94%)	284 (100%)	1 (0%)	91 95
22	6K	285/303 (94%)	283 (99%)	2 (1%)	84 92
22	6L	285/303 (94%)	284 (100%)	1 (0%)	91 95
22	6M	285/303 (94%)	282 (99%)	3 (1%)	73 86
22	6N	285/303 (94%)	284 (100%)	1 (0%)	91 95
22	6O	285/303 (94%)	283 (99%)	2 (1%)	84 92
22	6P	257/303 (85%)	254 (99%)	3 (1%)	71 85
23	6Q	76/78 (97%)	68 (90%)	8 (10%)	7 25
23	6R	76/78 (97%)	69 (91%)	7 (9%)	9 31
23	6S	76/78 (97%)	71 (93%)	5 (7%)	16 46
24	6T	500/549 (91%)	495 (99%)	5 (1%)	76 88
24	6U	503/549 (92%)	496 (99%)	7 (1%)	67 83
24	6V	498/549 (91%)	493 (99%)	5 (1%)	76 88
24	6W	502/549 (91%)	494 (98%)	8 (2%)	62 81
24	6X	505/549 (92%)	495 (98%)	10 (2%)	55 77
24	6Y	499/549 (91%)	492 (99%)	7 (1%)	67 83
24	6Z	500/549 (91%)	495 (99%)	5 (1%)	76 88
24	7A	162/549 (30%)	161 (99%)	1 (1%)	86 94
25	7C	84/95 (88%)	84 (100%)	0	100 100
26	7D	112/122 (92%)	97 (87%)	15 (13%)	4 15
26	7E	112/122 (92%)	96 (86%)	16 (14%)	3 13
26	7F	112/122 (92%)	96 (86%)	16 (14%)	3 13
27	7G	179/186 (96%)	179 (100%)	0	100 100
28	7H	110/347 (32%)	99 (90%)	11 (10%)	7 27
28	7X	110/347 (32%)	97 (88%)	13 (12%)	5 19
29	7I	177/371 (48%)	176 (99%)	1 (1%)	86 94
29	7J	280/371 (76%)	278 (99%)	2 (1%)	84 92
30	7K	332/350 (95%)	329 (99%)	3 (1%)	78 90

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
30	7L	132/350 (38%)	132 (100%)	0	100 100
31	7M	71/115 (62%)	70 (99%)	1 (1%)	67 83
31	7N	104/115 (90%)	104 (100%)	0	100 100
32	7O	47/191 (25%)	47 (100%)	0	100 100
32	7P	148/191 (78%)	148 (100%)	0	100 100
33	7Q	64/165 (39%)	64 (100%)	0	100 100
34	7R	172/618 (28%)	171 (99%)	1 (1%)	86 94
34	7S	143/618 (23%)	142 (99%)	1 (1%)	84 92
35	7T	186/462 (40%)	184 (99%)	2 (1%)	73 86
35	7U	157/462 (34%)	157 (100%)	0	100 100
36	7V	82/162 (51%)	71 (87%)	11 (13%)	4 15
36	7W	82/162 (51%)	70 (85%)	12 (15%)	3 12
37	7Y	209/267 (78%)	205 (98%)	4 (2%)	57 78
38	7Z	31/206 (15%)	31 (100%)	0	100 100
38	8A	179/206 (87%)	174 (97%)	5 (3%)	43 70
38	8B	182/206 (88%)	175 (96%)	7 (4%)	33 61
38	8C	182/206 (88%)	172 (94%)	10 (6%)	21 51
38	8D	141/206 (68%)	128 (91%)	13 (9%)	9 31
All	All	146455/160298 (91%)	145005 (99%)	1450 (1%)	77 88

5 of 1450 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
17	5S	225	ASP
18	6B	184	THR
17	5T	192	VAL
17	5S	217	ARG
18	5Y	110	GLU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 2787 such sidechains are listed below:

Mol	Chain	Res	Type
2	0H	356	ASN
1	3C	332	ASN
2	0P	309	HIS

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Mol	Chain	Res	Type
2	0H	293	ASN
2	1R	293	ASN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 510 ligands modelled in this entry, 170 are monoatomic - leaving 340 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	$\#\|Z\| > 2$
39	GDP	D8	501	-	24,30,30	0.95	1 (4%)	30,47,47	1.33	4 (13%)
39	GDP	B1	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.46	4 (13%)
41	GTP	C1	501	40	26,34,34	1.22	2 (7%)	32,54,54	1.80	7 (21%)
41	GTP	K4	501	40	26,34,34	1.22	1 (3%)	32,54,54	1.68	7 (21%)
39	GDP	Q2	502	-	24,30,30	1.01	1 (4%)	30,47,47	1.38	4 (13%)
41	GTP	W2	501	40	26,34,34	1.21	2 (7%)	32,54,54	1.71	6 (18%)
39	GDP	D2	501	-	24,30,30	1.00	1 (4%)	30,47,47	1.32	3 (10%)
39	GDP	A3	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.37	5 (16%)
39	GDP	2U	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.36	5 (16%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
39	GDP	1E	501	-	24,30,30	0.98	1 (4%)	30,47,47	1.34	4 (13%)
41	GTP	3T	501	40	26,34,34	1.18	2 (7%)	32,54,54	1.60	7 (21%)
39	GDP	S4	501	-	24,30,30	0.95	1 (4%)	30,47,47	1.36	5 (16%)
39	GDP	1Q	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.32	6 (20%)
41	GTP	O8	501	40	26,34,34	1.26	2 (7%)	32,54,54	1.71	7 (21%)
39	GDP	P4	503	-	24,30,30	1.01	1 (4%)	30,47,47	1.33	4 (13%)
41	GTP	3M	501	40	26,34,34	1.28	2 (7%)	32,54,54	1.73	7 (21%)
41	GTP	0I	501	40	26,34,34	1.21	1 (3%)	32,54,54	1.62	7 (21%)
39	GDP	H4	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.43	4 (13%)
41	GTP	H3	501	40	26,34,34	1.26	1 (3%)	32,54,54	1.67	7 (21%)
41	GTP	R0	501	40	26,34,34	1.32	1 (3%)	32,54,54	1.67	6 (18%)
39	GDP	Z4	501	-	24,30,30	0.95	1 (4%)	30,47,47	1.34	5 (16%)
41	GTP	K7	501	40	26,34,34	1.24	2 (7%)	32,54,54	1.71	7 (21%)
39	GDP	K4	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.35	4 (13%)
41	GTP	Q2	501	40	26,34,34	1.32	2 (7%)	32,54,54	1.71	6 (18%)
39	GDP	L6	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.43	4 (13%)
41	GTP	D7	501	40	26,34,34	1.24	1 (3%)	32,54,54	1.68	6 (18%)
41	GTP	I0	501	40	26,34,34	1.28	1 (3%)	32,54,54	1.68	7 (21%)
39	GDP	G2	501	-	24,30,30	1.00	1 (4%)	30,47,47	1.29	3 (10%)
41	GTP	F3	501	40	26,34,34	1.19	2 (7%)	32,54,54	1.64	7 (21%)
39	GDP	O4	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.44	4 (13%)
41	GTP	O4	501	40	26,34,34	1.27	2 (7%)	32,54,54	1.70	6 (18%)
41	GTP	1Q	501	40	26,34,34	1.28	2 (7%)	32,54,54	1.74	7 (21%)
39	GDP	E2	501	-	24,30,30	0.98	1 (4%)	30,47,47	1.32	4 (13%)
41	GTP	8	501	40	26,34,34	1.32	2 (7%)	32,54,54	1.74	7 (21%)
39	GDP	B5	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.34	4 (13%)
39	GDP	C4	501	-	24,30,30	0.99	1 (4%)	30,47,47	1.30	4 (13%)
39	GDP	O6	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.39	3 (10%)
41	GTP	W4	501	40	26,34,34	1.21	2 (7%)	32,54,54	1.71	7 (21%)
41	GTP	E4	501	40	26,34,34	1.22	1 (3%)	32,54,54	1.62	7 (21%)
39	GDP	V8	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.35	5 (16%)
39	GDP	Z6	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.25	4 (13%)
41	GTP	N8	501	40	26,34,34	1.28	1 (3%)	32,54,54	1.72	6 (18%)
41	GTP	1S	501	40	26,34,34	1.25	2 (7%)	32,54,54	1.71	7 (21%)
39	GDP	P6	503	-	24,30,30	1.03	1 (4%)	30,47,47	1.34	4 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
41	GTP	0M	501	40	26,34,34	1.25	1 (3%)	32,54,54	1.64	6 (18%)
41	GTP	X7	501	40	26,34,34	1.20	1 (3%)	32,54,54	1.53	5 (15%)
39	GDP	Z8	501	-	24,30,30	0.95	1 (4%)	30,47,47	1.28	3 (10%)
39	GDP	A5	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.41	4 (13%)
41	GTP	X0	501	40	26,34,34	1.21	2 (7%)	32,54,54	1.61	7 (21%)
39	GDP	0U	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.38	6 (20%)
39	GDP	2Q	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.33	6 (20%)
39	GDP	A9	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.37	4 (13%)
41	GTP	N0	501	40	26,34,34	1.27	1 (3%)	32,54,54	1.66	7 (21%)
41	GTP	0F	501	40	26,34,34	1.20	1 (3%)	32,54,54	1.65	6 (18%)
39	GDP	S2	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.42	4 (13%)
41	GTP	H2	501	40	26,34,34	1.24	2 (7%)	32,54,54	1.64	7 (21%)
41	GTP	T4	501	40	26,34,34	1.30	2 (7%)	32,54,54	1.73	6 (18%)
41	GTP	3K	501	40	26,34,34	1.26	1 (3%)	32,54,54	1.69	7 (21%)
39	GDP	B8	501	-	24,30,30	0.98	1 (4%)	30,47,47	1.40	4 (13%)
41	GTP	0V	501	40	26,34,34	1.21	2 (7%)	32,54,54	1.66	7 (21%)
39	GDP	0A	503	-	24,30,30	0.97	1 (4%)	30,47,47	1.39	4 (13%)
39	GDP	1A	503	-	24,30,30	0.99	1 (4%)	30,47,47	1.31	5 (16%)
41	GTP	P6	501	40	26,34,34	1.35	3 (11%)	32,54,54	1.69	6 (18%)
41	GTP	J6	501	40	26,34,34	1.25	2 (7%)	32,54,54	1.73	7 (21%)
41	GTP	2E	501	40	26,34,34	1.21	2 (7%)	32,54,54	1.66	7 (21%)
39	GDP	A7	501	-	24,30,30	0.96	1 (4%)	30,47,47	1.40	4 (13%)
39	GDP	3O	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.40	4 (13%)
39	GDP	Z2	503	-	24,30,30	0.95	1 (4%)	30,47,47	1.26	4 (13%)
39	GDP	3M	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.40	4 (13%)
39	GDP	X6	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.40	4 (13%)
41	GTP	B2	501	40	26,34,34	1.26	1 (3%)	32,54,54	1.80	7 (21%)
41	GTP	C5	501	40	26,34,34	1.26	2 (7%)	32,54,54	1.73	7 (21%)
41	GTP	1T	501	40	26,34,34	1.24	2 (7%)	32,54,54	1.66	7 (21%)
41	GTP	2A	501	40	26,34,34	1.18	2 (7%)	32,54,54	1.69	6 (18%)
39	GDP	2S	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.33	5 (16%)
39	GDP	1O	501	-	24,30,30	0.98	1 (4%)	30,47,47	1.35	4 (13%)
41	GTP	K0	501	40	26,34,34	1.24	1 (3%)	32,54,54	1.70	7 (21%)
41	GTP	3S	501	40	26,34,34	1.27	2 (7%)	32,54,54	1.74	7 (21%)
39	GDP	R4	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.46	5 (16%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
39	GDP	V0	501	-	24,30,30	0.98	1 (4%)	30,47,47	1.39	4 (13%)
41	GTP	A1	501	40	26,34,34	1.26	1 (3%)	32,54,54	1.74	7 (21%)
41	GTP	I5	501	40	26,34,34	1.20	2 (7%)	32,54,54	1.66	7 (21%)
39	GDP	F0	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.31	5 (16%)
39	GDP	J0	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.36	4 (13%)
41	GTP	M0	501	40	26,34,34	1.22	1 (3%)	32,54,54	1.74	7 (21%)
39	GDP	B3	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.38	4 (13%)
41	GTP	X6	501	40	26,34,34	1.22	1 (3%)	32,54,54	1.64	6 (18%)
41	GTP	N3	501	40	26,34,34	1.12	2 (7%)	32,54,54	1.53	7 (21%)
41	GTP	J4	501	40	26,34,34	1.29	1 (3%)	32,54,54	1.74	7 (21%)
39	GDP	J8	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.34	5 (16%)
39	GDP	W2	503	-	24,30,30	0.98	1 (4%)	30,47,47	1.38	5 (16%)
41	GTP	L2	501	40	26,34,34	1.27	2 (7%)	32,54,54	1.69	7 (21%)
39	GDP	U4	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.36	5 (16%)
39	GDP	F2	501	-	24,30,30	0.98	1 (4%)	30,47,47	1.40	4 (13%)
41	GTP	I1	501	40	26,34,34	1.27	1 (3%)	32,54,54	1.67	7 (21%)
41	GTP	2L	501	40	26,34,34	1.24	2 (7%)	32,54,54	1.72	7 (21%)
39	GDP	1W	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.38	4 (13%)
39	GDP	N8	502	-	24,30,30	1.01	1 (4%)	30,47,47	1.33	3 (10%)
41	GTP	Y1	501	40	26,34,34	1.21	1 (3%)	32,54,54	1.69	7 (21%)
41	GTP	B5	501	40	26,34,34	1.26	1 (3%)	32,54,54	1.77	7 (21%)
39	GDP	M0	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.34	5 (16%)
39	GDP	I2	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.41	4 (13%)
41	GTP	M2	501	40	26,34,34	1.24	1 (3%)	32,54,54	1.68	7 (21%)
39	GDP	Q8	501	-	24,30,30	0.96	1 (4%)	30,47,47	1.31	4 (13%)
41	GTP	1L	501	40	26,34,34	1.24	2 (7%)	32,54,54	1.70	7 (21%)
39	GDP	T0	501	-	24,30,30	0.99	1 (4%)	30,47,47	1.41	5 (16%)
39	GDP	J2	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.42	4 (13%)
41	GTP	3A	501	40	26,34,34	1.29	2 (7%)	32,54,54	1.80	7 (21%)
41	GTP	J0	501	40	26,34,34	1.25	1 (3%)	32,54,54	1.72	7 (21%)
39	GDP	T4	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.35	5 (16%)
39	GDP	P8	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.28	3 (10%)
41	GTP	3D	501	40	26,34,34	1.19	2 (7%)	32,54,54	1.69	7 (21%)
39	GDP	S6	501	-	24,30,30	0.98	1 (4%)	30,47,47	1.36	4 (13%)
41	GTP	0K	501	40	26,34,34	1.24	1 (3%)	32,54,54	1.64	7 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
41	GTP	1H	501	40	26,34,34	1.17	2 (7%)	32,54,54	1.65	7 (21%)
39	GDP	W8	503	-	24,30,30	0.96	1 (4%)	30,47,47	1.42	4 (13%)
41	GTP	2Q	501	40	26,34,34	1.27	3 (11%)	32,54,54	1.67	7 (21%)
39	GDP	D0	501	-	24,30,30	1.02	1 (4%)	30,47,47	1.37	3 (10%)
39	GDP	X8	501	-	24,30,30	0.96	1 (4%)	30,47,47	1.36	4 (13%)
41	GTP	S2	501	40	26,34,34	1.32	1 (3%)	32,54,54	1.65	6 (18%)
41	GTP	T6	501	40	26,34,34	1.32	2 (7%)	32,54,54	1.72	6 (18%)
41	GTP	U7	501	40	26,34,34	1.27	2 (7%)	32,54,54	1.68	7 (21%)
41	GTP	G9	501	40	26,34,34	1.20	2 (7%)	32,54,54	1.63	7 (21%)
41	GTP	Y6	501	40	26,34,34	1.17	1 (3%)	32,54,54	1.65	6 (18%)
39	GDP	D4	501	-	24,30,30	0.99	1 (4%)	30,47,47	1.34	3 (10%)
41	GTP	F1	501	40	26,34,34	1.24	1 (3%)	32,54,54	1.67	7 (21%)
41	GTP	A9	501	40	26,34,34	1.27	1 (3%)	32,54,54	1.74	7 (21%)
41	GTP	L6	501	40	26,34,34	1.26	2 (7%)	32,54,54	1.68	7 (21%)
41	GTP	K1	501	40	26,34,34	1.16	2 (7%)	32,54,54	1.57	7 (21%)
41	GTP	2W	501	40	26,34,34	1.31	2 (7%)	32,54,54	1.73	7 (21%)
41	GTP	1N	501	40	26,34,34	1.24	1 (3%)	32,54,54	1.65	7 (21%)
39	GDP	5	501	-	24,30,30	0.99	1 (4%)	30,47,47	1.38	4 (13%)
41	GTP	A4	501	40	26,34,34	1.25	1 (3%)	32,54,54	1.70	7 (21%)
39	GDP	U6	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.44	4 (13%)
39	GDP	0M	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.32	5 (16%)
39	GDP	2K	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.35	4 (13%)
39	GDP	2W	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.33	5 (16%)
41	GTP	I4	501	40	26,34,34	1.26	2 (7%)	32,54,54	1.66	7 (21%)
39	GDP	R2	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.31	4 (13%)
41	GTP	S9	501	40	26,34,34	0.98	2 (7%)	32,54,54	0.96	2 (6%)
39	GDP	1G	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.41	4 (13%)
39	GDP	0W	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.42	4 (13%)
39	GDP	2G	502	-	24,30,30	1.01	1 (4%)	30,47,47	1.29	4 (13%)
41	GTP	G5	501	40	26,34,34	1.26	1 (3%)	32,54,54	1.64	6 (18%)
39	GDP	G8	501	-	24,30,30	0.99	1 (4%)	30,47,47	1.33	4 (13%)
41	GTP	2K	501	40	26,34,34	1.23	1 (3%)	32,54,54	1.74	7 (21%)
41	GTP	Z2	501	40	26,34,34	1.21	2 (7%)	32,54,54	1.59	6 (18%)
41	GTP	K6	501	40	26,34,34	1.25	1 (3%)	32,54,54	1.70	7 (21%)
41	GTP	C0	501	40	26,34,34	1.23	2 (7%)	32,54,54	1.77	7 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
39	GDP	G4	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.31	4 (13%)
39	GDP	0O	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.26	5 (16%)
39	GDP	M2	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.33	4 (13%)
39	GDP	C2	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.36	5 (16%)
41	GTP	R8	501	40	26,34,34	1.30	2 (7%)	32,54,54	1.72	6 (18%)
41	GTP	R6	501	40	26,34,34	1.30	2 (7%)	32,54,54	1.69	6 (18%)
41	GTP	F8	501	40	26,34,34	1.26	1 (3%)	32,54,54	1.62	7 (21%)
41	GTP	R4	501	40	26,34,34	1.30	2 (7%)	32,54,54	1.69	6 (18%)
39	GDP	T2	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.41	3 (10%)
41	GTP	W5	501	40	26,34,34	1.23	2 (7%)	32,54,54	1.76	7 (21%)
39	GDP	O2	502	-	24,30,30	1.02	1 (4%)	30,47,47	1.35	4 (13%)
39	GDP	N6	503	-	24,30,30	0.97	1 (4%)	30,47,47	1.36	4 (13%)
39	GDP	T8	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.39	5 (16%)
41	GTP	S5	501	40	26,34,34	1.28	1 (3%)	32,54,54	1.75	6 (18%)
39	GDP	K6	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.38	4 (13%)
39	GDP	C0	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.41	4 (13%)
39	GDP	2A	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.33	4 (13%)
39	GDP	K0	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.31	5 (16%)
39	GDP	W0	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.40	4 (13%)
41	GTP	L7	501	40	26,34,34	1.18	2 (7%)	32,54,54	1.60	7 (21%)
39	GDP	X2	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.28	4 (13%)
41	GTP	3P	501	40	26,34,34	1.28	2 (7%)	32,54,54	1.67	7 (21%)
39	GDP	D6	501	-	24,30,30	0.99	1 (4%)	30,47,47	1.38	3 (10%)
39	GDP	Y2	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.38	4 (13%)
39	GDP	2E	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.32	4 (13%)
41	GTP	H8	501	40	26,34,34	1.28	1 (3%)	32,54,54	1.68	7 (21%)
39	GDP	3A	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.40	5 (16%)
41	GTP	2I	501	40	26,34,34	1.24	1 (3%)	32,54,54	1.70	7 (21%)
39	GDP	E0	501	-	24,30,30	1.00	1 (4%)	30,47,47	1.30	3 (10%)
41	GTP	V2	501	40	26,34,34	1.23	2 (7%)	32,54,54	1.73	7 (21%)
39	GDP	O0	503	-	24,30,30	1.00	1 (4%)	30,47,47	1.34	4 (13%)
41	GTP	2G	501	40	26,34,34	1.23	2 (7%)	32,54,54	1.69	6 (18%)
41	GTP	O2	501	40	26,34,34	1.27	2 (7%)	32,54,54	1.61	6 (18%)
41	GTP	S8	501	40	26,34,34	1.29	2 (7%)	32,54,54	1.71	7 (21%)
41	GTP	J2	501	40	26,34,34	1.23	1 (3%)	32,54,54	1.70	7 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
39	GDP	3G	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.35	5 (16%)
41	GTP	L4	501	40	26,34,34	1.25	1 (3%)	32,54,54	1.71	7 (21%)
41	GTP	W0	501	40	26,34,34	1.20	2 (7%)	32,54,54	1.69	7 (21%)
39	GDP	X0	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.33	4 (13%)
39	GDP	0C	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.31	4 (13%)
41	GTP	1X	501	40	26,34,34	1.20	2 (7%)	32,54,54	1.67	7 (21%)
39	GDP	1S	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.38	4 (13%)
41	GTP	G1	501	40	26,34,34	1.26	1 (3%)	32,54,54	1.72	6 (18%)
39	GDP	M6	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.35	5 (16%)
41	GTP	O9	501	40	26,34,34	1.23	1 (3%)	32,54,54	1.70	7 (21%)
39	GDP	2M	501	-	24,30,30	0.98	1 (4%)	30,47,47	1.37	4 (13%)
41	GTP	Q4	501	40	26,34,34	1.34	2 (7%)	32,54,54	1.70	6 (18%)
39	GDP	C6	501	-	24,30,30	0.99	1 (4%)	30,47,47	1.42	4 (13%)
39	GDP	3C	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.35	5 (16%)
39	GDP	9	501	-	24,30,30	1.00	1 (4%)	30,47,47	1.34	4 (13%)
39	GDP	M4	502	-	24,30,30	0.94	1 (4%)	30,47,47	1.36	4 (13%)
41	GTP	2Y	501	40	26,34,34	1.27	2 (7%)	32,54,54	1.69	7 (21%)
39	GDP	S0	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.27	4 (13%)
41	GTP	Z3	501	40	26,34,34	1.27	1 (3%)	32,54,54	1.60	6 (18%)
41	GTP	2C	501	40	26,34,34	1.22	1 (3%)	32,54,54	1.69	6 (18%)
39	GDP	3S	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.34	4 (13%)
39	GDP	J4	503	-	24,30,30	0.98	1 (4%)	30,47,47	1.37	5 (16%)
39	GDP	0K	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.31	4 (13%)
39	GDP	G0	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.41	5 (16%)
39	GDP	L0	501	-	24,30,30	0.98	1 (4%)	30,47,47	1.37	4 (13%)
41	GTP	H6	501	40	26,34,34	1.26	1 (3%)	32,54,54	1.67	7 (21%)
39	GDP	Q0	501	-	24,30,30	1.00	1 (4%)	30,47,47	1.28	4 (13%)
39	GDP	H6	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.42	4 (13%)
39	GDP	L4	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.33	5 (16%)
39	GDP	T6	502	-	24,30,30	1.02	1 (4%)	30,47,47	1.38	4 (13%)
39	GDP	E6	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.41	4 (13%)
41	GTP	O6	501	40	26,34,34	1.23	1 (3%)	32,54,54	1.67	6 (18%)
41	GTP	0O	501	40	26,34,34	1.22	2 (7%)	32,54,54	1.61	7 (21%)
41	GTP	7	501	40	26,34,34	1.31	2 (7%)	32,54,54	1.71	7 (21%)
39	GDP	W6	501	-	24,30,30	0.96	1 (4%)	30,47,47	1.37	4 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
41	GTP	1C	501	40	26,34,34	1.22	1 (3%)	32,54,54	1.63	7 (21%)
39	GDP	N2	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.33	5 (16%)
39	GDP	1K	501	-	24,30,30	0.98	1 (4%)	30,47,47	1.37	4 (13%)
39	GDP	3Q	501	-	24,30,30	0.99	1 (4%)	30,47,47	1.41	4 (13%)
39	GDP	7	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.42	4 (13%)
41	GTP	T2	501	40	26,34,34	1.29	2 (7%)	32,54,54	1.73	7 (21%)
41	GTP	F0	501	40	26,34,34	1.23	2 (7%)	32,54,54	1.62	7 (21%)
41	GTP	B0	501	40	26,34,34	1.25	2 (7%)	32,54,54	1.81	7 (21%)
39	GDP	2	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.36	3 (10%)
41	GTP	J8	501	40	26,34,34	1.22	2 (7%)	32,54,54	1.79	7 (21%)
41	GTP	K9	501	40	26,34,34	1.29	2 (7%)	32,54,54	1.69	7 (21%)
41	GTP	1D	501	40	26,34,34	1.22	2 (7%)	32,54,54	1.62	7 (21%)
39	GDP	M8	501	-	24,30,30	0.94	1 (4%)	30,47,47	1.35	4 (13%)
41	GTP	R2	501	40	26,34,34	1.30	2 (7%)	32,54,54	1.73	7 (21%)
39	GDP	L2	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.33	4 (13%)
41	GTP	E1	501	40	26,34,34	1.28	2 (7%)	32,54,54	1.69	6 (18%)
39	GDP	R6	503	-	24,30,30	1.00	1 (4%)	30,47,47	1.27	4 (13%)
39	GDP	E4	502	-	24,30,30	1.02	1 (4%)	30,47,47	1.31	3 (10%)
39	GDP	R8	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.36	5 (16%)
41	GTP	3C	501	40	26,34,34	1.27	3 (11%)	32,54,54	1.77	7 (21%)
39	GDP	Q4	502	-	24,30,30	1.03	1 (4%)	30,47,47	1.35	3 (10%)
39	GDP	3	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.55	4 (13%)
41	GTP	Y4	501	40	26,34,34	1.25	1 (3%)	32,54,54	1.69	7 (21%)
41	GTP	Q6	501	40	26,34,34	1.33	2 (7%)	32,54,54	1.72	6 (18%)
41	GTP	W8	501	40	26,34,34	1.24	1 (3%)	32,54,54	1.69	7 (21%)
41	GTP	X4	501	40	26,34,34	1.22	2 (7%)	32,54,54	1.54	6 (18%)
41	GTP	2U	501	40	26,34,34	1.25	2 (7%)	32,54,54	1.73	7 (21%)
39	GDP	Y4	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.36	4 (13%)
39	GDP	Q6	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.34	5 (16%)
39	GDP	Y0	502	-	24,30,30	0.93	1 (4%)	30,47,47	1.47	4 (13%)
39	GDP	E8	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.35	4 (13%)
41	GTP	P4	501	40	26,34,34	1.31	2 (7%)	32,54,54	1.65	6 (18%)
41	GTP	1A	501	40	26,34,34	1.25	2 (7%)	32,54,54	1.66	7 (21%)
41	GTP	2S	501	40	26,34,34	1.31	2 (7%)	32,54,54	1.71	7 (21%)
39	GDP	H8	503	-	24,30,30	0.99	1 (4%)	30,47,47	1.34	4 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
41	GTP	O0	501	40	26,34,34	1.26	1 (3%)	32,54,54	1.66	7 (21%)
39	GDP	1C	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.37	4 (13%)
41	GTP	3G	501	40	26,34,34	1.27	2 (7%)	32,54,54	1.66	7 (21%)
41	GTP	C9	501	40	26,34,34	1.27	2 (7%)	32,54,54	1.69	6 (18%)
41	GTP	M4	501	40	26,34,34	1.24	1 (3%)	32,54,54	1.69	7 (21%)
41	GTP	0S	501	40	26,34,34	1.20	2 (7%)	32,54,54	1.61	7 (21%)
39	GDP	J6	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.34	5 (16%)
39	GDP	V2	503	-	24,30,30	0.98	1 (4%)	30,47,47	1.36	5 (16%)
41	GTP	U6	501	40	26,34,34	1.21	2 (7%)	32,54,54	1.68	7 (21%)
41	GTP	0C	501	40	26,34,34	1.20	1 (3%)	32,54,54	1.59	7 (21%)
41	GTP	3O	501	40	26,34,34	1.30	3 (11%)	32,54,54	1.72	6 (18%)
41	GTP	G0	501	40	26,34,34	1.23	1 (3%)	32,54,54	1.62	7 (21%)
39	GDP	N0	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.40	4 (13%)
41	GTP	0Y	501	40	26,34,34	1.19	2 (7%)	32,54,54	1.65	7 (21%)
39	GDP	1M	501	-	24,30,30	0.98	1 (4%)	30,47,47	1.38	5 (16%)
39	GDP	F8	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.33	4 (13%)
41	GTP	B7	501	40	26,34,34	1.23	1 (3%)	32,54,54	1.74	7 (21%)
41	GTP	F5	501	40	26,34,34	1.22	1 (3%)	32,54,54	1.67	7 (21%)
41	GTP	G4	501	40	26,34,34	1.28	1 (3%)	32,54,54	1.68	6 (18%)
41	GTP	M6	501	40	26,34,34	1.27	2 (7%)	32,54,54	1.71	7 (21%)
41	GTP	M7	501	40	26,34,34	1.25	1 (3%)	32,54,54	1.67	7 (21%)
39	GDP	C8	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.35	4 (13%)
41	GTP	P9	501	40	26,34,34	1.35	2 (7%)	32,54,54	1.71	6 (18%)
39	GDP	V4	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.39	5 (16%)
41	GTP	S0	501	40	26,34,34	1.30	1 (3%)	32,54,54	1.76	6 (18%)
39	GDP	U8	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.44	4 (13%)
41	GTP	P8	501	40	26,34,34	1.31	1 (3%)	32,54,54	1.70	6 (18%)
41	GTP	D5	501	40	26,34,34	1.28	2 (7%)	32,54,54	1.68	7 (21%)
39	GDP	0I	502	-	24,30,30	0.95	1 (4%)	30,47,47	1.32	4 (13%)
39	GDP	2C	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.38	4 (13%)
39	GDP	W4	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.33	5 (16%)
41	GTP	1W	501	40	26,34,34	1.25	2 (7%)	32,54,54	1.65	7 (21%)
41	GTP	3I	501	40	26,34,34	1.26	2 (7%)	32,54,54	1.73	7 (21%)
41	GTP	Z6	501	40	26,34,34	1.25	1 (3%)	32,54,54	1.54	6 (18%)
39	GDP	0G	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.24	4 (13%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
41	GTP	T8	501	40	26,34,34	1.27	1 (3%)	32,54,54	1.64	6 (18%)
41	GTP	U2	501	40	26,34,34	1.24	2 (7%)	32,54,54	1.68	7 (21%)
39	GDP	3I	502	-	24,30,30	1.00	1 (4%)	30,47,47	1.40	5 (16%)
41	GTP	U9	501	40	26,34,34	1.23	2 (7%)	32,54,54	1.67	7 (21%)
41	GTP	Z7	501	40	26,34,34	1.24	1 (3%)	32,54,54	1.64	7 (21%)
41	GTP	E6	501	40	26,34,34	1.26	1 (3%)	32,54,54	1.68	6 (18%)
41	GTP	Z0	501	40	26,34,34	1.21	2 (7%)	32,54,54	1.56	7 (21%)
39	GDP	0Q	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.32	4 (13%)
39	GDP	U2	502	-	24,30,30	0.99	1 (4%)	30,47,47	1.37	4 (13%)
39	GDP	0E	501	-	24,30,30	0.95	1 (4%)	30,47,47	1.31	4 (13%)
39	GDP	I8	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.37	4 (13%)
39	GDP	F6	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.30	5 (16%)
39	GDP	V6	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.38	4 (13%)
41	GTP	0A	501	40	26,34,34	1.24	2 (7%)	32,54,54	1.59	6 (18%)
39	GDP	H2	503	-	24,30,30	0.97	1 (4%)	30,47,47	1.42	4 (13%)
41	GTP	E8	501	40	26,34,34	1.24	1 (3%)	32,54,54	1.60	5 (15%)
39	GDP	Y8	501	-	24,30,30	0.93	1 (4%)	30,47,47	1.31	4 (13%)
41	GTP	0Q	501	40	26,34,34	1.22	1 (3%)	32,54,54	1.63	7 (21%)
39	GDP	I4	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.37	4 (13%)
41	GTP	A2	501	40	26,34,34	1.24	1 (3%)	32,54,54	1.73	7 (21%)
39	GDP	3K	503	-	24,30,30	0.98	1 (4%)	30,47,47	1.43	4 (13%)
39	GDP	O8	503	-	24,30,30	0.98	1 (4%)	30,47,47	1.36	4 (13%)
41	GTP	1G	501	40	26,34,34	1.20	2 (7%)	32,54,54	1.62	7 (21%)
41	GTP	3	501	40	26,34,34	1.29	1 (3%)	32,54,54	1.71	7 (21%)
39	GDP	S8	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.36	4 (13%)
39	GDP	0Y	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.43	4 (13%)
41	GTP	N6	501	40	26,34,34	1.26	1 (3%)	32,54,54	1.68	7 (21%)
39	GDP	I0	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.40	4 (13%)
41	GTP	N1	501	40	26,34,34	1.27	2 (7%)	32,54,54	1.71	7 (21%)
41	GTP	I8	501	40	26,34,34	1.23	2 (7%)	32,54,54	1.74	7 (21%)
41	GTP	C8	501	40	26,34,34	1.26	2 (7%)	32,54,54	1.62	7 (21%)
39	GDP	0S	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.29	5 (16%)
39	GDP	2I	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.29	3 (10%)
41	GTP	D3	501	40	26,34,34	1.25	1 (3%)	32,54,54	1.66	7 (21%)
41	GTP	V3	501	40	26,34,34	1.25	2 (7%)	32,54,54	1.72	7 (21%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\|>2$	Counts	RMSZ	$\#\|Z\|>2$
41	GTP	U4	501	40	26,34,34	1.23	2 (7%)	32,54,54	1.74	7 (21%)
39	GDP	G6	501	-	24,30,30	0.98	1 (4%)	30,47,47	1.28	4 (13%)
39	GDP	2Y	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.39	4 (13%)
41	GTP	4	501	40	26,34,34	1.30	2 (7%)	32,54,54	1.71	7 (21%)
39	GDP	Y6	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.41	4 (13%)
39	GDP	X4	502	-	24,30,30	0.98	1 (4%)	30,47,47	1.33	5 (16%)
41	GTP	2N	501	40	26,34,34	1.18	2 (7%)	32,54,54	1.66	7 (21%)
39	GDP	Z0	502	-	24,30,30	0.92	1 (4%)	30,47,47	1.25	3 (10%)
41	GTP	Y0	501	40	26,34,34	1.22	1 (3%)	32,54,54	1.70	6 (18%)
39	GDP	R0	502	-	24,30,30	0.97	1 (4%)	30,47,47	1.35	4 (13%)
39	GDP	A1	502	-	24,30,30	0.96	1 (4%)	30,47,47	1.38	4 (13%)
39	GDP	1U	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.39	4 (13%)
41	GTP	G7	501	40	26,34,34	1.25	1 (3%)	32,54,54	1.70	7 (21%)
41	GTP	D1	501	40	26,34,34	1.31	2 (7%)	32,54,54	1.69	6 (18%)
39	GDP	K8	501	-	24,30,30	0.97	1 (4%)	30,47,47	1.36	4 (13%)
41	GTP	V8	501	40	26,34,34	1.19	2 (7%)	32,54,54	1.69	7 (21%)

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
39	GDP	D8	501	-	-	2/12/32/32	0/3/3/3
39	GDP	B1	501	-	-	2/12/32/32	0/3/3/3
41	GTP	C1	501	40	-	6/18/38/38	0/3/3/3
41	GTP	K4	501	40	-	7/18/38/38	0/3/3/3
39	GDP	Q2	502	-	-	3/12/32/32	0/3/3/3
41	GTP	W2	501	40	-	7/18/38/38	0/3/3/3
39	GDP	D2	501	-	-	4/12/32/32	0/3/3/3
39	GDP	A3	501	-	-	5/12/32/32	0/3/3/3
39	GDP	2U	502	-	-	5/12/32/32	0/3/3/3
39	GDP	1E	501	-	-	1/12/32/32	0/3/3/3
41	GTP	3T	501	40	-	7/18/38/38	0/3/3/3
39	GDP	S4	501	-	-	2/12/32/32	0/3/3/3
39	GDP	1Q	502	-	-	1/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
41	GTP	O8	501	40	-	8/18/38/38	0/3/3/3
39	GDP	P4	503	-	-	5/12/32/32	0/3/3/3
41	GTP	3M	501	40	-	6/18/38/38	0/3/3/3
41	GTP	0I	501	40	-	9/18/38/38	0/3/3/3
39	GDP	H4	501	-	-	4/12/32/32	0/3/3/3
41	GTP	H3	501	40	-	8/18/38/38	0/3/3/3
41	GTP	R0	501	40	-	8/18/38/38	0/3/3/3
39	GDP	Z4	501	-	-	2/12/32/32	0/3/3/3
41	GTP	K7	501	40	-	9/18/38/38	0/3/3/3
39	GDP	K4	502	-	-	2/12/32/32	0/3/3/3
41	GTP	Q2	501	40	-	5/18/38/38	0/3/3/3
39	GDP	L6	502	-	-	6/12/32/32	0/3/3/3
41	GTP	D7	501	40	-	3/18/38/38	0/3/3/3
41	GTP	I0	501	40	-	7/18/38/38	0/3/3/3
39	GDP	G2	501	-	-	3/12/32/32	0/3/3/3
41	GTP	F3	501	40	-	5/18/38/38	0/3/3/3
39	GDP	O4	502	-	-	6/12/32/32	0/3/3/3
41	GTP	O4	501	40	-	7/18/38/38	0/3/3/3
41	GTP	1Q	501	40	-	6/18/38/38	0/3/3/3
39	GDP	E2	501	-	-	6/12/32/32	0/3/3/3
41	GTP	8	501	40	-	5/18/38/38	0/3/3/3
39	GDP	B5	502	-	-	4/12/32/32	0/3/3/3
39	GDP	C4	501	-	-	2/12/32/32	0/3/3/3
39	GDP	O6	502	-	-	5/12/32/32	0/3/3/3
41	GTP	W4	501	40	-	7/18/38/38	0/3/3/3
41	GTP	E4	501	40	-	6/18/38/38	0/3/3/3
39	GDP	V8	502	-	-	3/12/32/32	0/3/3/3
39	GDP	Z6	502	-	-	1/12/32/32	0/3/3/3
41	GTP	N8	501	40	-	7/18/38/38	0/3/3/3
41	GTP	1S	501	40	-	4/18/38/38	0/3/3/3
39	GDP	P6	503	-	-	4/12/32/32	0/3/3/3
41	GTP	0M	501	40	-	7/18/38/38	0/3/3/3
41	GTP	X7	501	40	-	9/18/38/38	0/3/3/3
39	GDP	Z8	501	-	-	1/12/32/32	0/3/3/3
39	GDP	A5	501	-	-	1/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
41	GTP	X0	501	40	-	6/18/38/38	0/3/3/3
39	GDP	0U	501	-	-	6/12/32/32	0/3/3/3
39	GDP	2Q	502	-	-	2/12/32/32	0/3/3/3
39	GDP	A9	502	-	-	3/12/32/32	0/3/3/3
41	GTP	N0	501	40	-	9/18/38/38	0/3/3/3
41	GTP	0F	501	40	-	9/18/38/38	0/3/3/3
39	GDP	S2	502	-	-	5/12/32/32	0/3/3/3
41	GTP	H2	501	40	-	7/18/38/38	0/3/3/3
41	GTP	T4	501	40	-	5/18/38/38	0/3/3/3
41	GTP	3K	501	40	-	4/18/38/38	0/3/3/3
39	GDP	B8	501	-	-	6/12/32/32	0/3/3/3
41	GTP	0V	501	40	-	9/18/38/38	0/3/3/3
39	GDP	0A	503	-	-	2/12/32/32	0/3/3/3
39	GDP	1A	503	-	-	3/12/32/32	0/3/3/3
41	GTP	P6	501	40	-	8/18/38/38	0/3/3/3
41	GTP	J6	501	40	-	7/18/38/38	0/3/3/3
41	GTP	2E	501	40	-	9/18/38/38	0/3/3/3
39	GDP	A7	501	-	-	5/12/32/32	0/3/3/3
39	GDP	3O	502	-	-	5/12/32/32	0/3/3/3
39	GDP	Z2	503	-	-	1/12/32/32	0/3/3/3
39	GDP	3M	502	-	-	7/12/32/32	0/3/3/3
39	GDP	X6	502	-	-	4/12/32/32	0/3/3/3
41	GTP	B2	501	40	-	6/18/38/38	0/3/3/3
41	GTP	C5	501	40	-	7/18/38/38	0/3/3/3
41	GTP	1T	501	40	-	7/18/38/38	0/3/3/3
41	GTP	2A	501	40	-	6/18/38/38	0/3/3/3
39	GDP	2S	502	-	-	5/12/32/32	0/3/3/3
39	GDP	1O	501	-	-	1/12/32/32	0/3/3/3
41	GTP	K0	501	40	-	8/18/38/38	0/3/3/3
41	GTP	3S	501	40	-	6/18/38/38	0/3/3/3
39	GDP	R4	502	-	-	7/12/32/32	0/3/3/3
39	GDP	V0	501	-	-	2/12/32/32	0/3/3/3
41	GTP	A1	501	40	-	9/18/38/38	0/3/3/3
41	GTP	I5	501	40	-	9/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
39	GDP	F0	502	-	-	3/12/32/32	0/3/3/3
39	GDP	J0	502	-	-	2/12/32/32	0/3/3/3
41	GTP	M0	501	40	-	7/18/38/38	0/3/3/3
39	GDP	B3	501	-	-	4/12/32/32	0/3/3/3
41	GTP	X6	501	40	-	7/18/38/38	0/3/3/3
41	GTP	N3	501	40	-	9/18/38/38	0/3/3/3
41	GTP	J4	501	40	-	5/18/38/38	0/3/3/3
39	GDP	J8	502	-	-	2/12/32/32	0/3/3/3
39	GDP	W2	503	-	-	1/12/32/32	0/3/3/3
41	GTP	L2	501	40	-	6/18/38/38	0/3/3/3
39	GDP	U4	502	-	-	6/12/32/32	0/3/3/3
39	GDP	F2	501	-	-	3/12/32/32	0/3/3/3
41	GTP	I1	501	40	-	9/18/38/38	0/3/3/3
41	GTP	2L	501	40	-	8/18/38/38	0/3/3/3
39	GDP	1W	502	-	-	1/12/32/32	0/3/3/3
39	GDP	N8	502	-	-	7/12/32/32	0/3/3/3
41	GTP	Y1	501	40	-	7/18/38/38	0/3/3/3
41	GTP	B5	501	40	-	7/18/38/38	0/3/3/3
39	GDP	M0	502	-	-	3/12/32/32	0/3/3/3
39	GDP	I2	501	-	-	1/12/32/32	0/3/3/3
41	GTP	M2	501	40	-	8/18/38/38	0/3/3/3
39	GDP	Q8	501	-	-	3/12/32/32	0/3/3/3
41	GTP	1L	501	40	-	6/18/38/38	0/3/3/3
39	GDP	T0	501	-	-	4/12/32/32	0/3/3/3
39	GDP	J2	502	-	-	7/12/32/32	0/3/3/3
41	GTP	3A	501	40	-	6/18/38/38	0/3/3/3
41	GTP	J0	501	40	-	7/18/38/38	0/3/3/3
39	GDP	T4	502	-	-	4/12/32/32	0/3/3/3
39	GDP	P8	502	-	-	3/12/32/32	0/3/3/3
41	GTP	3D	501	40	-	7/18/38/38	0/3/3/3
39	GDP	S6	501	-	-	7/12/32/32	0/3/3/3
41	GTP	0K	501	40	-	7/18/38/38	0/3/3/3
41	GTP	1H	501	40	-	9/18/38/38	0/3/3/3
39	GDP	W8	503	-	-	2/12/32/32	0/3/3/3
41	GTP	2Q	501	40	-	8/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
39	GDP	D0	501	-	-	8/12/32/32	0/3/3/3
39	GDP	X8	501	-	-	3/12/32/32	0/3/3/3
41	GTP	S2	501	40	-	6/18/38/38	0/3/3/3
41	GTP	T6	501	40	-	5/18/38/38	0/3/3/3
41	GTP	U7	501	40	-	8/18/38/38	0/3/3/3
41	GTP	G9	501	40	-	8/18/38/38	0/3/3/3
41	GTP	Y6	501	40	-	8/18/38/38	0/3/3/3
39	GDP	D4	501	-	-	6/12/32/32	0/3/3/3
41	GTP	F1	501	40	-	7/18/38/38	0/3/3/3
41	GTP	A9	501	40	-	9/18/38/38	0/3/3/3
41	GTP	L6	501	40	-	6/18/38/38	0/3/3/3
41	GTP	K1	501	40	-	7/18/38/38	0/3/3/3
41	GTP	2W	501	40	-	8/18/38/38	0/3/3/3
41	GTP	1N	501	40	-	8/18/38/38	0/3/3/3
39	GDP	5	501	-	-	2/12/32/32	0/3/3/3
41	GTP	A4	501	40	-	6/18/38/38	0/3/3/3
39	GDP	U6	502	-	-	2/12/32/32	0/3/3/3
39	GDP	0M	502	-	-	3/12/32/32	0/3/3/3
39	GDP	2K	502	-	-	2/12/32/32	0/3/3/3
39	GDP	2W	502	-	-	5/12/32/32	0/3/3/3
41	GTP	I4	501	40	-	7/18/38/38	0/3/3/3
39	GDP	R2	502	-	-	1/12/32/32	0/3/3/3
41	GTP	S9	501	40	-	3/18/38/38	0/3/3/3
39	GDP	1G	502	-	-	0/12/32/32	0/3/3/3
39	GDP	0W	502	-	-	2/12/32/32	0/3/3/3
39	GDP	2G	502	-	-	4/12/32/32	0/3/3/3
41	GTP	G5	501	40	-	7/18/38/38	0/3/3/3
39	GDP	G8	501	-	-	1/12/32/32	0/3/3/3
41	GTP	2K	501	40	-	7/18/38/38	0/3/3/3
41	GTP	Z2	501	40	-	9/18/38/38	0/3/3/3
41	GTP	K6	501	40	-	6/18/38/38	0/3/3/3
41	GTP	C0	501	40	-	8/18/38/38	0/3/3/3
39	GDP	G4	502	-	-	2/12/32/32	0/3/3/3
39	GDP	0O	502	-	-	1/12/32/32	0/3/3/3
39	GDP	M2	502	-	-	2/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
39	GDP	C2	501	-	-	2/12/32/32	0/3/3/3
41	GTP	R8	501	40	-	5/18/38/38	0/3/3/3
41	GTP	R6	501	40	-	5/18/38/38	0/3/3/3
41	GTP	F8	501	40	-	8/18/38/38	0/3/3/3
41	GTP	R4	501	40	-	8/18/38/38	0/3/3/3
39	GDP	T2	502	-	-	4/12/32/32	0/3/3/3
41	GTP	W5	501	40	-	6/18/38/38	0/3/3/3
39	GDP	O2	502	-	-	5/12/32/32	0/3/3/3
39	GDP	N6	503	-	-	6/12/32/32	0/3/3/3
39	GDP	T8	502	-	-	3/12/32/32	0/3/3/3
41	GTP	S5	501	40	-	4/18/38/38	0/3/3/3
39	GDP	K6	502	-	-	2/12/32/32	0/3/3/3
39	GDP	C0	502	-	-	3/12/32/32	0/3/3/3
39	GDP	2A	502	-	-	1/12/32/32	0/3/3/3
39	GDP	K0	502	-	-	4/12/32/32	0/3/3/3
39	GDP	W0	502	-	-	4/12/32/32	0/3/3/3
41	GTP	L7	501	40	-	8/18/38/38	0/3/3/3
39	GDP	X2	501	-	-	4/12/32/32	0/3/3/3
41	GTP	3P	501	40	-	9/18/38/38	0/3/3/3
39	GDP	D6	501	-	-	6/12/32/32	0/3/3/3
39	GDP	Y2	501	-	-	2/12/32/32	0/3/3/3
39	GDP	2E	502	-	-	1/12/32/32	0/3/3/3
41	GTP	H8	501	40	-	8/18/38/38	0/3/3/3
39	GDP	3A	502	-	-	4/12/32/32	0/3/3/3
41	GTP	2I	501	40	-	7/18/38/38	0/3/3/3
39	GDP	E0	501	-	-	3/12/32/32	0/3/3/3
41	GTP	V2	501	40	-	6/18/38/38	0/3/3/3
39	GDP	O0	503	-	-	4/12/32/32	0/3/3/3
41	GTP	2G	501	40	-	7/18/38/38	0/3/3/3
41	GTP	O2	501	40	-	9/18/38/38	0/3/3/3
41	GTP	S8	501	40	-	6/18/38/38	0/3/3/3
41	GTP	J2	501	40	-	8/18/38/38	0/3/3/3
39	GDP	3G	502	-	-	3/12/32/32	0/3/3/3
41	GTP	L4	501	40	-	7/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
41	GTP	W0	501	40	-	8/18/38/38	0/3/3/3
39	GDP	X0	502	-	-	1/12/32/32	0/3/3/3
39	GDP	0C	502	-	-	4/12/32/32	0/3/3/3
41	GTP	1X	501	40	-	6/18/38/38	0/3/3/3
39	GDP	1S	502	-	-	2/12/32/32	0/3/3/3
41	GTP	G1	501	40	-	8/18/38/38	0/3/3/3
39	GDP	M6	502	-	-	5/12/32/32	0/3/3/3
41	GTP	O9	501	40	-	6/18/38/38	0/3/3/3
39	GDP	2M	501	-	-	1/12/32/32	0/3/3/3
41	GTP	Q4	501	40	-	8/18/38/38	0/3/3/3
39	GDP	C6	501	-	-	4/12/32/32	0/3/3/3
39	GDP	3C	502	-	-	3/12/32/32	0/3/3/3
39	GDP	9	501	-	-	0/12/32/32	0/3/3/3
39	GDP	M4	502	-	-	4/12/32/32	0/3/3/3
41	GTP	2Y	501	40	-	8/18/38/38	0/3/3/3
39	GDP	S0	502	-	-	4/12/32/32	0/3/3/3
41	GTP	Z3	501	40	-	7/18/38/38	0/3/3/3
41	GTP	2C	501	40	-	8/18/38/38	0/3/3/3
39	GDP	3S	502	-	-	4/12/32/32	0/3/3/3
39	GDP	J4	503	-	-	4/12/32/32	0/3/3/3
39	GDP	0K	502	-	-	2/12/32/32	0/3/3/3
39	GDP	G0	502	-	-	1/12/32/32	0/3/3/3
39	GDP	L0	501	-	-	2/12/32/32	0/3/3/3
41	GTP	H6	501	40	-	9/18/38/38	0/3/3/3
39	GDP	Q0	501	-	-	5/12/32/32	0/3/3/3
39	GDP	H6	502	-	-	1/12/32/32	0/3/3/3
39	GDP	L4	502	-	-	2/12/32/32	0/3/3/3
39	GDP	T6	502	-	-	7/12/32/32	0/3/3/3
39	GDP	E6	502	-	-	6/12/32/32	0/3/3/3
41	GTP	O6	501	40	-	7/18/38/38	0/3/3/3
41	GTP	0O	501	40	-	9/18/38/38	0/3/3/3
41	GTP	7	501	40	-	7/18/38/38	0/3/3/3
39	GDP	W6	501	-	-	0/12/32/32	0/3/3/3
41	GTP	1C	501	40	-	8/18/38/38	0/3/3/3
39	GDP	N2	501	-	-	3/12/32/32	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
39	GDP	1K	501	-	-	4/12/32/32	0/3/3/3
39	GDP	3Q	501	-	-	3/12/32/32	0/3/3/3
39	GDP	7	502	-	-	2/12/32/32	0/3/3/3
41	GTP	T2	501	40	-	6/18/38/38	0/3/3/3
41	GTP	F0	501	40	-	5/18/38/38	0/3/3/3
41	GTP	B0	501	40	-	8/18/38/38	0/3/3/3
39	GDP	2	501	-	-	6/12/32/32	0/3/3/3
41	GTP	J8	501	40	-	6/18/38/38	0/3/3/3
41	GTP	K9	501	40	-	6/18/38/38	0/3/3/3
41	GTP	1D	501	40	-	7/18/38/38	0/3/3/3
39	GDP	M8	501	-	-	4/12/32/32	0/3/3/3
41	GTP	R2	501	40	-	6/18/38/38	0/3/3/3
39	GDP	L2	502	-	-	3/12/32/32	0/3/3/3
41	GTP	E1	501	40	-	5/18/38/38	0/3/3/3
39	GDP	R6	503	-	-	3/12/32/32	0/3/3/3
39	GDP	E4	502	-	-	5/12/32/32	0/3/3/3
39	GDP	R8	502	-	-	4/12/32/32	0/3/3/3
41	GTP	3C	501	40	-	6/18/38/38	0/3/3/3
39	GDP	Q4	502	-	-	6/12/32/32	0/3/3/3
39	GDP	3	502	-	-	3/12/32/32	0/3/3/3
41	GTP	Y4	501	40	-	9/18/38/38	0/3/3/3
41	GTP	Q6	501	40	-	6/18/38/38	0/3/3/3
41	GTP	W8	501	40	-	7/18/38/38	0/3/3/3
41	GTP	X4	501	40	-	8/18/38/38	0/3/3/3
41	GTP	2U	501	40	-	8/18/38/38	0/3/3/3
39	GDP	Y4	502	-	-	6/12/32/32	0/3/3/3
39	GDP	Q6	502	-	-	6/12/32/32	0/3/3/3
39	GDP	Y0	502	-	-	5/12/32/32	0/3/3/3
39	GDP	E8	502	-	-	4/12/32/32	0/3/3/3
41	GTP	P4	501	40	-	8/18/38/38	0/3/3/3
41	GTP	1A	501	40	-	8/18/38/38	0/3/3/3
41	GTP	2S	501	40	-	7/18/38/38	0/3/3/3
39	GDP	H8	503	-	-	3/12/32/32	0/3/3/3
41	GTP	O0	501	40	-	8/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
39	GDP	1C	502	-	-	2/12/32/32	0/3/3/3
41	GTP	3G	501	40	-	8/18/38/38	0/3/3/3
41	GTP	C9	501	40	-	5/18/38/38	0/3/3/3
41	GTP	M4	501	40	-	7/18/38/38	0/3/3/3
41	GTP	0S	501	40	-	8/18/38/38	0/3/3/3
39	GDP	J6	502	-	-	1/12/32/32	0/3/3/3
39	GDP	V2	503	-	-	3/12/32/32	0/3/3/3
41	GTP	U6	501	40	-	8/18/38/38	0/3/3/3
41	GTP	0C	501	40	-	8/18/38/38	0/3/3/3
41	GTP	3O	501	40	-	6/18/38/38	0/3/3/3
41	GTP	G0	501	40	-	8/18/38/38	0/3/3/3
39	GDP	N0	502	-	-	1/12/32/32	0/3/3/3
41	GTP	0Y	501	40	-	9/18/38/38	0/3/3/3
39	GDP	1M	501	-	-	1/12/32/32	0/3/3/3
39	GDP	F8	502	-	-	2/12/32/32	0/3/3/3
41	GTP	B7	501	40	-	7/18/38/38	0/3/3/3
41	GTP	F5	501	40	-	7/18/38/38	0/3/3/3
41	GTP	G4	501	40	-	7/18/38/38	0/3/3/3
41	GTP	M6	501	40	-	8/18/38/38	0/3/3/3
41	GTP	M7	501	40	-	7/18/38/38	0/3/3/3
39	GDP	C8	502	-	-	3/12/32/32	0/3/3/3
41	GTP	P9	501	40	-	7/18/38/38	0/3/3/3
39	GDP	V4	501	-	-	4/12/32/32	0/3/3/3
41	GTP	S0	501	40	-	8/18/38/38	0/3/3/3
39	GDP	U8	501	-	-	3/12/32/32	0/3/3/3
41	GTP	P8	501	40	-	7/18/38/38	0/3/3/3
41	GTP	D5	501	40	-	4/18/38/38	0/3/3/3
39	GDP	0I	502	-	-	2/12/32/32	0/3/3/3
39	GDP	2C	502	-	-	2/12/32/32	0/3/3/3
39	GDP	W4	502	-	-	4/12/32/32	0/3/3/3
41	GTP	1W	501	40	-	7/18/38/38	0/3/3/3
41	GTP	3I	501	40	-	8/18/38/38	0/3/3/3
41	GTP	Z6	501	40	-	9/18/38/38	0/3/3/3
39	GDP	0G	501	-	-	1/12/32/32	0/3/3/3
41	GTP	T8	501	40	-	7/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
41	GTP	U2	501	40	-	7/18/38/38	0/3/3/3
39	GDP	3I	502	-	-	4/12/32/32	0/3/3/3
41	GTP	U9	501	40	-	8/18/38/38	0/3/3/3
41	GTP	Z7	501	40	-	7/18/38/38	0/3/3/3
41	GTP	E6	501	40	-	8/18/38/38	0/3/3/3
41	GTP	Z0	501	40	-	8/18/38/38	0/3/3/3
39	GDP	0Q	502	-	-	4/12/32/32	0/3/3/3
39	GDP	U2	502	-	-	4/12/32/32	0/3/3/3
39	GDP	0E	501	-	-	2/12/32/32	0/3/3/3
39	GDP	I8	502	-	-	2/12/32/32	0/3/3/3
39	GDP	F6	501	-	-	5/12/32/32	0/3/3/3
39	GDP	V6	501	-	-	4/12/32/32	0/3/3/3
41	GTP	0A	501	40	-	9/18/38/38	0/3/3/3
39	GDP	H2	503	-	-	0/12/32/32	0/3/3/3
41	GTP	E8	501	40	-	5/18/38/38	0/3/3/3
39	GDP	Y8	501	-	-	3/12/32/32	0/3/3/3
41	GTP	0Q	501	40	-	8/18/38/38	0/3/3/3
39	GDP	I4	502	-	-	1/12/32/32	0/3/3/3
41	GTP	A2	501	40	-	2/18/38/38	0/3/3/3
39	GDP	3K	503	-	-	4/12/32/32	0/3/3/3
39	GDP	O8	503	-	-	1/12/32/32	0/3/3/3
41	GTP	1G	501	40	-	9/18/38/38	0/3/3/3
41	GTP	3	501	40	-	5/18/38/38	0/3/3/3
39	GDP	S8	502	-	-	4/12/32/32	0/3/3/3
39	GDP	0Y	502	-	-	1/12/32/32	0/3/3/3
41	GTP	N6	501	40	-	6/18/38/38	0/3/3/3
39	GDP	I0	502	-	-	2/12/32/32	0/3/3/3
41	GTP	N1	501	40	-	7/18/38/38	0/3/3/3
41	GTP	I8	501	40	-	7/18/38/38	0/3/3/3
41	GTP	C8	501	40	-	3/18/38/38	0/3/3/3
39	GDP	0S	502	-	-	2/12/32/32	0/3/3/3
39	GDP	2I	502	-	-	5/12/32/32	0/3/3/3
41	GTP	D3	501	40	-	5/18/38/38	0/3/3/3
41	GTP	V3	501	40	-	7/18/38/38	0/3/3/3
41	GTP	U4	501	40	-	7/18/38/38	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
39	GDP	G6	501	-	-	5/12/32/32	0/3/3/3
39	GDP	2Y	502	-	-	7/12/32/32	0/3/3/3
41	GTP	4	501	40	-	6/18/38/38	0/3/3/3
39	GDP	Y6	502	-	-	6/12/32/32	0/3/3/3
39	GDP	X4	502	-	-	4/12/32/32	0/3/3/3
41	GTP	2N	501	40	-	8/18/38/38	0/3/3/3
39	GDP	Z0	502	-	-	3/12/32/32	0/3/3/3
41	GTP	Y0	501	40	-	8/18/38/38	0/3/3/3
39	GDP	R0	502	-	-	4/12/32/32	0/3/3/3
39	GDP	A1	502	-	-	6/12/32/32	0/3/3/3
39	GDP	1U	501	-	-	4/12/32/32	0/3/3/3
41	GTP	G7	501	40	-	7/18/38/38	0/3/3/3
41	GTP	D1	501	40	-	5/18/38/38	0/3/3/3
39	GDP	K8	501	-	-	5/12/32/32	0/3/3/3
41	GTP	V8	501	40	-	7/18/38/38	0/3/3/3

The worst 5 of 443 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
41	R0	501	GTP	C5-C6	-4.75	1.37	1.47
41	P4	501	GTP	C5-C6	-4.73	1.37	1.47
41	Z3	501	GTP	C5-C6	-4.72	1.37	1.47
41	P6	501	GTP	C5-C6	-4.71	1.37	1.47
41	2S	501	GTP	C5-C6	-4.69	1.37	1.47

The worst 5 of 1847 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
41	B2	501	GTP	PA-O3A-PB	-5.35	114.47	132.83
39	3	502	GDP	PA-O3A-PB	-5.18	115.06	132.83
41	A2	501	GTP	PB-O3B-PG	-5.13	115.22	132.83
41	S0	501	GTP	PA-O3A-PB	-5.06	115.46	132.83
41	3A	501	GTP	PA-O3A-PB	-4.97	115.76	132.83

There are no chirality outliers.

5 of 1758 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
39	2	501	GDP	PA-O3A-PB-O3B
39	2	501	GDP	C5'-O5'-PA-O3A
39	2	501	GDP	C5'-O5'-PA-O1A
39	3	502	GDP	C5'-O5'-PA-O3A
39	3	502	GDP	C5'-O5'-PA-O2A

There are no ring outliers.

241 monomers are involved in 397 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
39	D8	501	GDP	1	0
39	B1	501	GDP	1	0
41	C1	501	GTP	2	0
41	K4	501	GTP	2	0
39	Q2	502	GDP	1	0
39	D2	501	GDP	2	0
39	S4	501	GDP	1	0
39	1Q	502	GDP	1	0
41	O8	501	GTP	1	0
39	P4	503	GDP	1	0
41	3M	501	GTP	1	0
41	0I	501	GTP	3	0
39	H4	501	GDP	1	0
41	H3	501	GTP	1	0
41	R0	501	GTP	1	0
39	Z4	501	GDP	1	0
41	K7	501	GTP	2	0
39	K4	502	GDP	1	0
41	Q2	501	GTP	1	0
39	L6	502	GDP	1	0
41	D7	501	GTP	2	0
41	I0	501	GTP	1	0
41	F3	501	GTP	2	0
41	O4	501	GTP	2	0
41	1Q	501	GTP	1	0
39	E2	501	GDP	2	0
41	8	501	GTP	1	0
39	C4	501	GDP	3	0
39	O6	502	GDP	1	0
41	E4	501	GTP	1	0
39	V8	502	GDP	1	0
39	Z6	502	GDP	2	0
41	N8	501	GTP	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
41	1S	501	GTP	1	0
41	0M	501	GTP	3	0
41	X7	501	GTP	2	0
39	Z8	501	GDP	3	0
39	A5	501	GDP	1	0
41	X0	501	GTP	1	0
39	0U	501	GDP	1	0
41	N0	501	GTP	1	0
41	0F	501	GTP	3	0
39	S2	502	GDP	1	0
41	H2	501	GTP	1	0
41	T4	501	GTP	3	0
39	B8	501	GDP	2	0
41	0V	501	GTP	1	0
39	0A	503	GDP	1	0
39	1A	503	GDP	2	0
41	P6	501	GTP	2	0
41	J6	501	GTP	1	0
41	2E	501	GTP	2	0
39	A7	501	GDP	2	0
39	3O	502	GDP	1	0
39	Z2	503	GDP	3	0
39	X6	502	GDP	3	0
41	C5	501	GTP	2	0
41	1T	501	GTP	1	0
39	1O	501	GDP	1	0
41	K0	501	GTP	2	0
39	R4	502	GDP	1	0
41	A1	501	GTP	2	0
39	F0	502	GDP	2	0
39	B3	501	GDP	1	0
41	X6	501	GTP	3	0
41	J4	501	GTP	1	0
39	J8	502	GDP	1	0
39	W2	503	GDP	1	0
41	L2	501	GTP	2	0
39	F2	501	GDP	3	0
41	I1	501	GTP	1	0
41	2L	501	GTP	1	0
39	1W	502	GDP	2	0
39	N8	502	GDP	3	0
41	Y1	501	GTP	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
41	B5	501	GTP	2	0
41	1L	501	GTP	1	0
39	T0	501	GDP	2	0
39	J2	502	GDP	1	0
41	J0	501	GTP	1	0
39	P8	502	GDP	2	0
41	3D	501	GTP	2	0
41	0K	501	GTP	2	0
41	1H	501	GTP	2	0
39	W8	503	GDP	2	0
41	2Q	501	GTP	1	0
39	D0	501	GDP	5	0
39	X8	501	GDP	1	0
41	S2	501	GTP	1	0
41	T6	501	GTP	3	0
41	G9	501	GTP	1	0
41	Y6	501	GTP	2	0
39	D4	501	GDP	3	0
41	F1	501	GTP	1	0
41	A9	501	GTP	1	0
41	L6	501	GTP	1	0
41	2W	501	GTP	1	0
41	1N	501	GTP	1	0
39	5	501	GDP	1	0
41	A4	501	GTP	2	0
39	0M	502	GDP	1	0
39	2K	502	GDP	2	0
41	I4	501	GTP	2	0
41	S9	501	GTP	2	0
39	0W	502	GDP	2	0
39	2G	502	GDP	3	0
41	G5	501	GTP	3	0
39	G8	501	GDP	1	0
41	Z2	501	GTP	2	0
41	K6	501	GTP	3	0
41	C0	501	GTP	2	0
39	G4	502	GDP	1	0
39	0O	502	GDP	1	0
41	R6	501	GTP	1	0
41	F8	501	GTP	1	0
41	W5	501	GTP	1	0
39	O2	502	GDP	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
39	N6	503	GDP	2	0
39	W0	502	GDP	2	0
39	X2	501	GDP	3	0
39	D6	501	GDP	3	0
39	Y2	501	GDP	2	0
39	2E	502	GDP	1	0
41	H8	501	GTP	1	0
39	3A	502	GDP	1	0
41	2I	501	GTP	1	0
39	E0	501	GDP	4	0
41	2G	501	GTP	2	0
41	S8	501	GTP	1	0
41	J2	501	GTP	1	0
41	L4	501	GTP	3	0
39	X0	502	GDP	2	0
39	0C	502	GDP	2	0
41	1X	501	GTP	1	0
39	1S	502	GDP	1	0
41	G1	501	GTP	2	0
41	O9	501	GTP	1	0
39	2M	501	GDP	2	0
41	Q4	501	GTP	1	0
39	C6	501	GDP	3	0
39	3C	502	GDP	1	0
39	9	501	GDP	1	0
41	Z3	501	GTP	2	0
41	2C	501	GTP	2	0
39	3S	502	GDP	1	0
39	0K	502	GDP	1	0
41	H6	501	GTP	1	0
39	H6	502	GDP	1	0
39	L4	502	GDP	2	0
39	T6	502	GDP	3	0
39	E6	502	GDP	1	0
41	O6	501	GTP	1	0
41	0O	501	GTP	2	0
41	1C	501	GTP	1	0
39	N2	501	GDP	1	0
39	1K	501	GDP	1	0
39	3Q	501	GDP	1	0
39	7	502	GDP	3	0
41	T2	501	GTP	2	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
41	F0	501	GTP	2	0
41	B0	501	GTP	2	0
41	J8	501	GTP	1	0
41	K9	501	GTP	2	0
41	1D	501	GTP	1	0
41	R2	501	GTP	1	0
39	L2	502	GDP	1	0
41	E1	501	GTP	3	0
39	R6	503	GDP	1	0
39	Q4	502	GDP	1	0
39	3	502	GDP	2	0
41	Y4	501	GTP	2	0
41	Q6	501	GTP	1	0
41	X4	501	GTP	3	0
41	2U	501	GTP	1	0
39	Y4	502	GDP	3	0
39	Q6	502	GDP	2	0
39	Y0	502	GDP	2	0
39	E8	502	GDP	1	0
41	P4	501	GTP	3	0
41	1A	501	GTP	1	0
41	O0	501	GTP	1	0
39	1C	502	GDP	1	0
41	C9	501	GTP	5	0
41	0S	501	GTP	2	0
39	J6	502	GDP	1	0
41	U6	501	GTP	1	0
41	0C	501	GTP	3	0
41	3O	501	GTP	1	0
41	G0	501	GTP	3	0
41	0Y	501	GTP	1	0
39	1M	501	GDP	1	0
41	B7	501	GTP	1	0
41	F5	501	GTP	2	0
41	G4	501	GTP	2	0
41	M7	501	GTP	1	0
39	C8	502	GDP	3	0
41	P9	501	GTP	2	0
39	V4	501	GDP	1	0
41	S0	501	GTP	1	0
41	P8	501	GTP	2	0
41	D5	501	GTP	1	0

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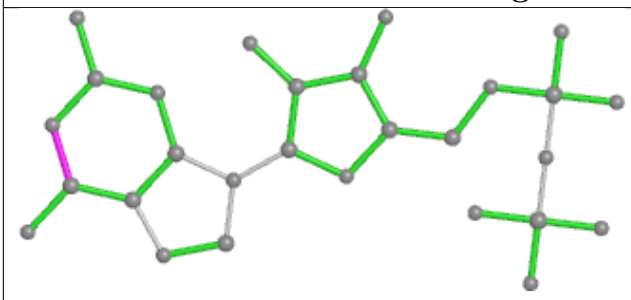
Mol	Chain	Res	Type	Clashes	Symm-Clashes
39	0I	502	GDP	1	0
39	2C	502	GDP	1	0
41	1W	501	GTP	1	0
41	Z6	501	GTP	2	0
39	0G	501	GDP	2	0
41	T8	501	GTP	2	0
39	3I	502	GDP	1	0
41	Z7	501	GTP	2	0
41	E6	501	GTP	2	0
41	Z0	501	GTP	1	0
39	0Q	502	GDP	1	0
39	U2	502	GDP	1	0
39	0E	501	GDP	3	0
39	V6	501	GDP	1	0
41	0A	501	GTP	2	0
39	H2	503	GDP	1	0
41	E8	501	GTP	3	0
39	Y8	501	GDP	2	0
41	0Q	501	GTP	3	0
41	A2	501	GTP	1	0
39	3K	503	GDP	1	0
39	O8	503	GDP	1	0
41	1G	501	GTP	1	0
41	3	501	GTP	1	0
39	S8	502	GDP	1	0
39	0Y	502	GDP	1	0
41	N6	501	GTP	3	0
41	I8	501	GTP	1	0
41	C8	501	GTP	1	0
39	0S	502	GDP	2	0
41	D3	501	GTP	2	0
41	U4	501	GTP	1	0
41	4	501	GTP	1	0
39	Y6	502	GDP	2	0
39	X4	502	GDP	2	0
41	2N	501	GTP	1	0
39	Z0	502	GDP	2	0
41	Y0	501	GTP	3	0
41	G7	501	GTP	2	0
41	D1	501	GTP	1	0

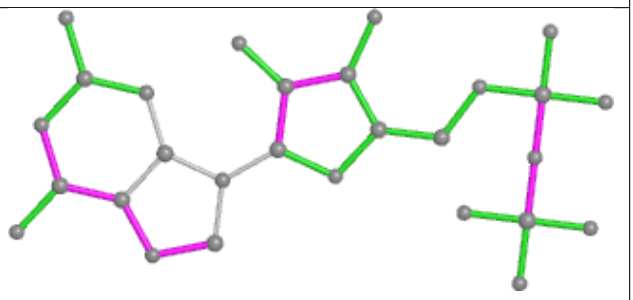
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In

addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less then 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.

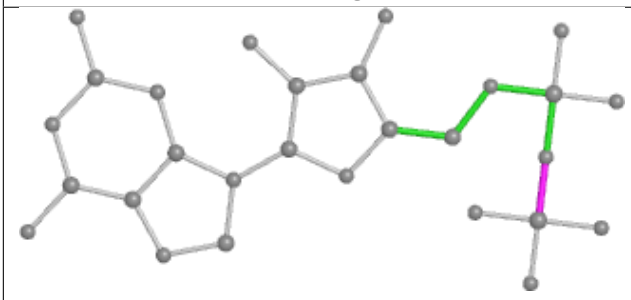
Ligand GDP D8 501



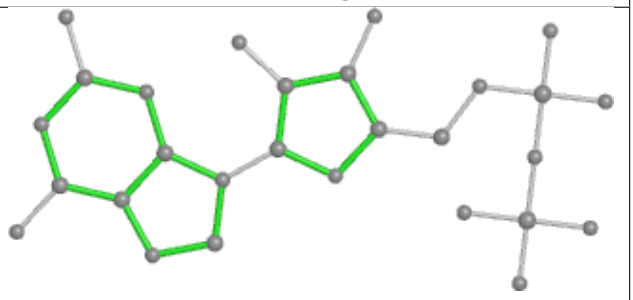
Bond lengths



Bond angles

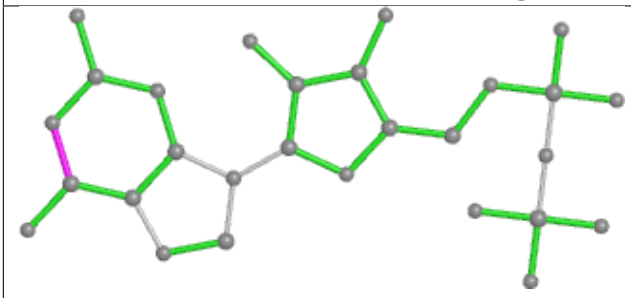


Torsions

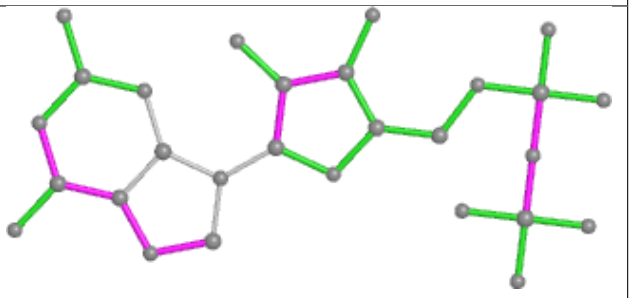


Rings

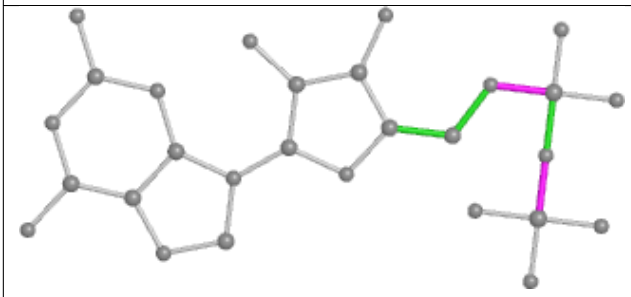
Ligand GDP B1 501



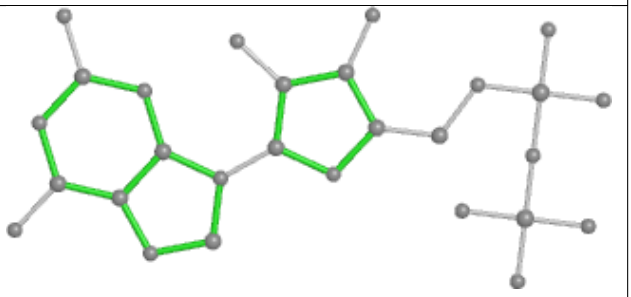
Bond lengths



Bond angles

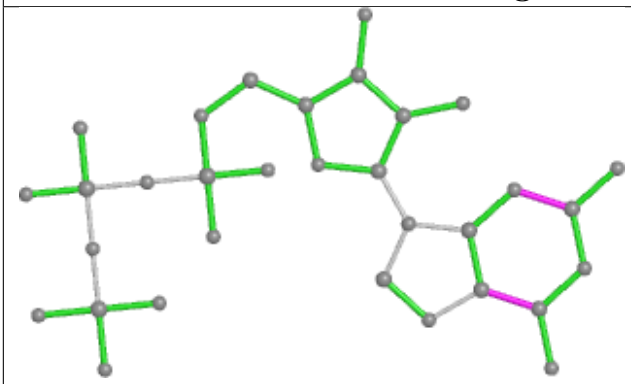


Torsions

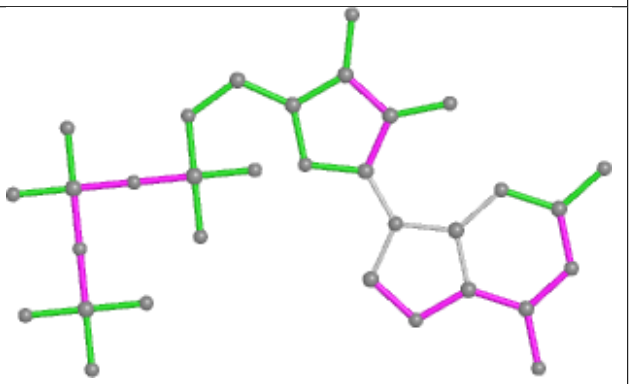


Rings

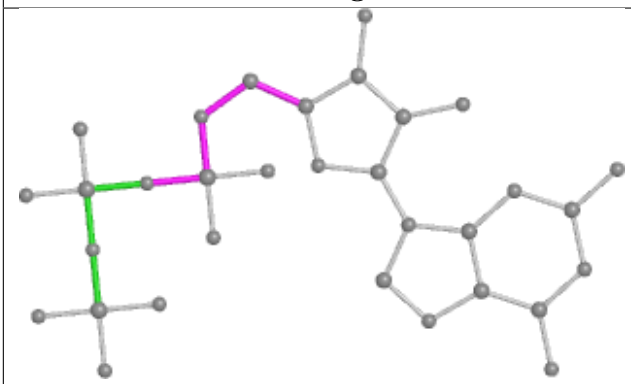
Ligand GTP C1 501



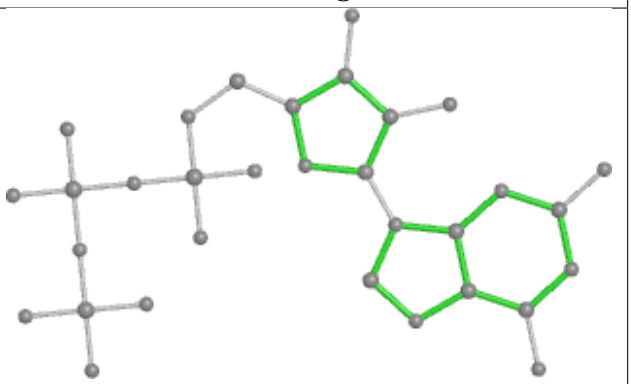
Bond lengths



Bond angles

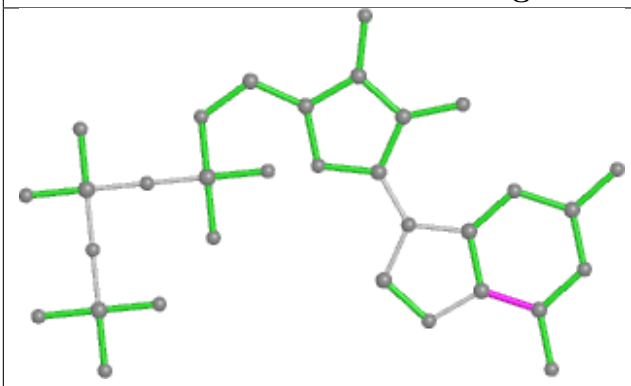


Torsions

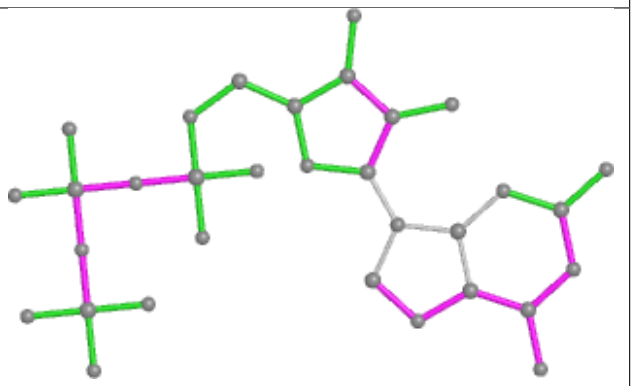


Rings

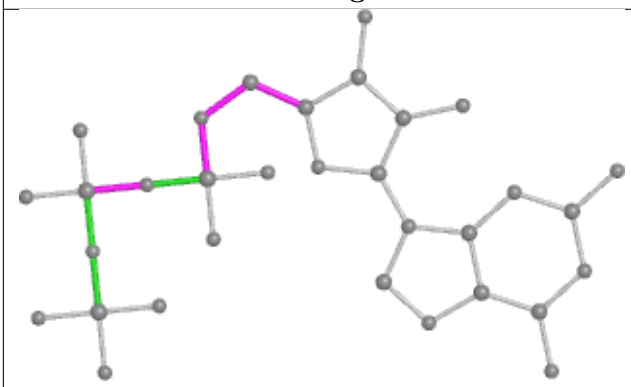
Ligand GTP K4 501



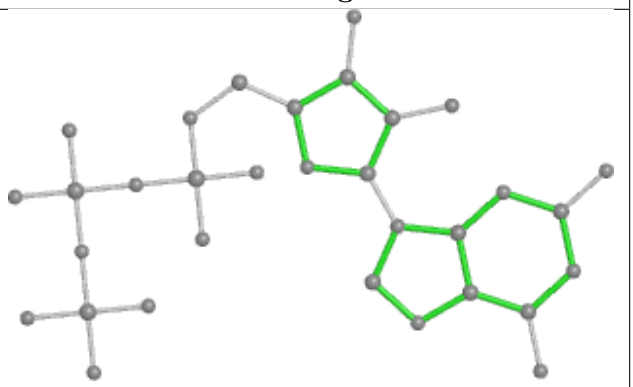
Bond lengths



Bond angles

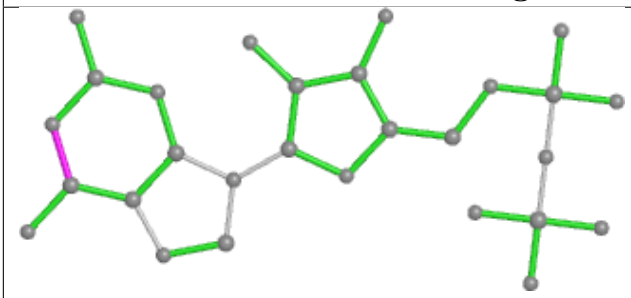


Torsions

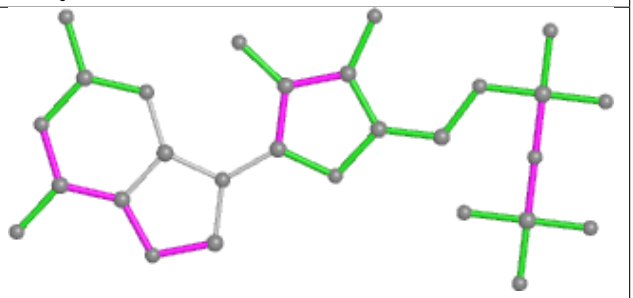


Rings

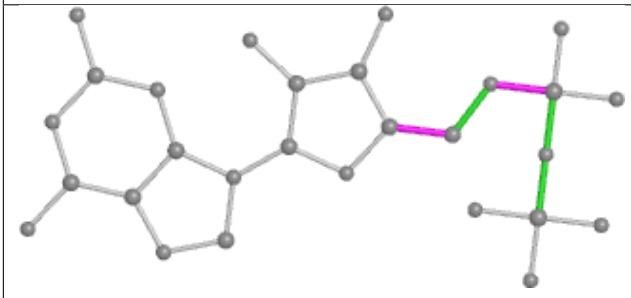
Ligand GDP Q2 502



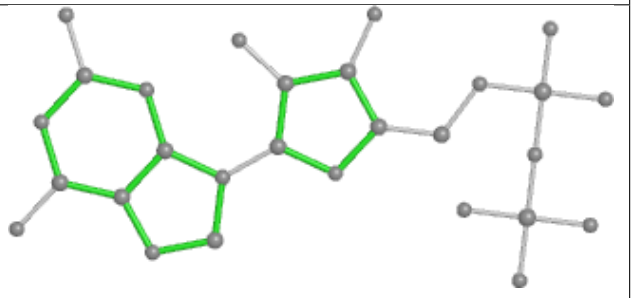
Bond lengths



Bond angles

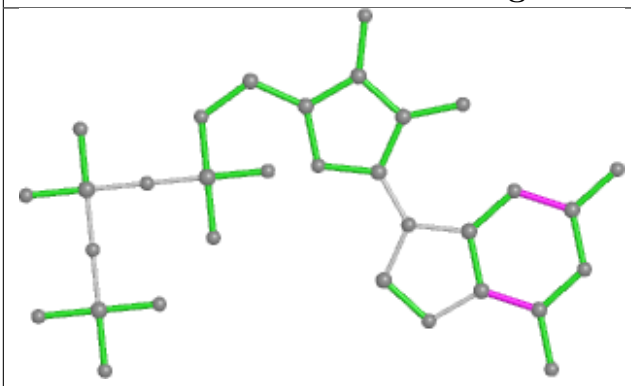


Torsions

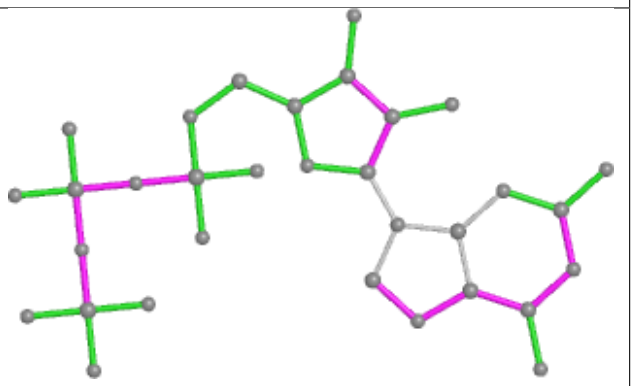


Rings

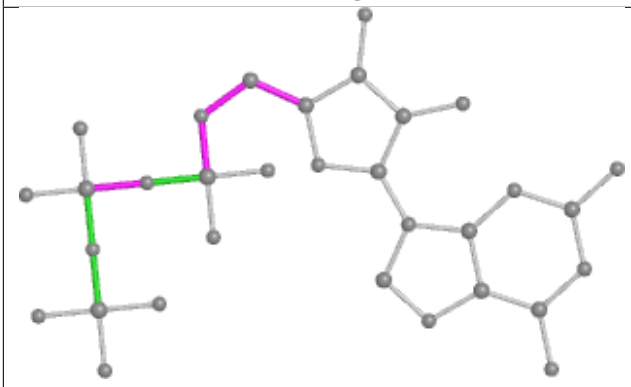
Ligand GTP W2 501



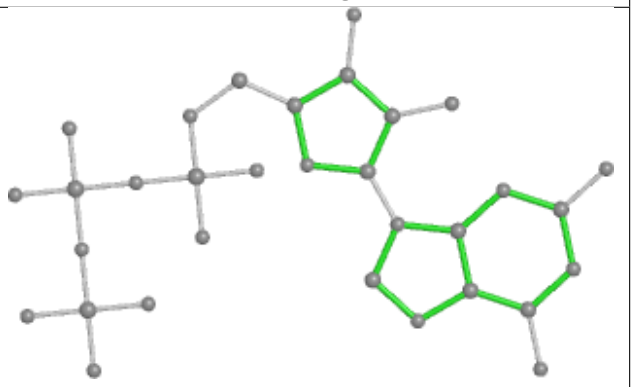
Bond lengths



Bond angles

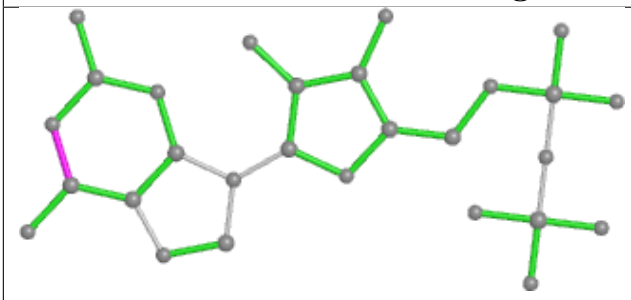


Torsions



Rings

Ligand GDP D2 501



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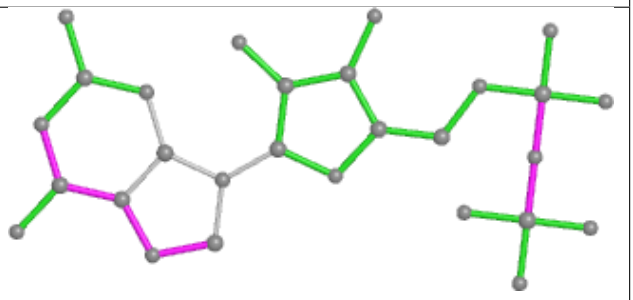

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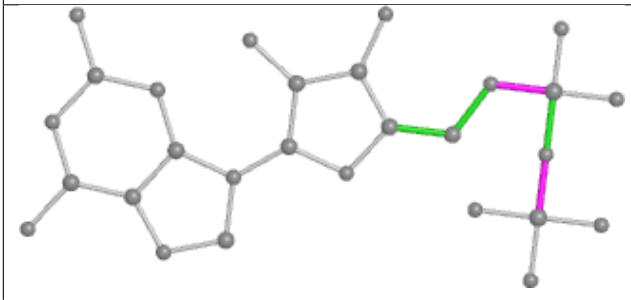
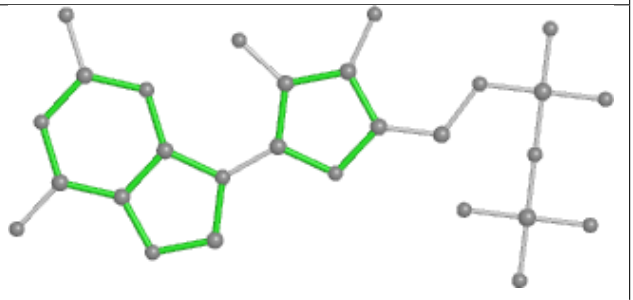
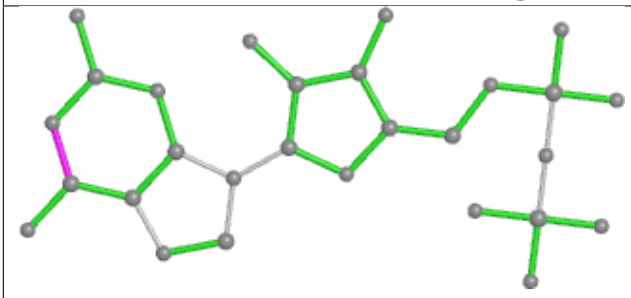


Torsions



Rings

Ligand GDP A3 501



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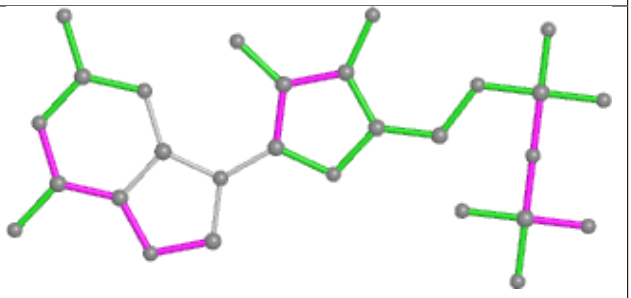

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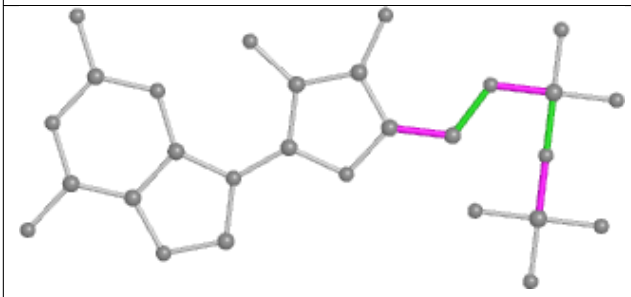

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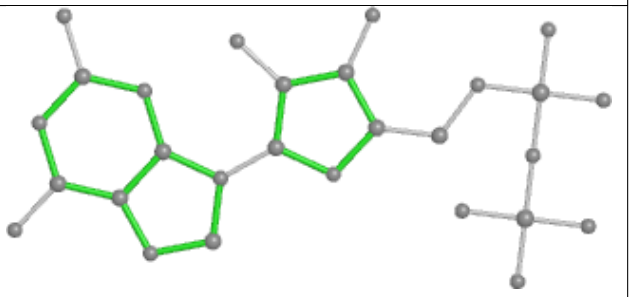
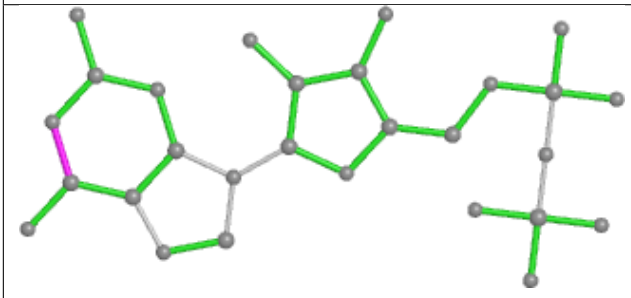


Rings

Ligand GDP 2U 502



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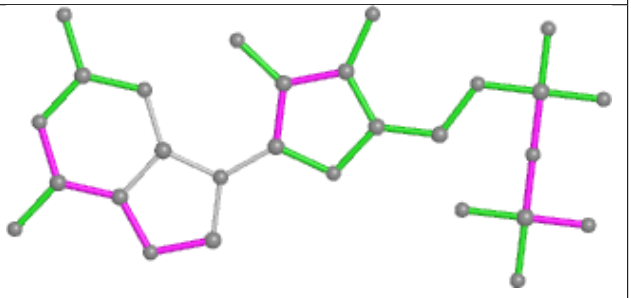

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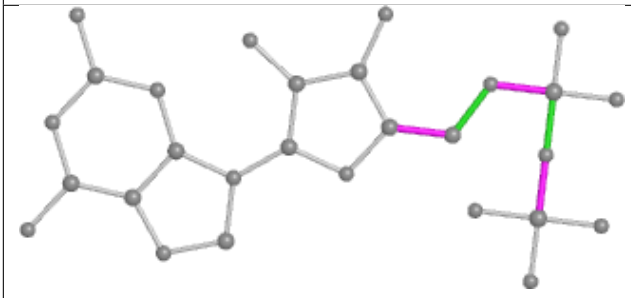

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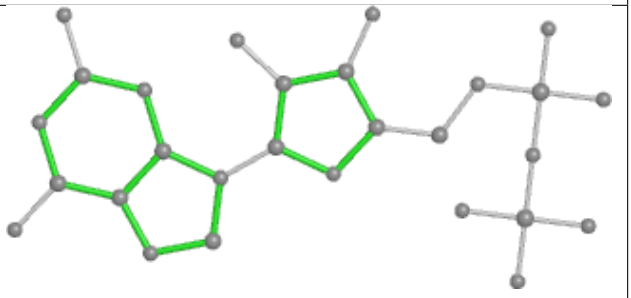
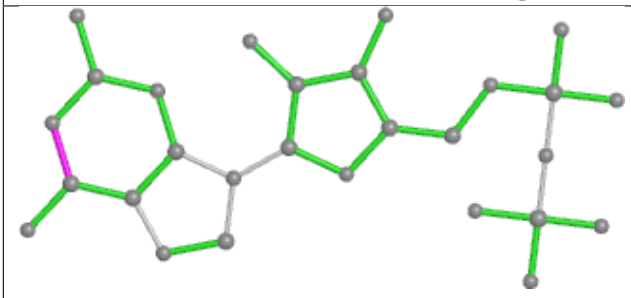


Rings

Ligand GDP 1E 501



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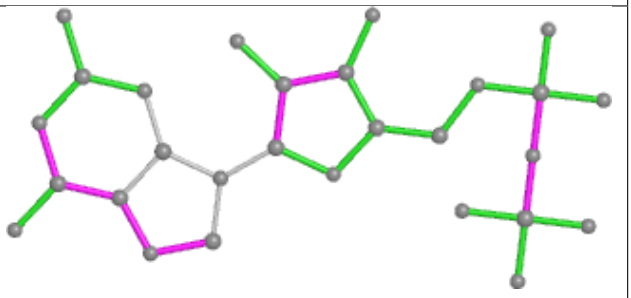

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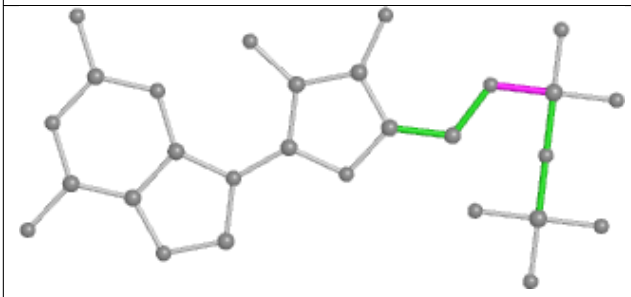

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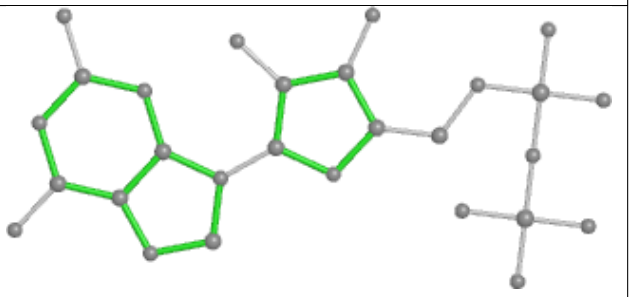
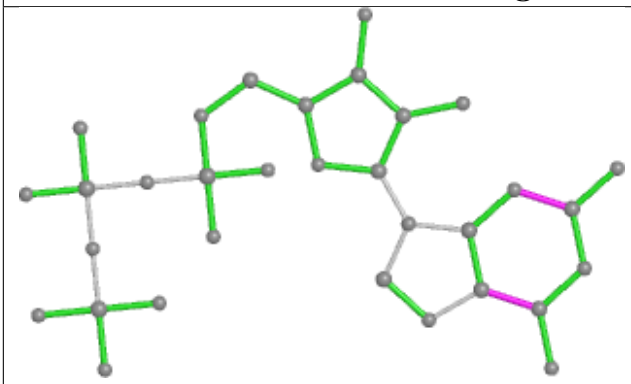


Rings

Ligand GTP 3T 501



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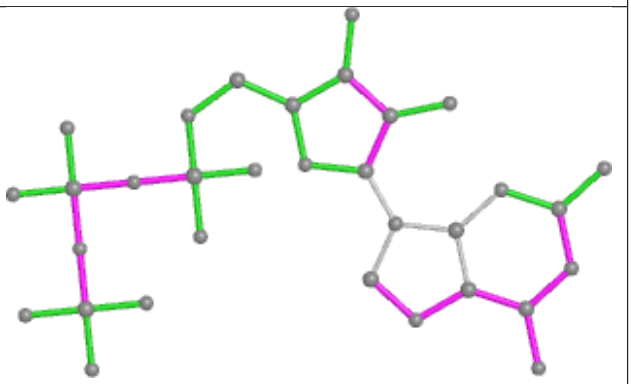

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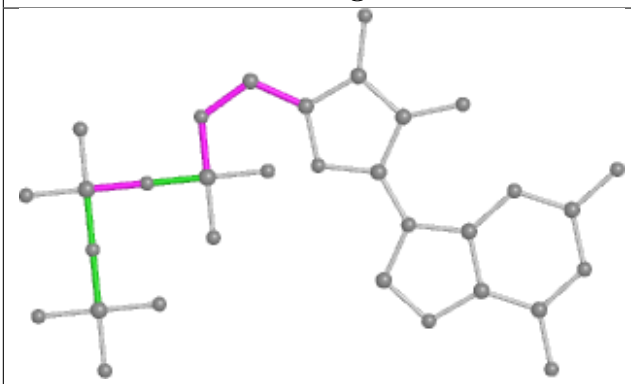

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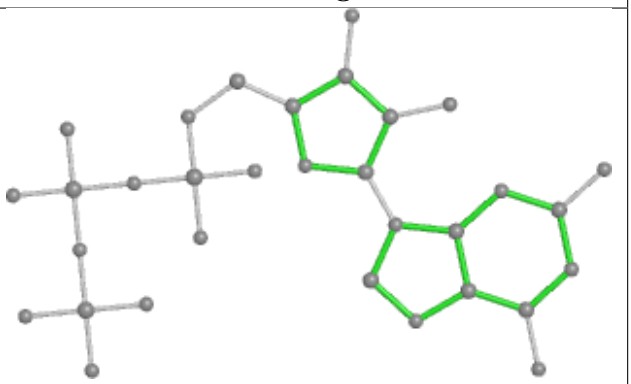
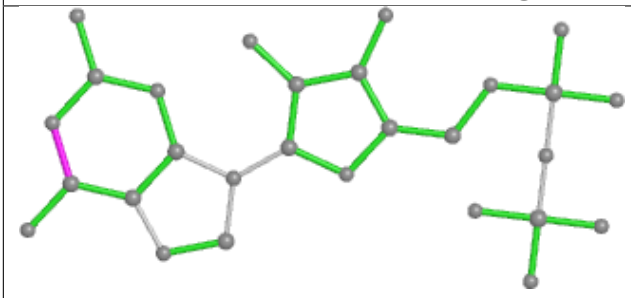
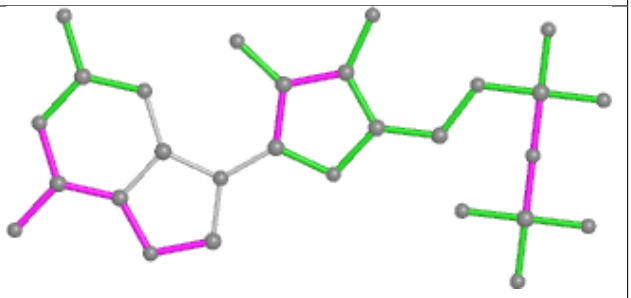
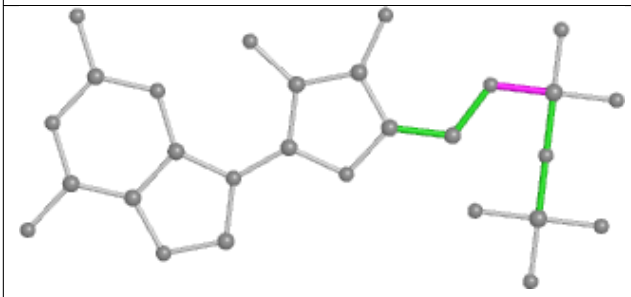
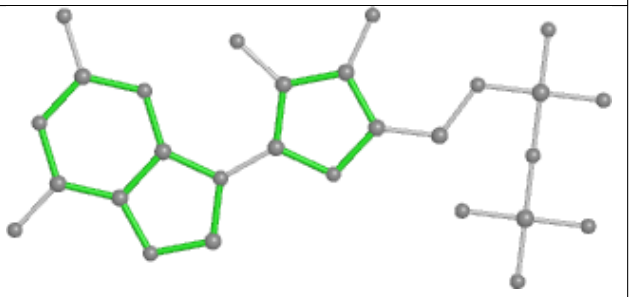
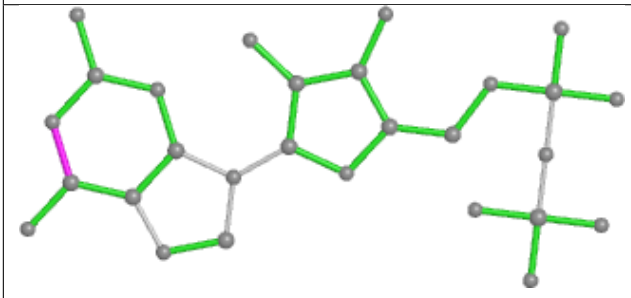
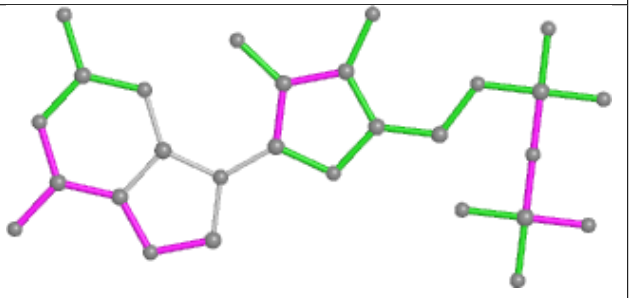
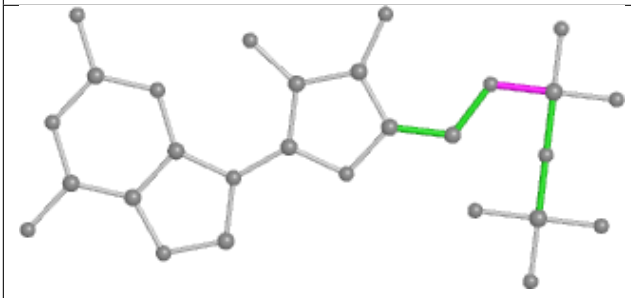
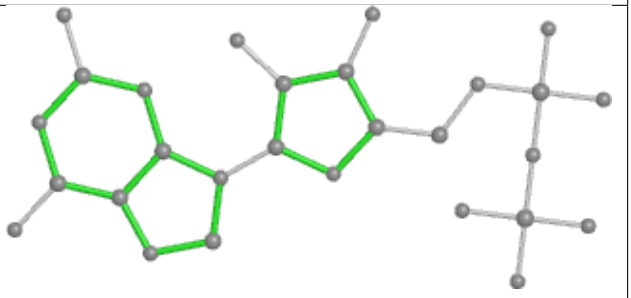
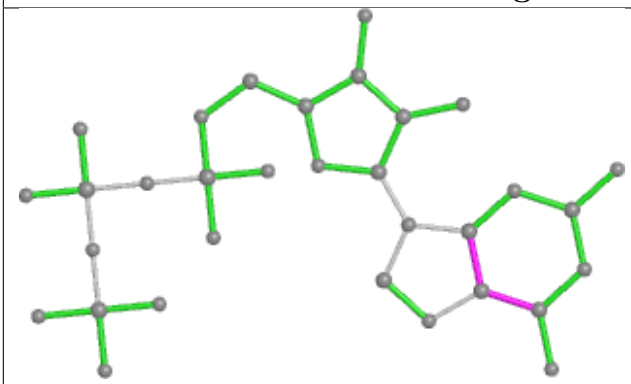


Rings

Ligand GDP S4 501	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand GDP 1Q 502	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand GTP O8 501



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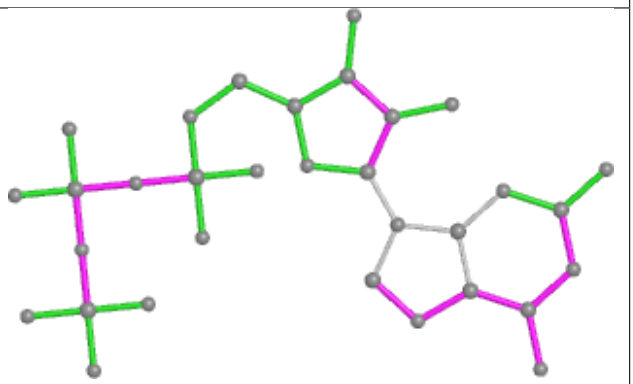

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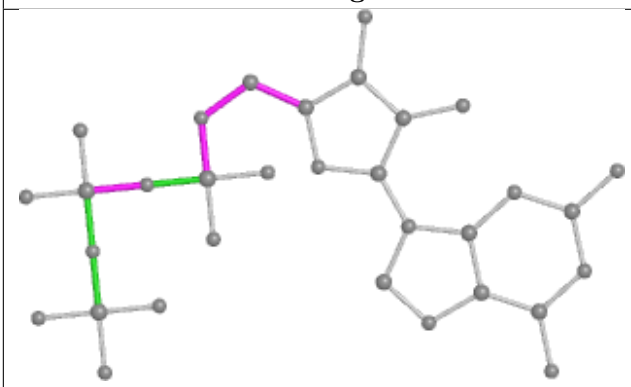

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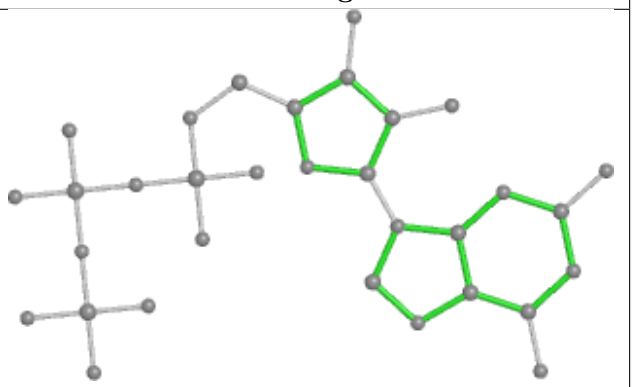
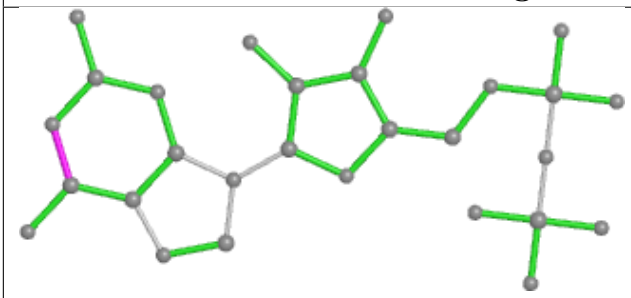


Rings

Ligand GDP P4 503



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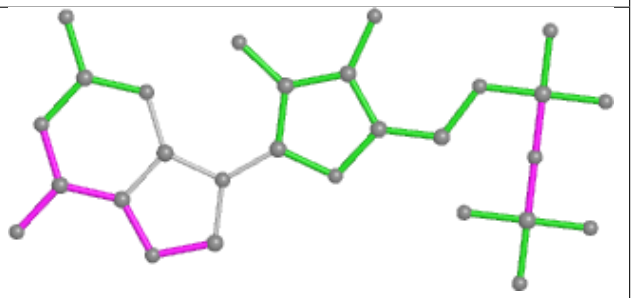

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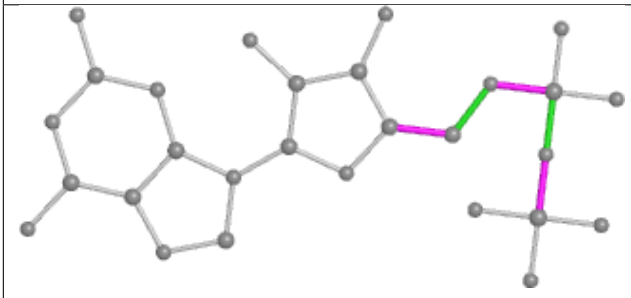

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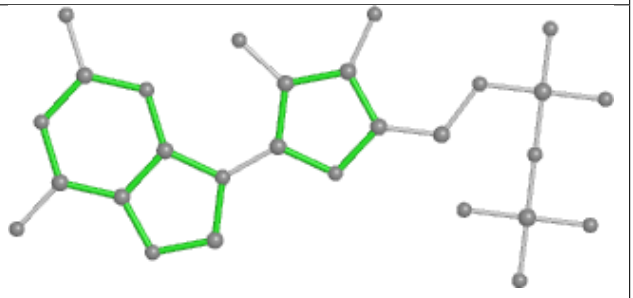
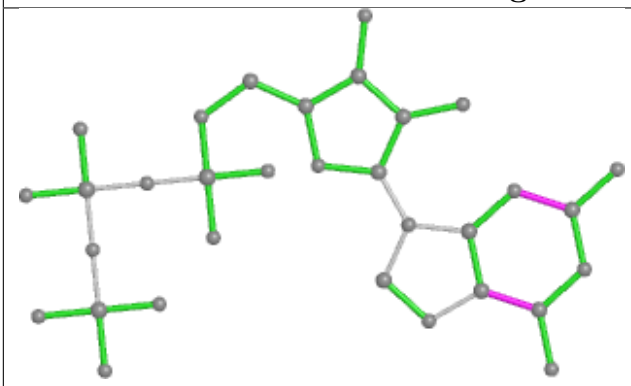


Rings

Ligand GTP 3M 501



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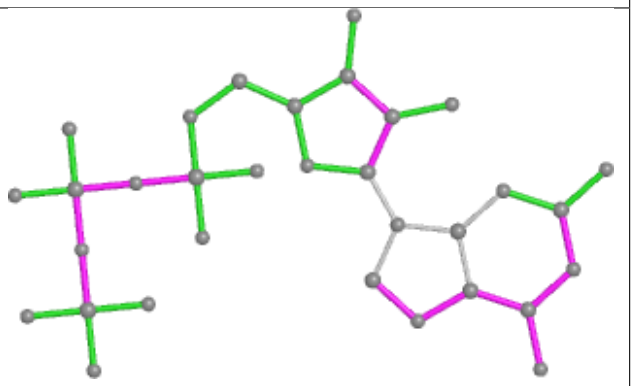

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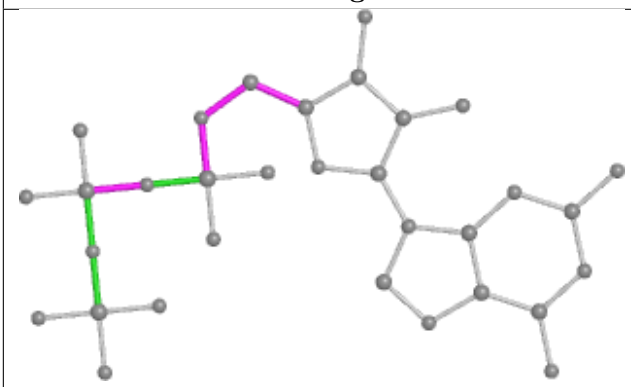

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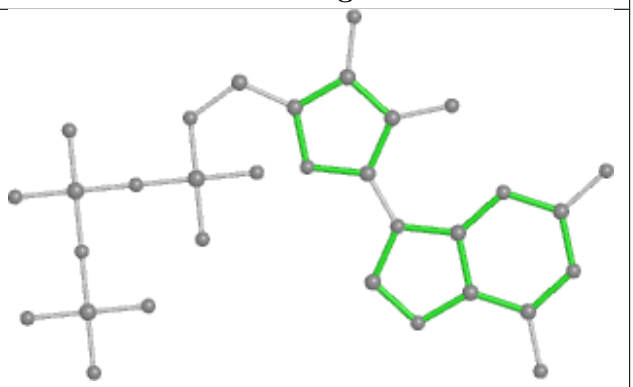
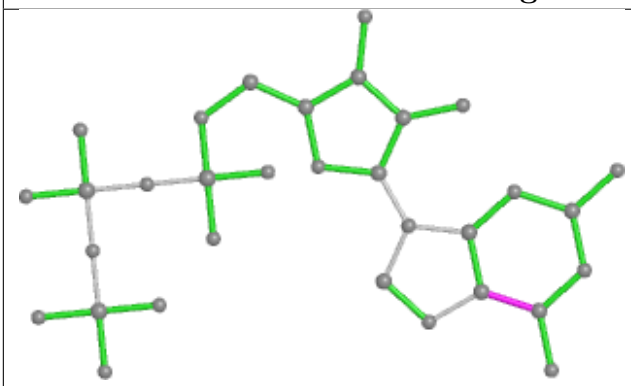


Rings

Ligand GTP 0I 501



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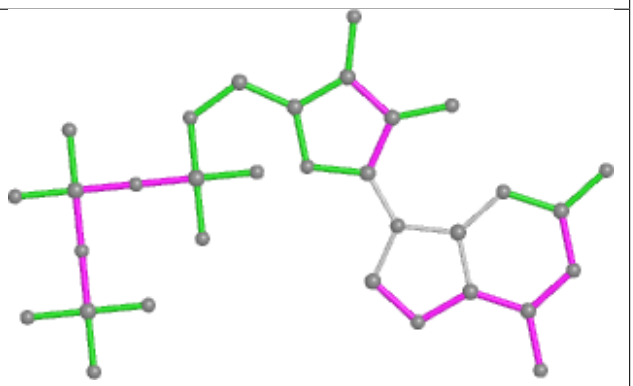

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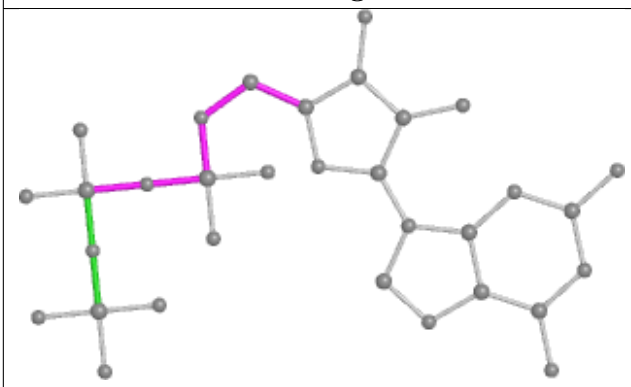

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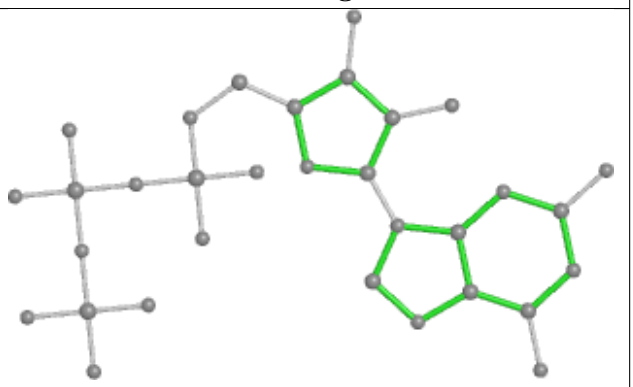
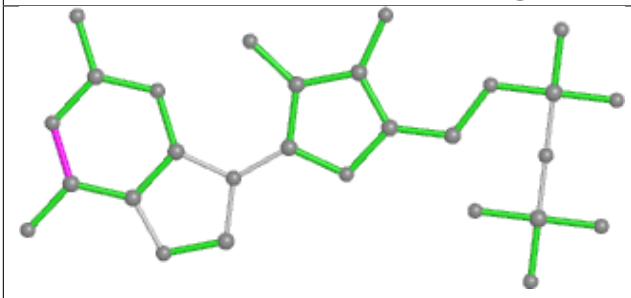
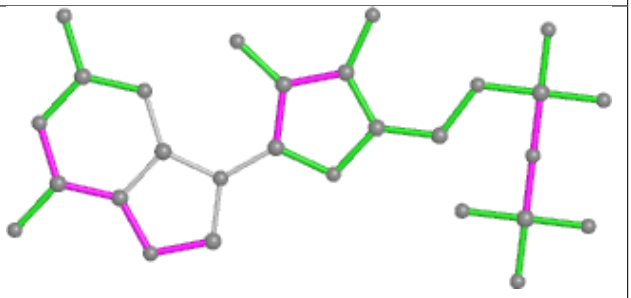
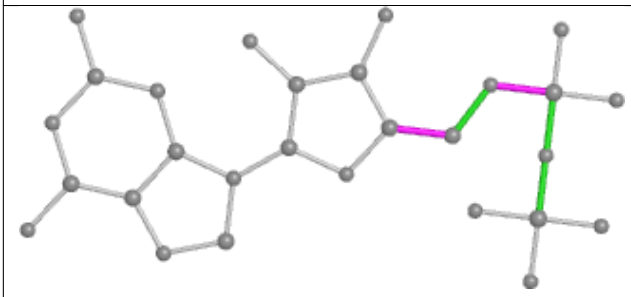
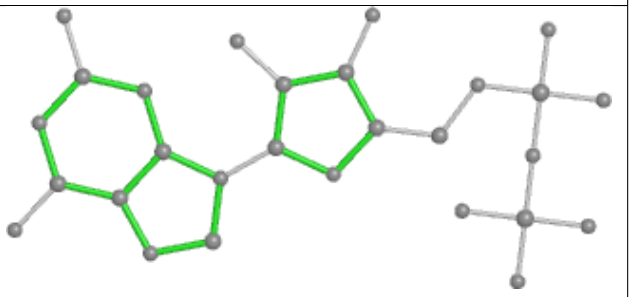
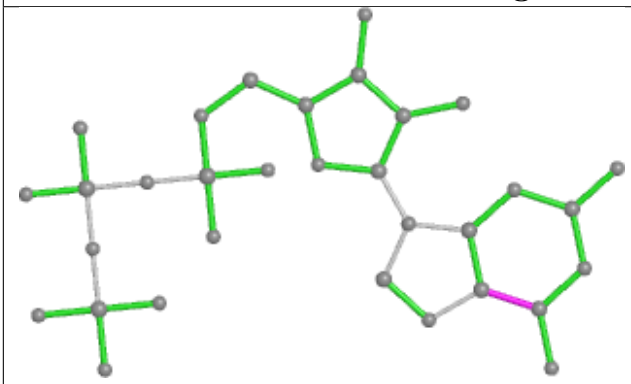
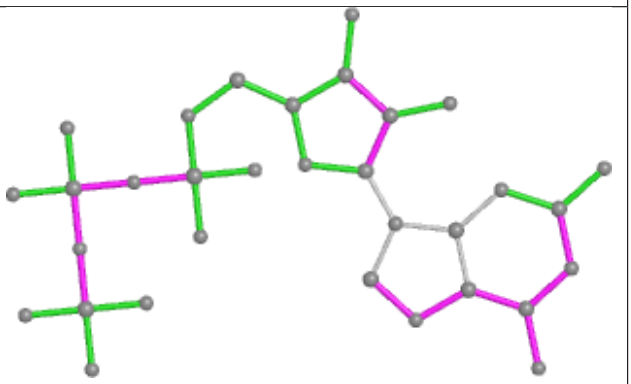
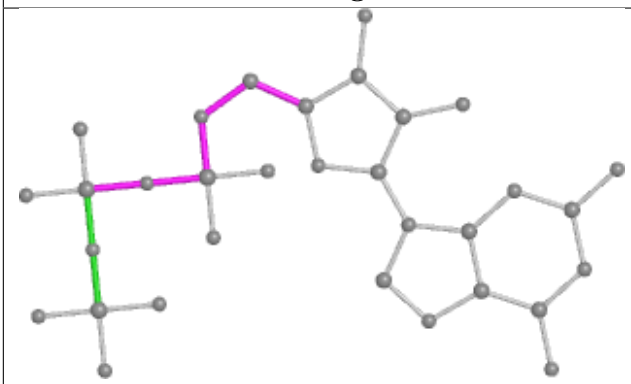
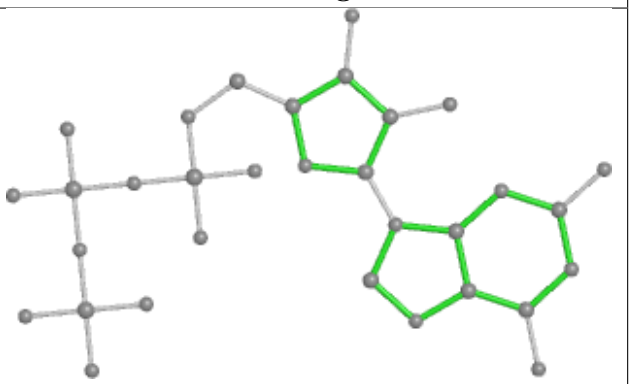
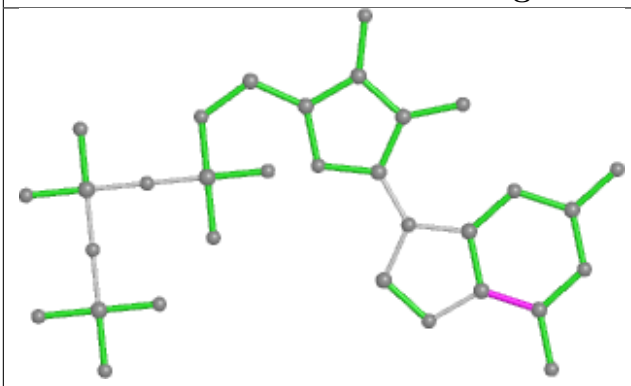


Rings

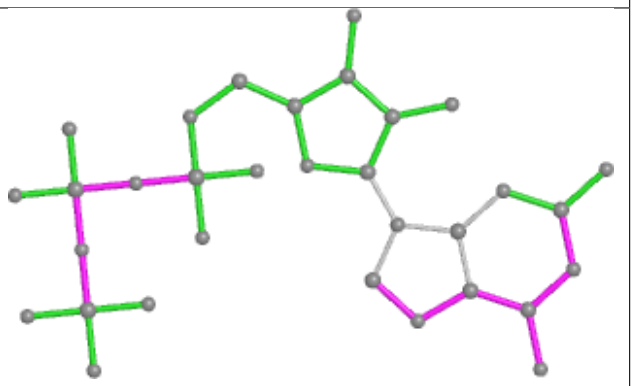
Ligand GDP H4 501	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand GTP H3 501	
	
Bond lengths	Bond angles
	
Torsions	Rings

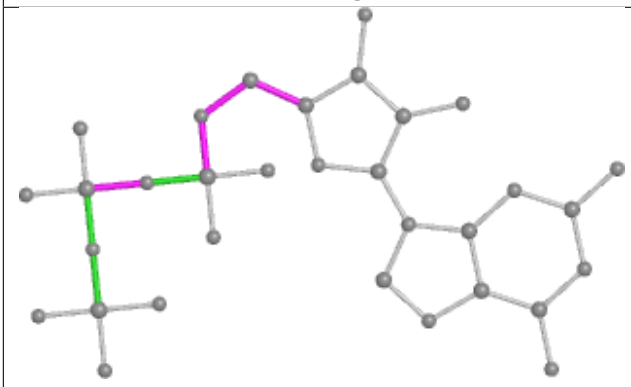
Ligand GTP R0 501



Bond lengths



Bond angles



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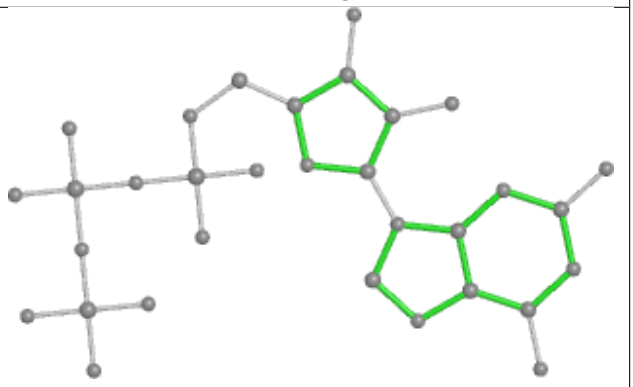
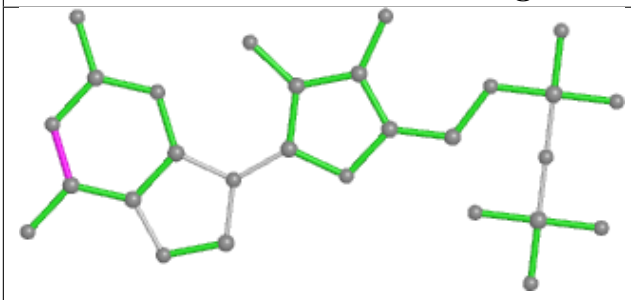


Rings

Ligand GDP Z4 501



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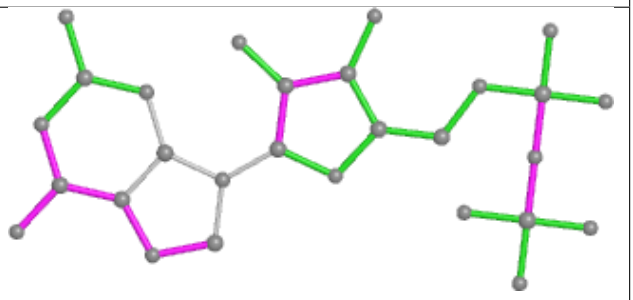
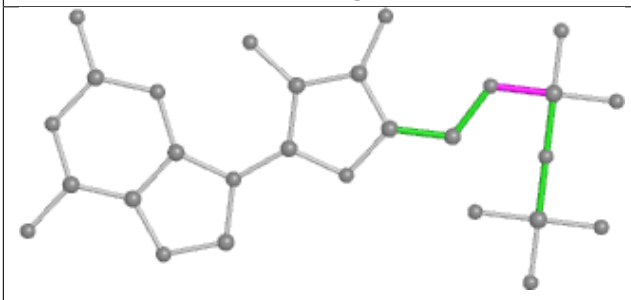


Bond angles



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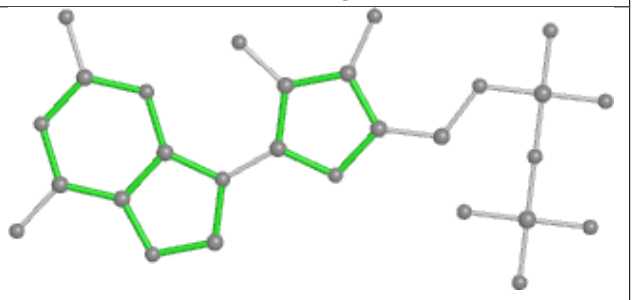
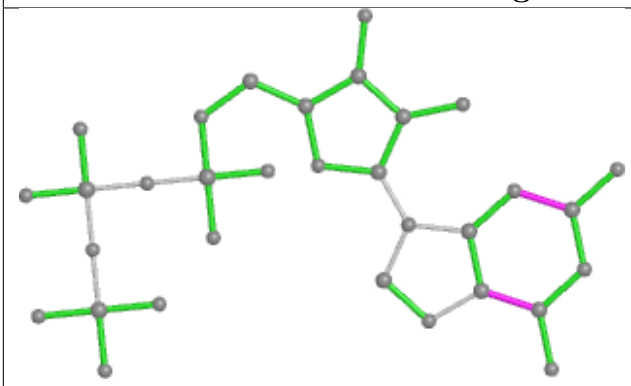


Rings

Ligand GTP K7 501



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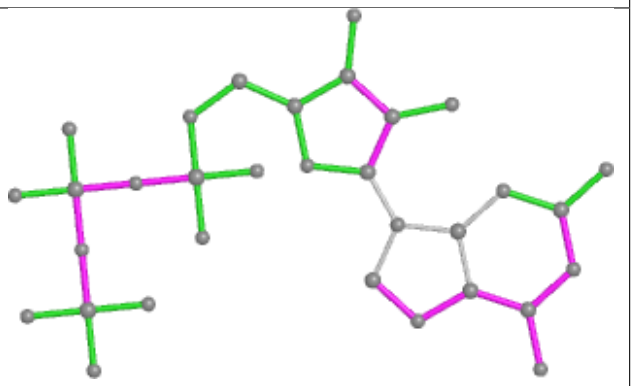

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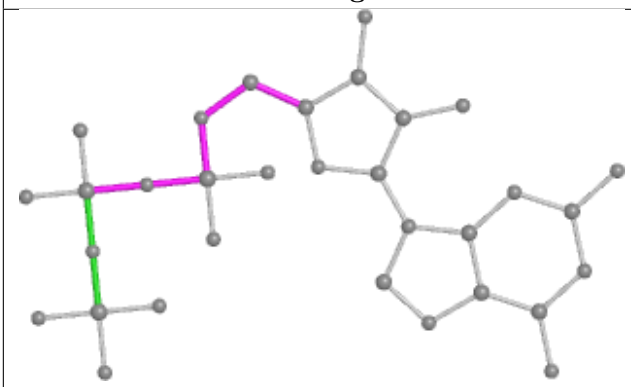

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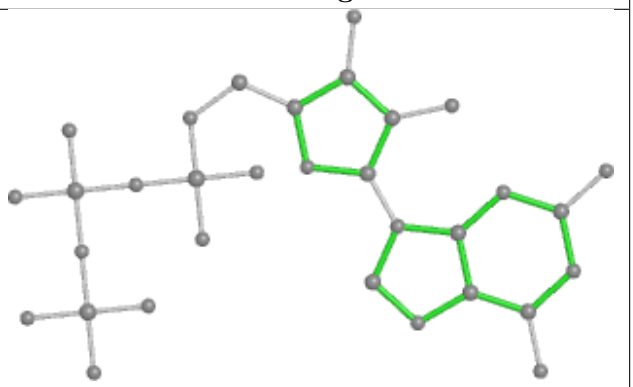
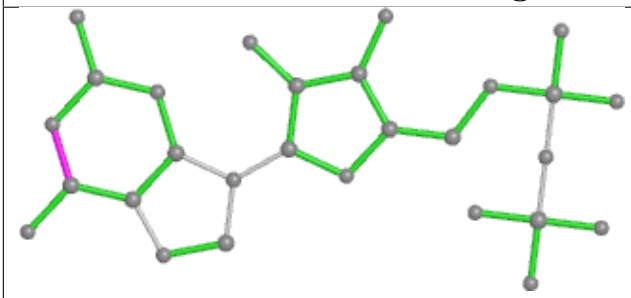


Rings

Ligand GDP K4 502



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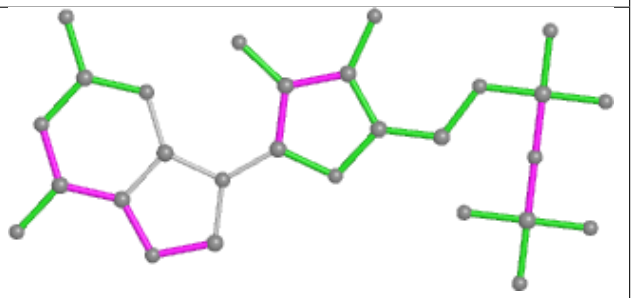

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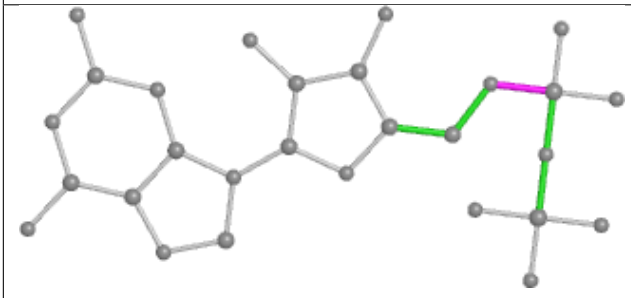

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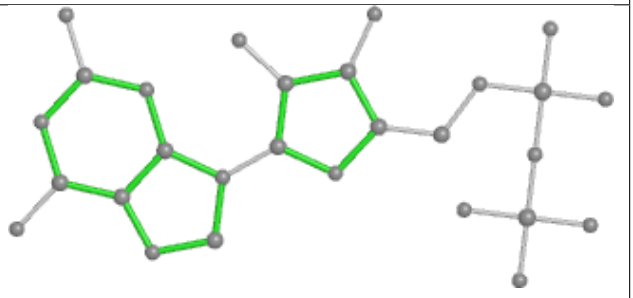
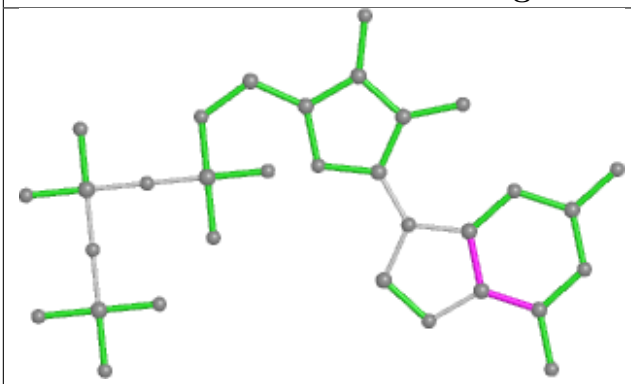


Rings

Ligand GTP Q2 501



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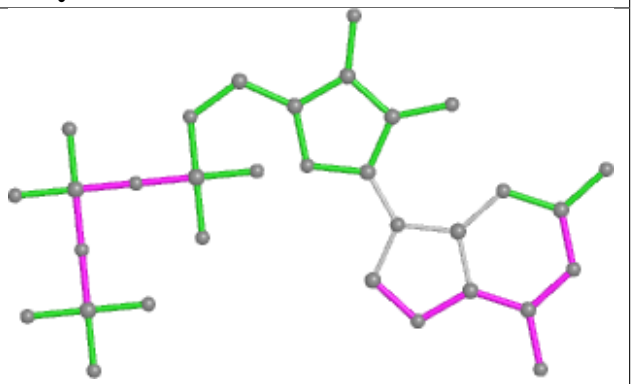

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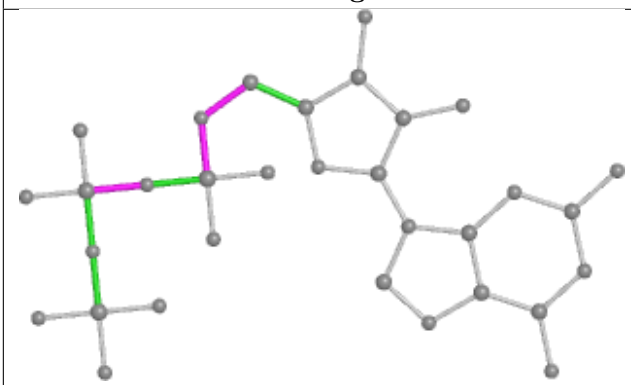

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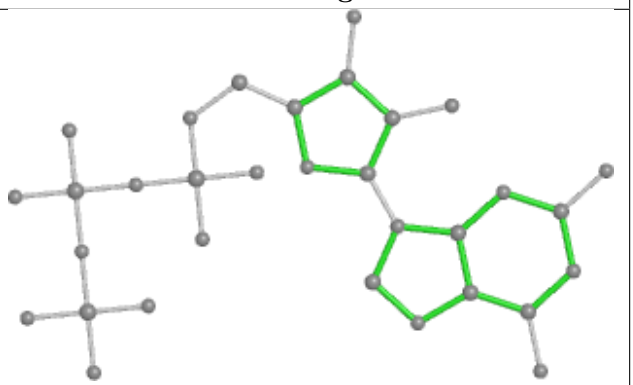
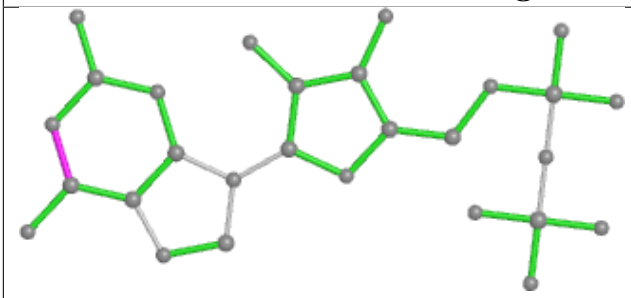


Rings

Ligand GDP L6 502



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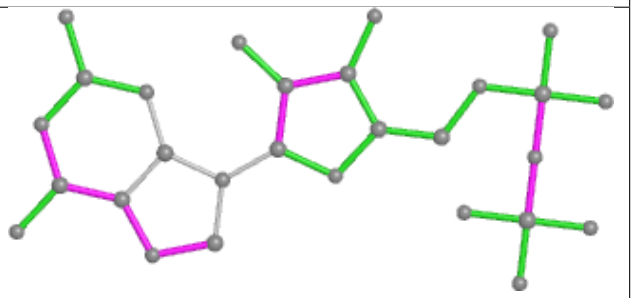

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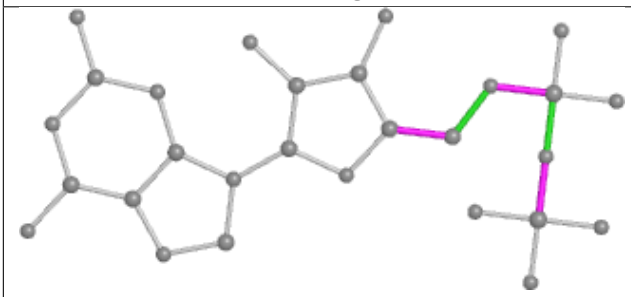

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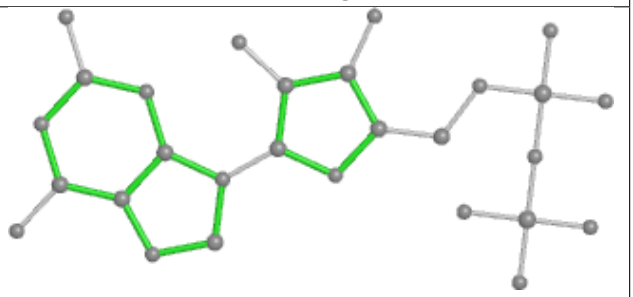
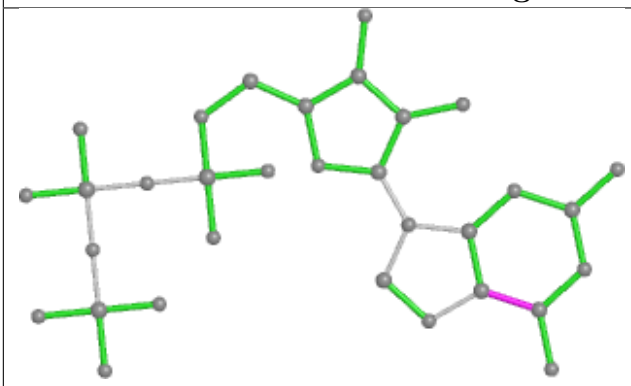


Rings

Ligand GTP D7 501



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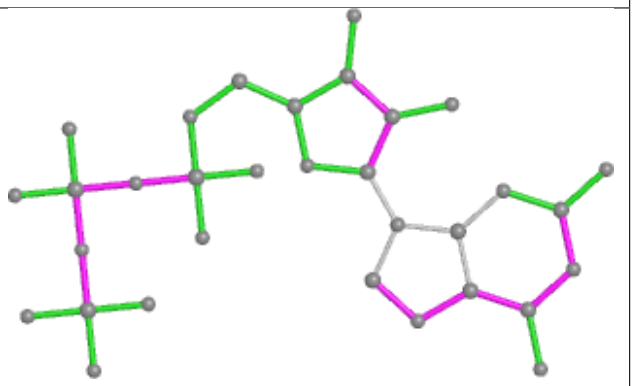

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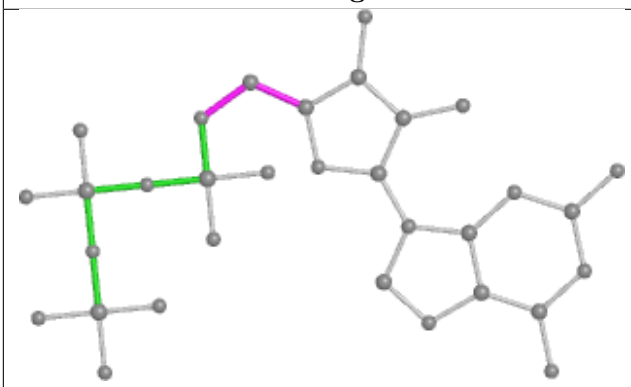

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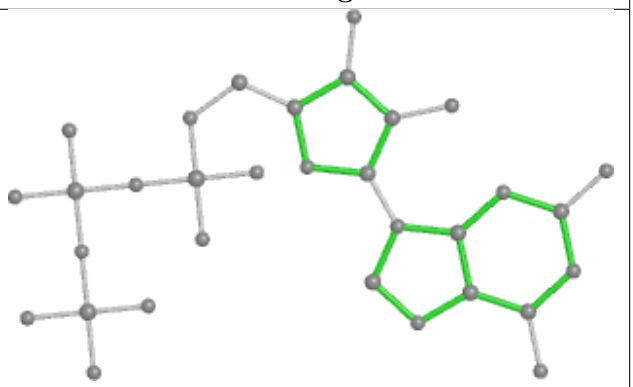

Rings

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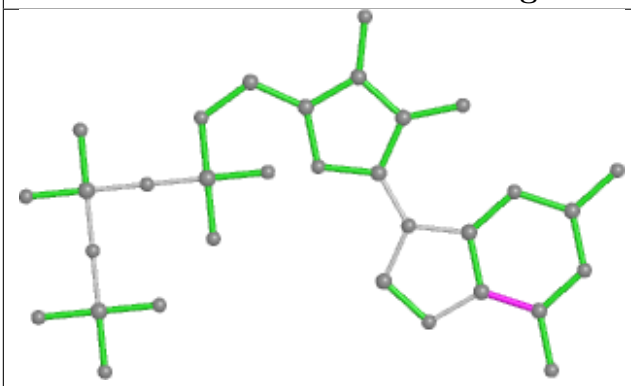

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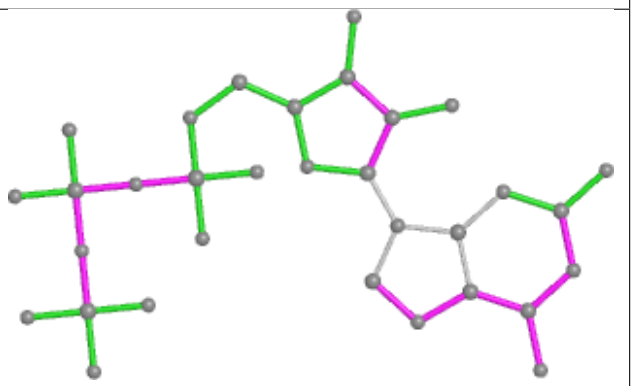

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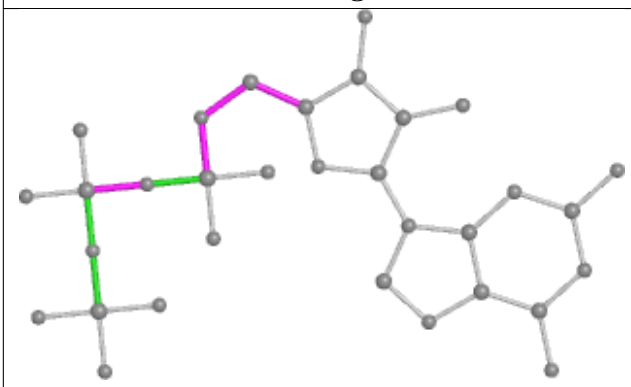

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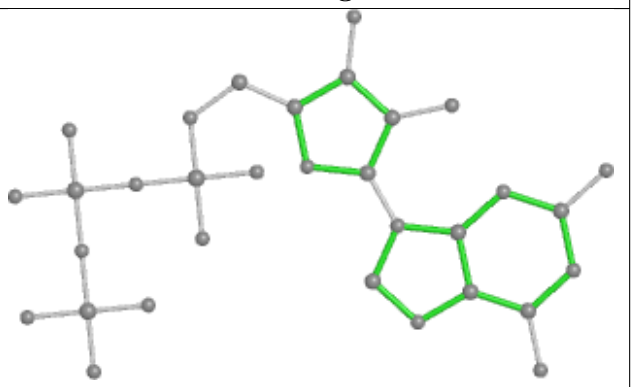
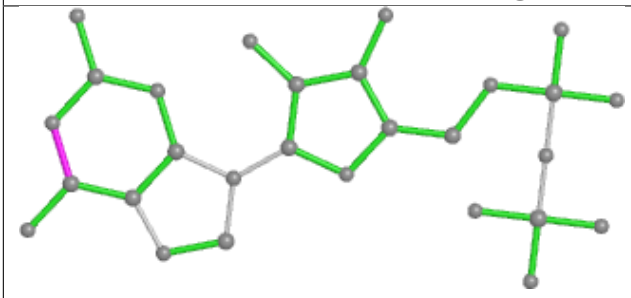


Rings

Ligand GDP G2 501



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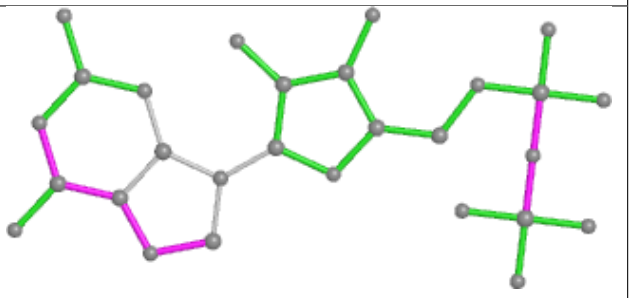

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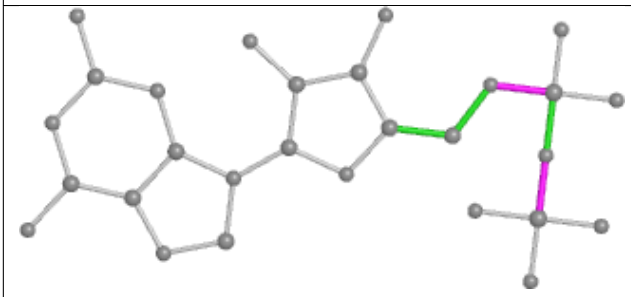

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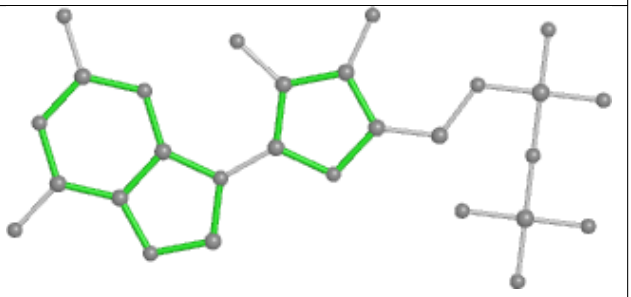
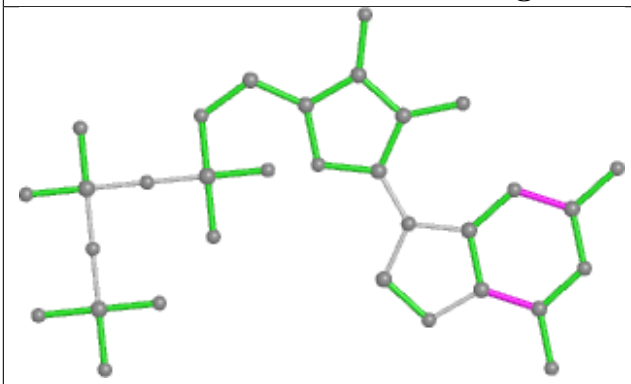


Rings

Ligand GTP F3 501



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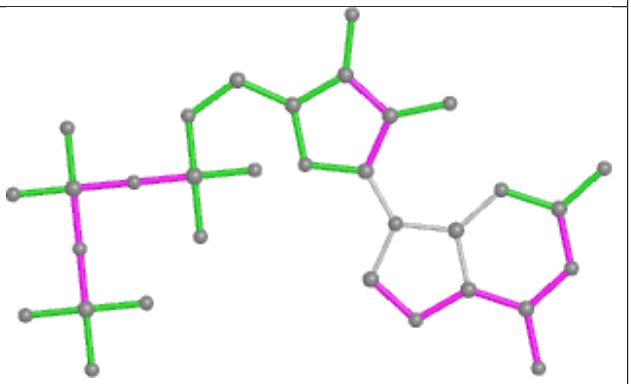

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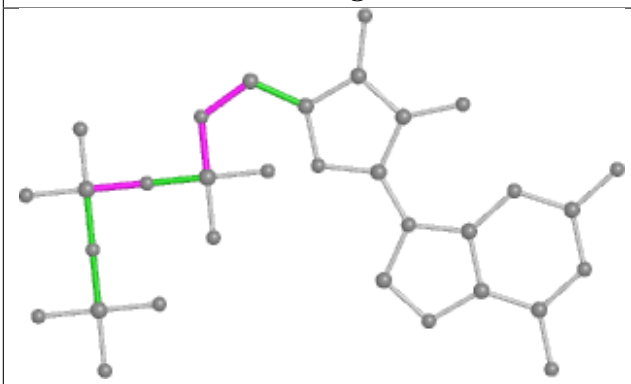

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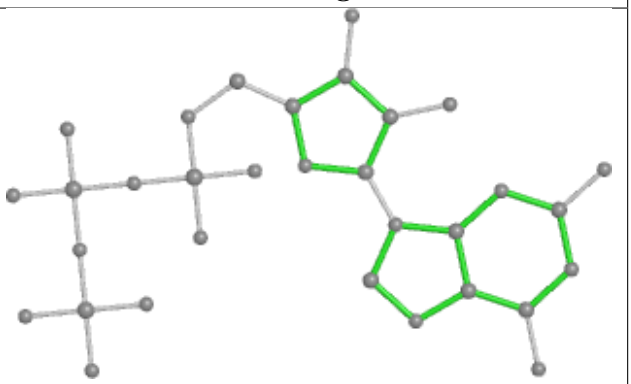
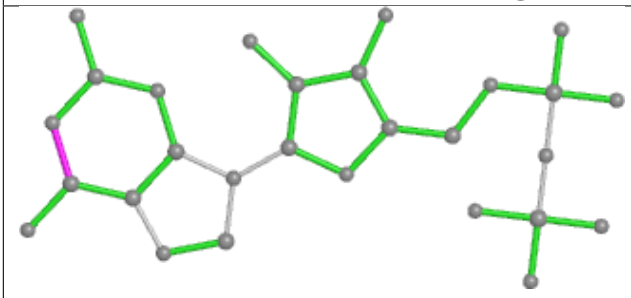


Rings

Ligand GDP O4 502



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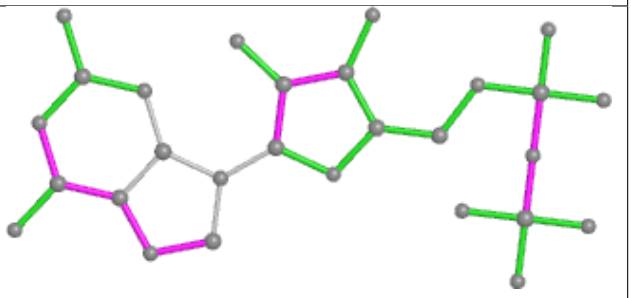

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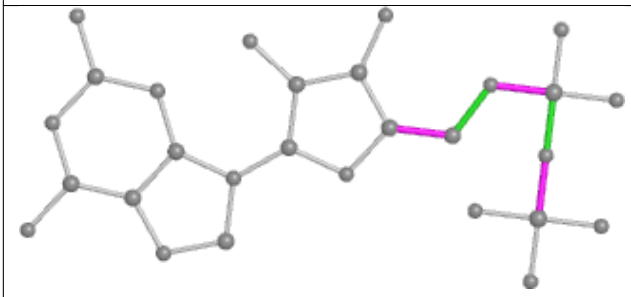

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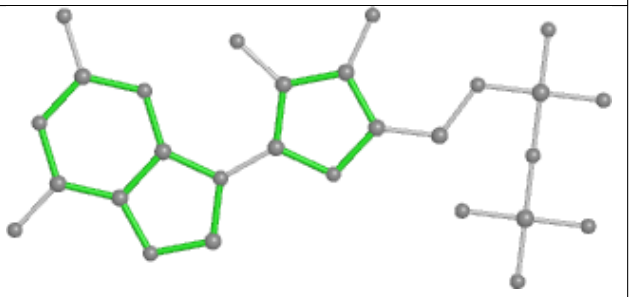
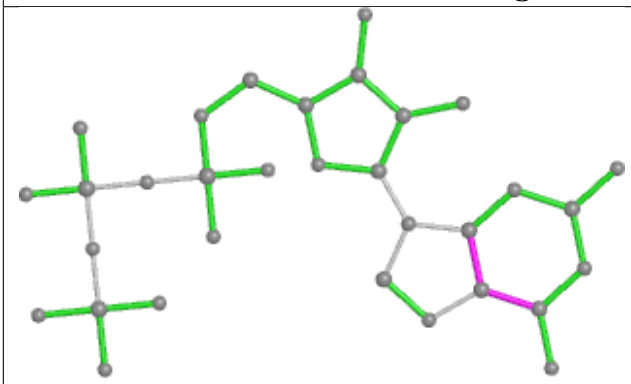


Rings

Ligand GTP O4 501



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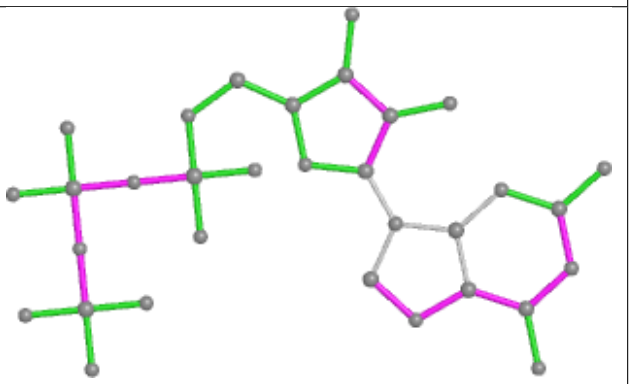

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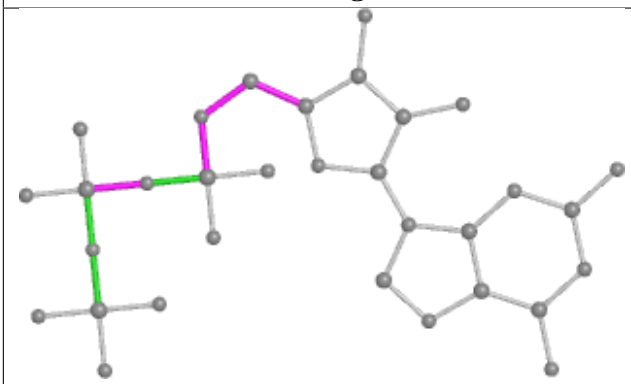

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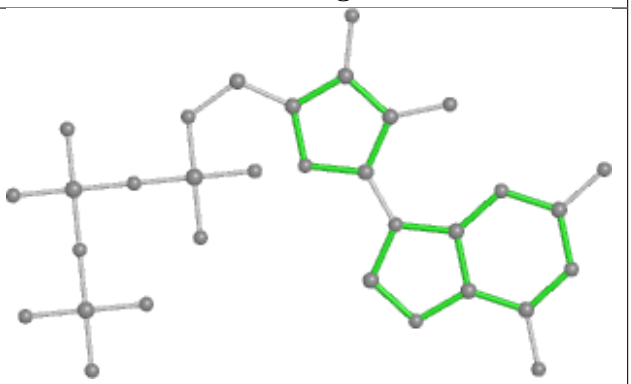
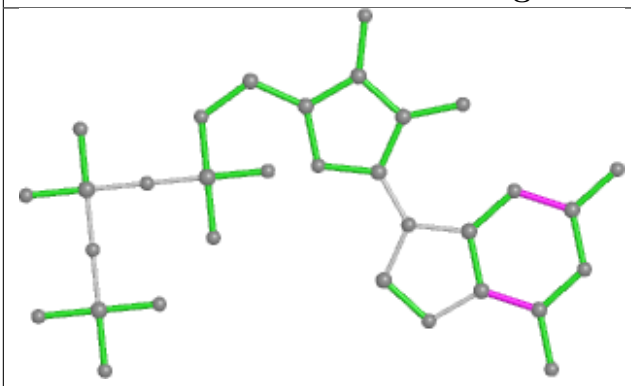


Rings

Ligand GTP 1Q 501



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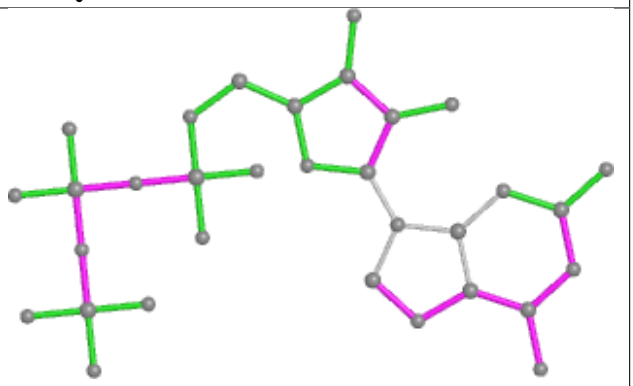

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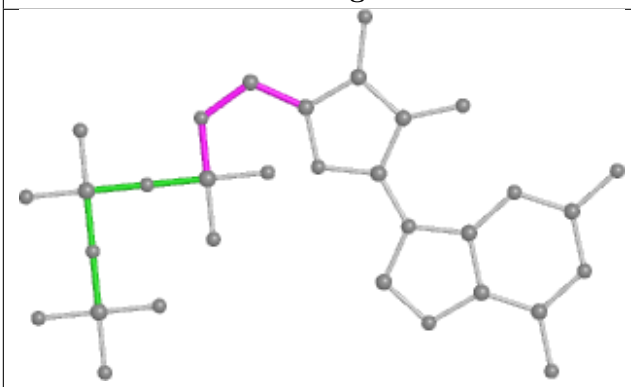

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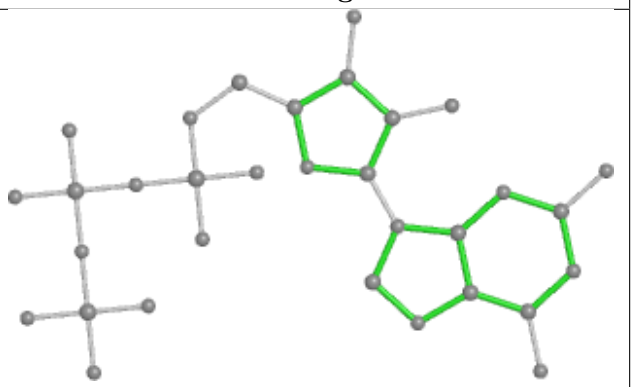
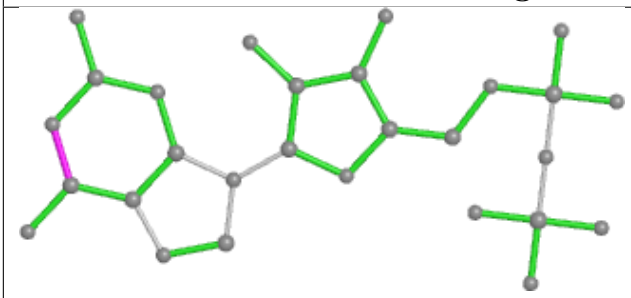


Rings

Ligand GDP E2 501



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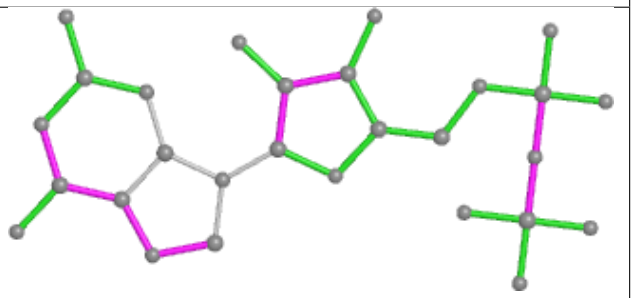

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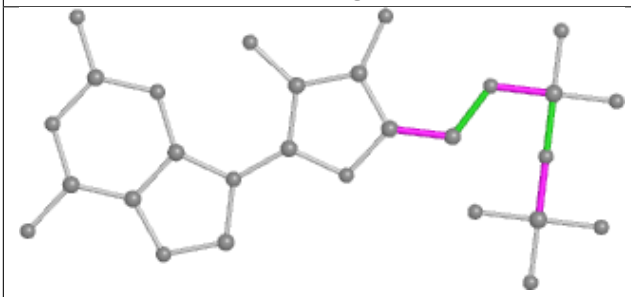

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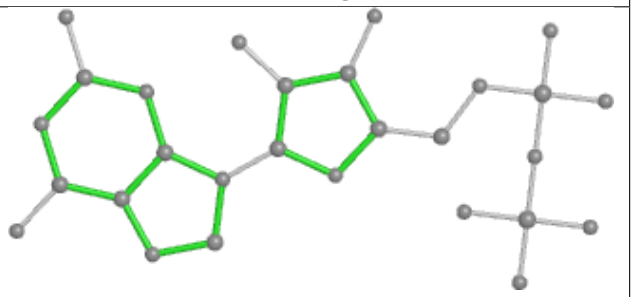
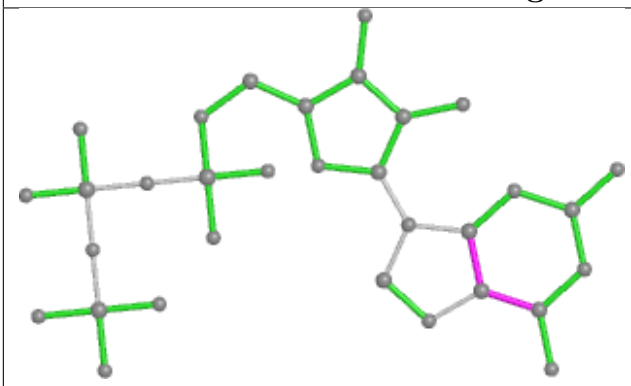


Rings

Ligand GTP 8 501



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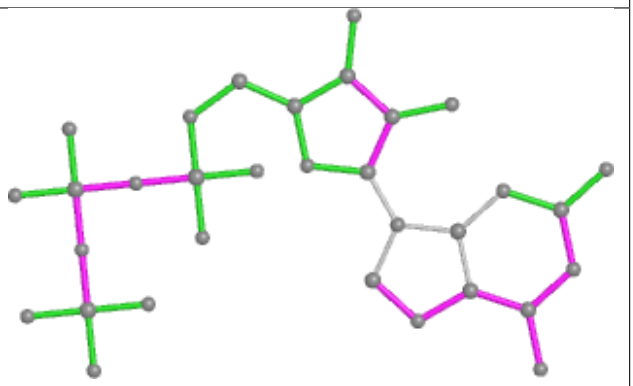

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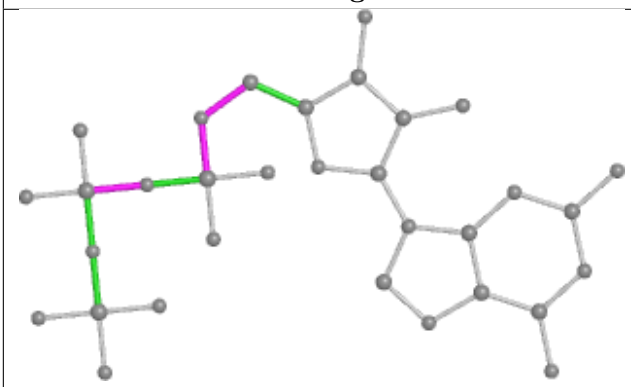

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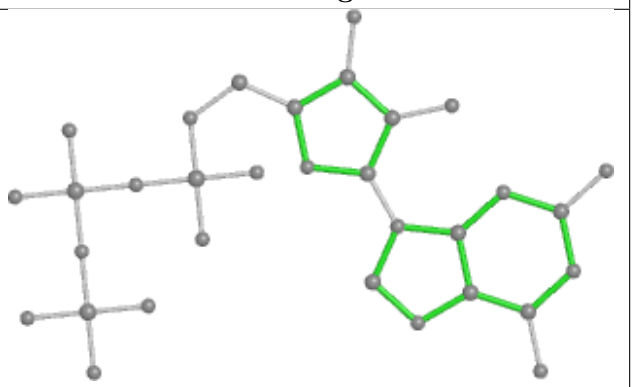
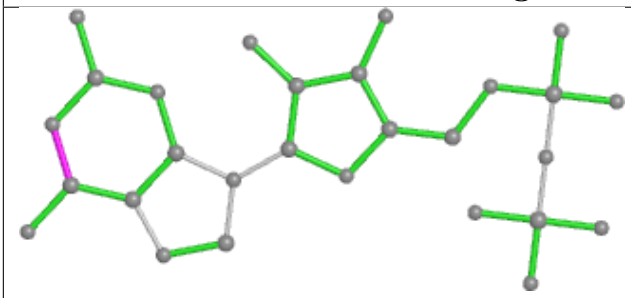


Rings

Ligand GDP B5 502



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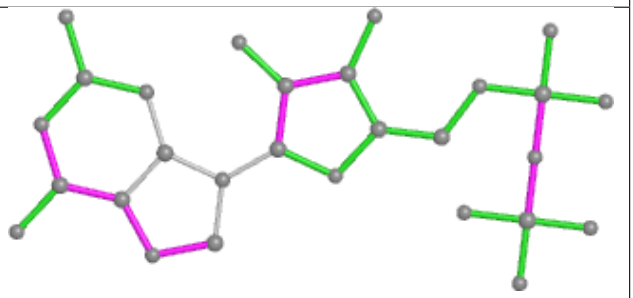
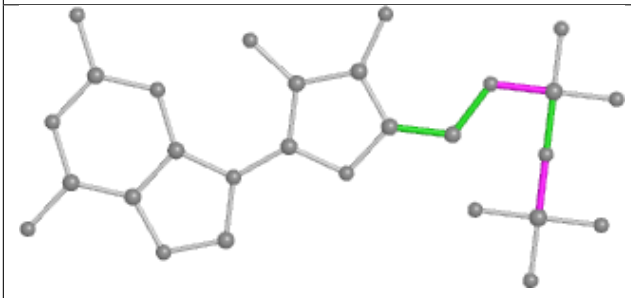


Bond angles



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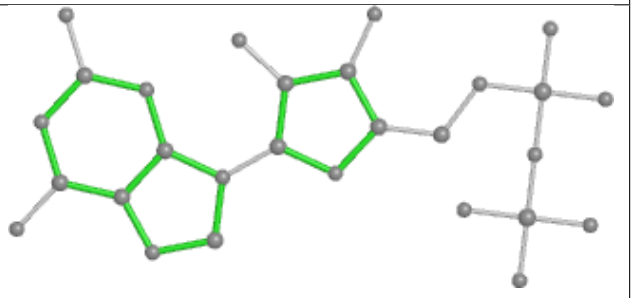
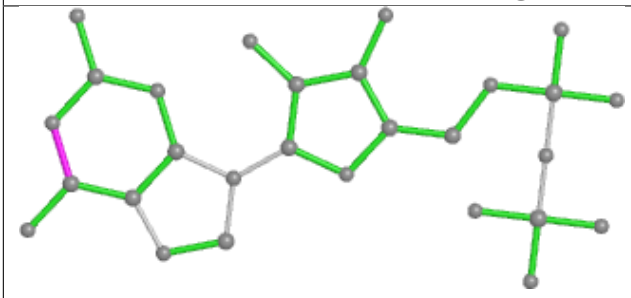


Rings

Ligand GDP C4 501



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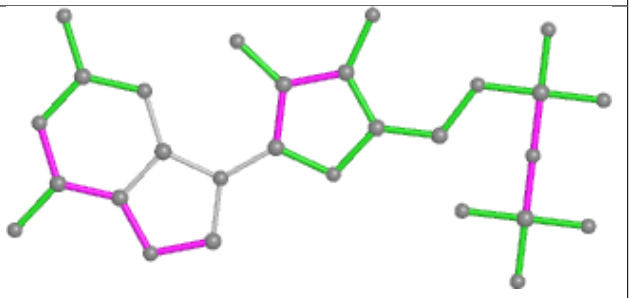

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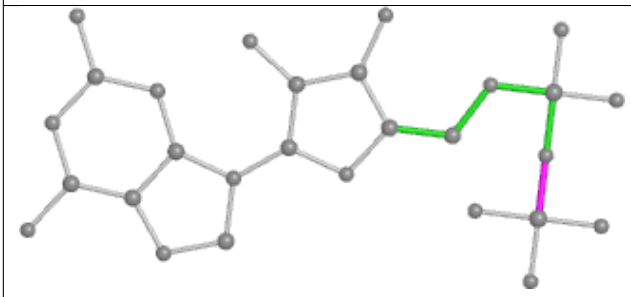
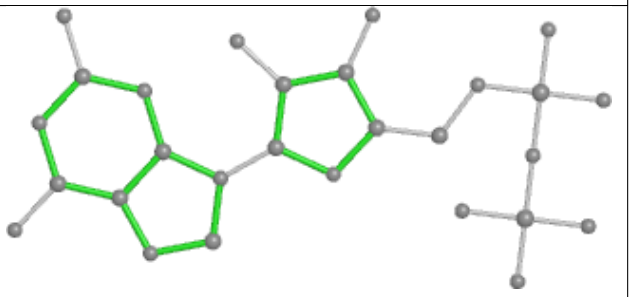
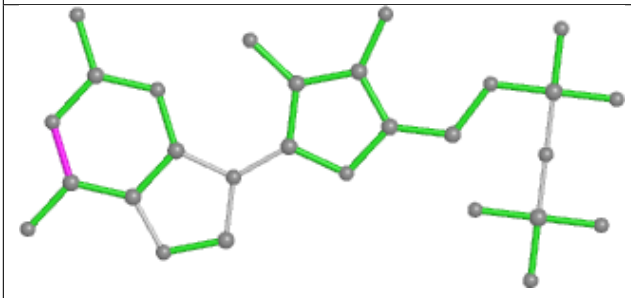


Torsions



Rings

Ligand GDP O6 502



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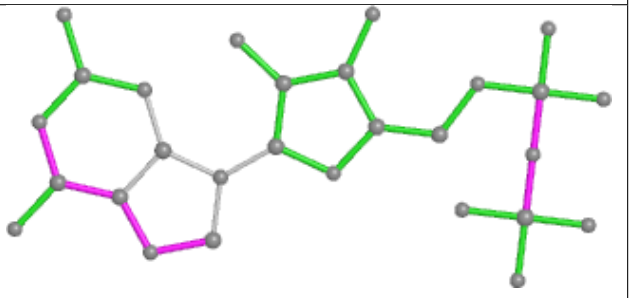

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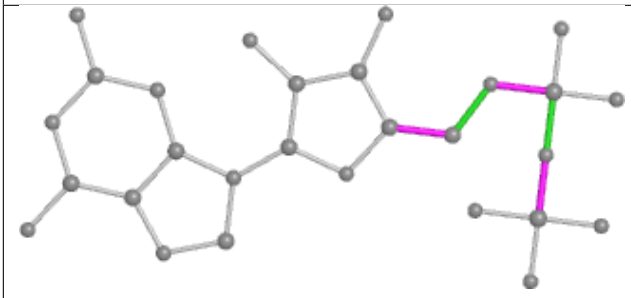

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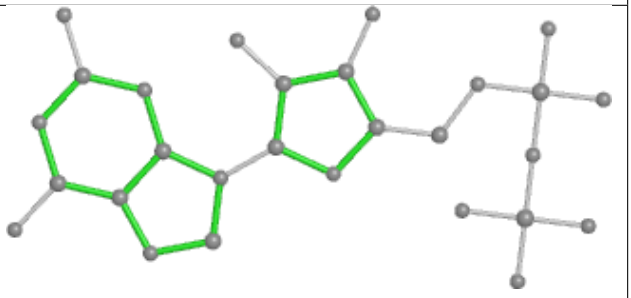
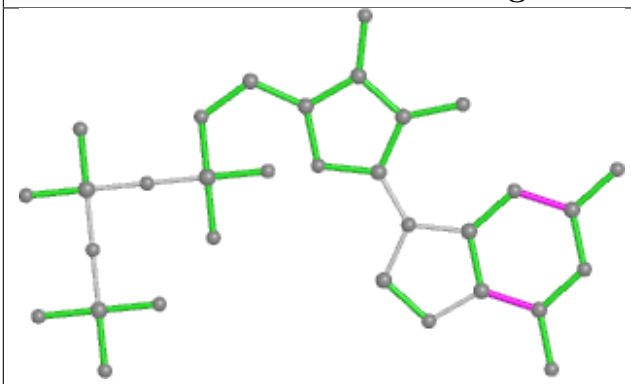


Rings

Ligand GTP W4 501



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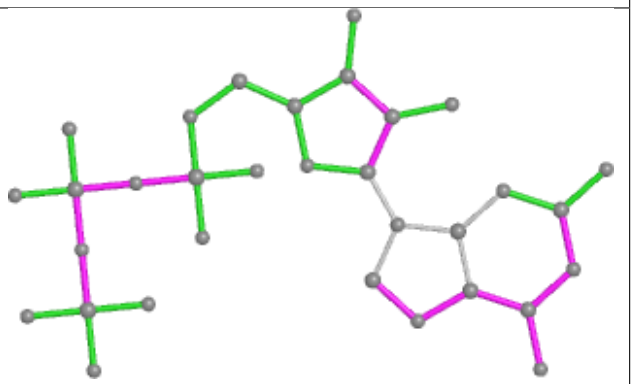

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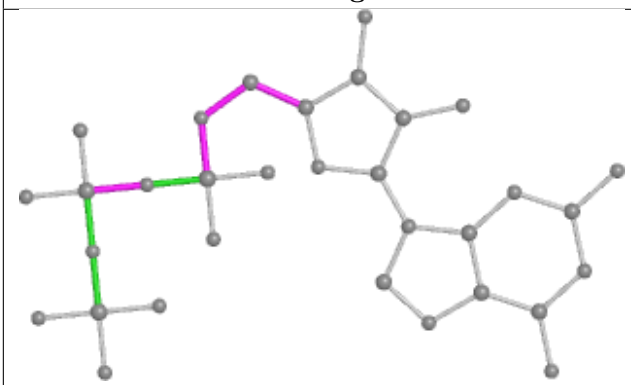

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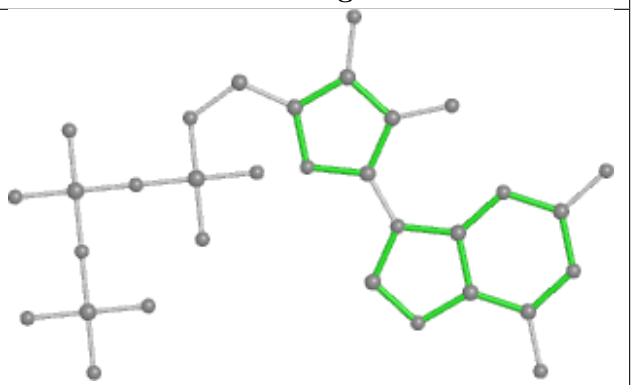
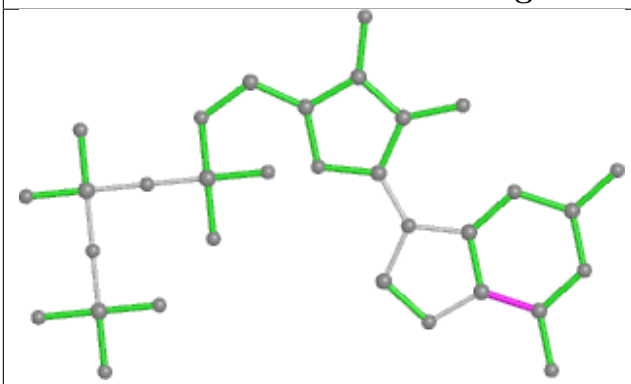


Rings

Ligand GTP E4 501



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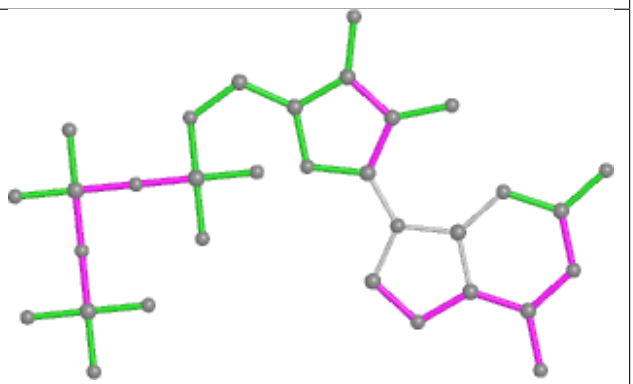

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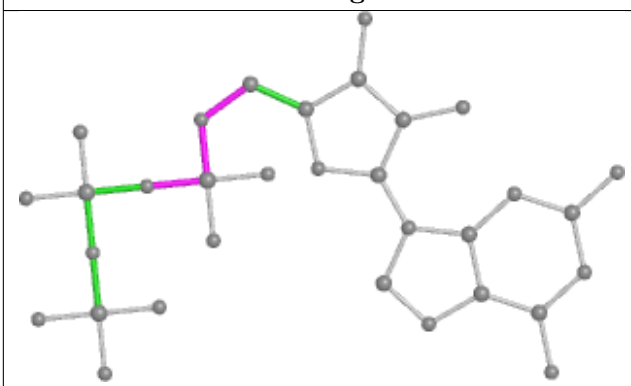

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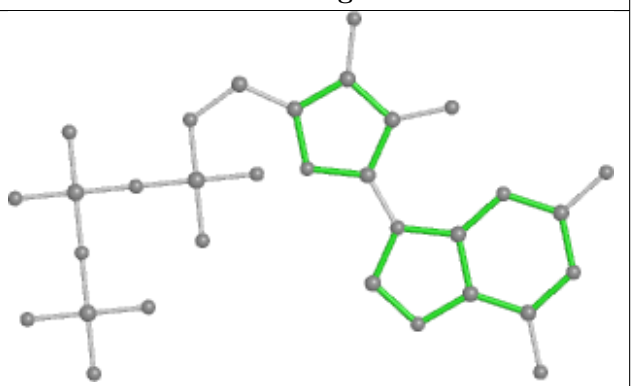
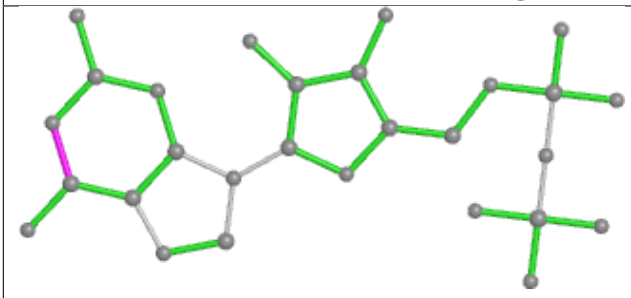
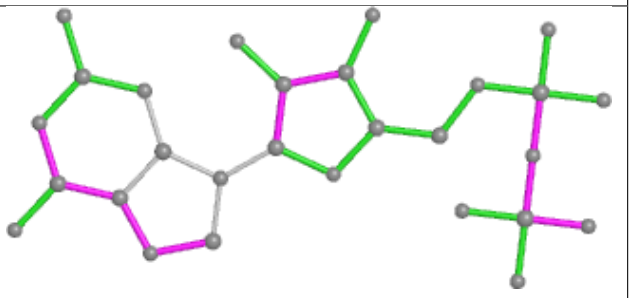


Rings

Ligand GDP V8 502	
	
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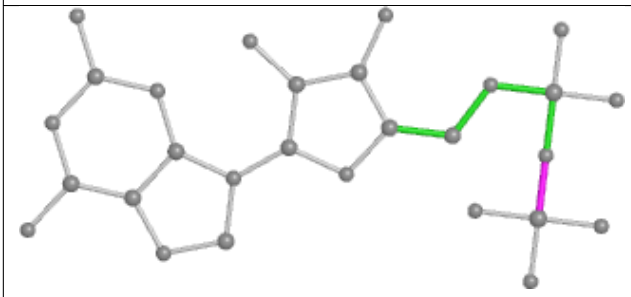
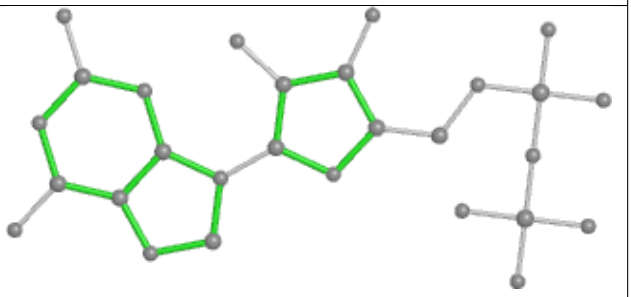
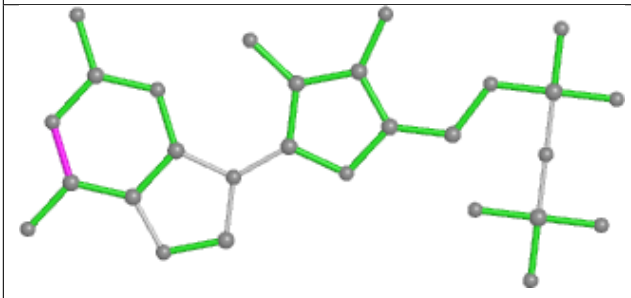
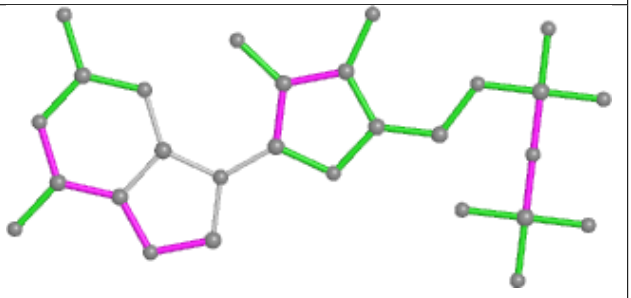
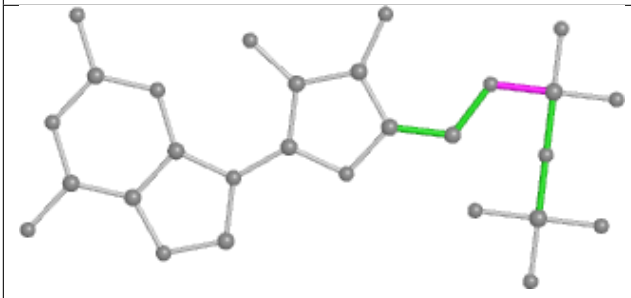
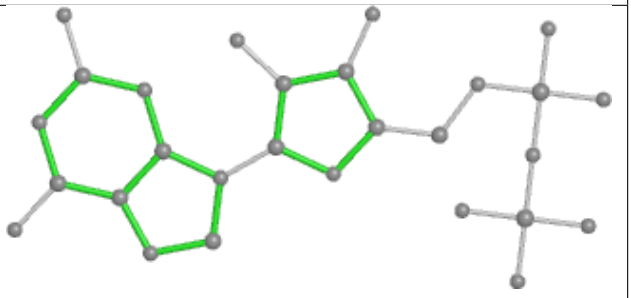
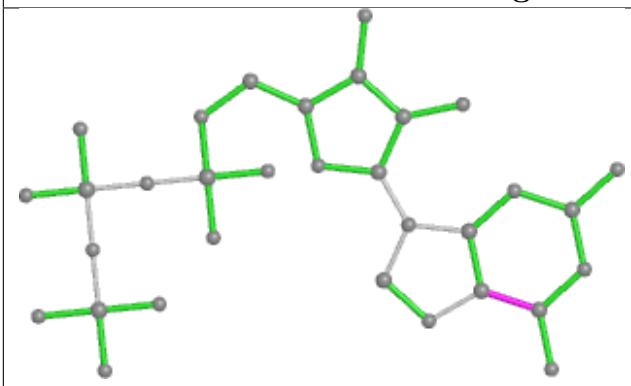
	
Torsions	Rings

Ligand GDP Z6 502	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand GTP N8 501



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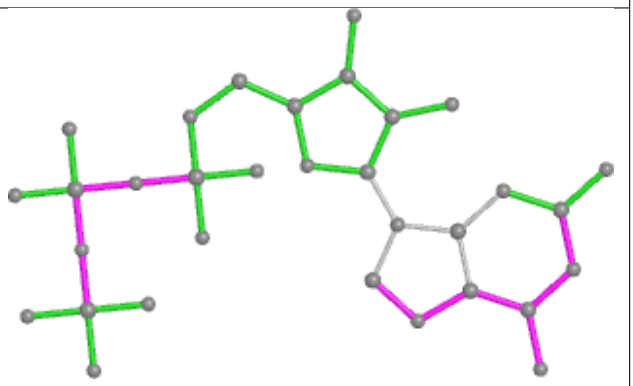

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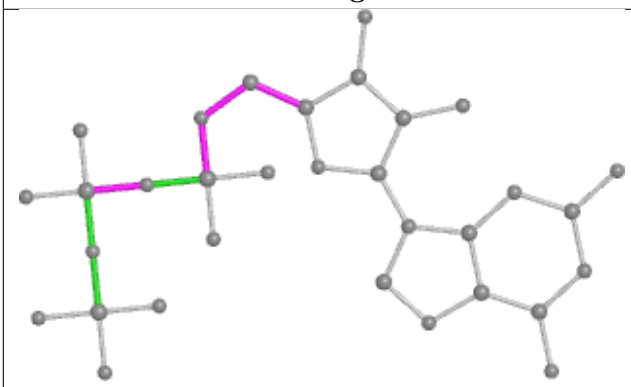

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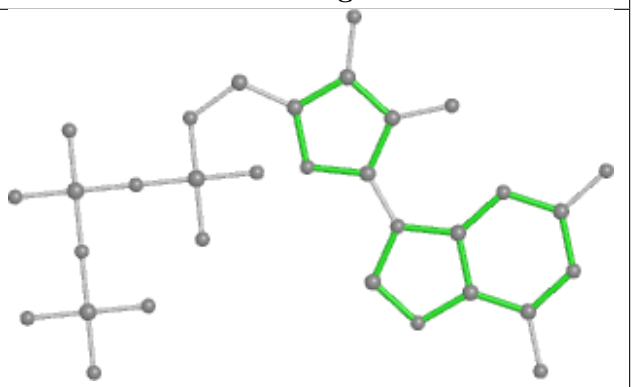
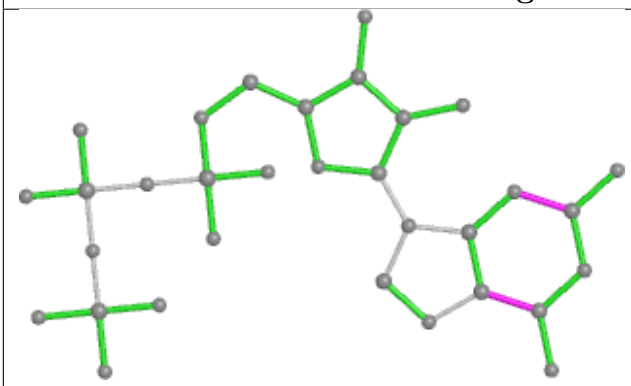


Rings

Ligand GTP 1S 501



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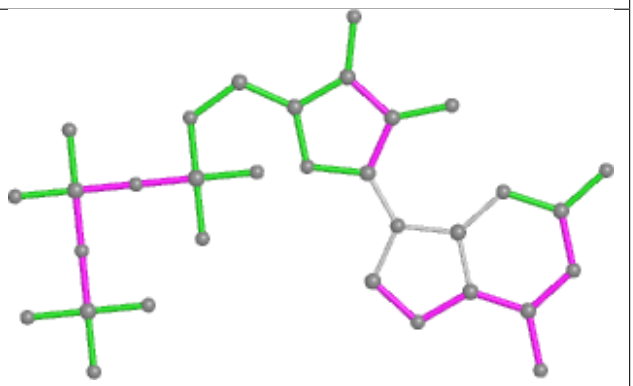

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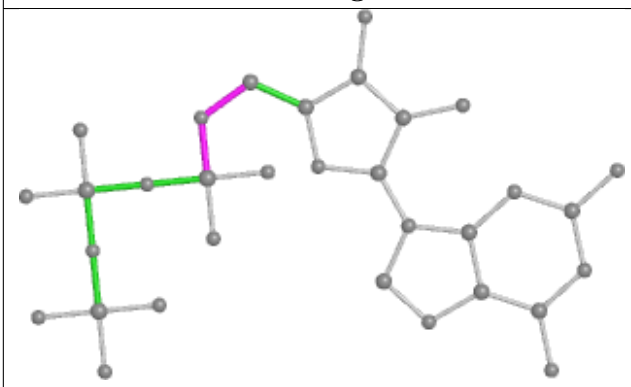

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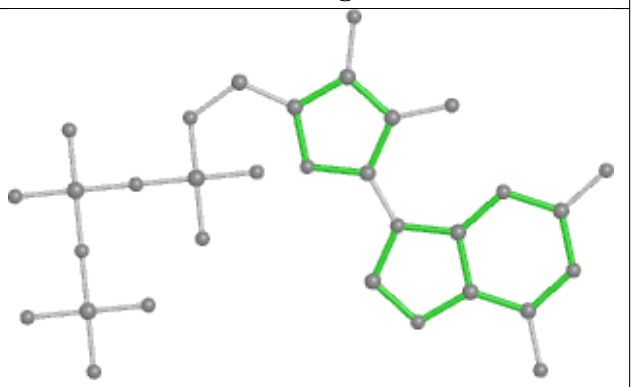
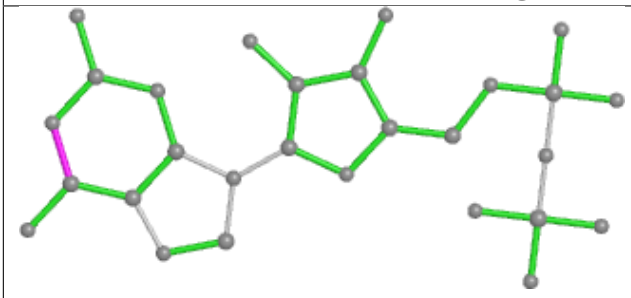


Rings

Ligand GDP P6 503



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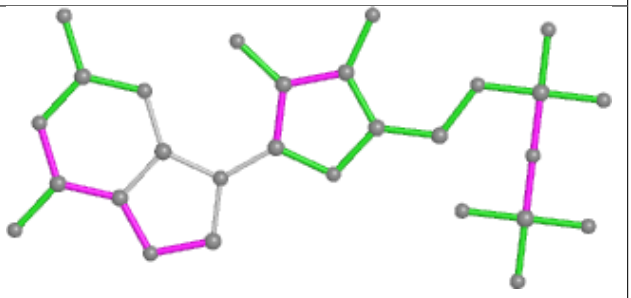

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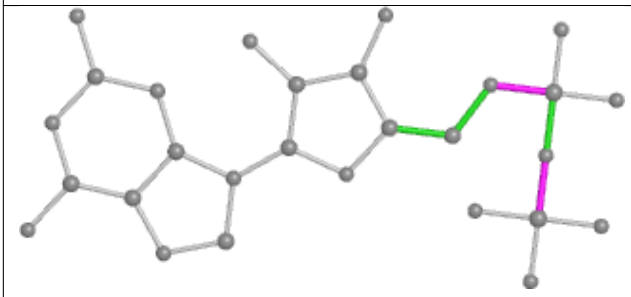

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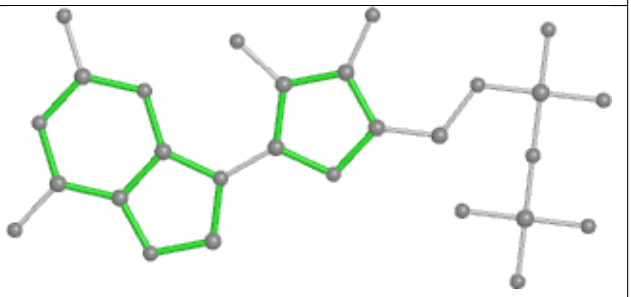
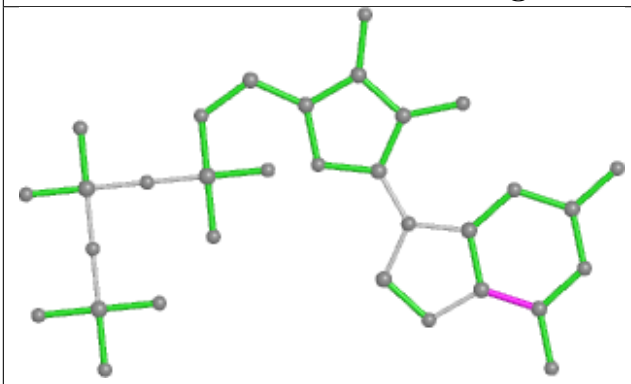


Rings

Ligand GTP 0M 501



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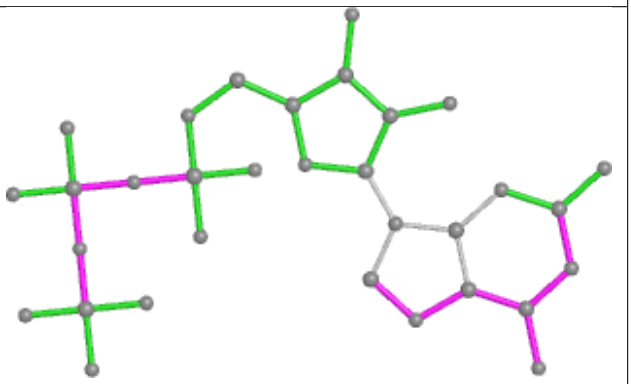

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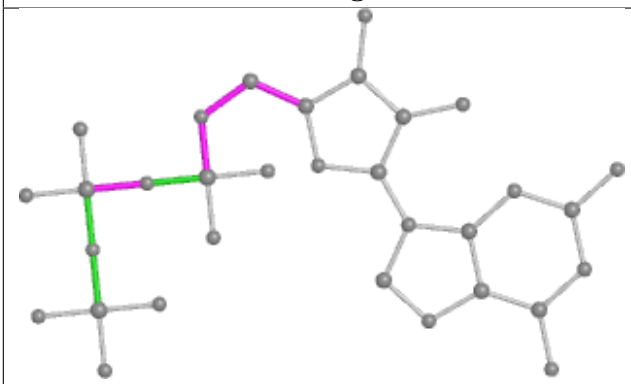

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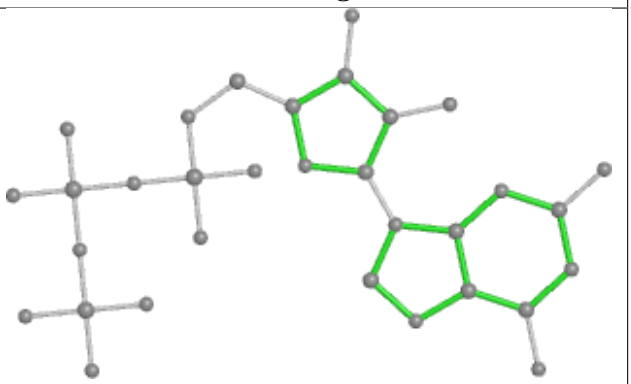
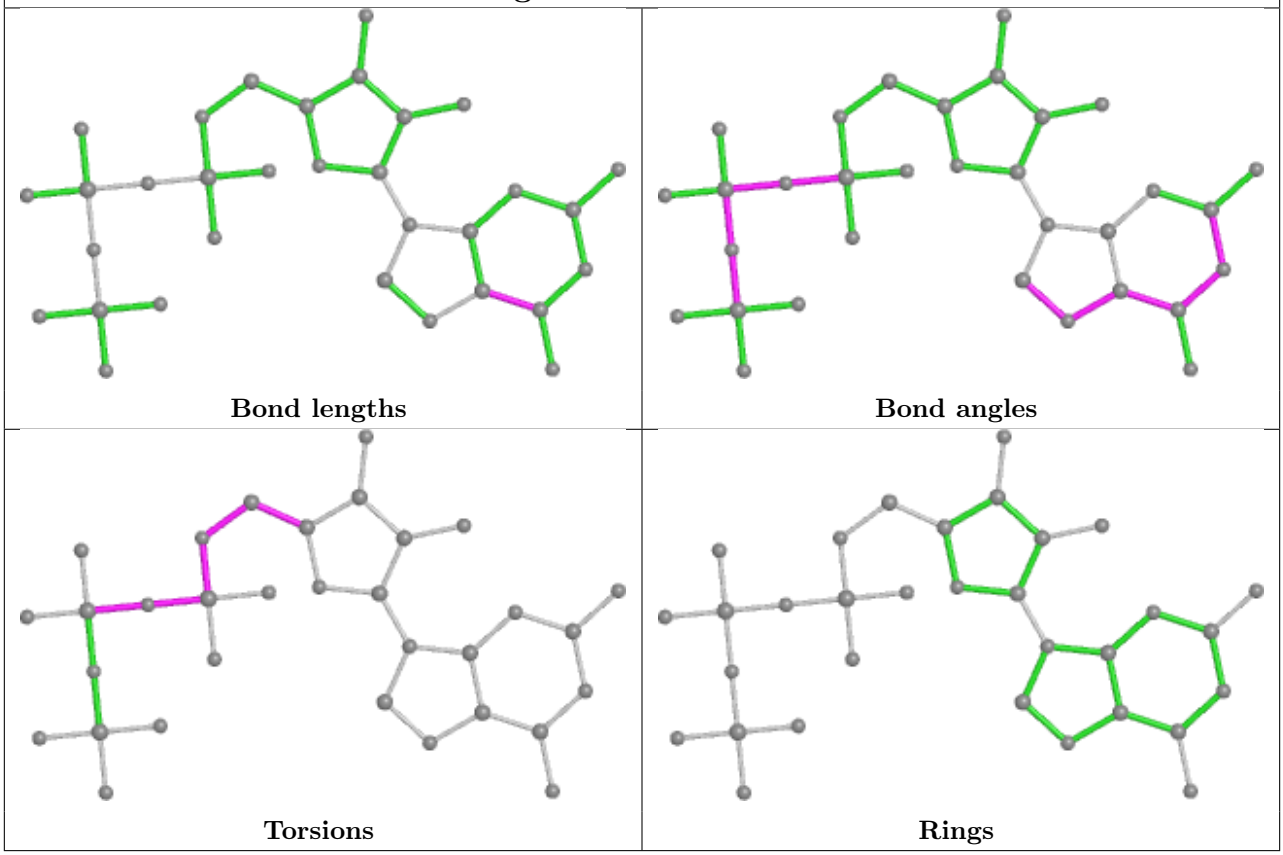
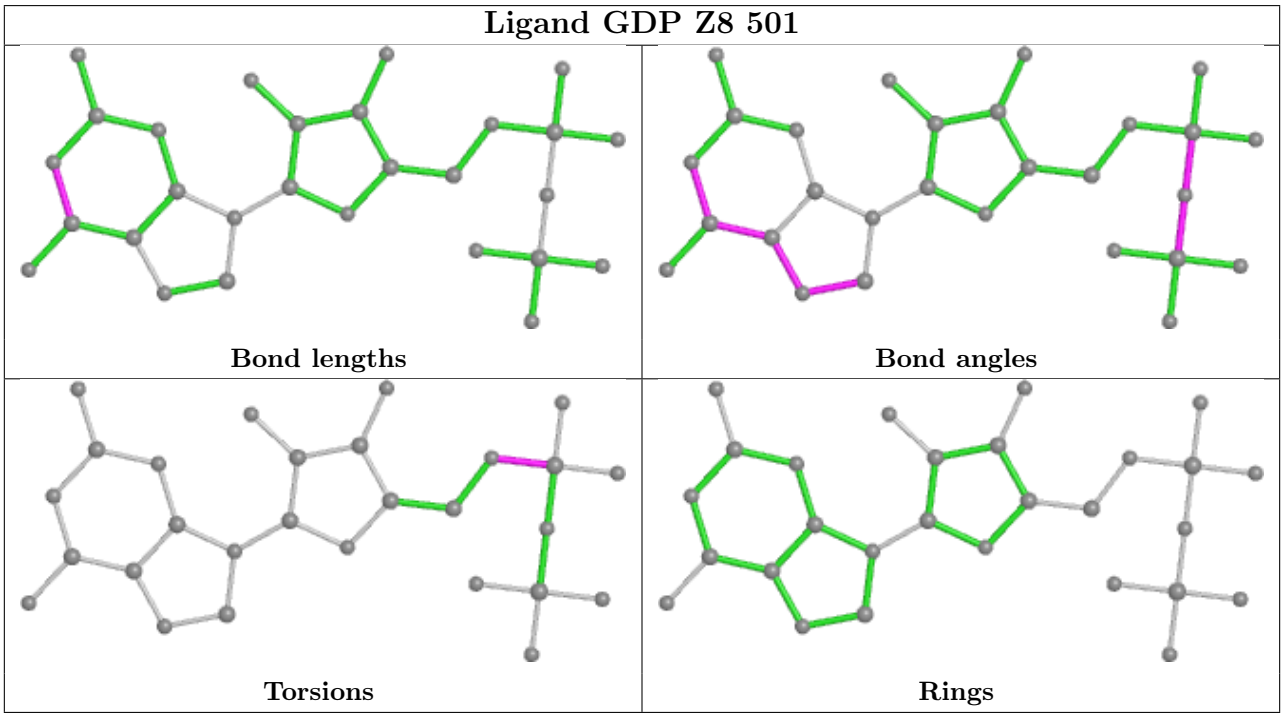


Rings

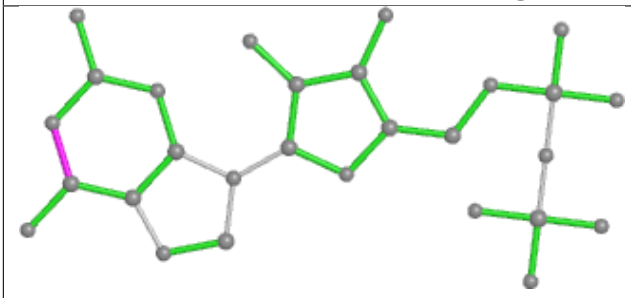
Ligand GTP X7 501



Ligand GDP Z8 501



Ligand GDP A5 501



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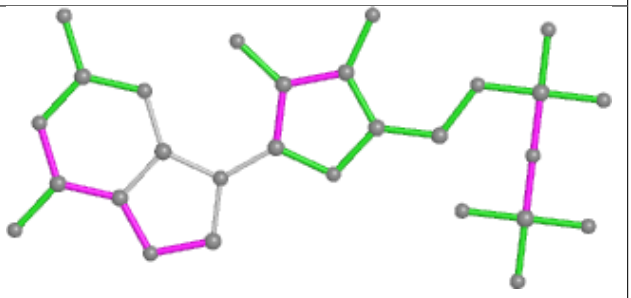

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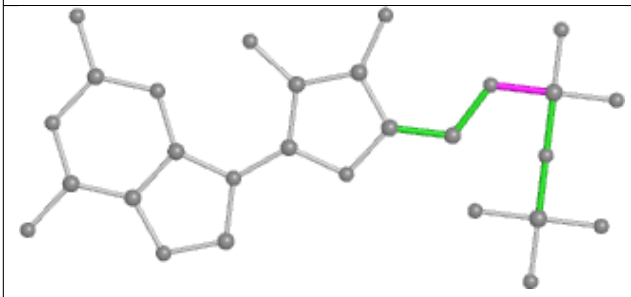

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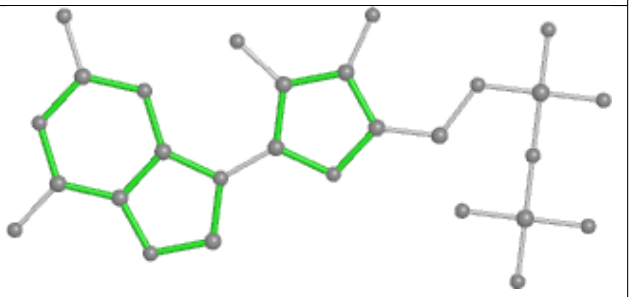
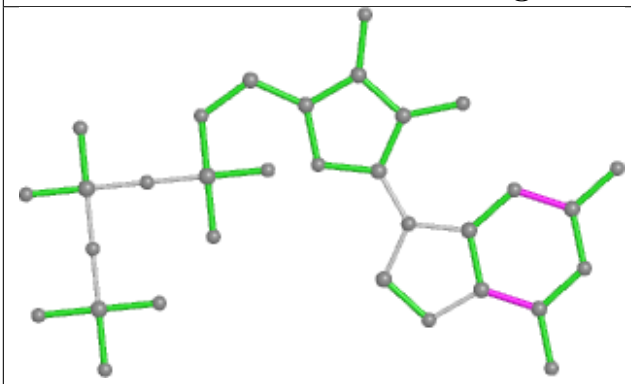


Rings

Ligand GTP X0 501



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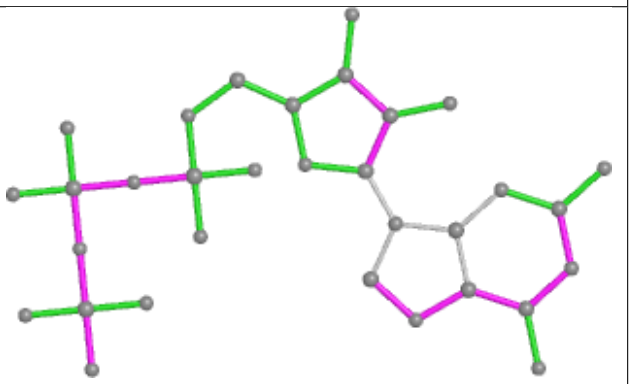
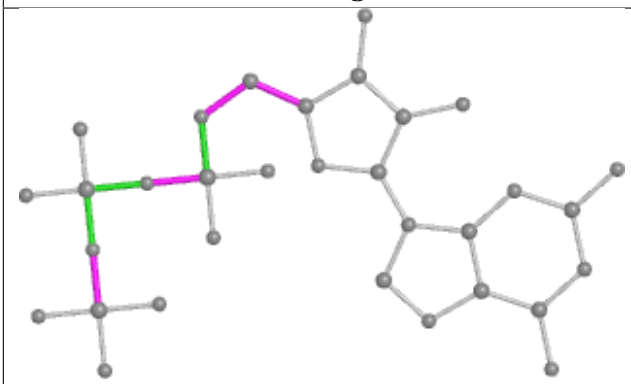


Bond angles



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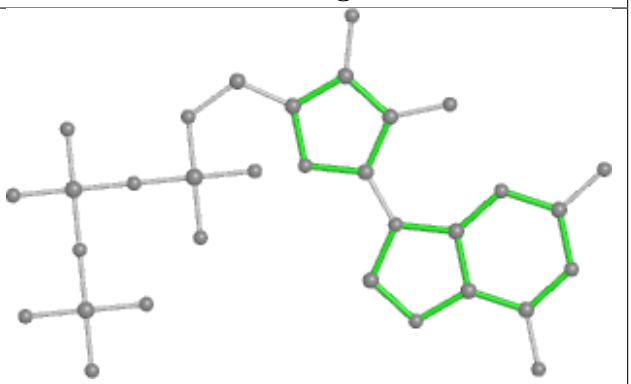

Rings

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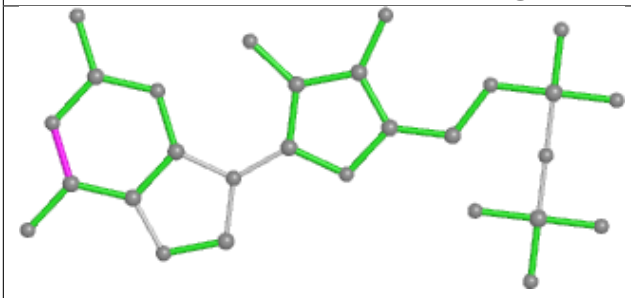

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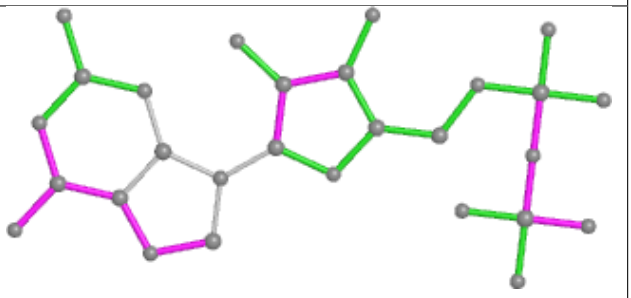
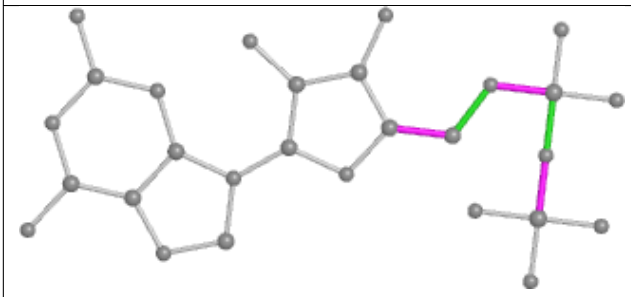


Bond angles



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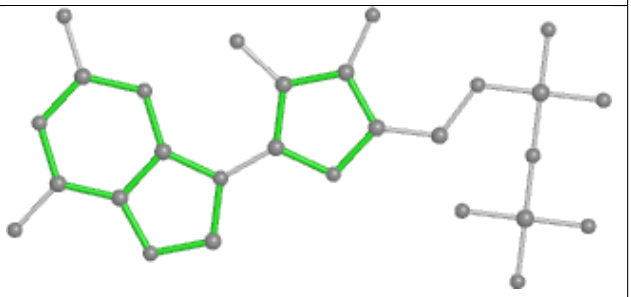
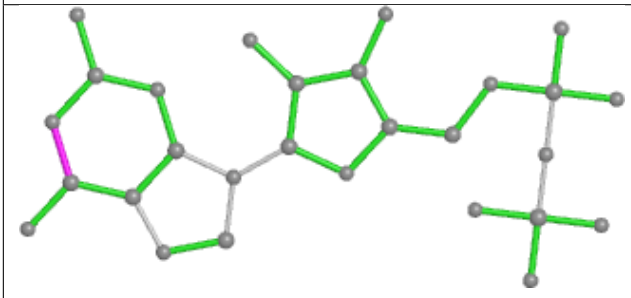


Rings

Ligand GDP 2Q 502



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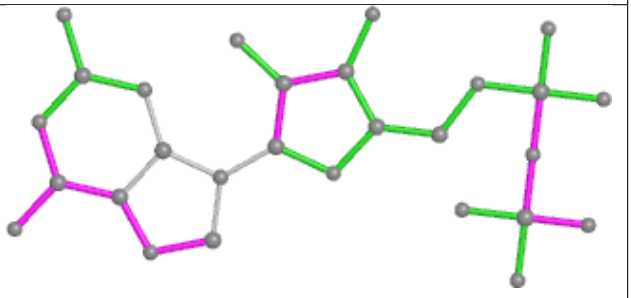

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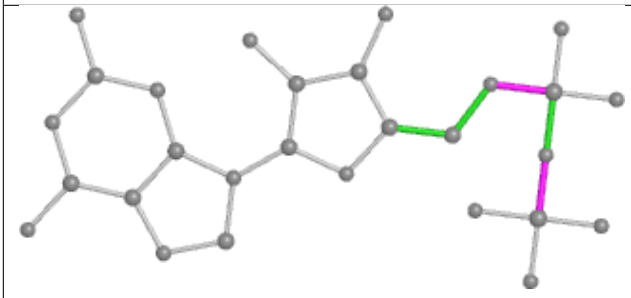

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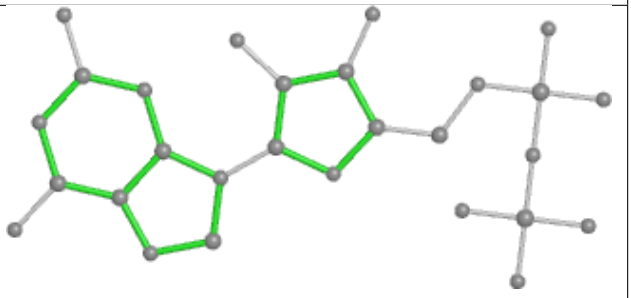
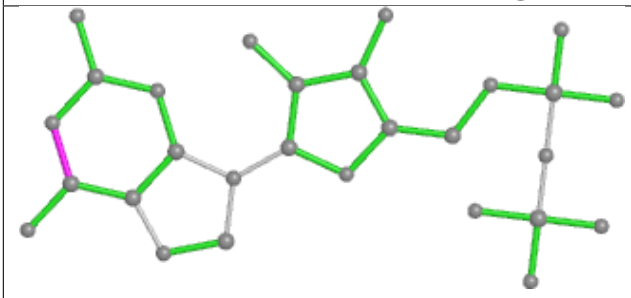
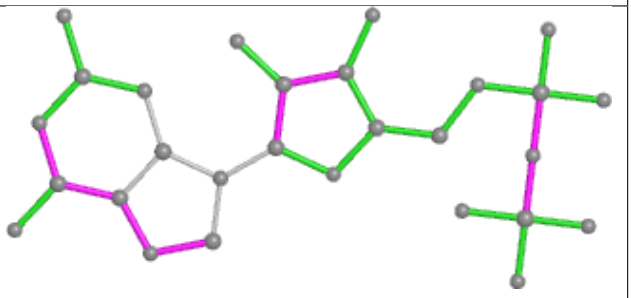
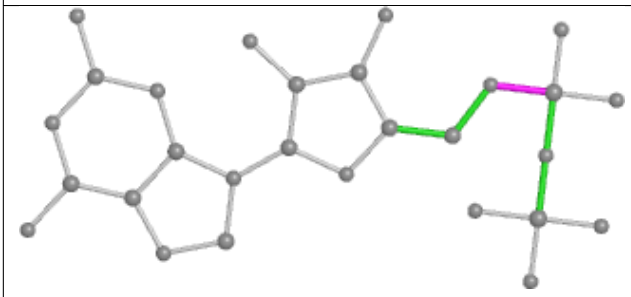
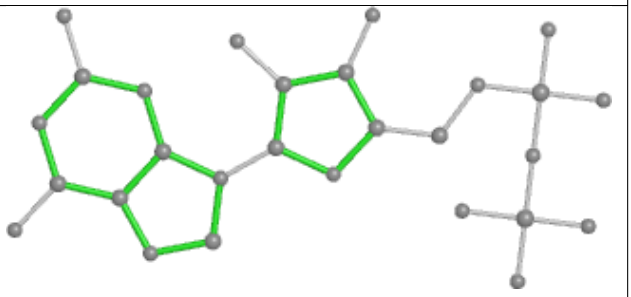


Rings

Ligand GDP A9 502	
 Bond lengths	 Bond angles
 Torsions	 Rings

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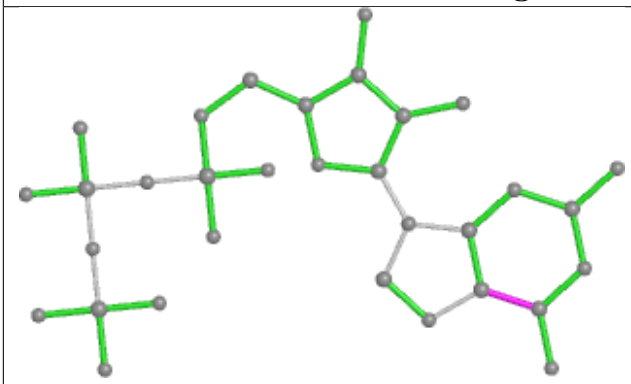
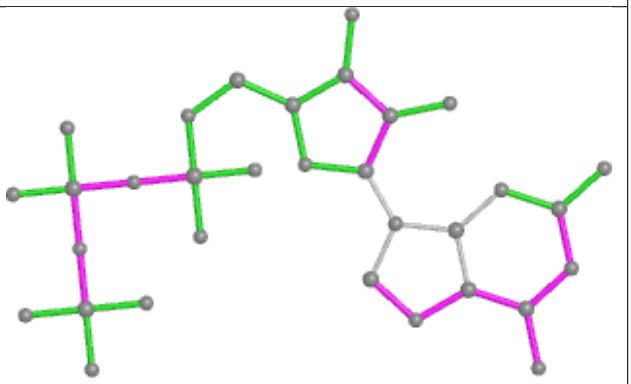
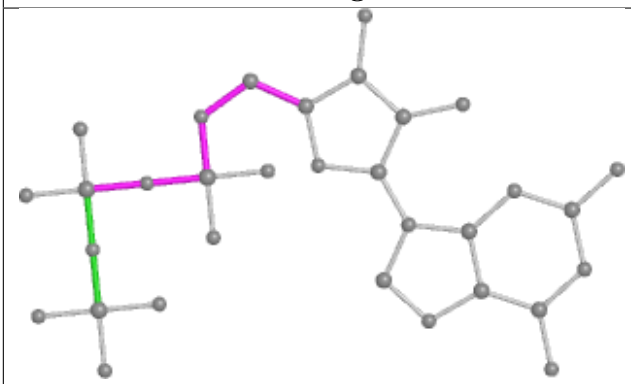
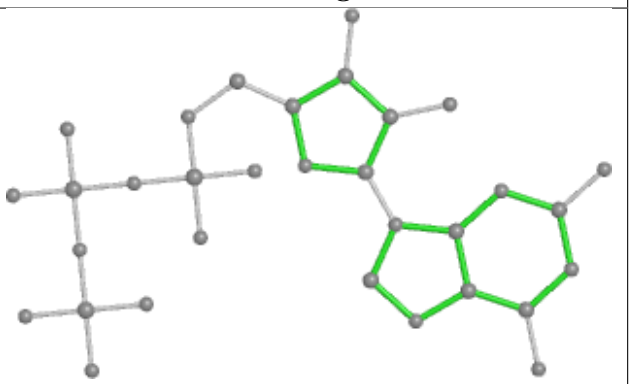
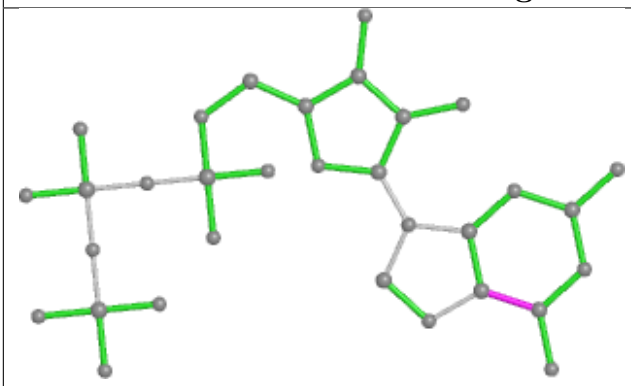
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GTP 0F 501



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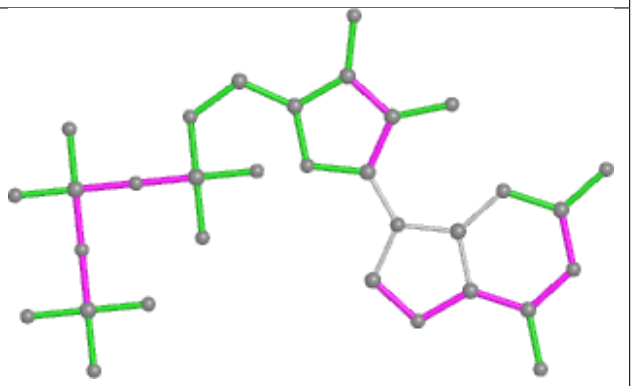

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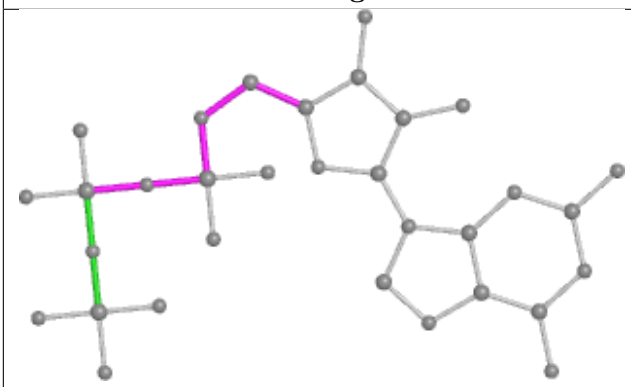

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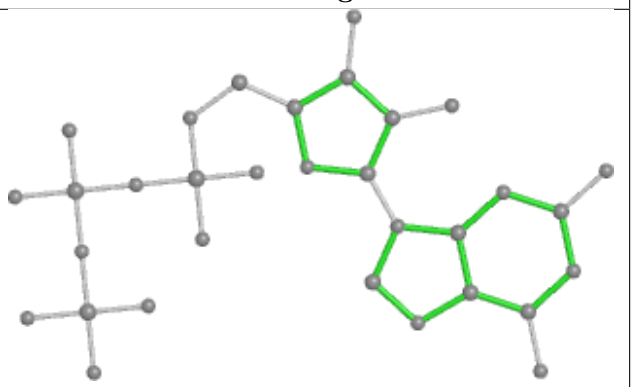
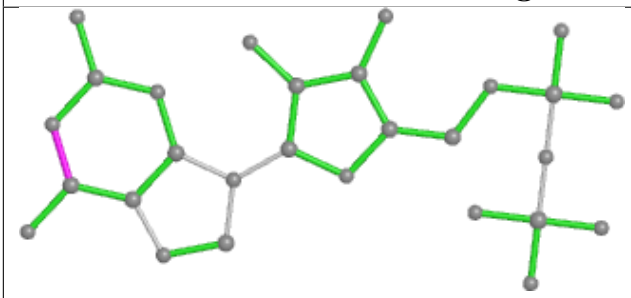


Rings

Ligand GDP S2 502



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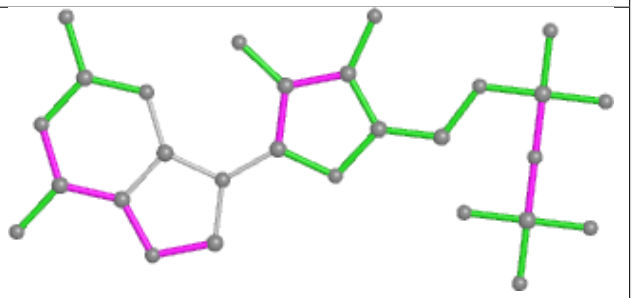

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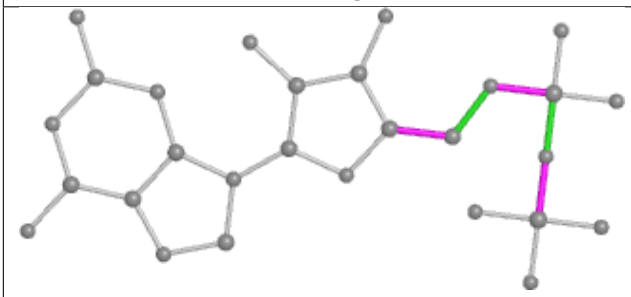

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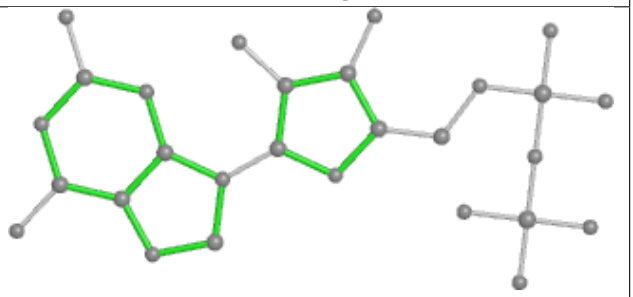

Rings

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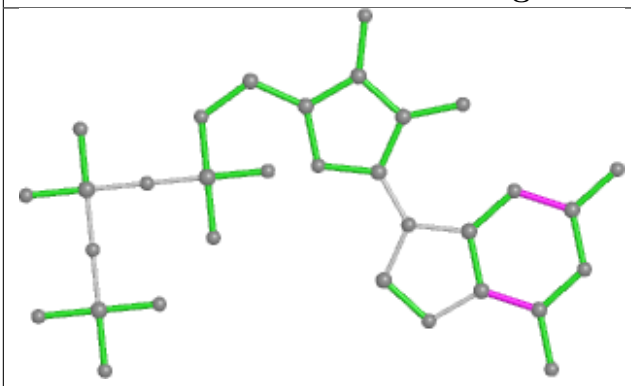

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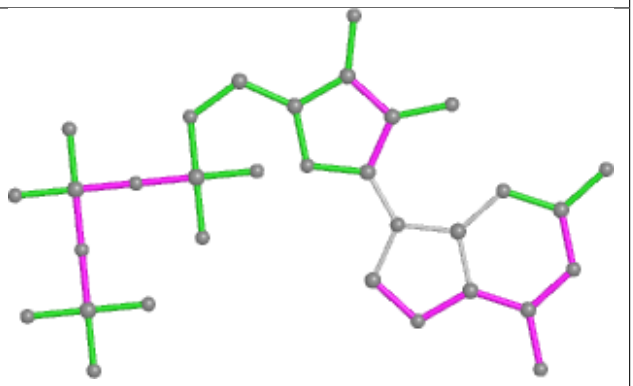

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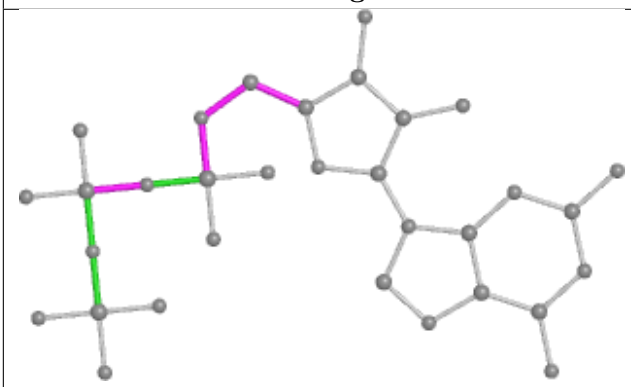

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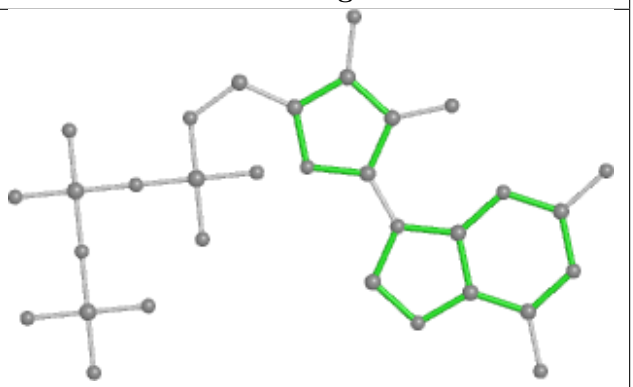

Rings

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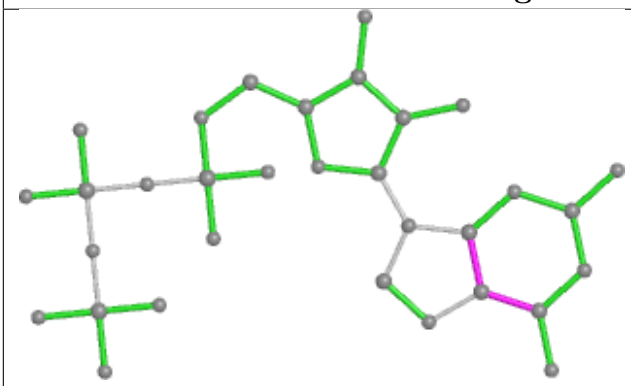

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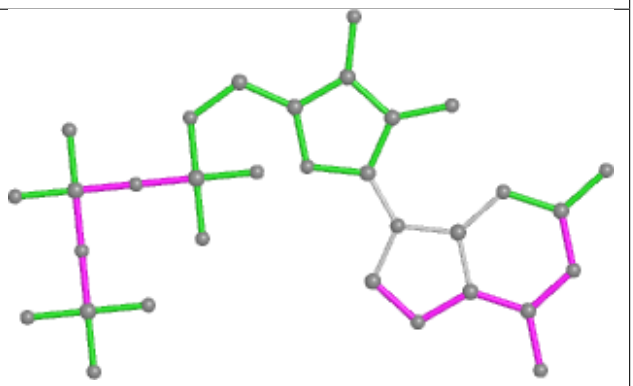

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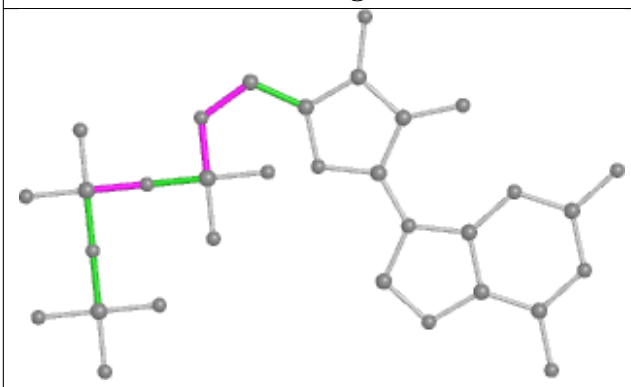

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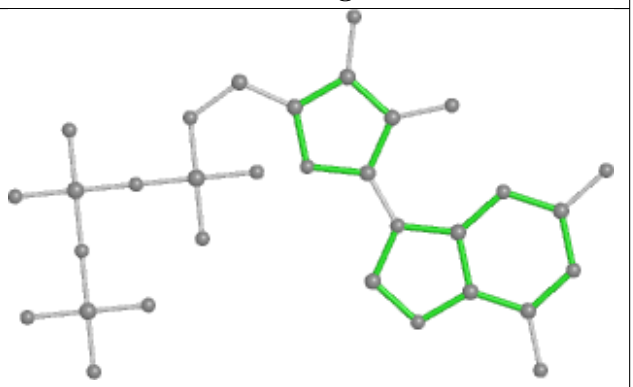
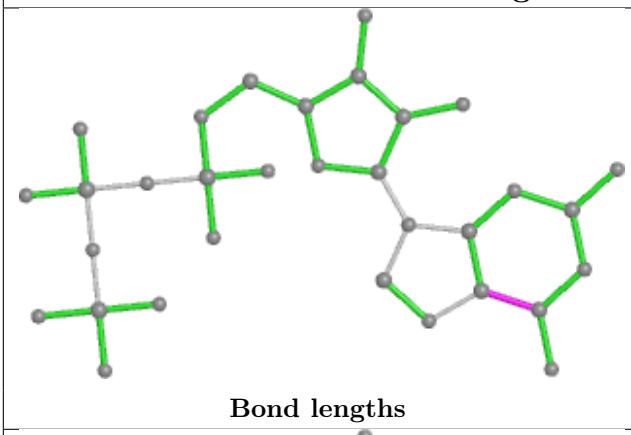


Rings

Ligand GTP 3K 501



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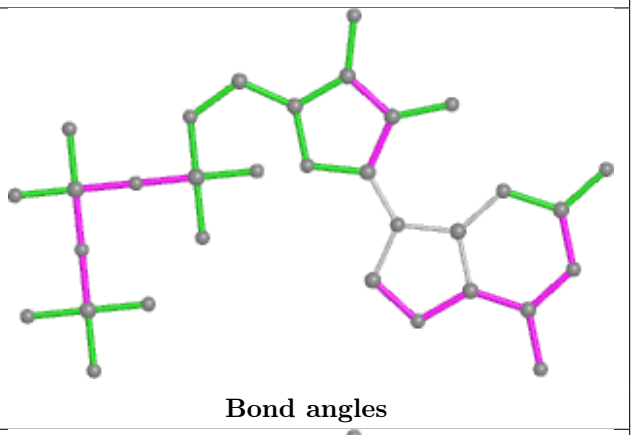

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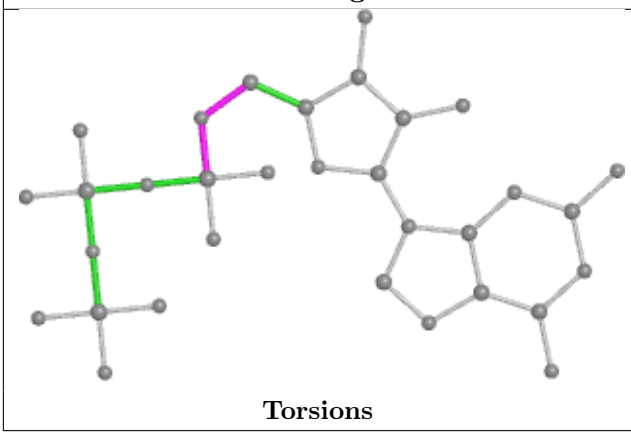

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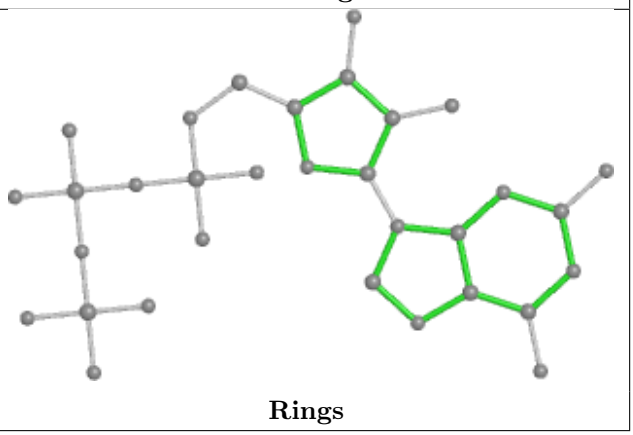
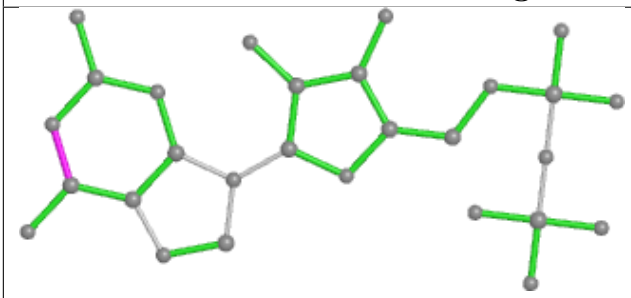


Rings

Ligand GDP B8 501



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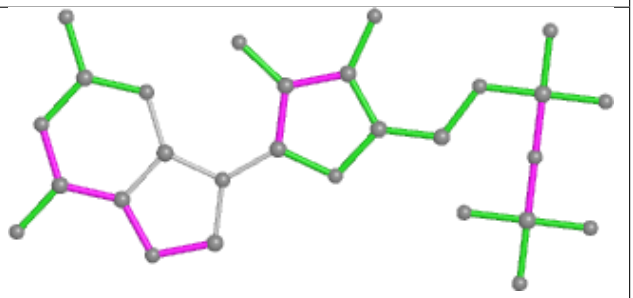

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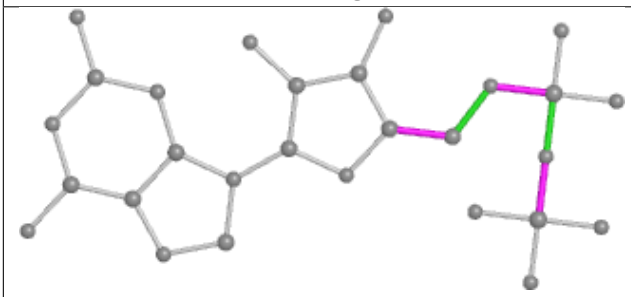

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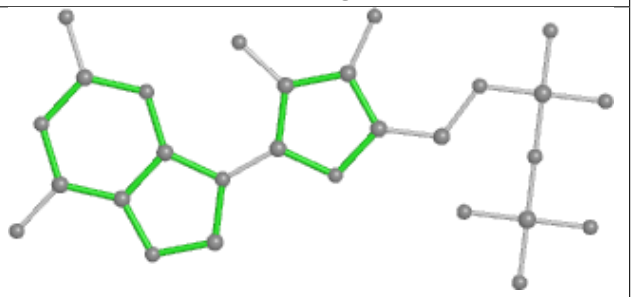
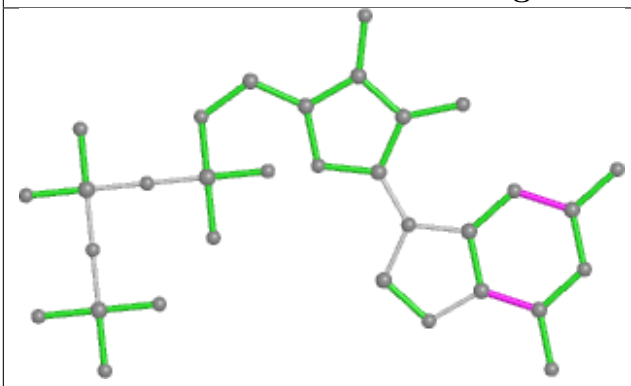


Rings

Ligand GTP 0V 501



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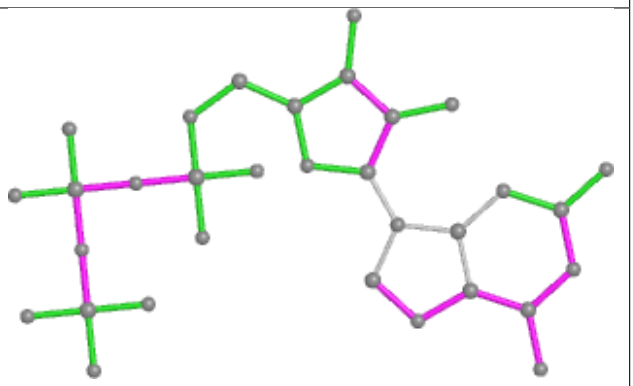

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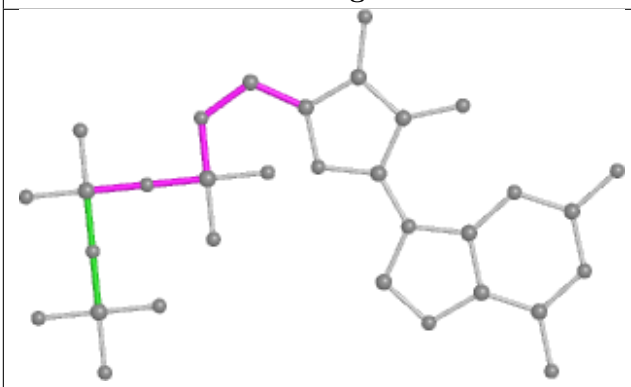

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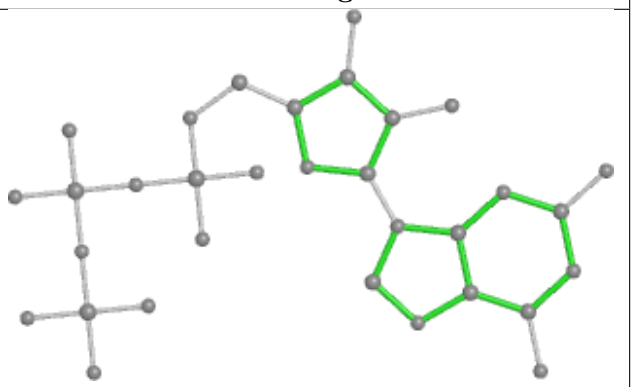

Rings

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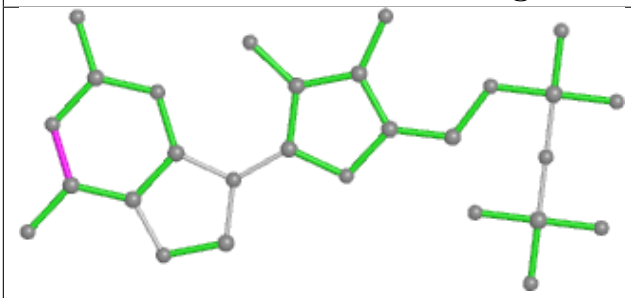

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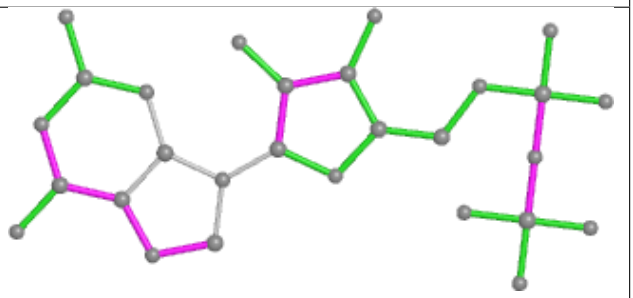

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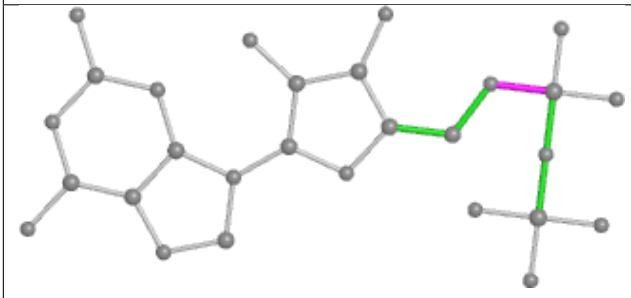

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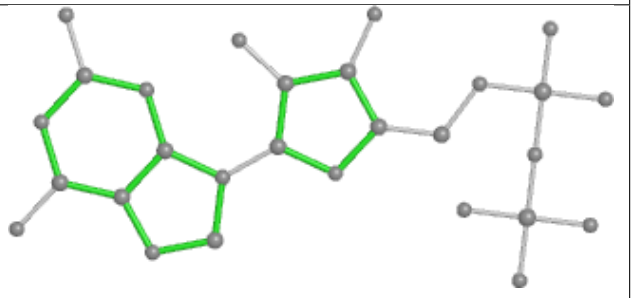
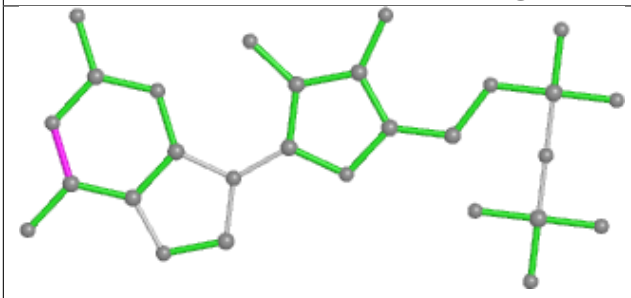


Rings

Ligand GDP 1A 503



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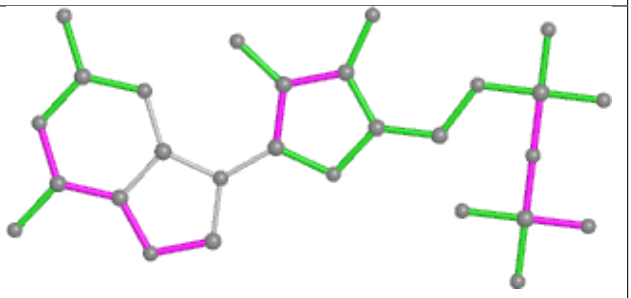

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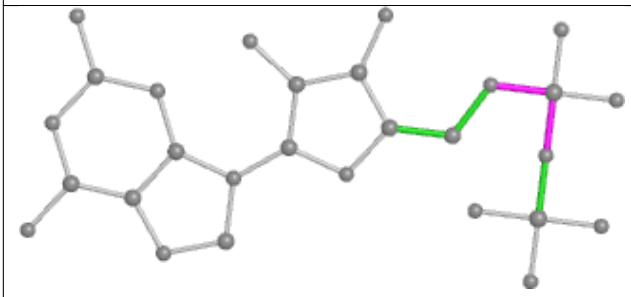

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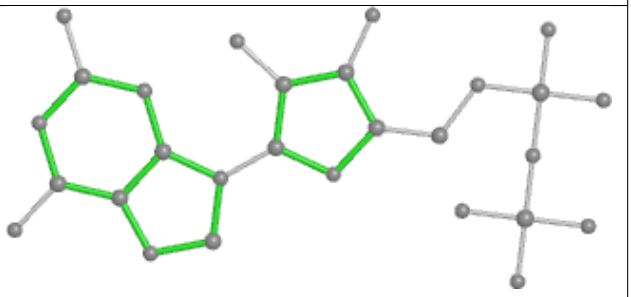
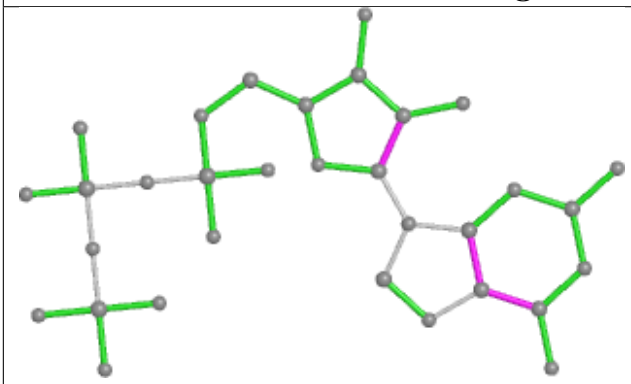


Rings

Ligand GTP P6 501



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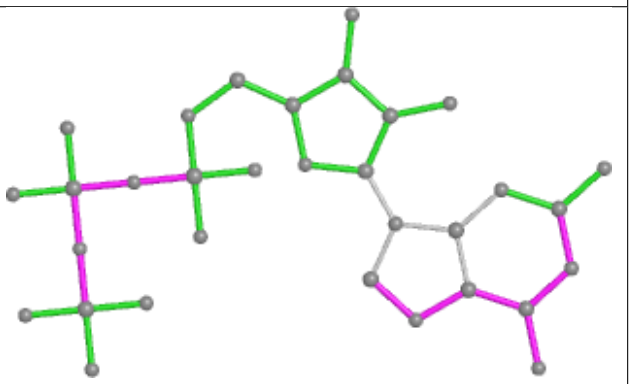

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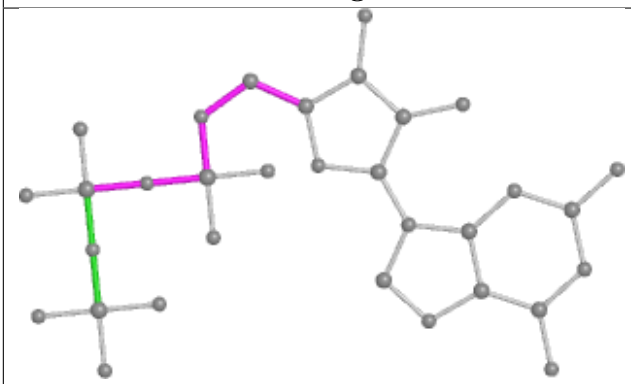

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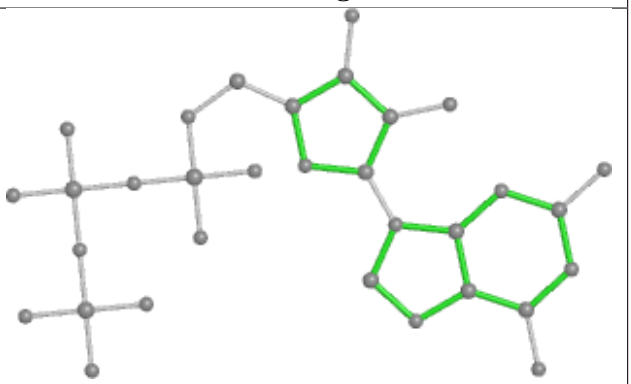
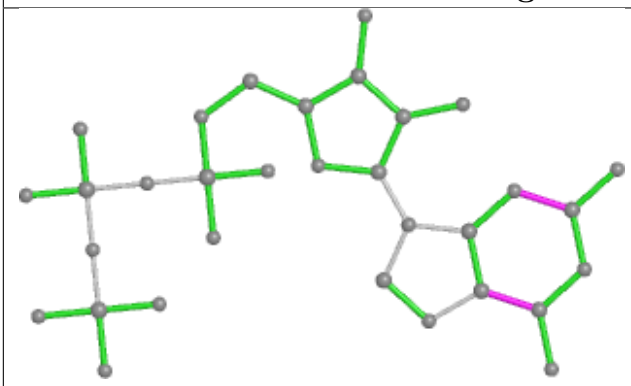


Rings

Ligand GTP J6 501



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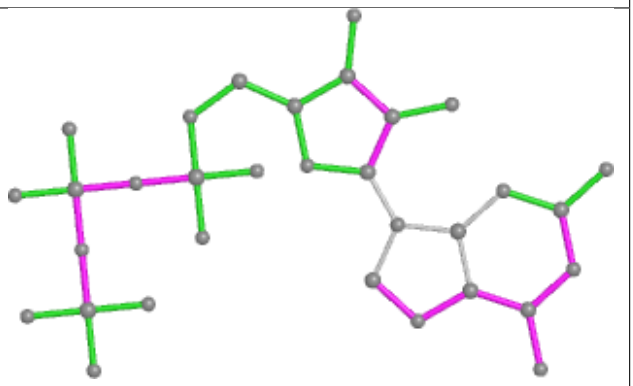

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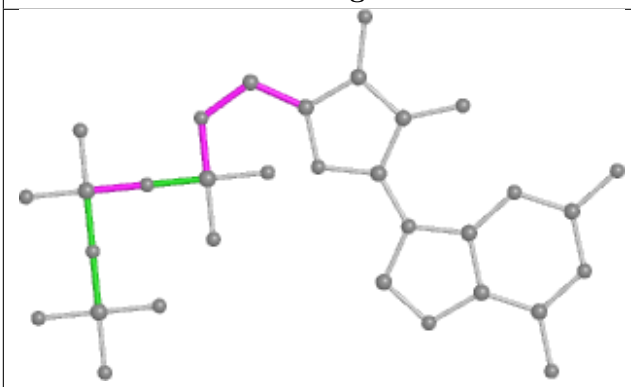

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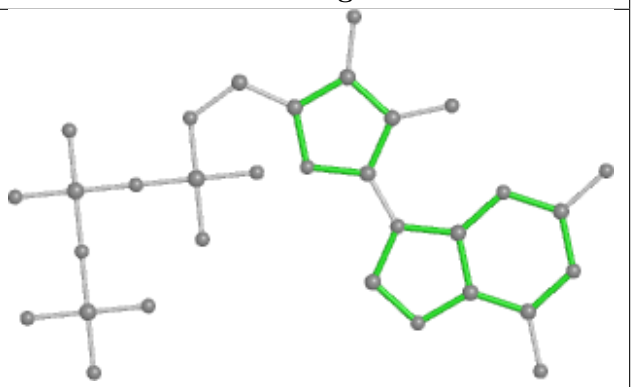
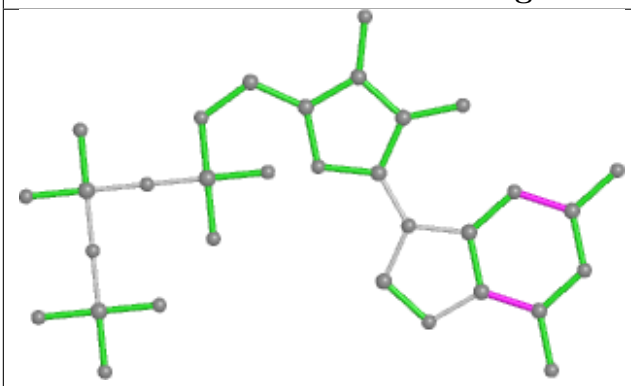


Rings

Ligand GTP 2E 501



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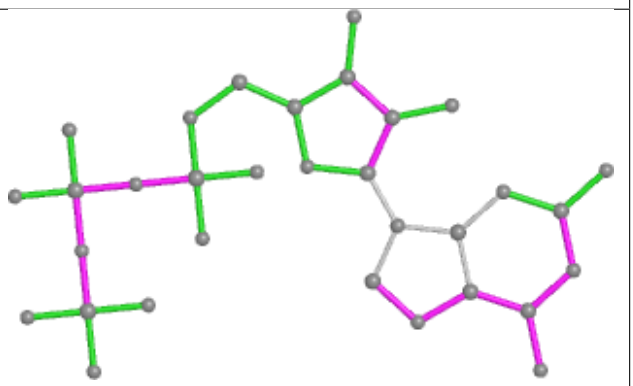
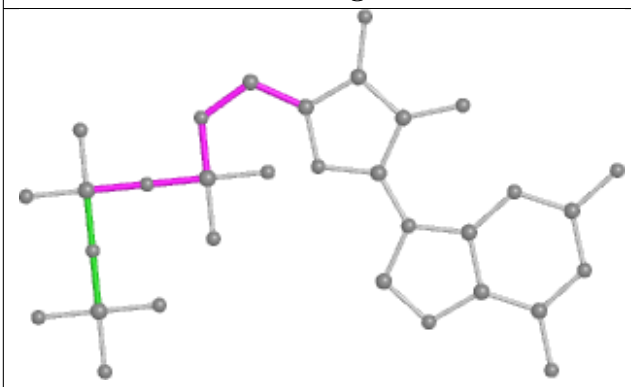


Bond angles



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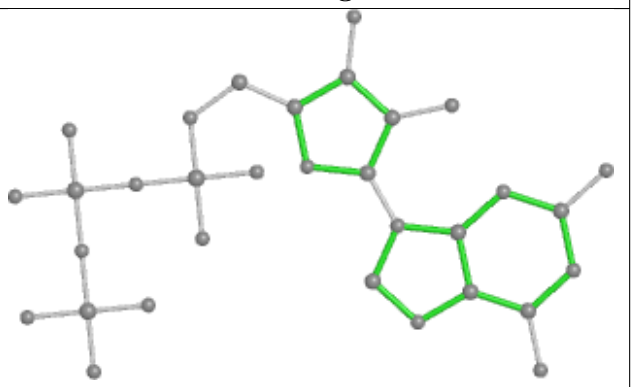

Rings

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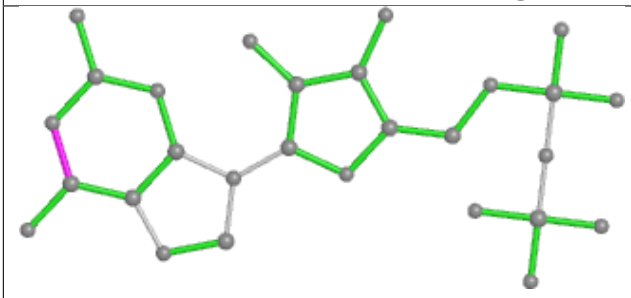
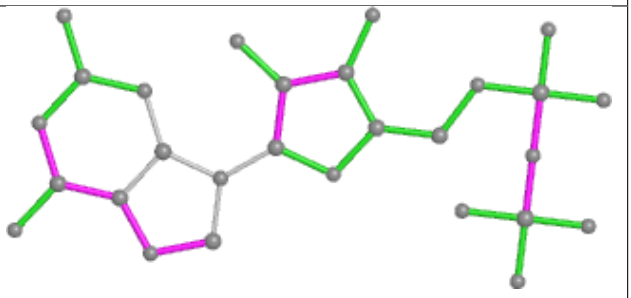
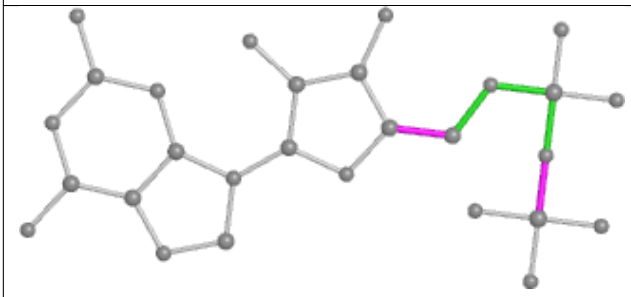
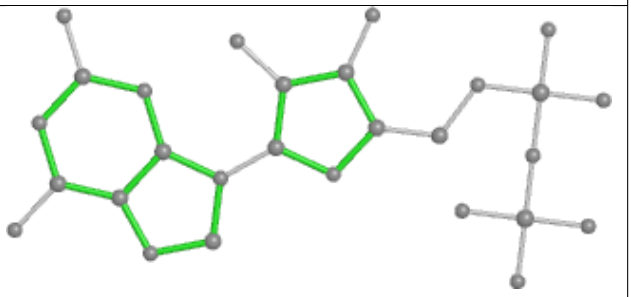
 Bond lengths	 Bond angles
 Torsions	 Rings

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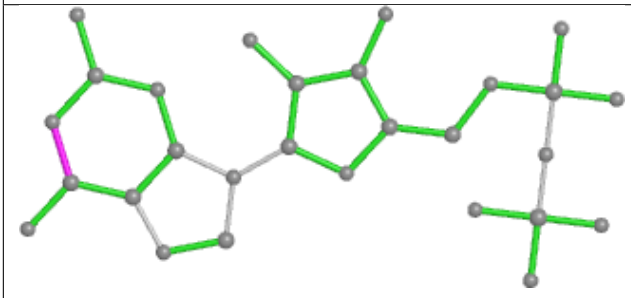
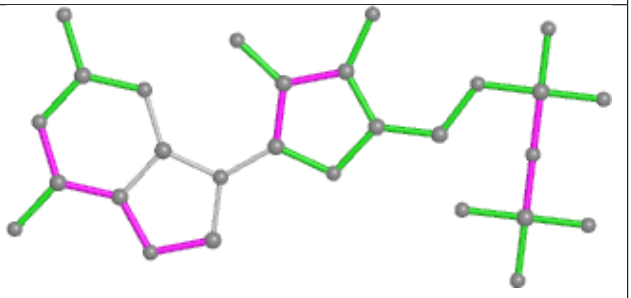
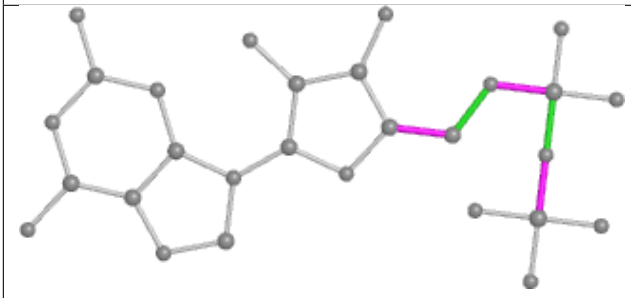
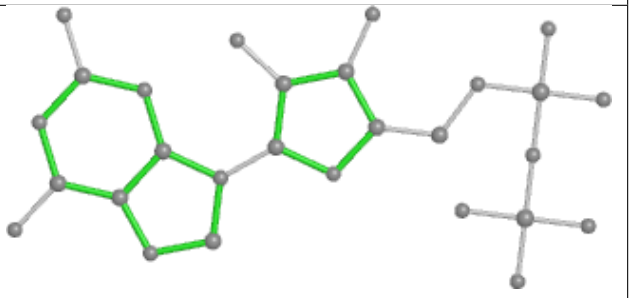
 Bond lengths	 Bond angles
 Torsions	 Rings

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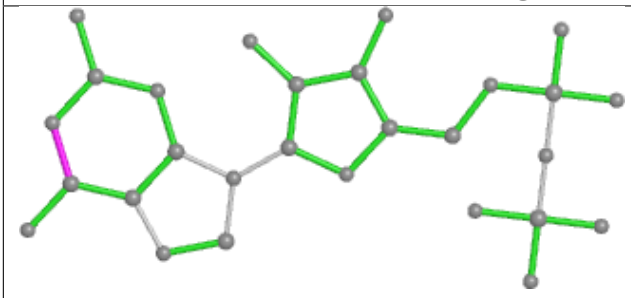
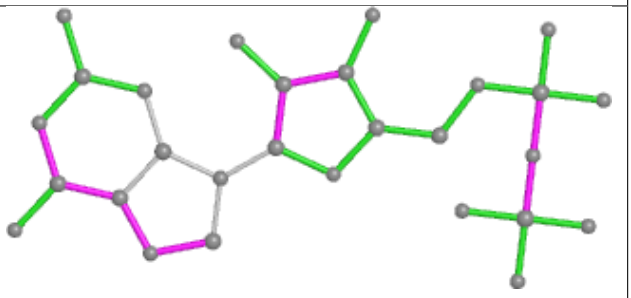
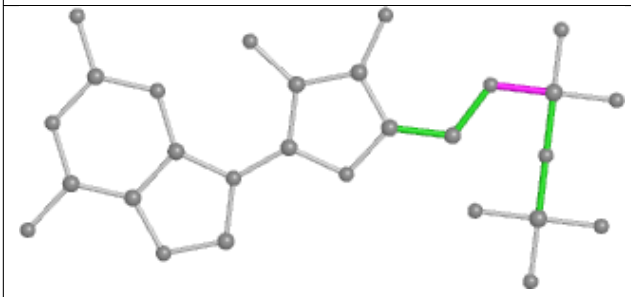
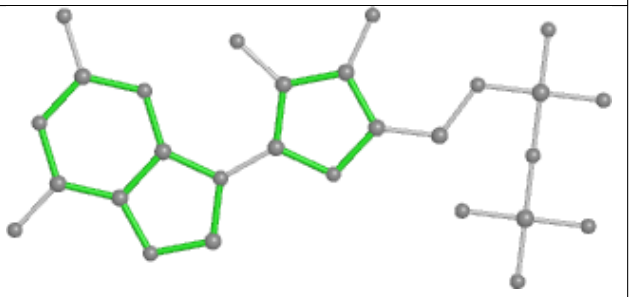
 Bond lengths	 Bond angles
 Torsions	 Rings

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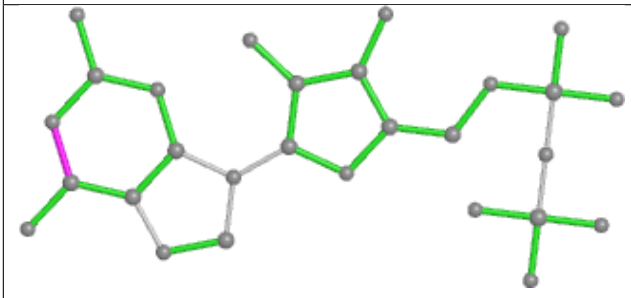
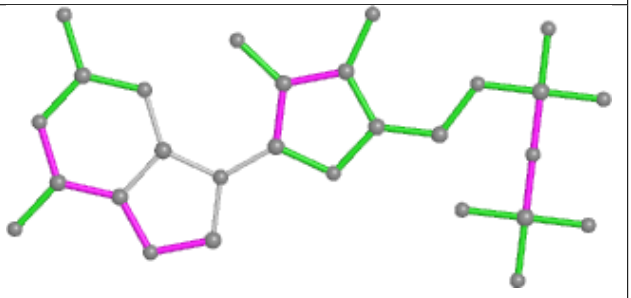
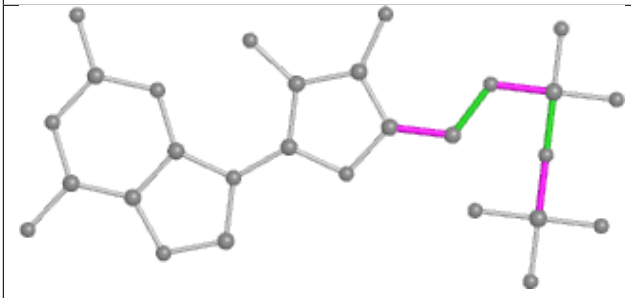
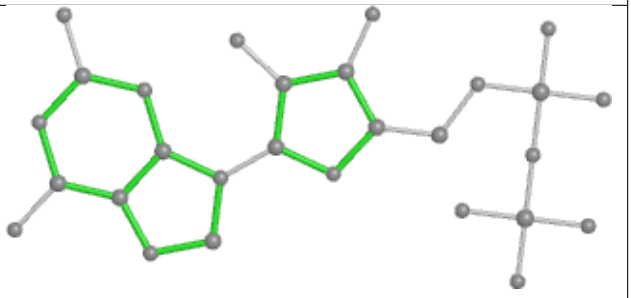
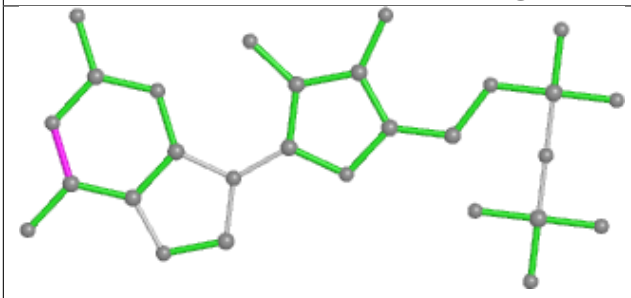
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GDP X6 502



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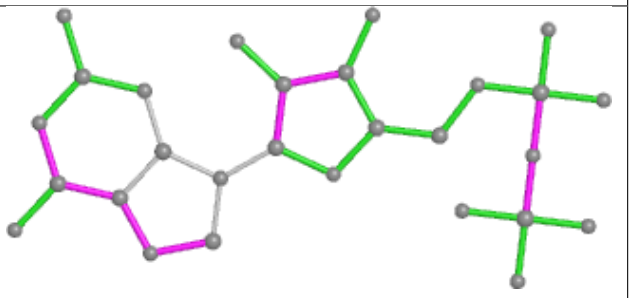

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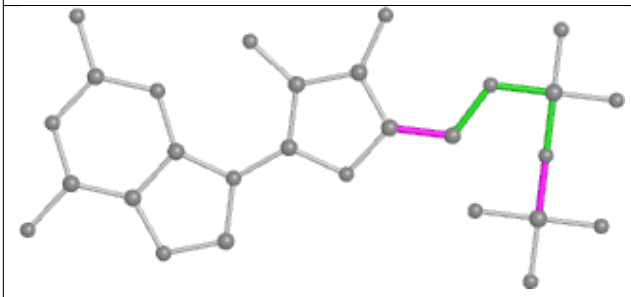

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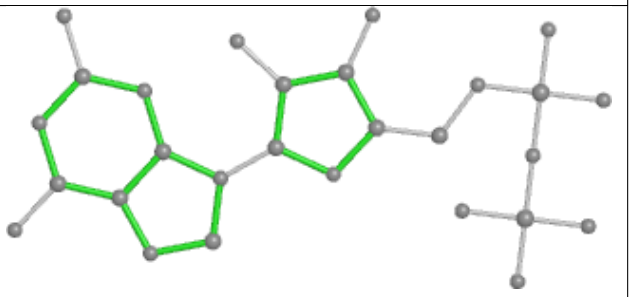
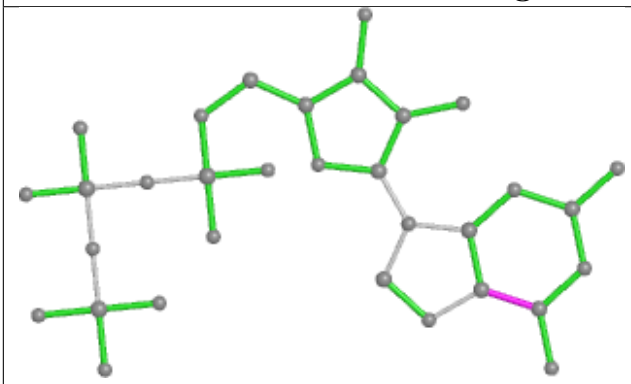


Rings

Ligand GTP B2 501



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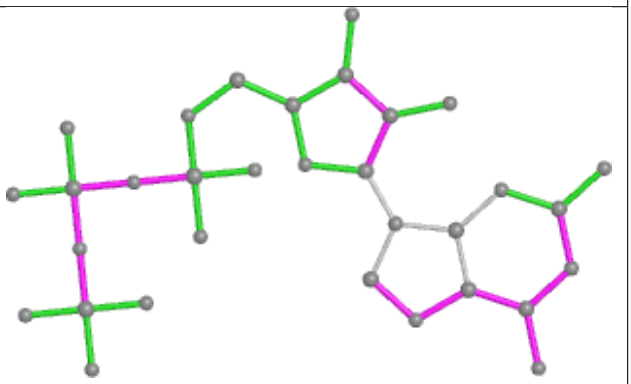

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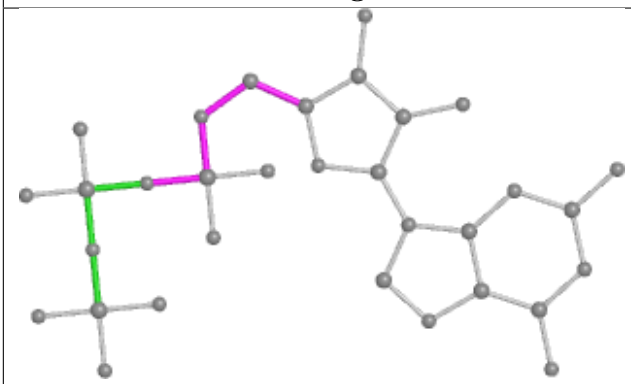

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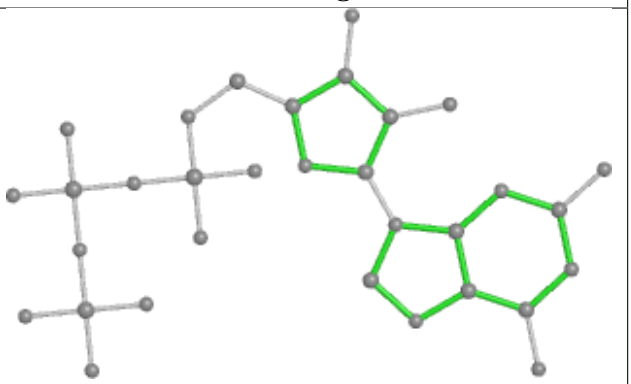

Rings

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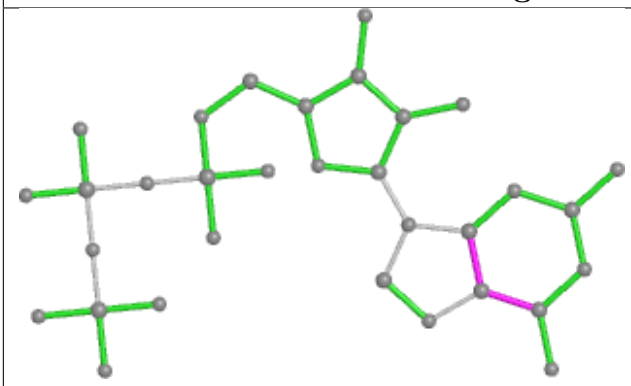

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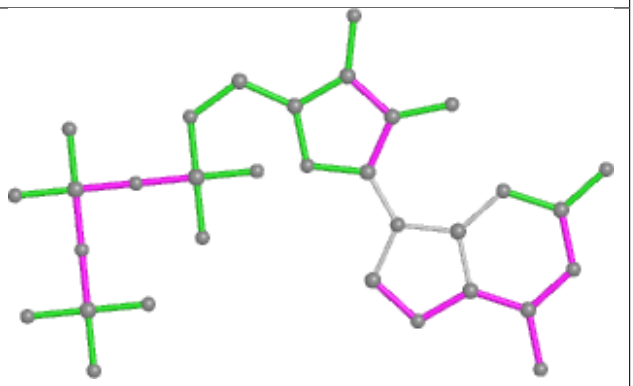

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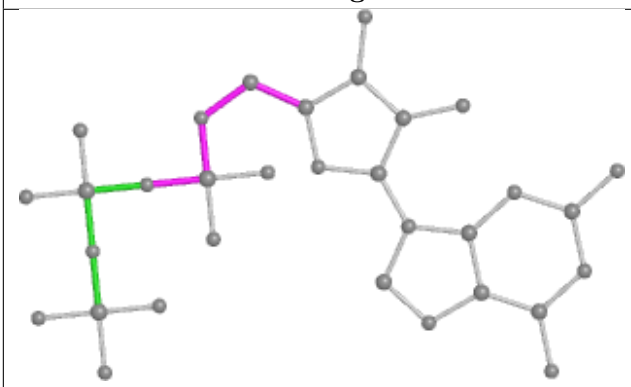

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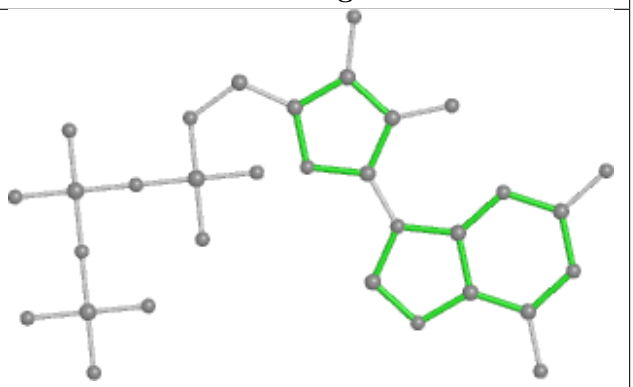
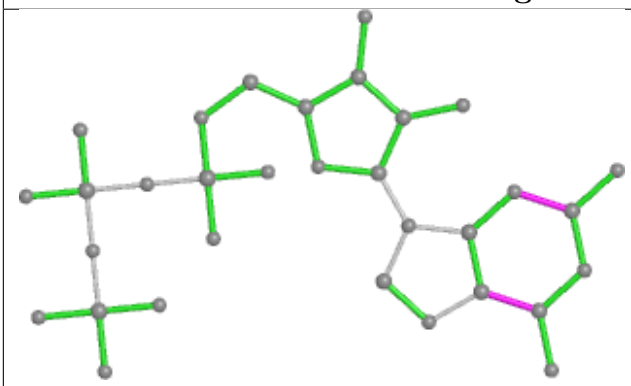


Rings

Ligand GTP 1T 501



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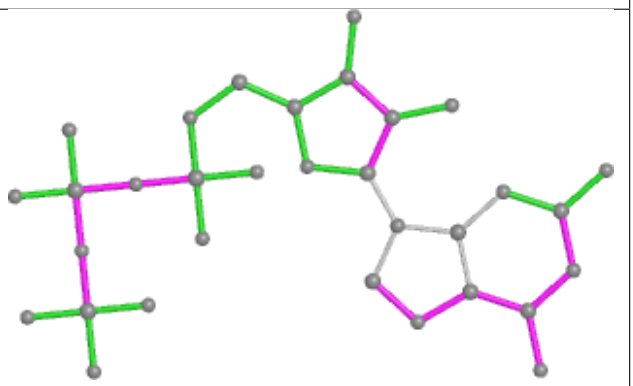

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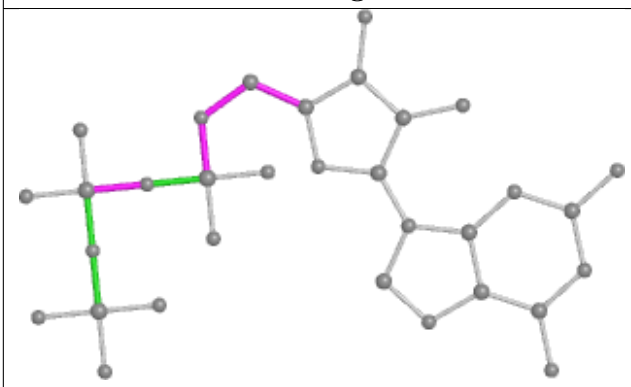

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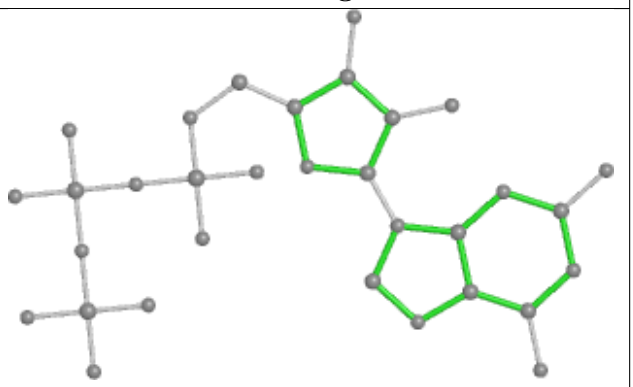
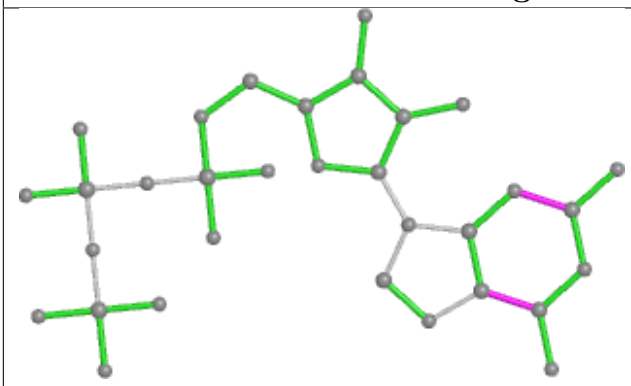


Rings

Ligand GTP 2A 501



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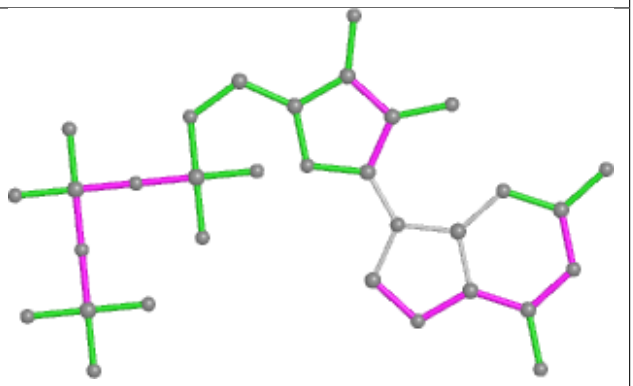

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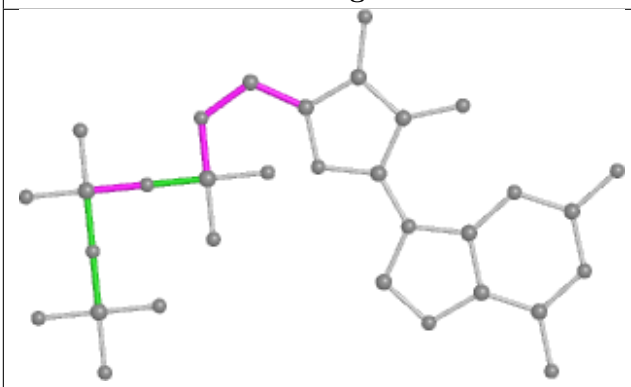

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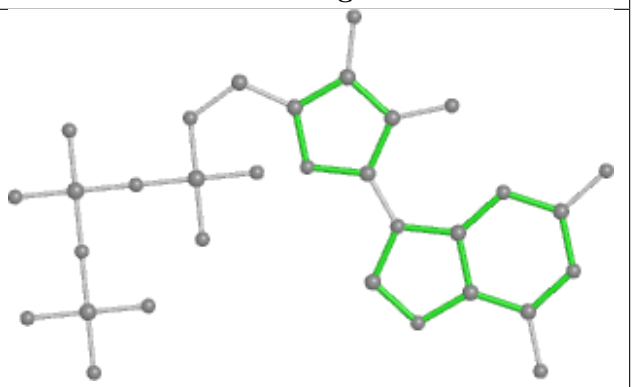
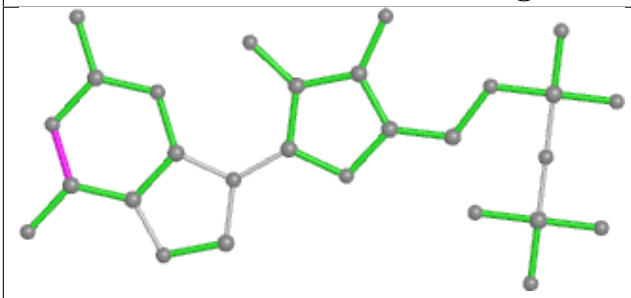


Rings

Ligand GDP 2S 502



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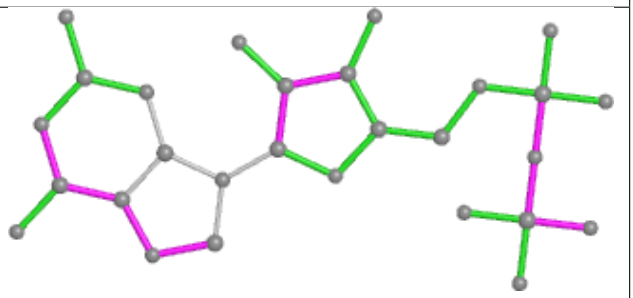

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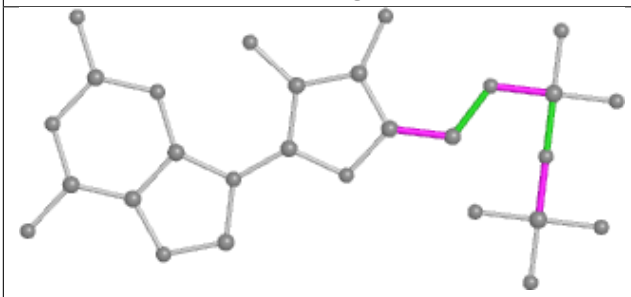

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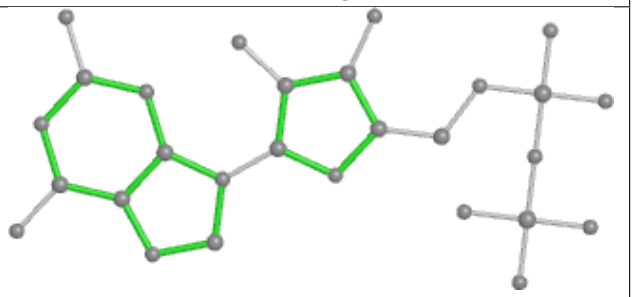
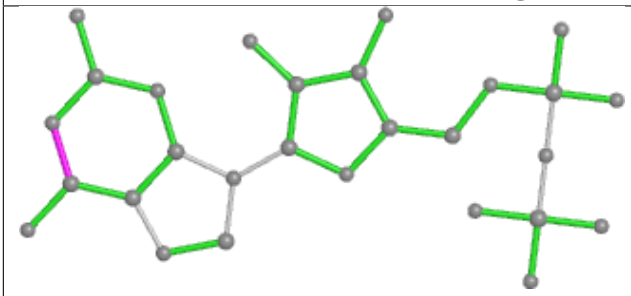


Rings

Ligand GDP 1O 501



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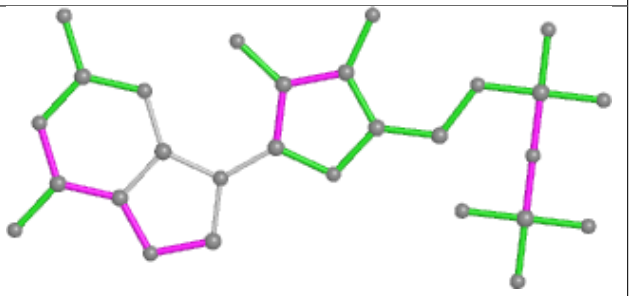

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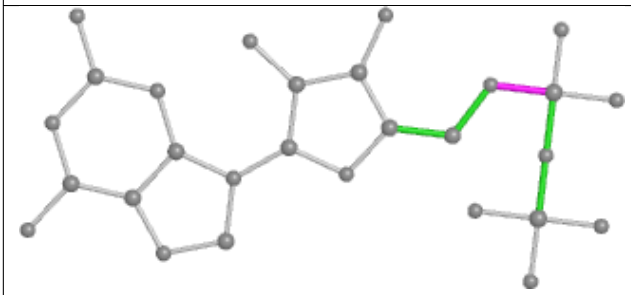

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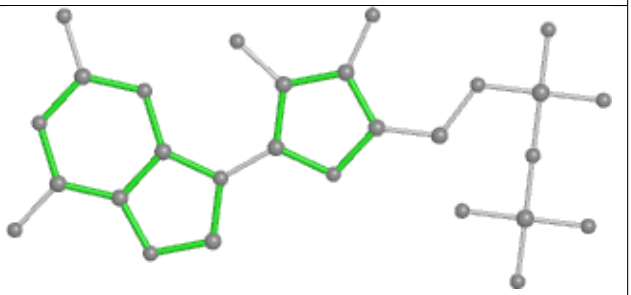
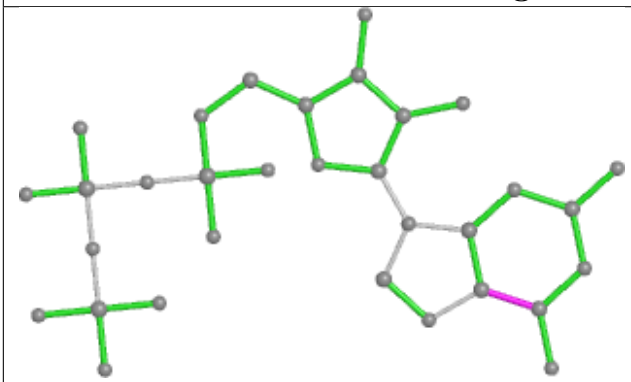


Rings

Ligand GTP K0 501



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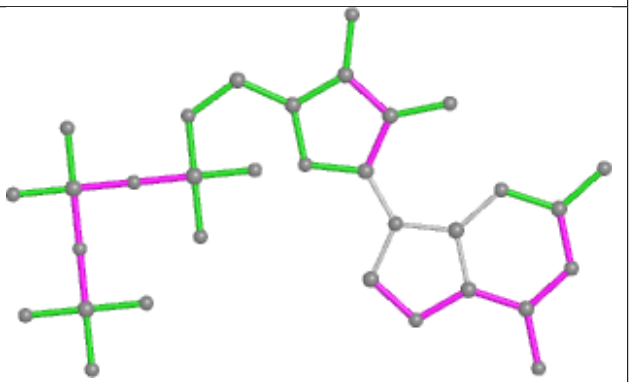

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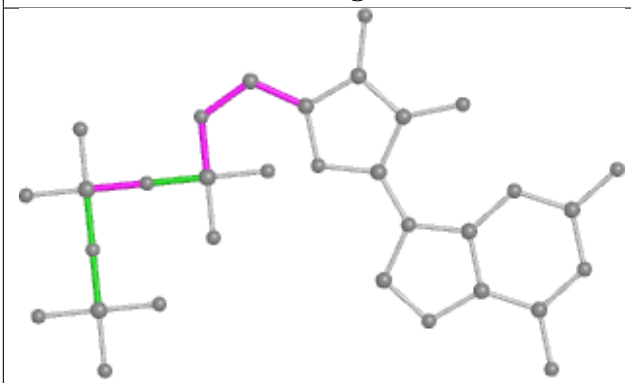

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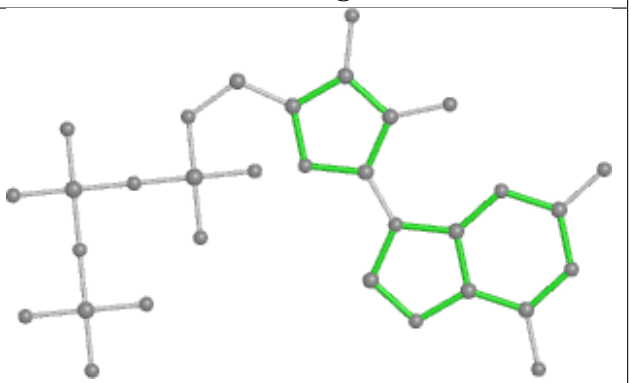
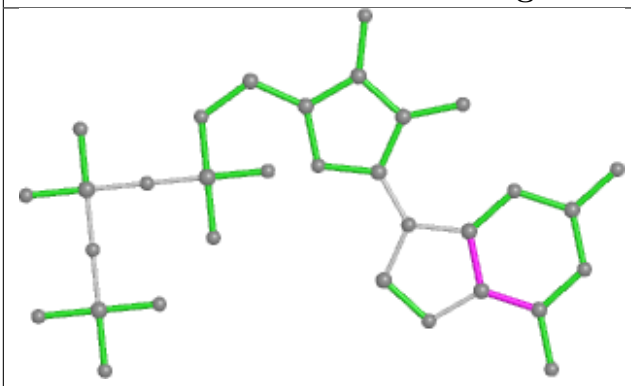


Rings

Ligand GTP 3S 501



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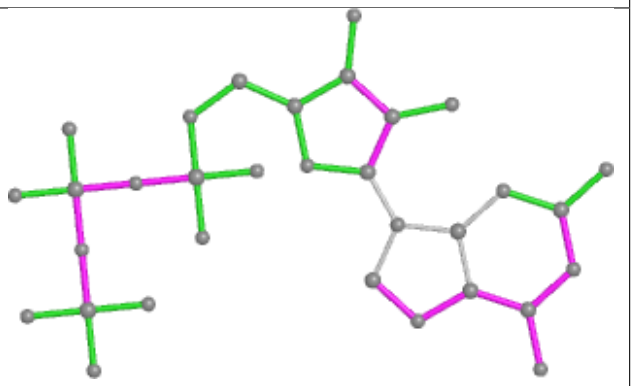

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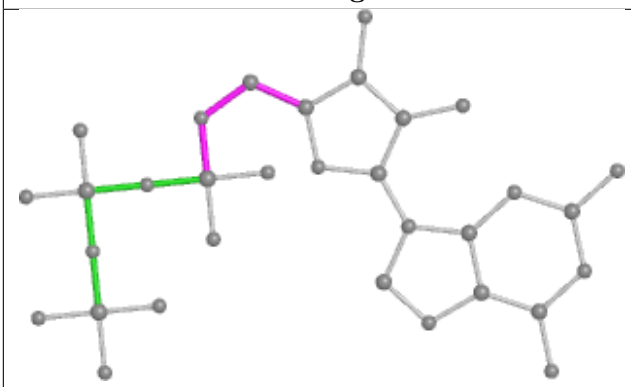

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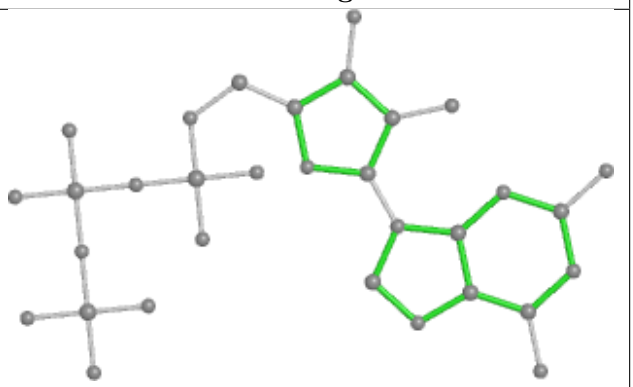
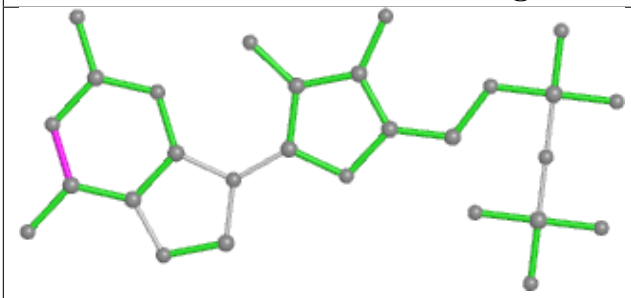


Rings

Ligand GDP R4 502



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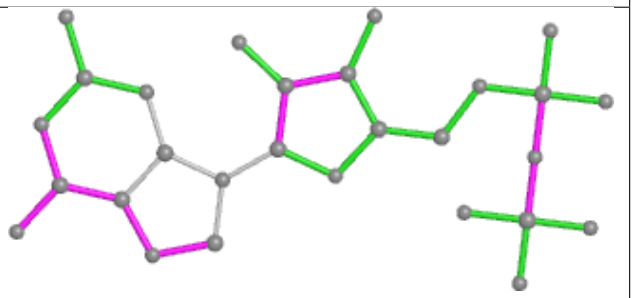

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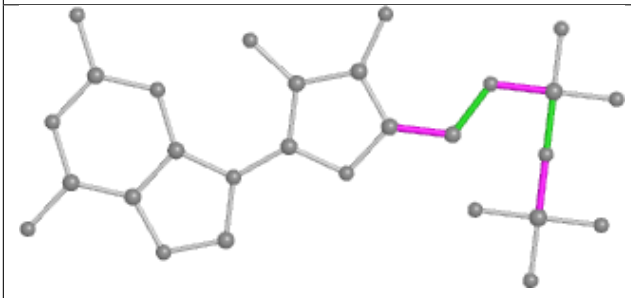

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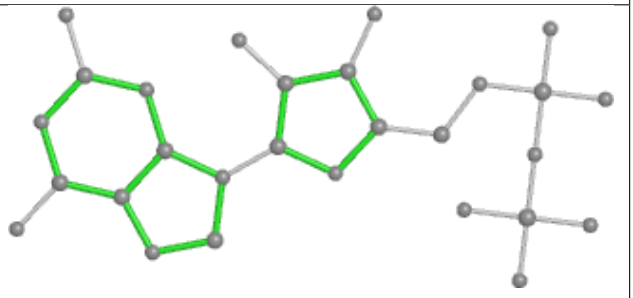
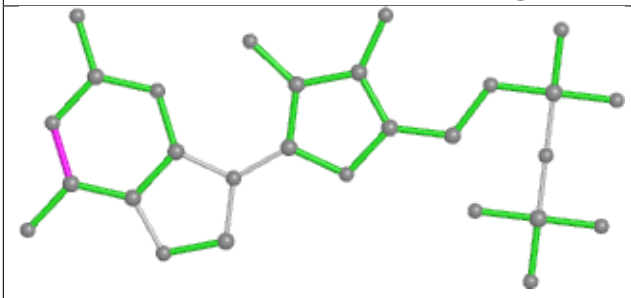


Rings

Ligand GDP V0 501



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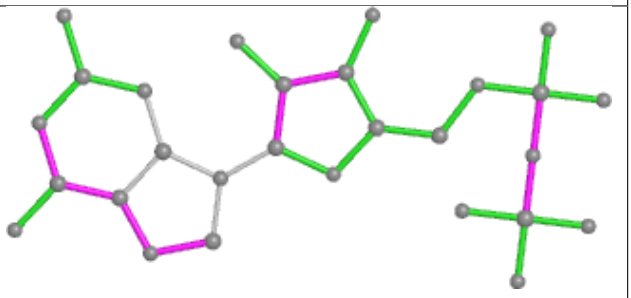

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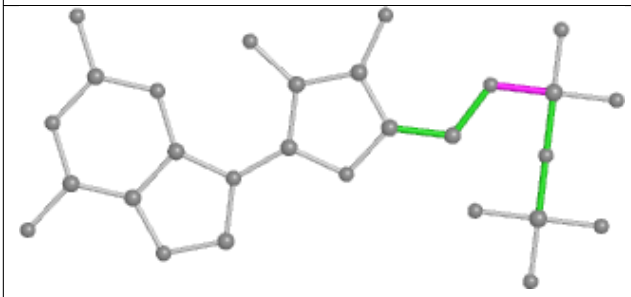
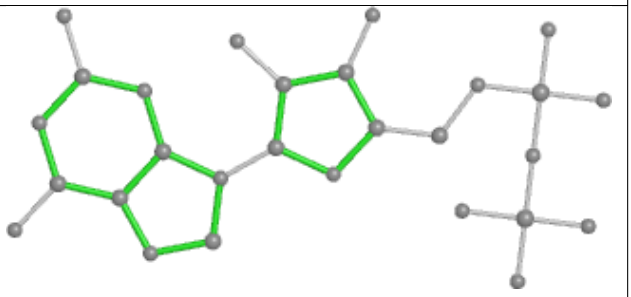
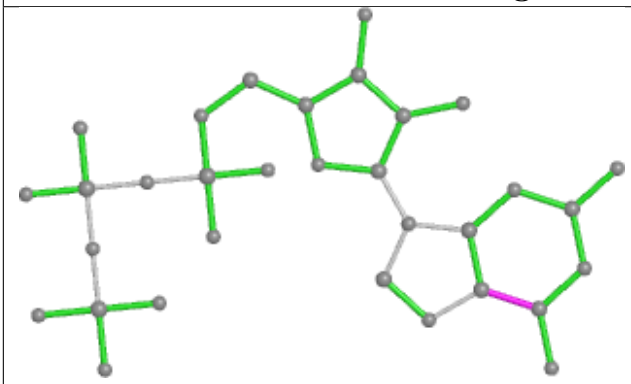


Torsions



Rings

Ligand GTP A1 501



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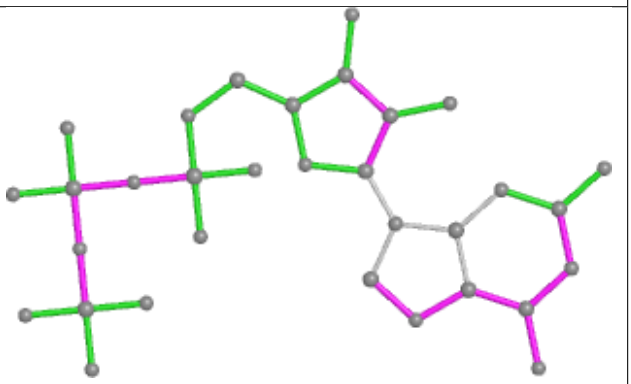

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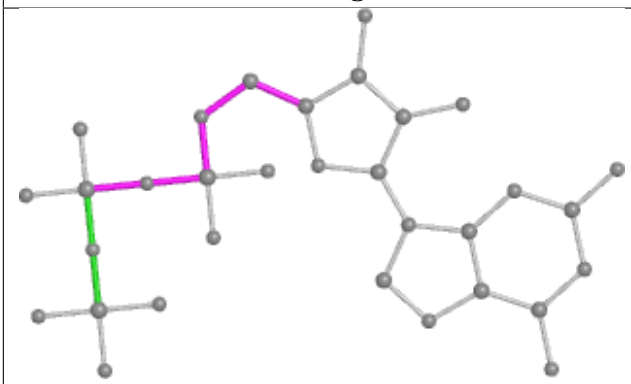

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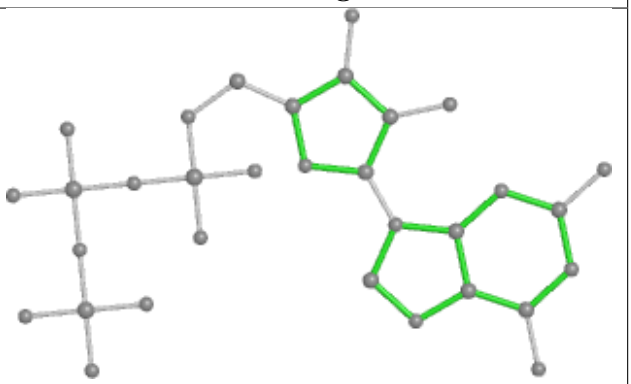
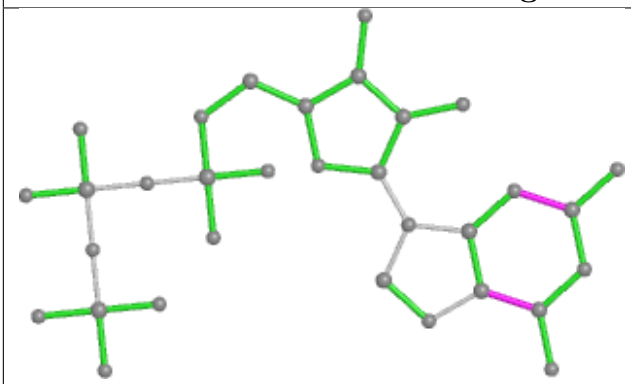


Rings

Ligand GTP I5 501



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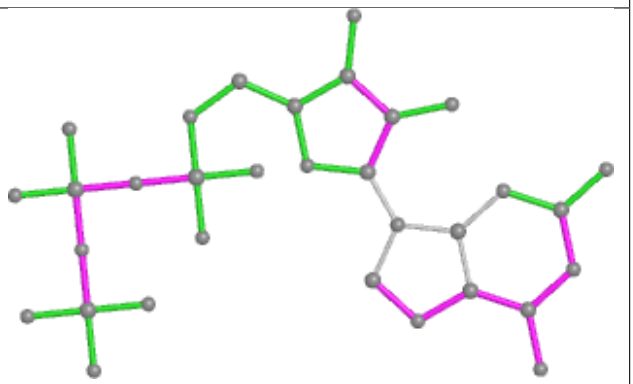

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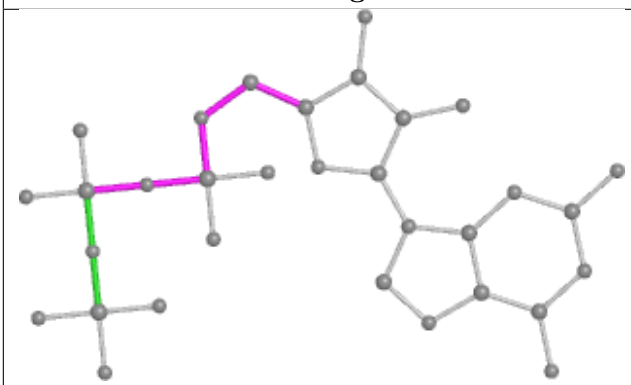

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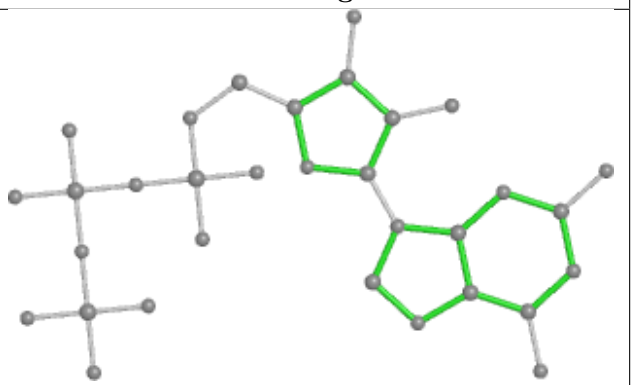
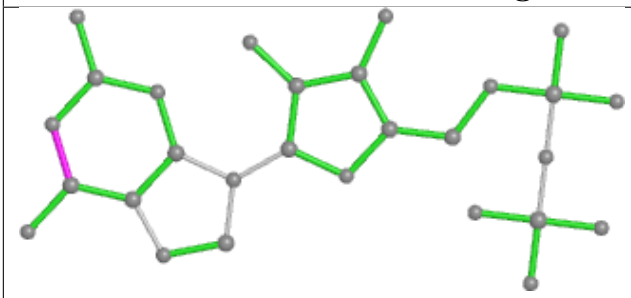


Rings

Ligand GDP F0 502



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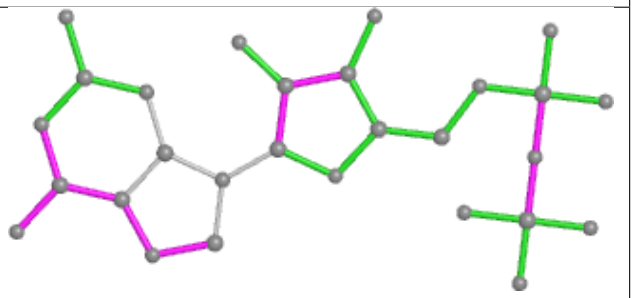

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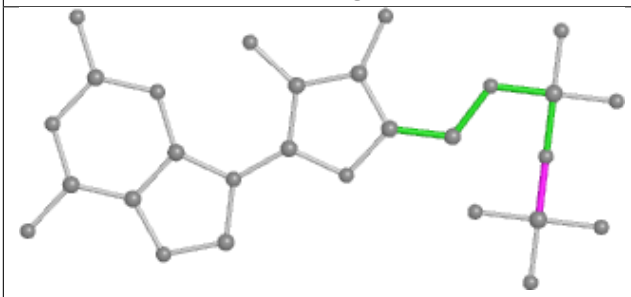

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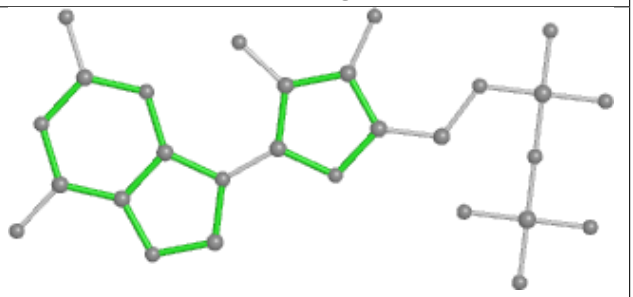
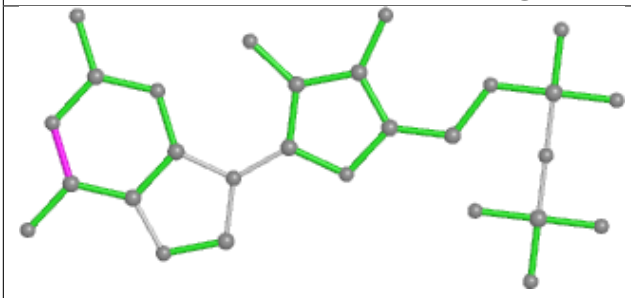


Rings

Ligand GDP J0 502



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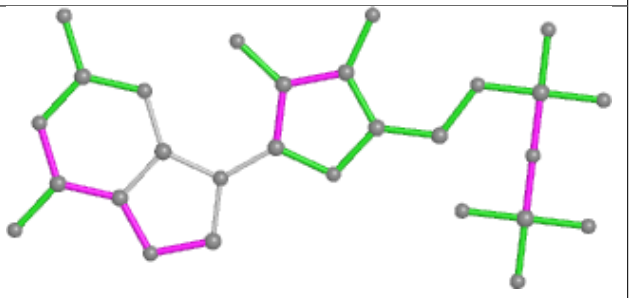

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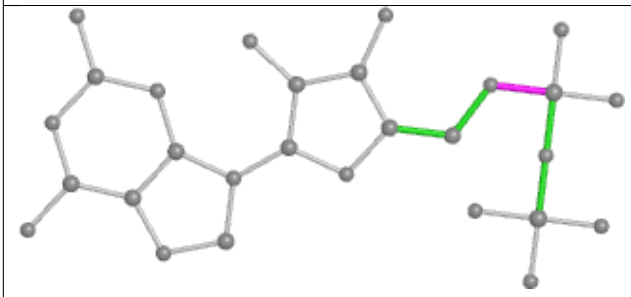

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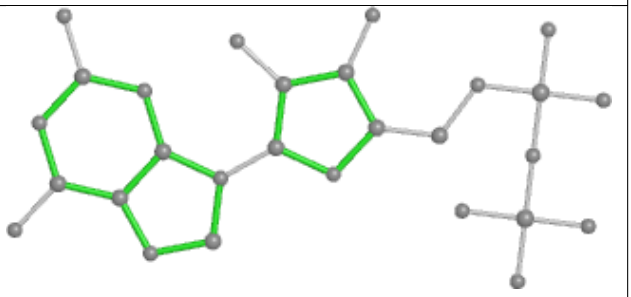
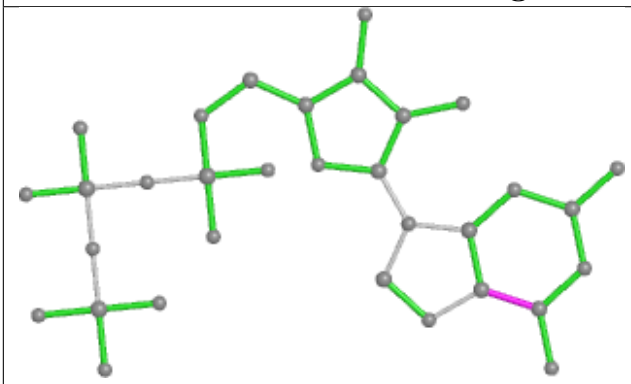


Rings

Ligand GTP M0 501



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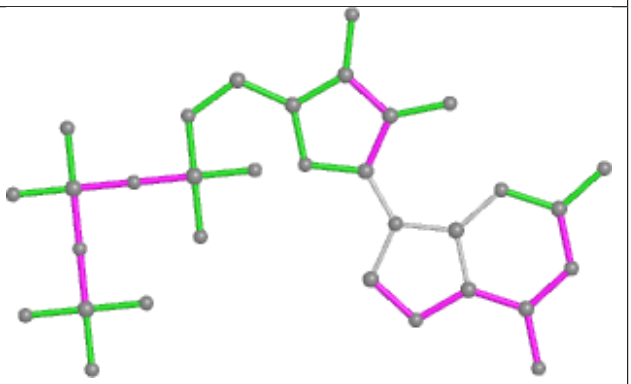

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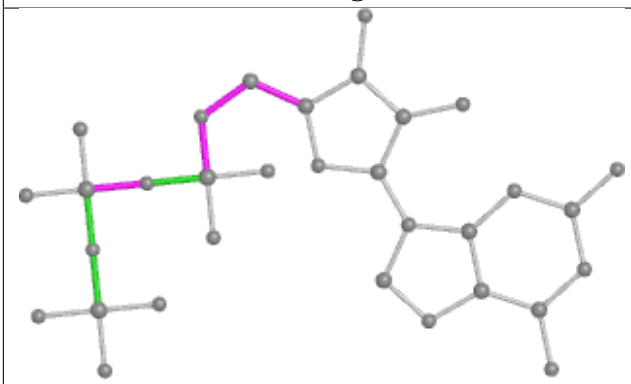

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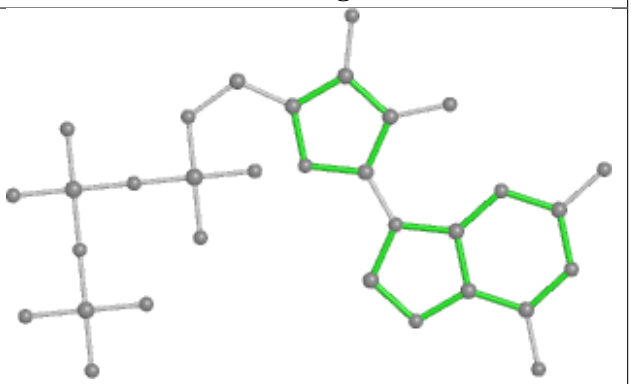
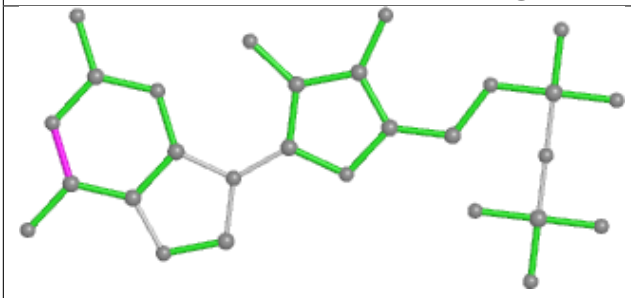
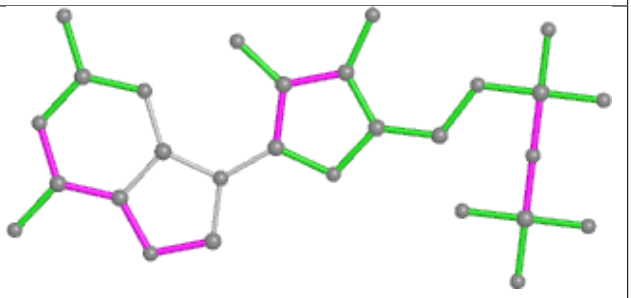
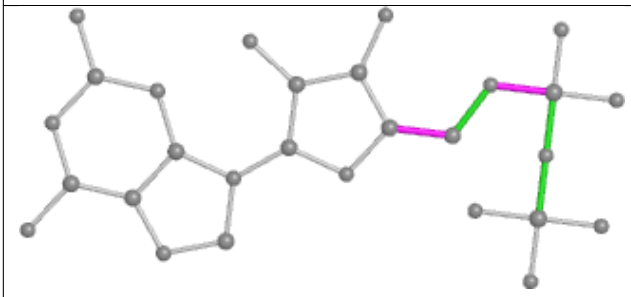
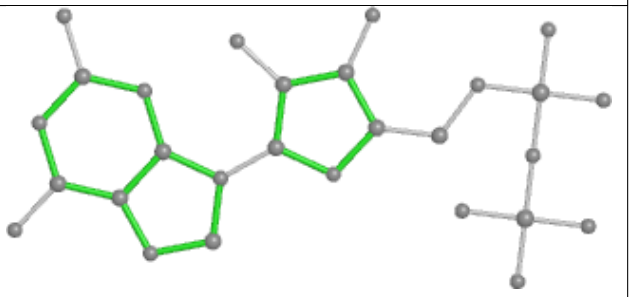


Rings

Ligand GDP B3 501	
	
Bond lengths	Bond angles
	
Torsions	Rings

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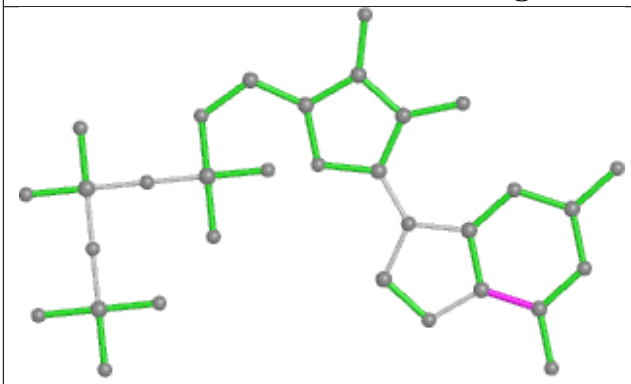
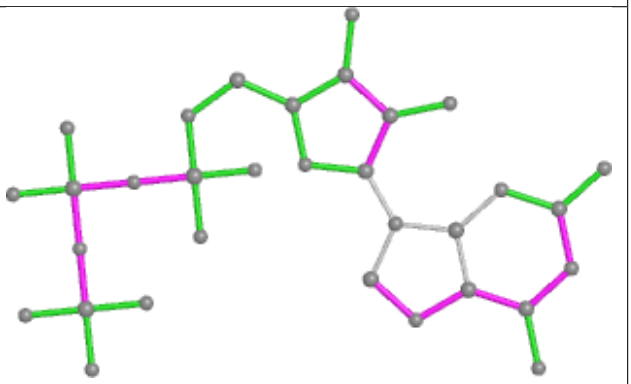
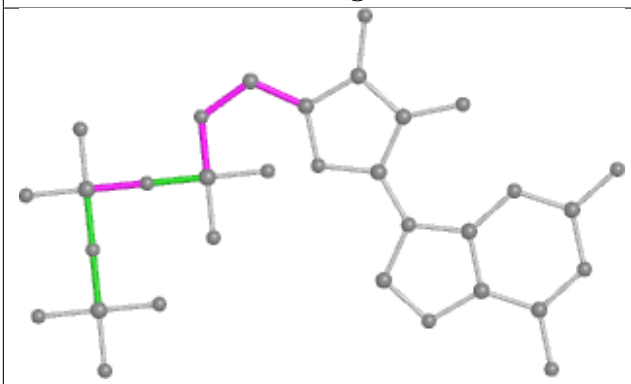
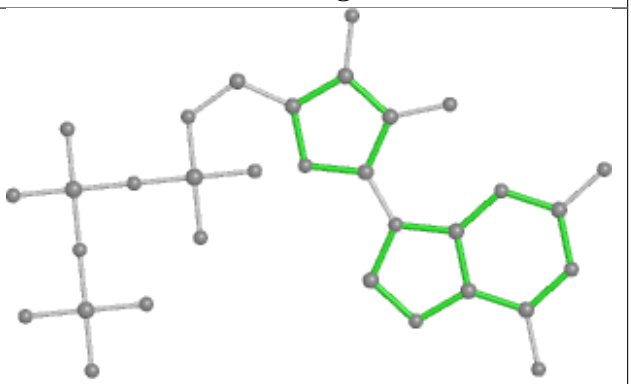
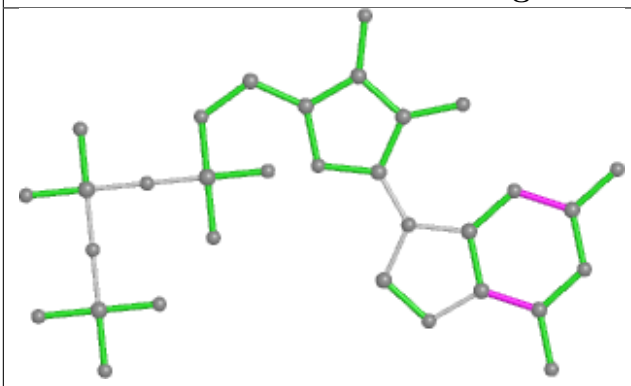
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand GTP N3 501



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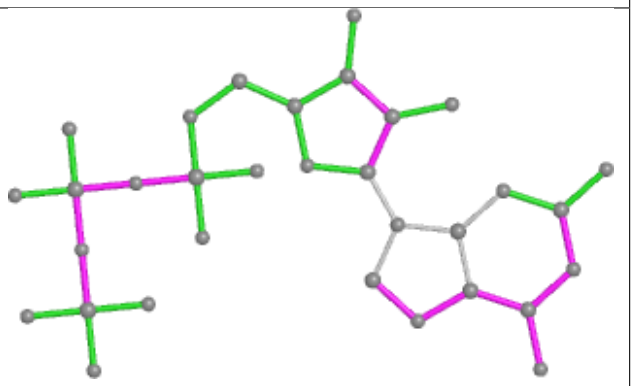
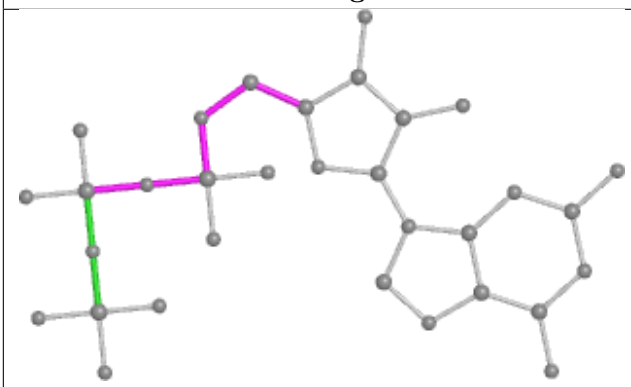


Bond angles



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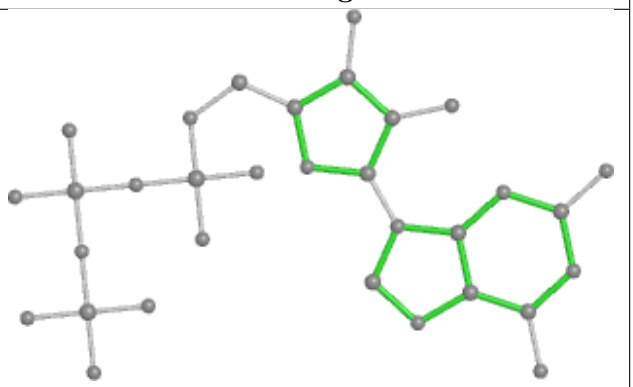
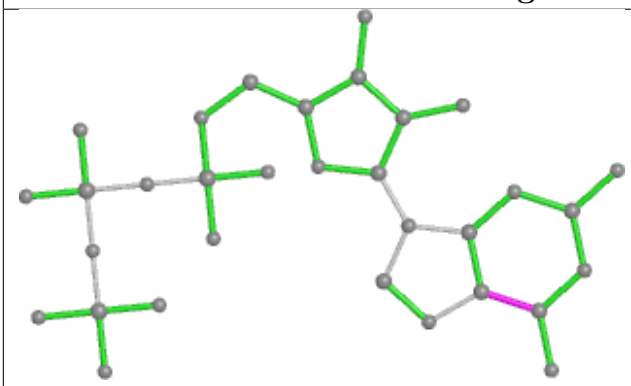


Rings

Ligand GTP J4 501



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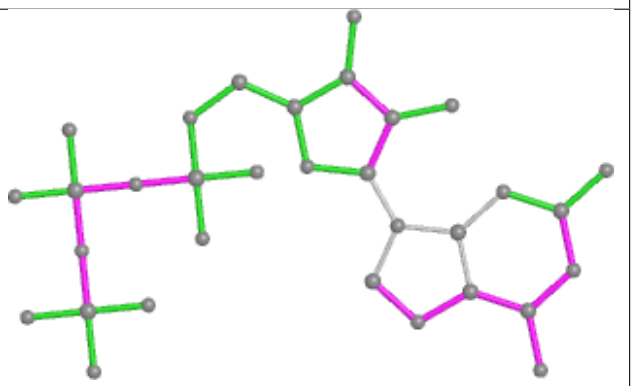

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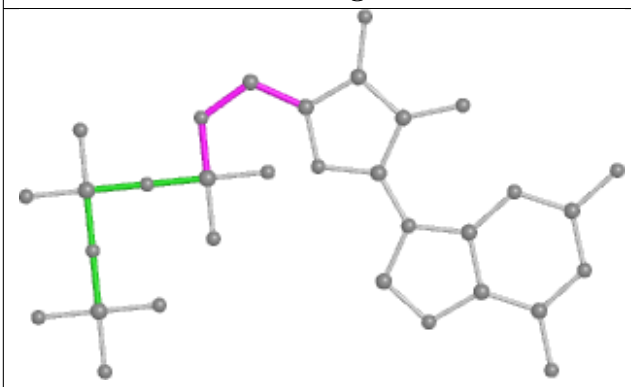

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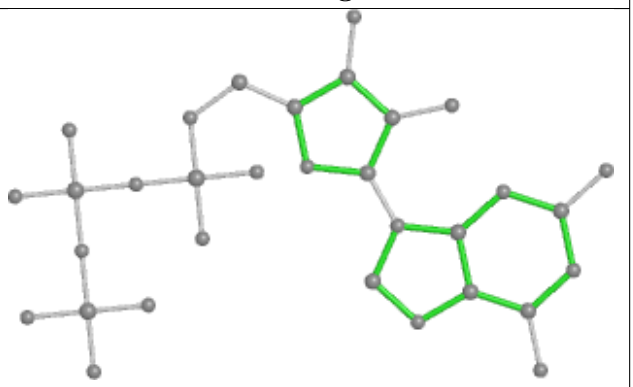
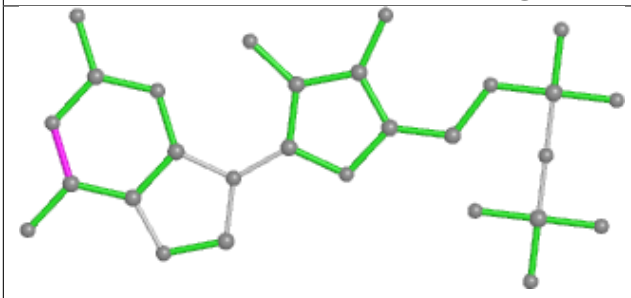


Rings

Ligand GDP J8 502



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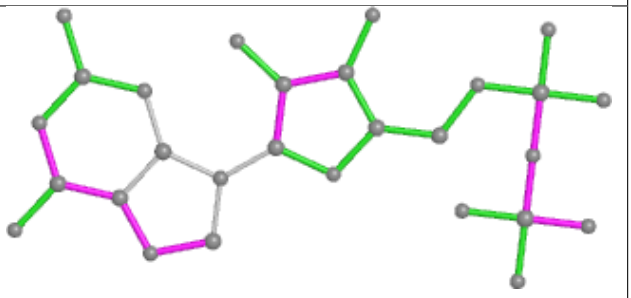

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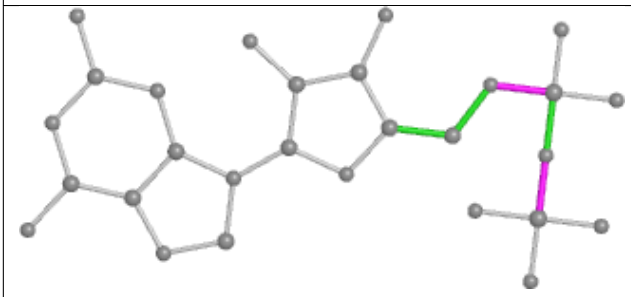

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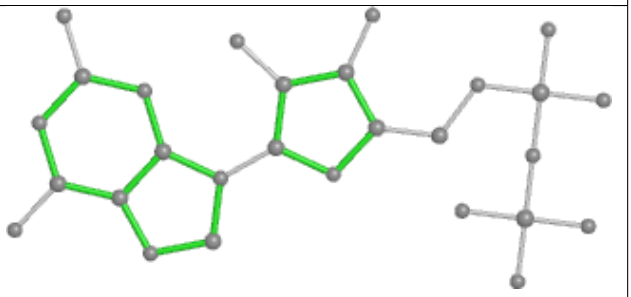
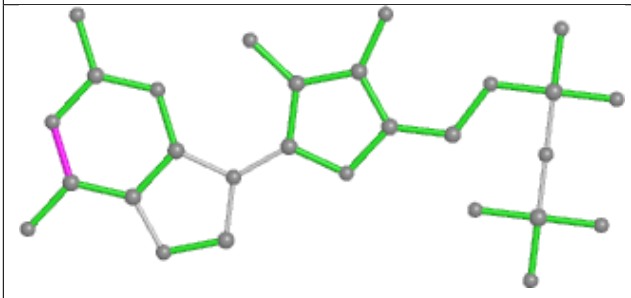


Rings

Ligand GDP W2 503



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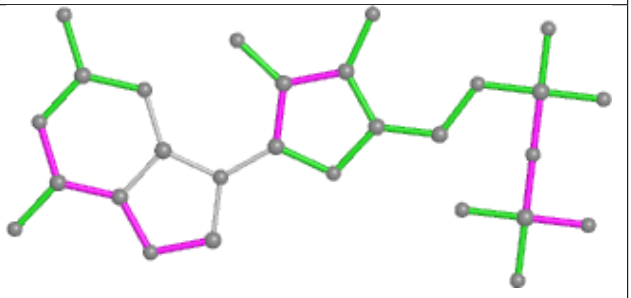

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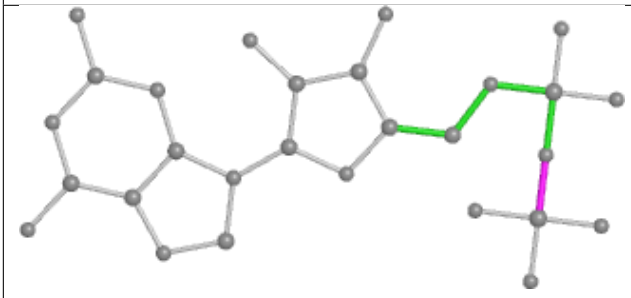

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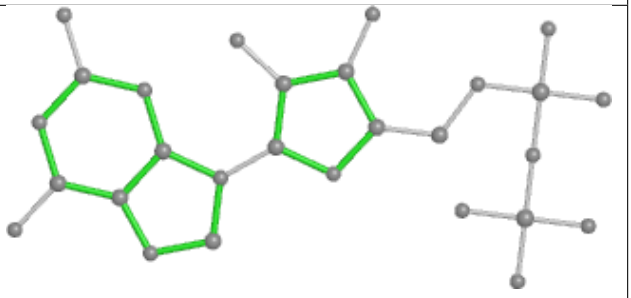
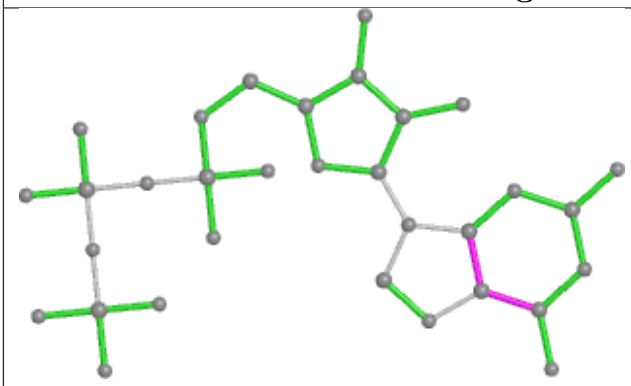


Rings

Ligand GTP L2 501



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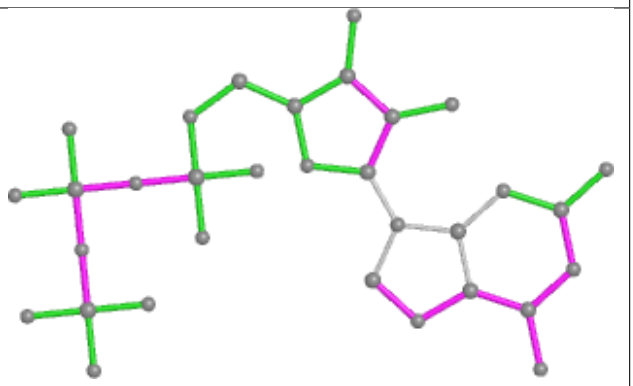
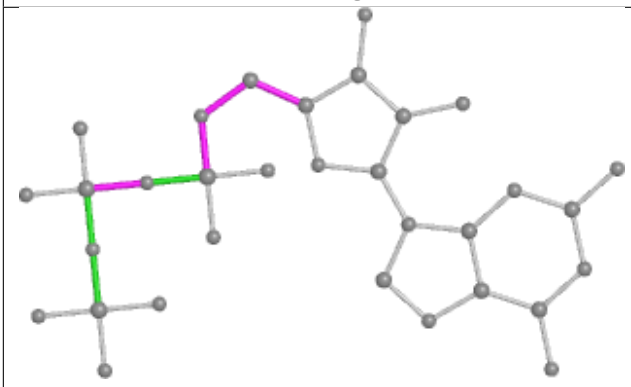


Bond angles



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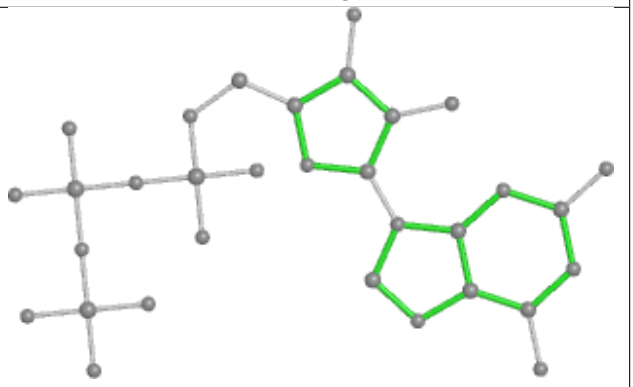
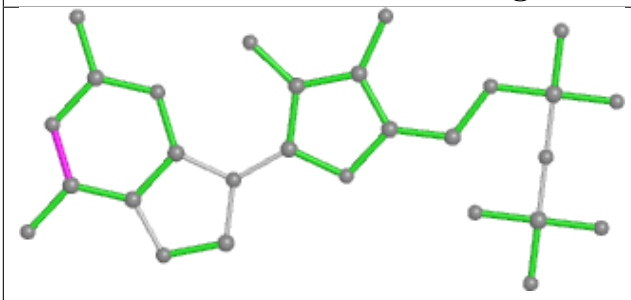


Rings

Ligand GDP U4 502



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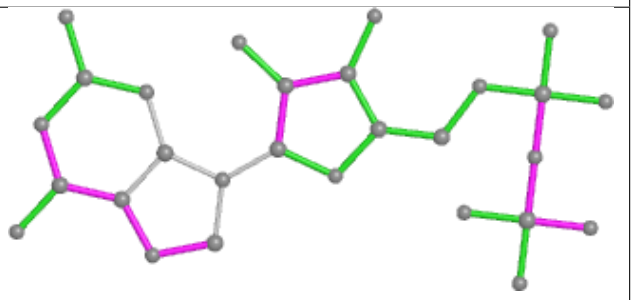
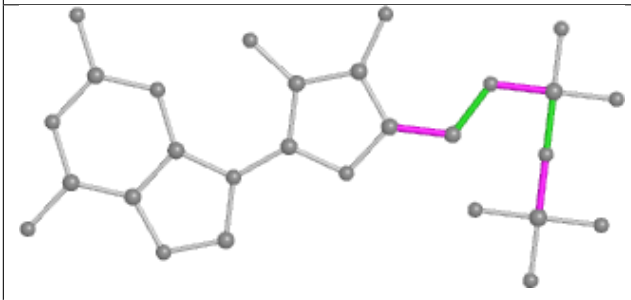


Bond angles



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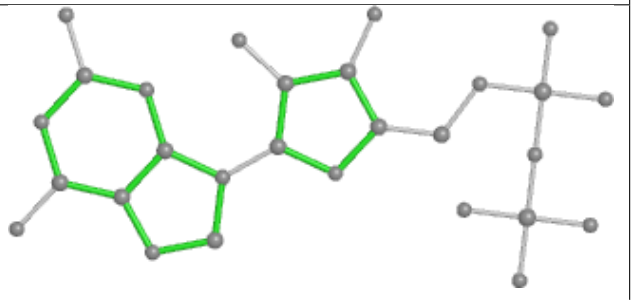
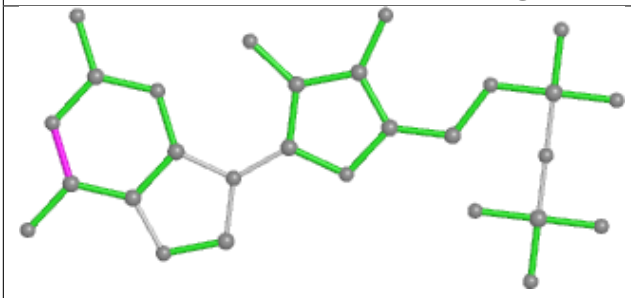


Rings

Ligand GDP F2 501



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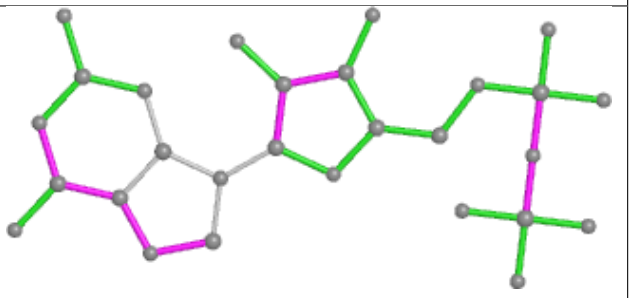
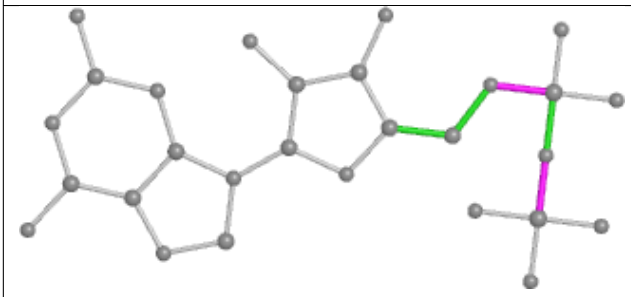


Bond angles



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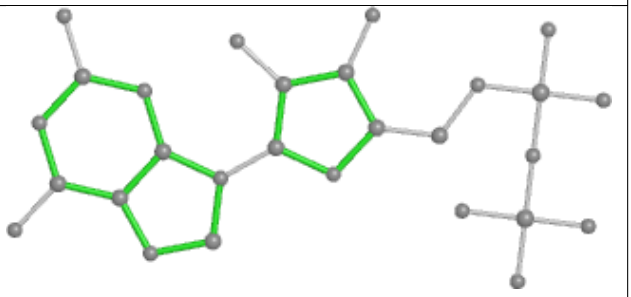
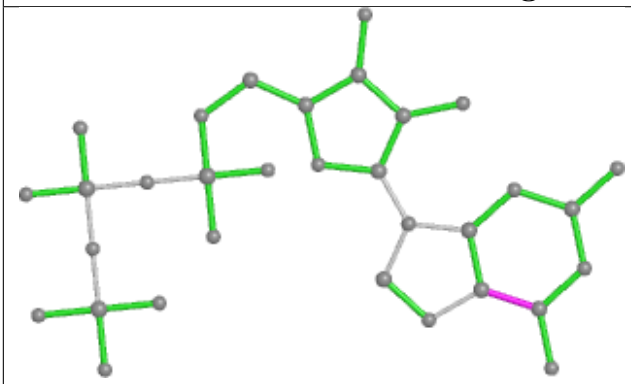
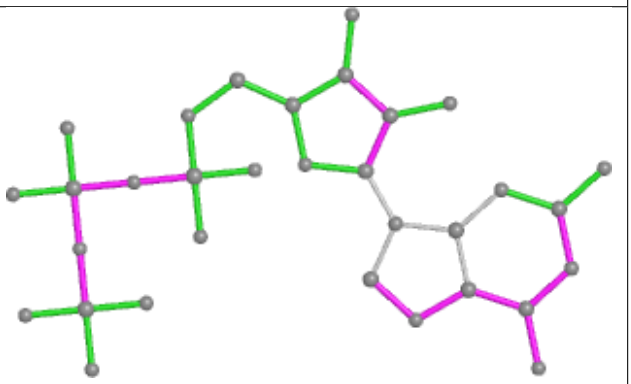


Rings

Ligand GTP I1 501



Bond lengths



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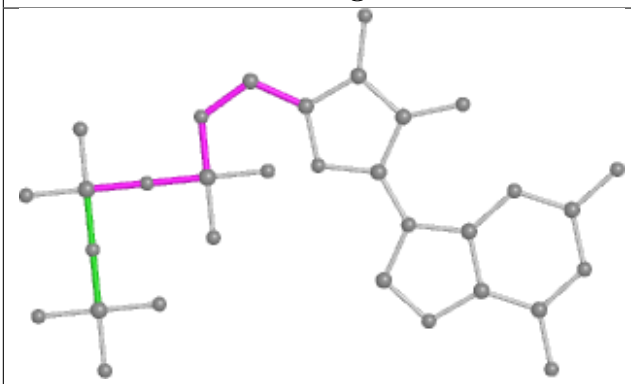
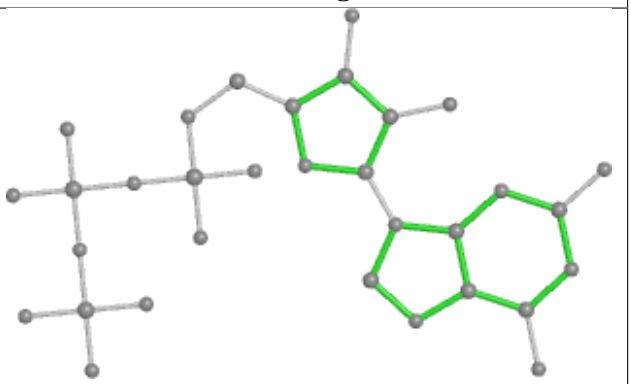
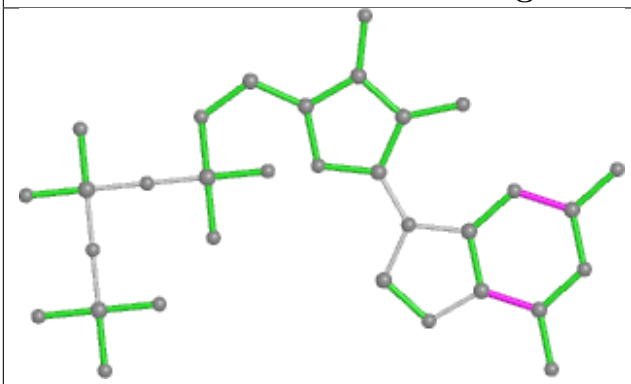


Torsions



Rings

Ligand GTP 2L 501



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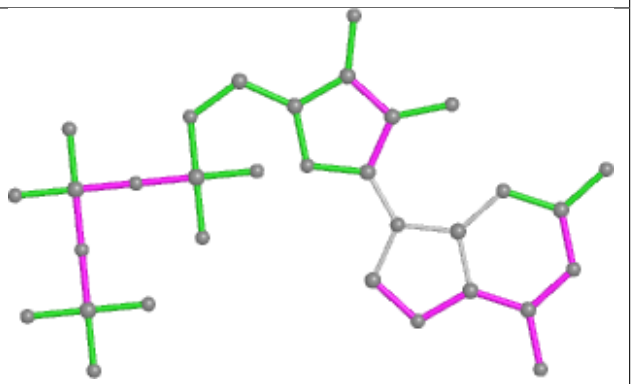

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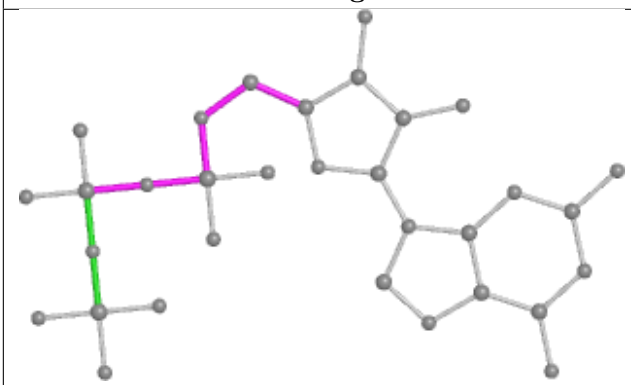

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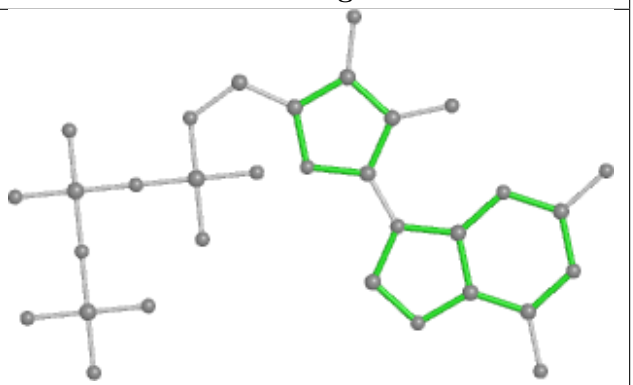
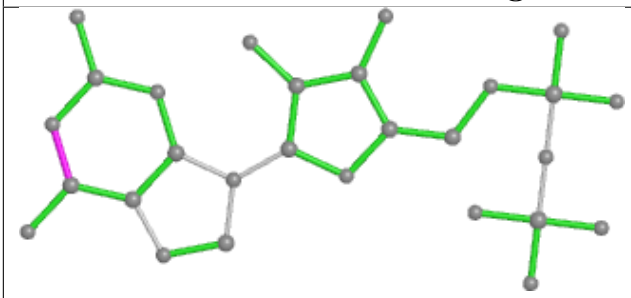


Rings

Ligand GDP 1W 502



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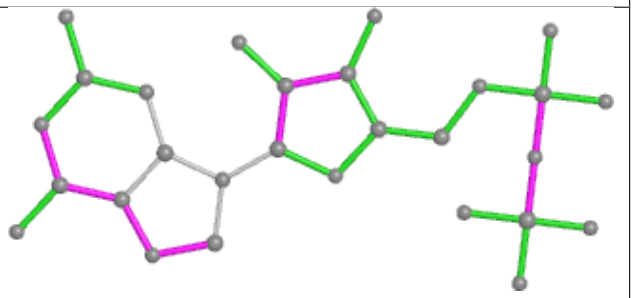

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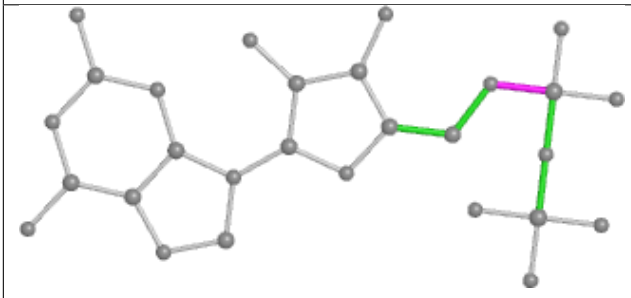

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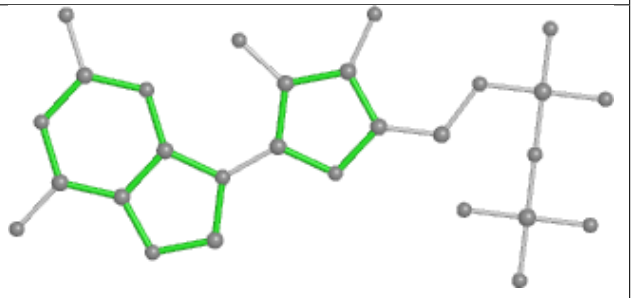
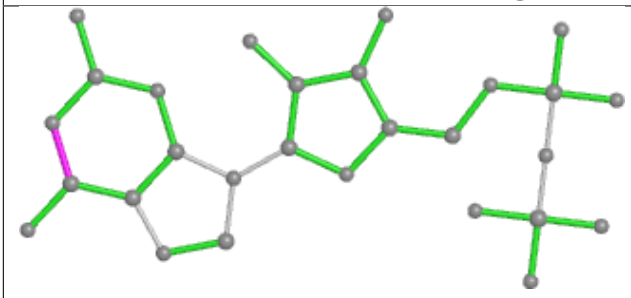


Rings

Ligand GDP N8 502



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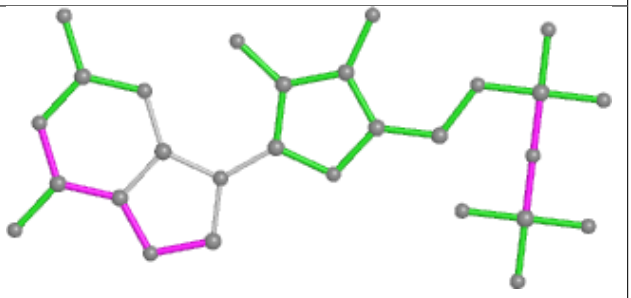

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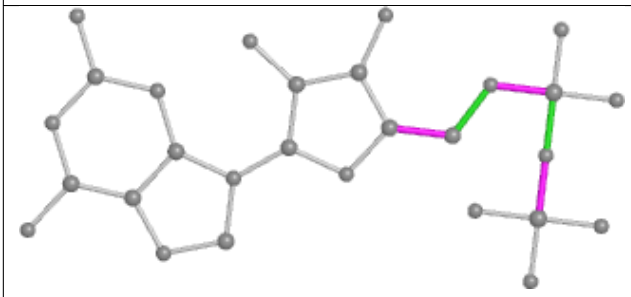

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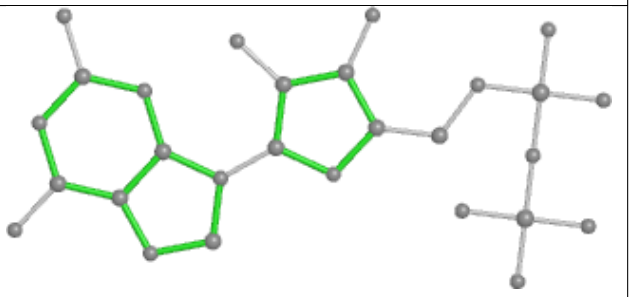
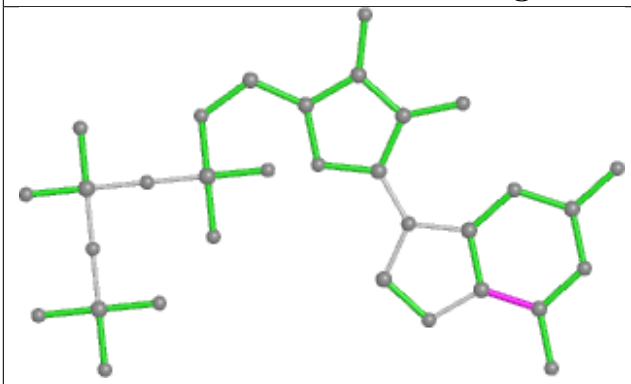


Rings

Ligand GTP Y1 501



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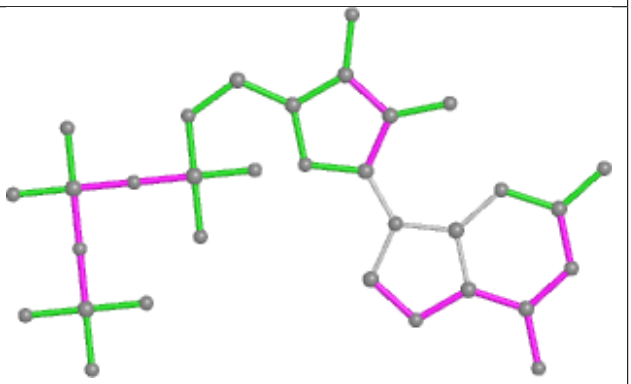

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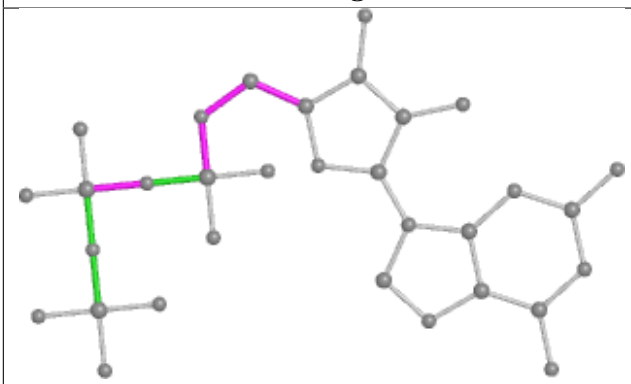

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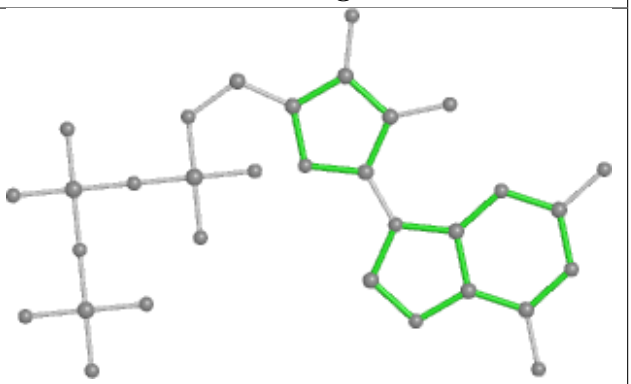
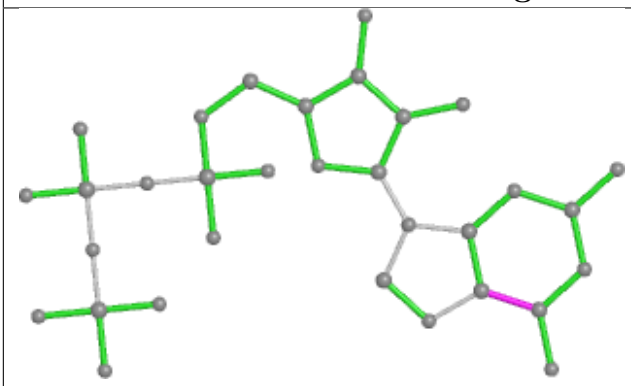


Rings

Ligand GTP B5 501



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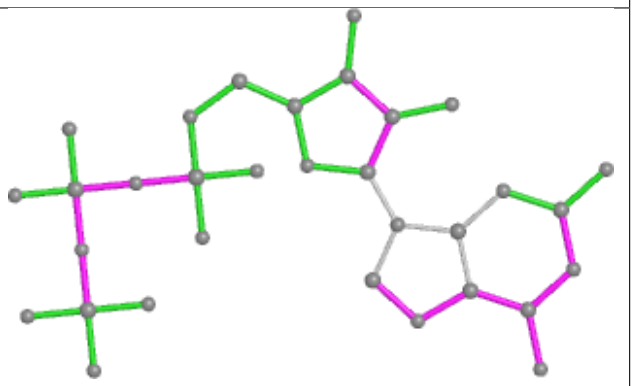

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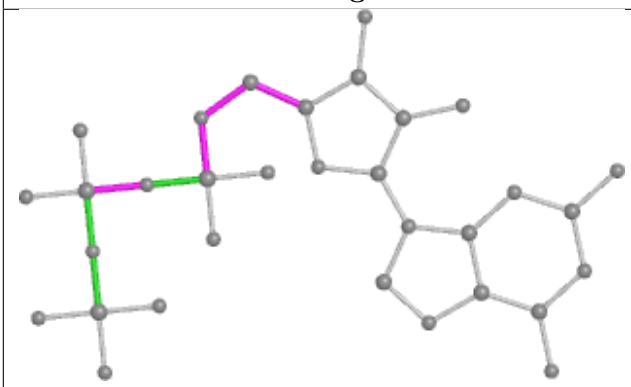

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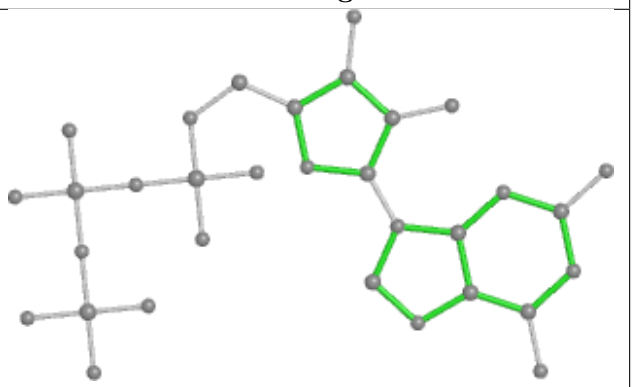
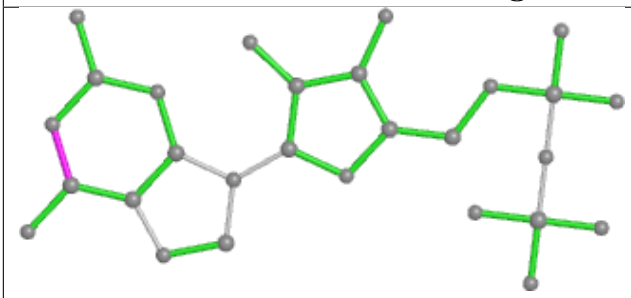


Rings

Ligand GDP M0 502



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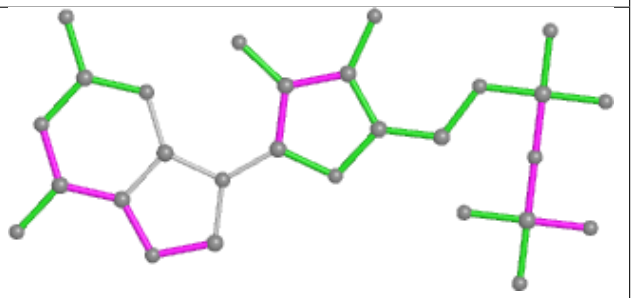

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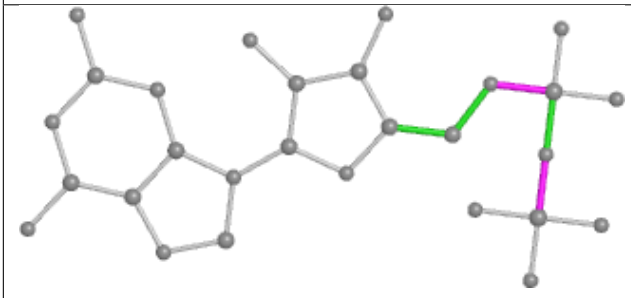

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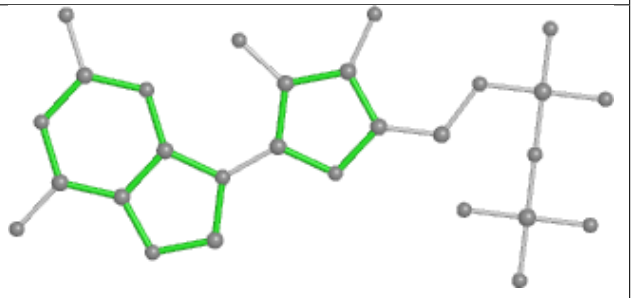
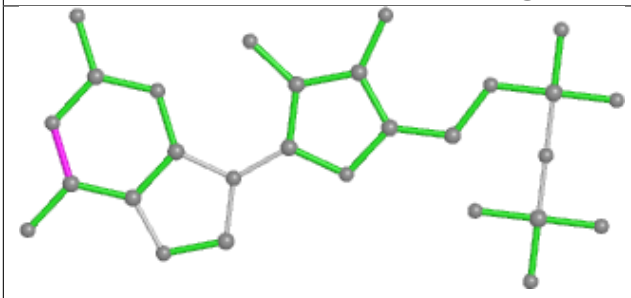


Rings

Ligand GDP I2 501



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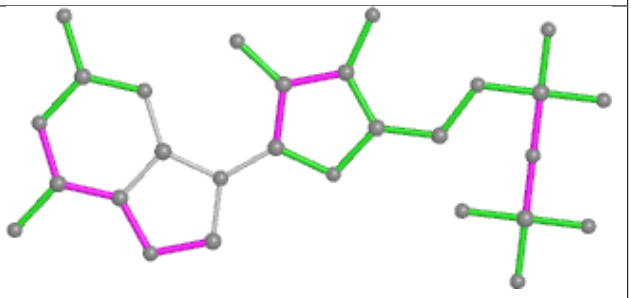

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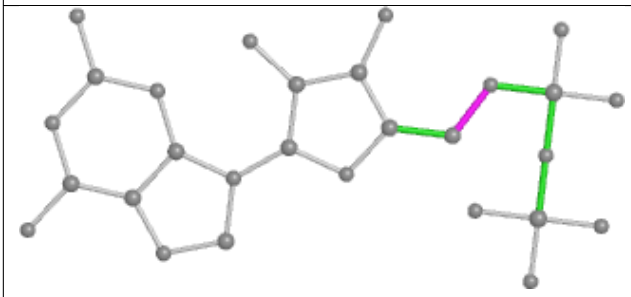

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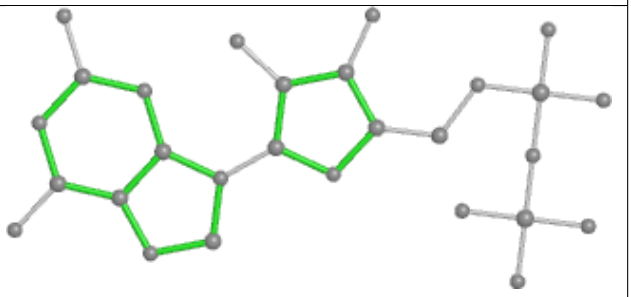
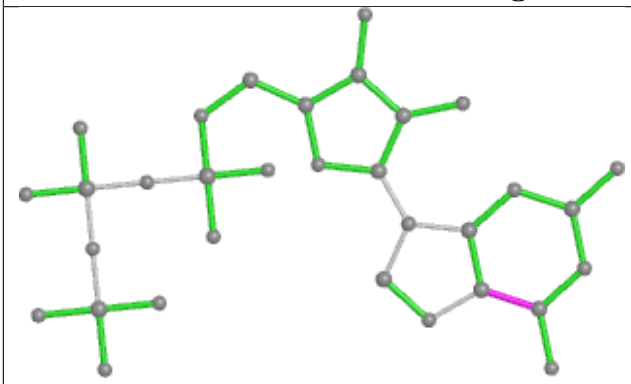


Rings

Ligand GTP M2 501



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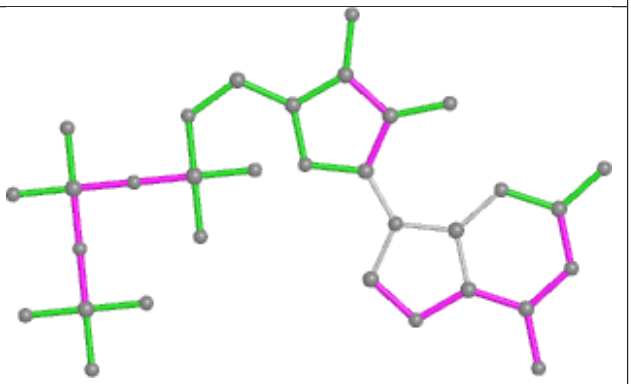

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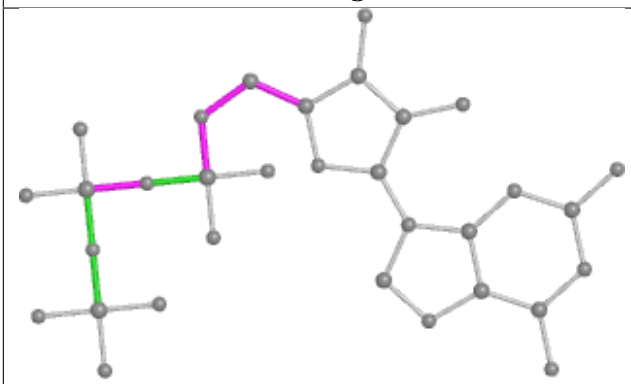

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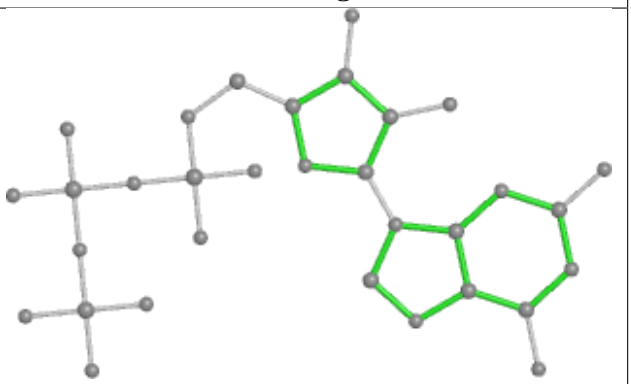
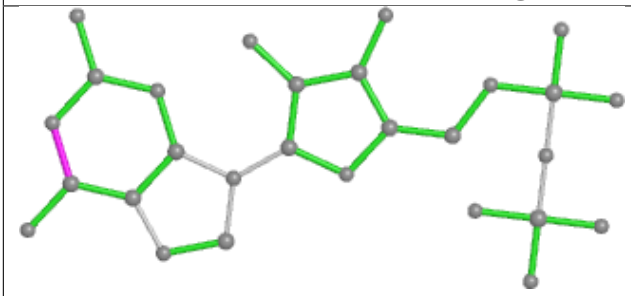


Rings

Ligand GDP Q8 501



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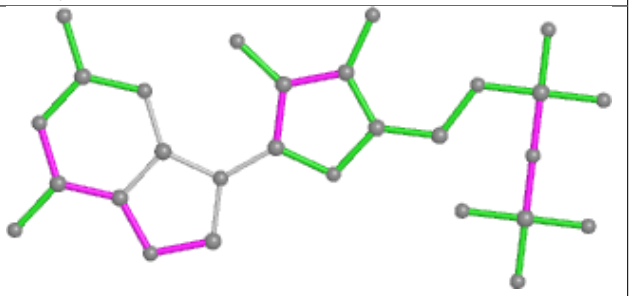

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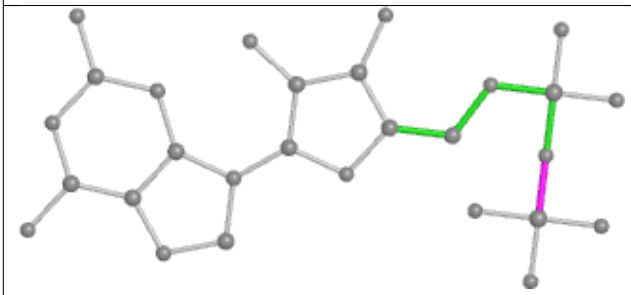

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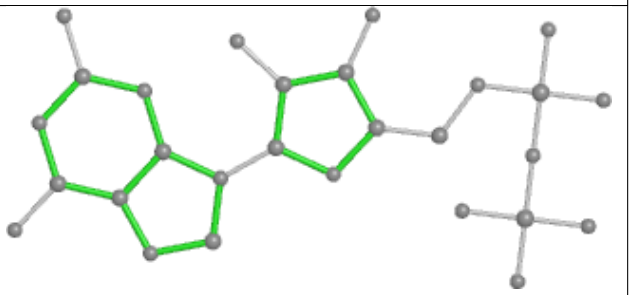
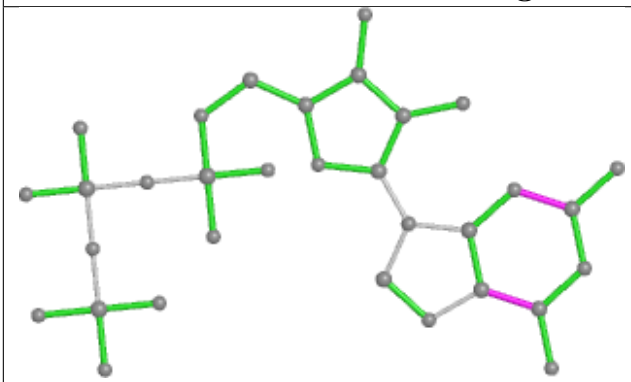


Rings

Ligand GTP 1L 501



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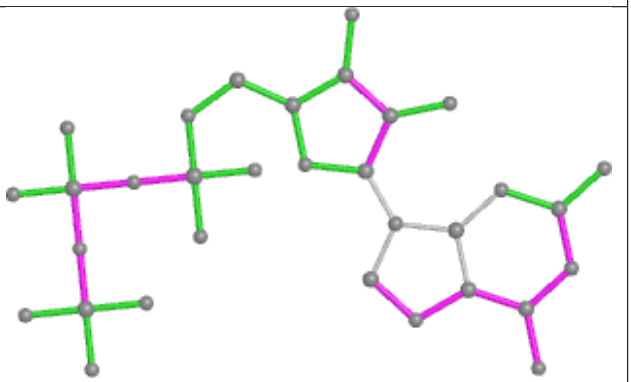

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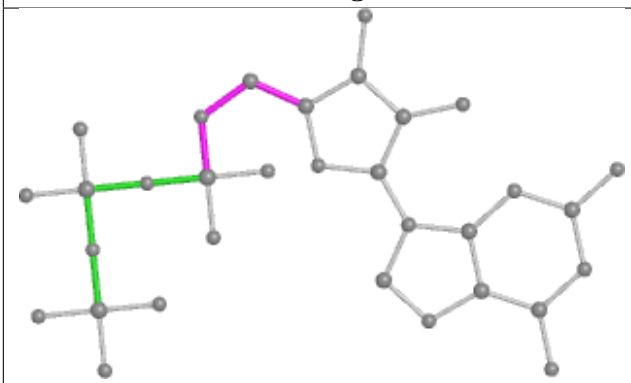

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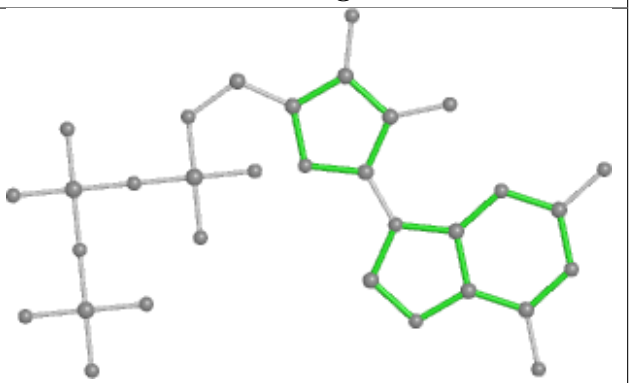
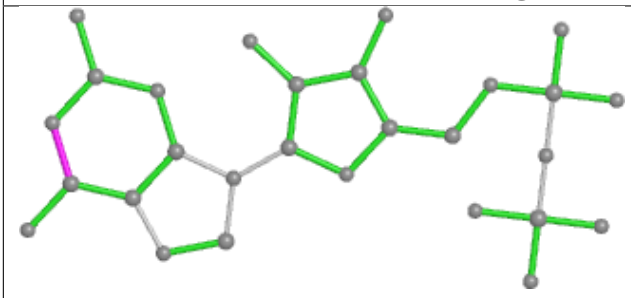
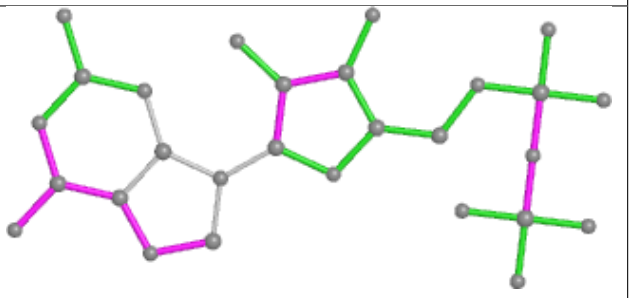
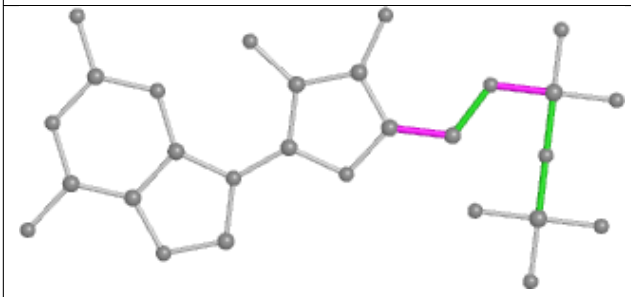
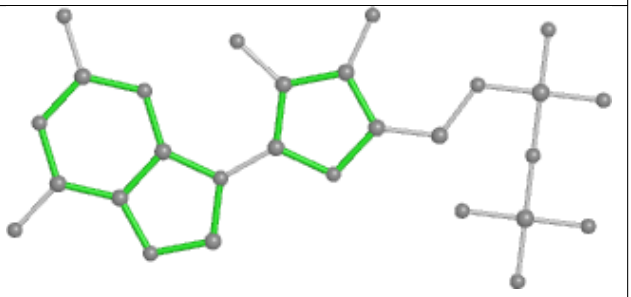
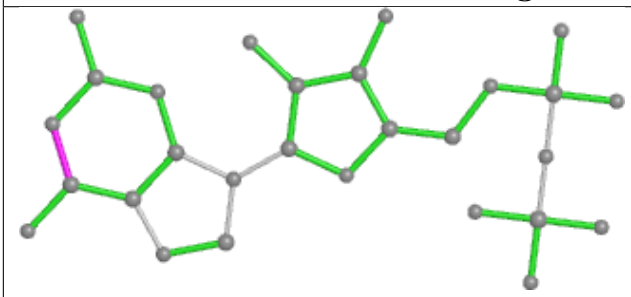
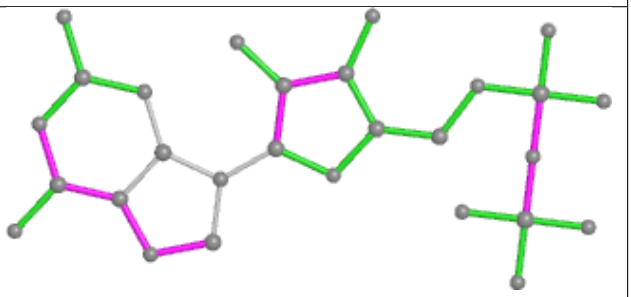
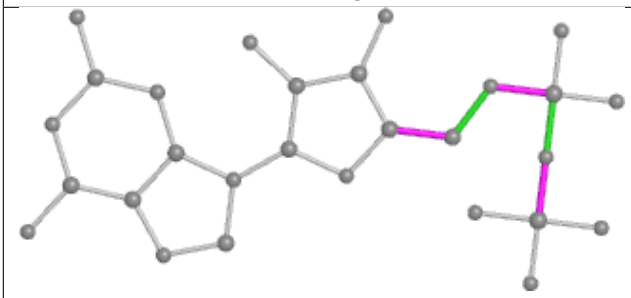
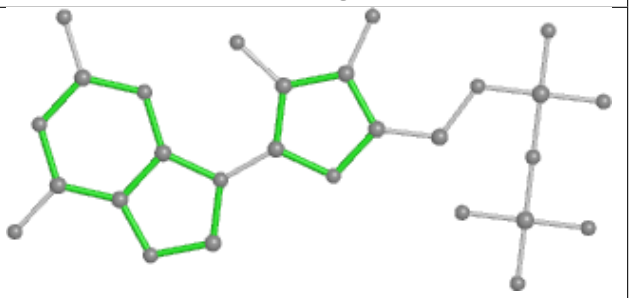
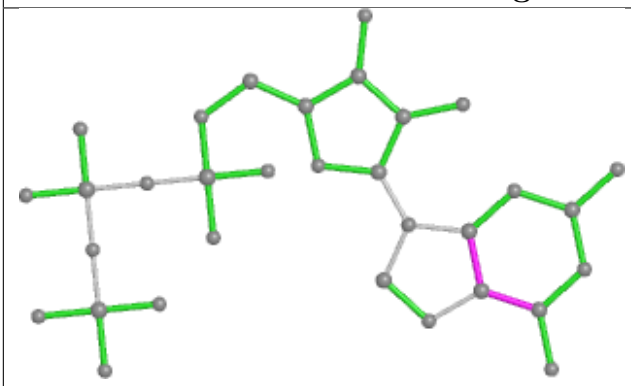


Rings

Ligand GDP T0 501	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand GDP J2 502	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand GTP 3A 501



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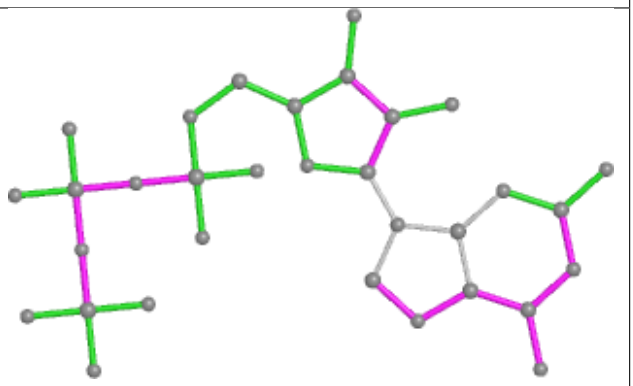

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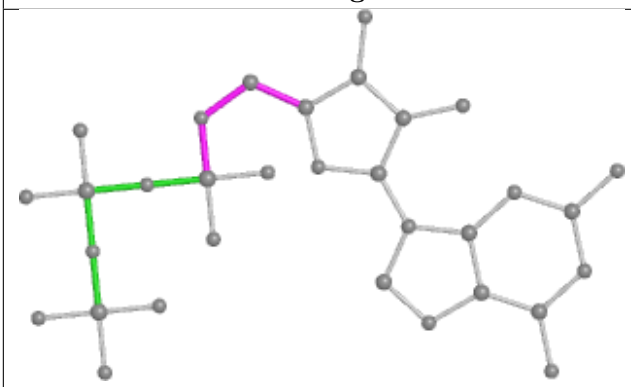

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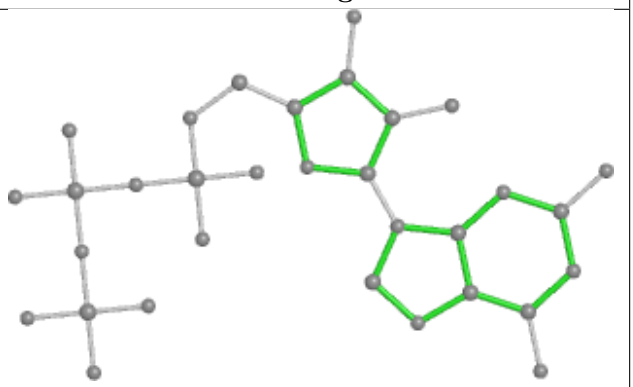
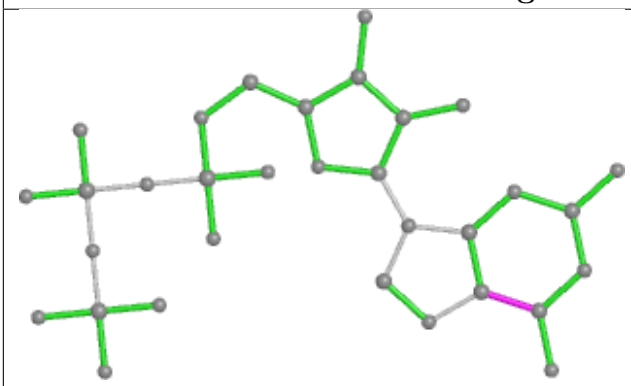


Rings

Ligand GTP J0 501



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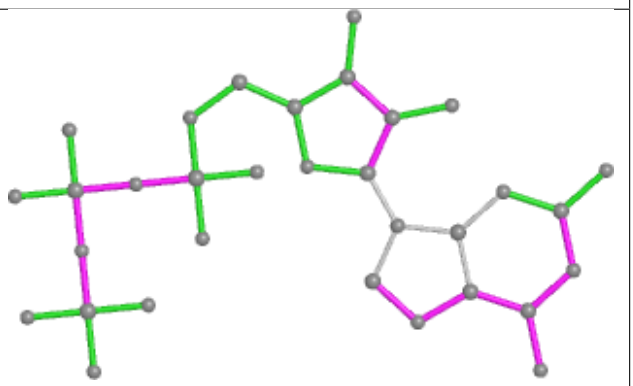

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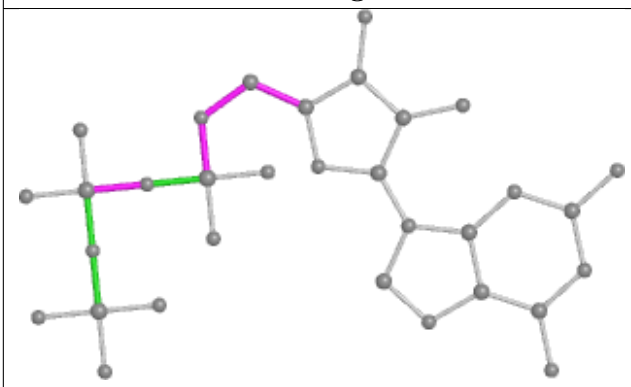
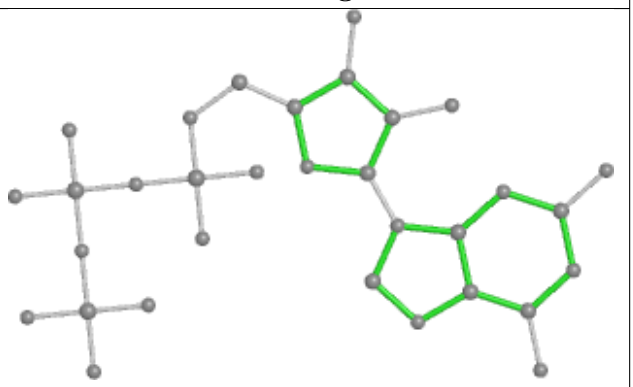
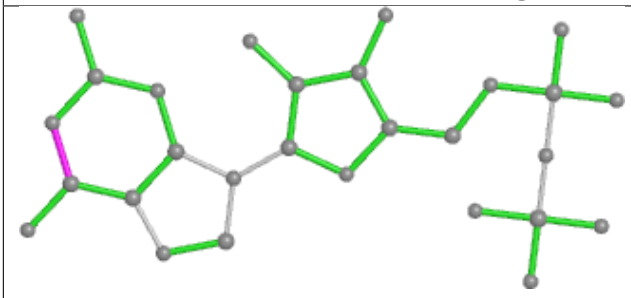
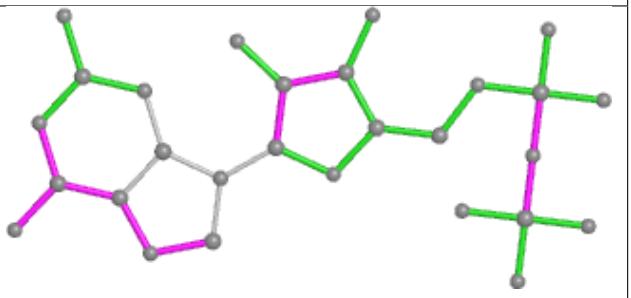
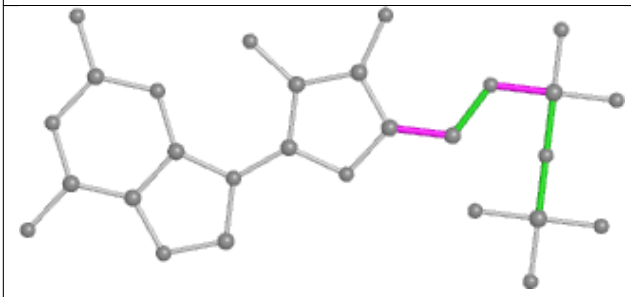
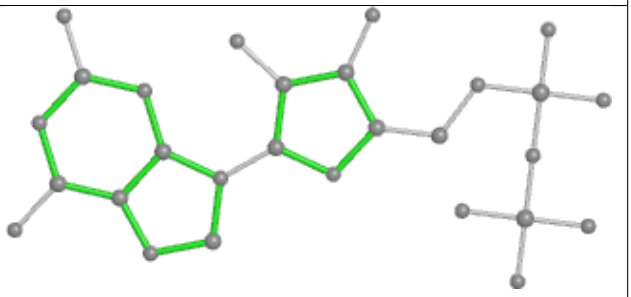
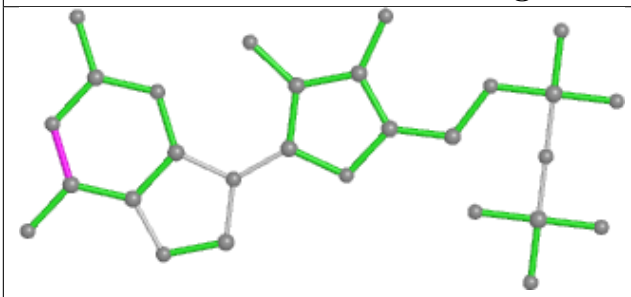
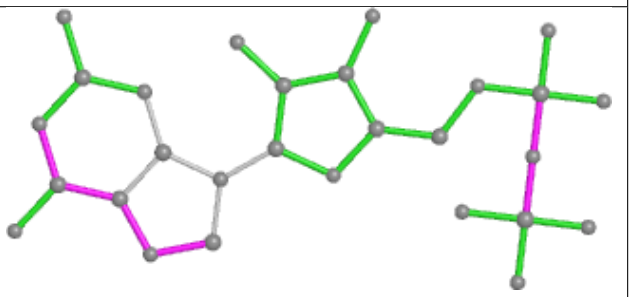


Torsions



Rings

Ligand GDP T4 502	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand GDP P8 502	
	
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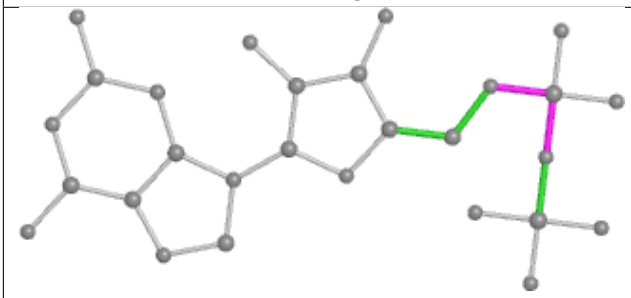
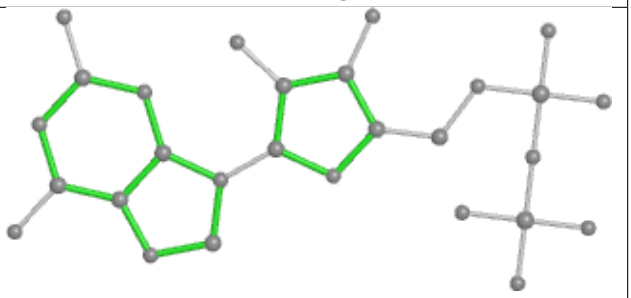
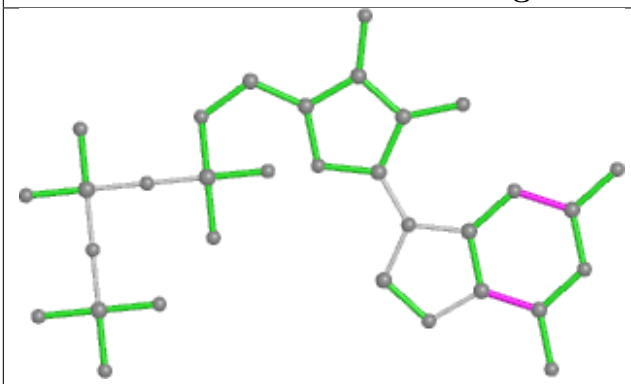
	
Torsions	Rings

Ligand GTP 3D 501



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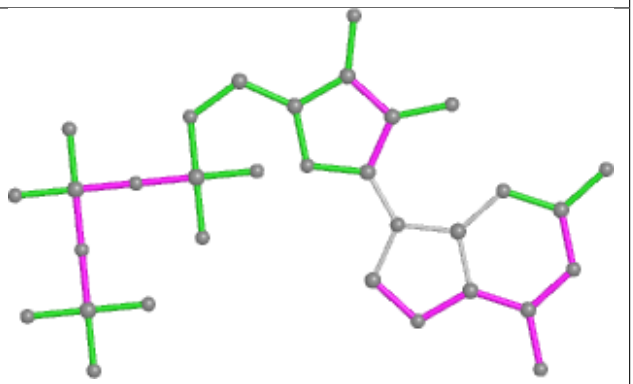

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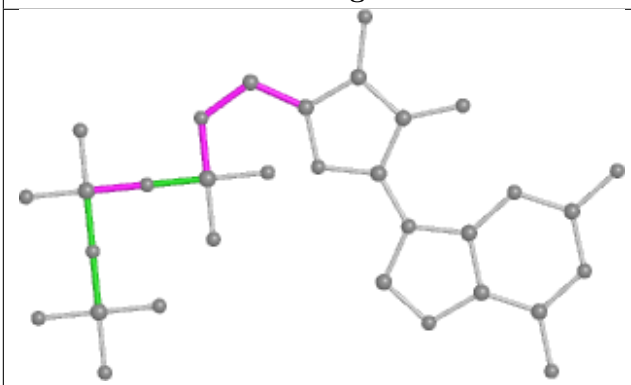

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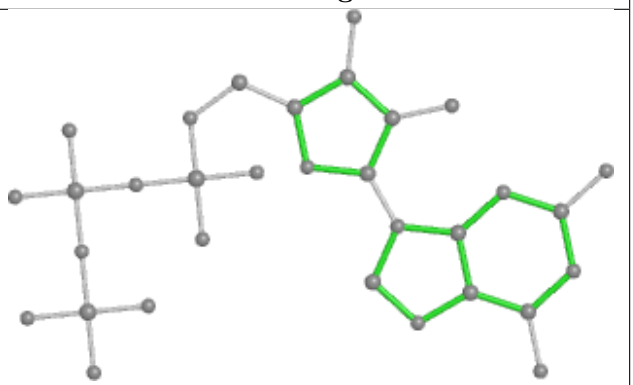
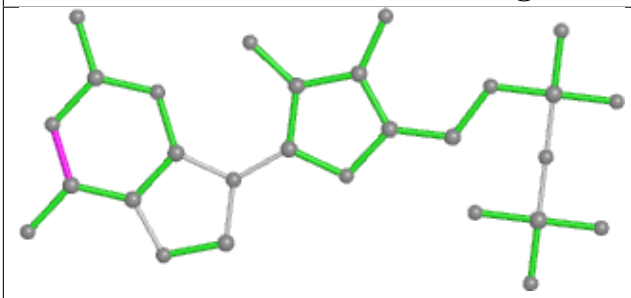


Rings

Ligand GDP S6 501



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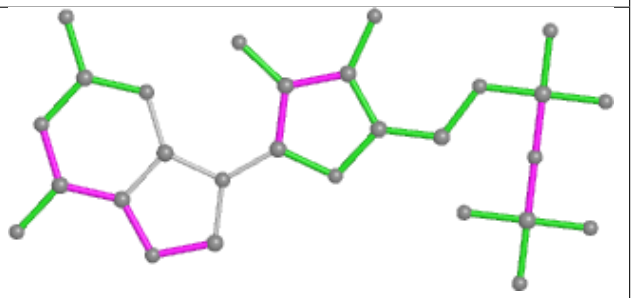

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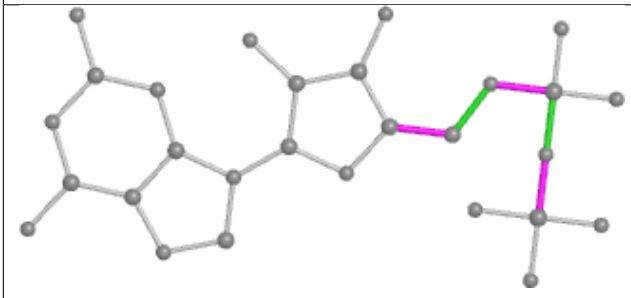

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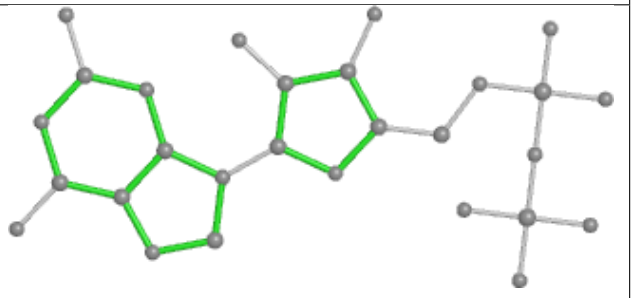

Rings

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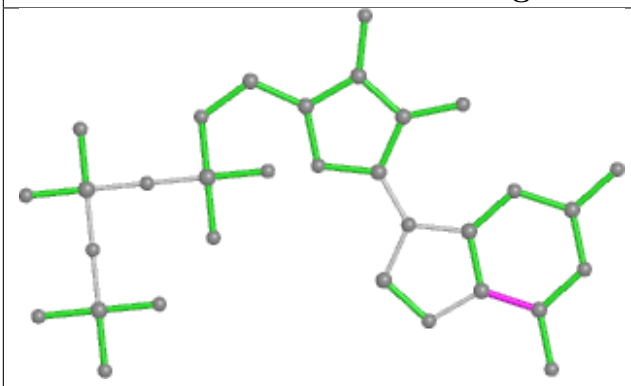

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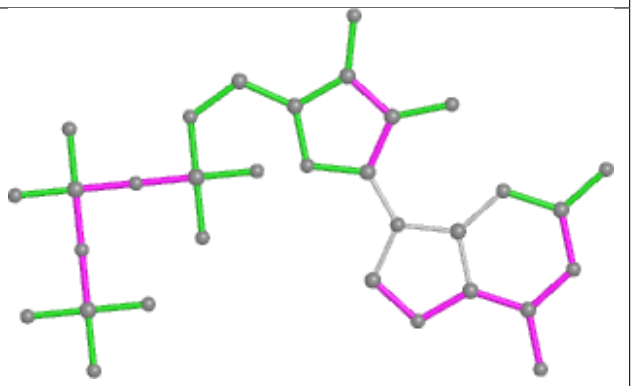

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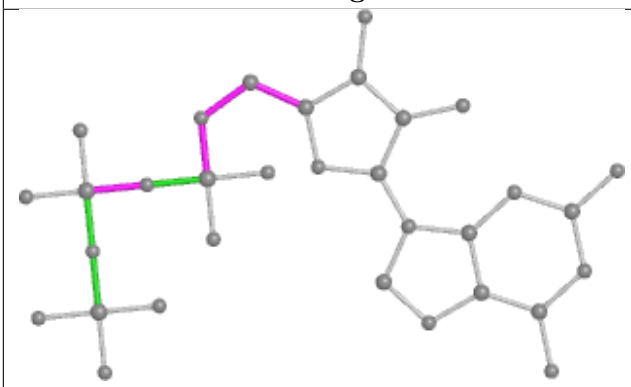

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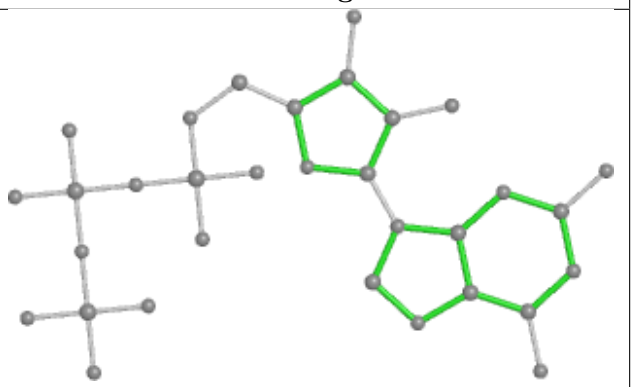

Rings

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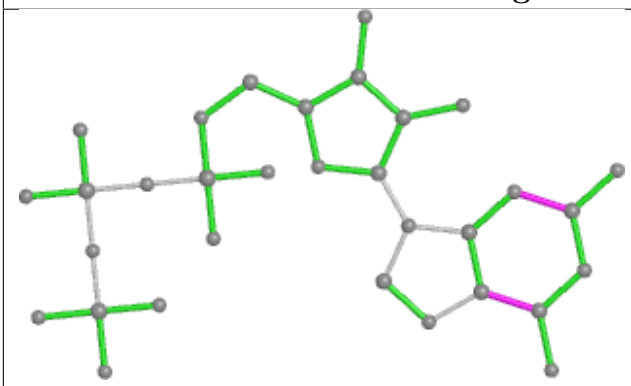

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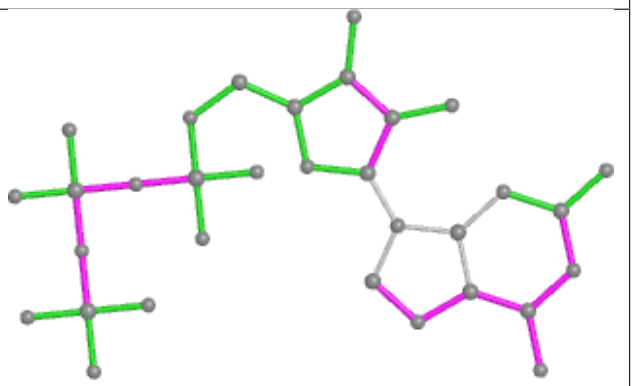

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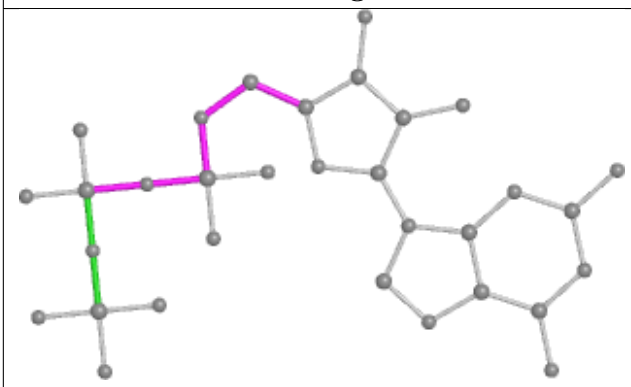

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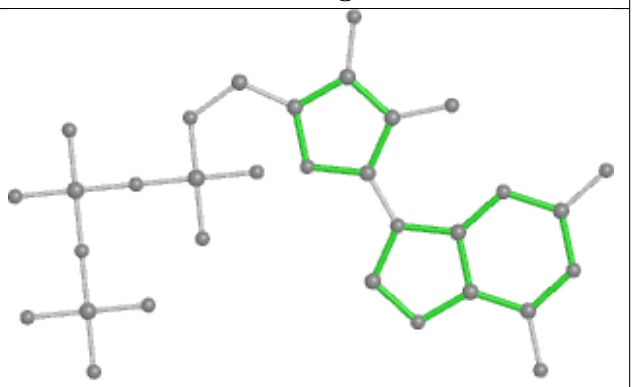
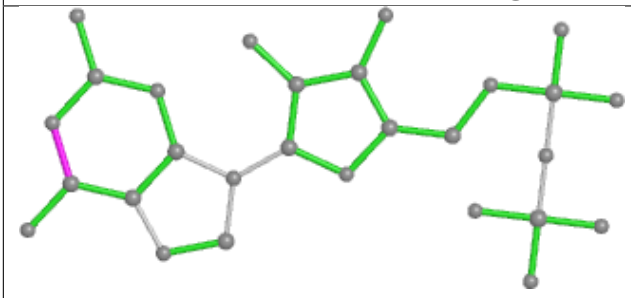


Rings

Ligand GDP W8 503



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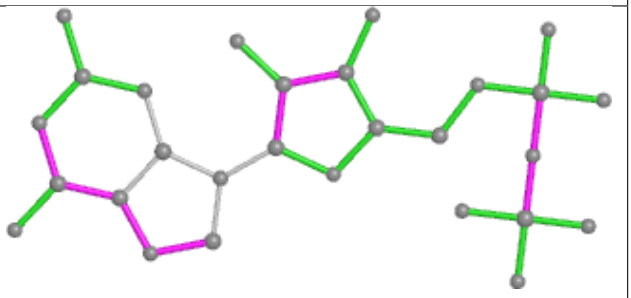

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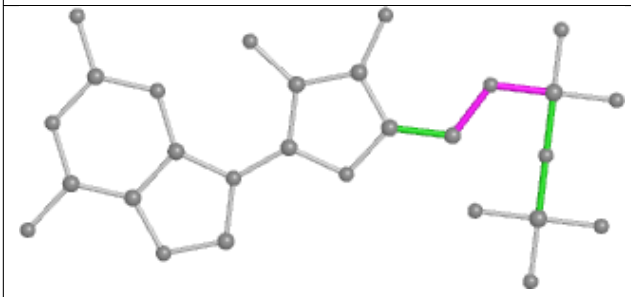

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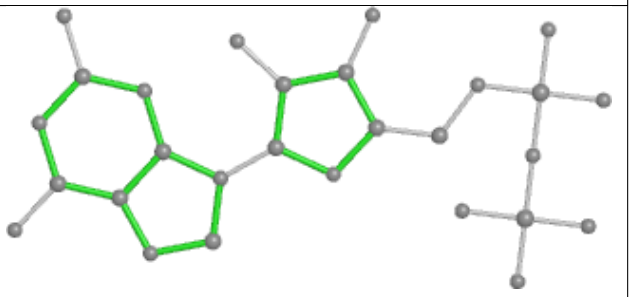
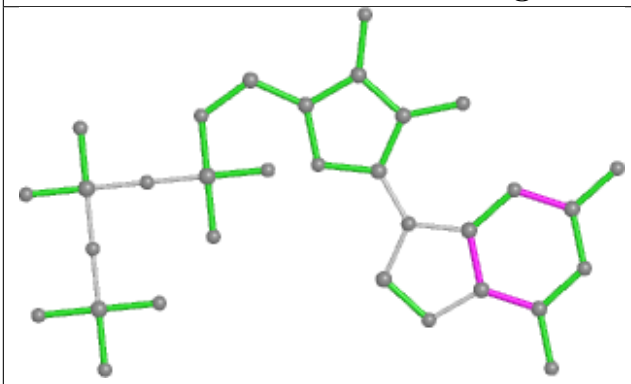


Rings

Ligand GTP 2Q 501



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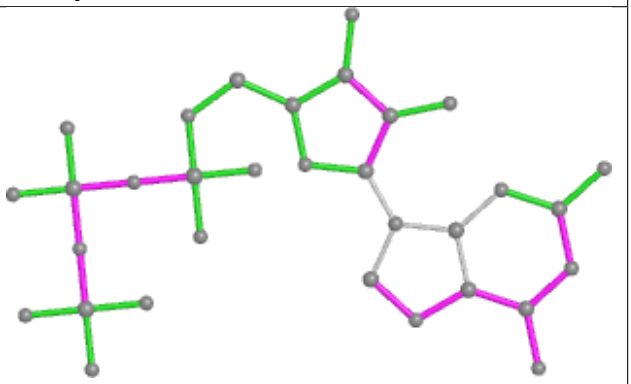

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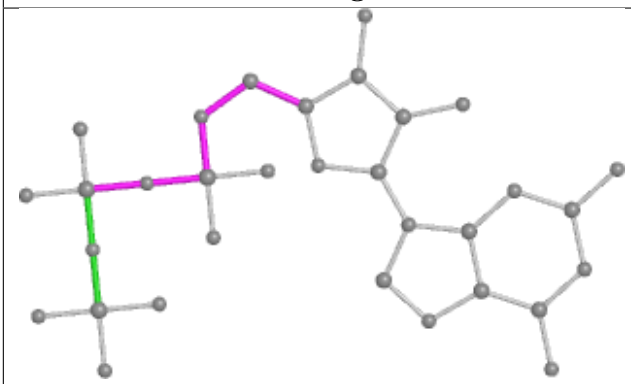

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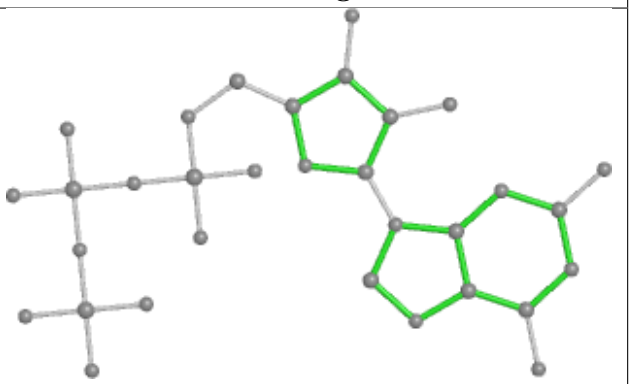
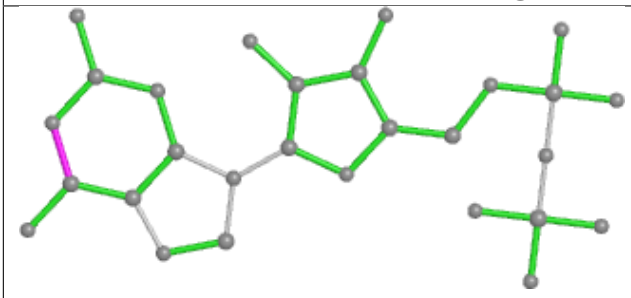
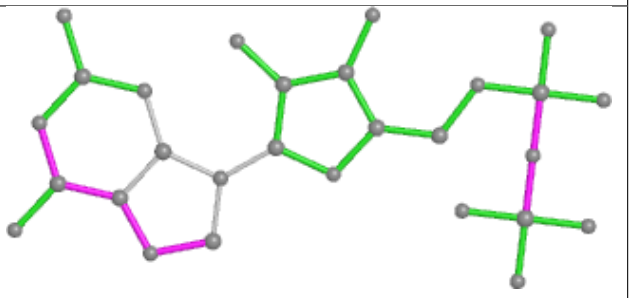
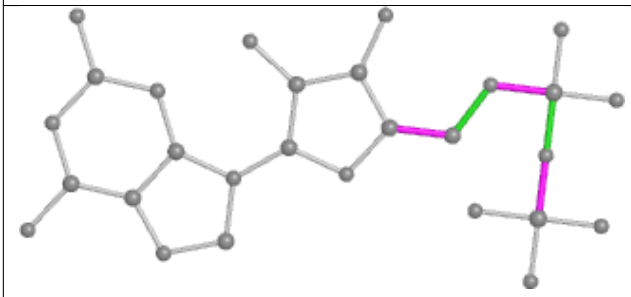
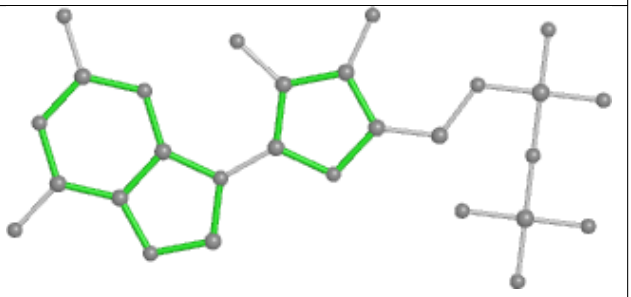


Rings

Ligand GDP D0 501	
	
Bond lengths	Bond angles
	
Torsions	Rings

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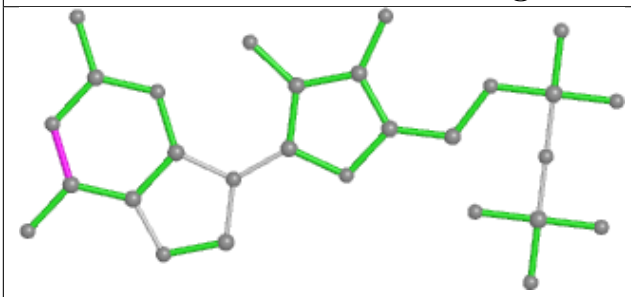
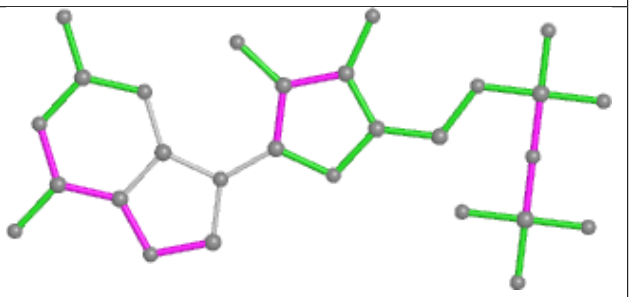
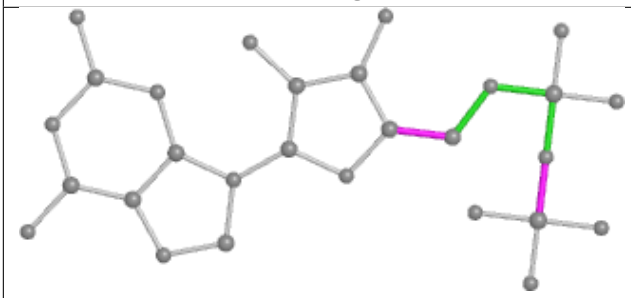
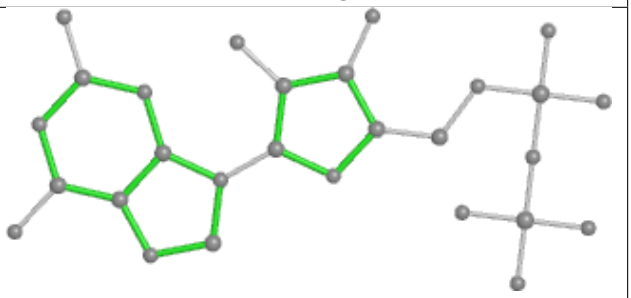
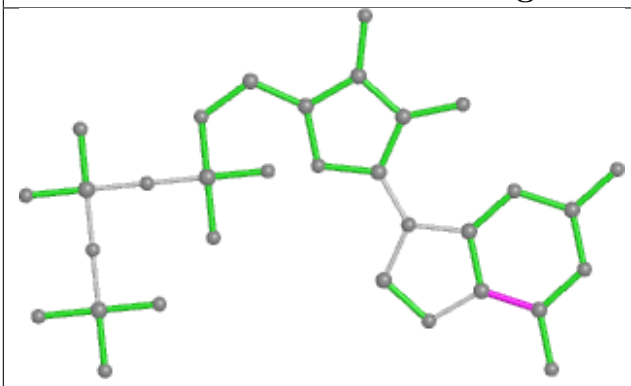
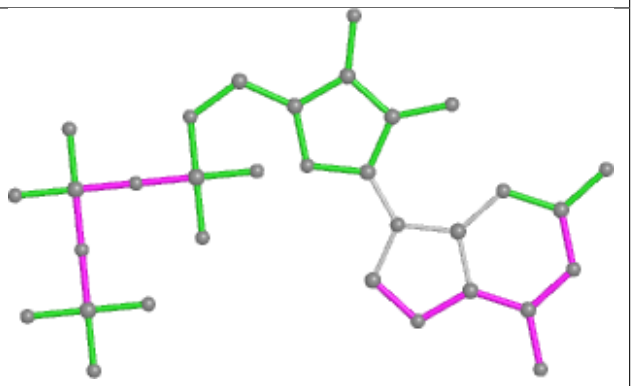
	
Bond lengths	Bond angles
	
Torsions	Rings

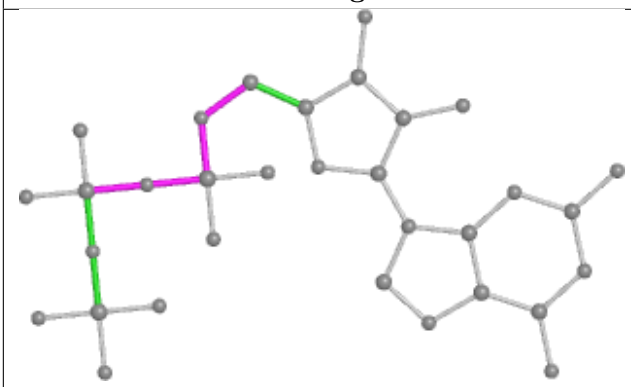
Ligand GTP S2 501



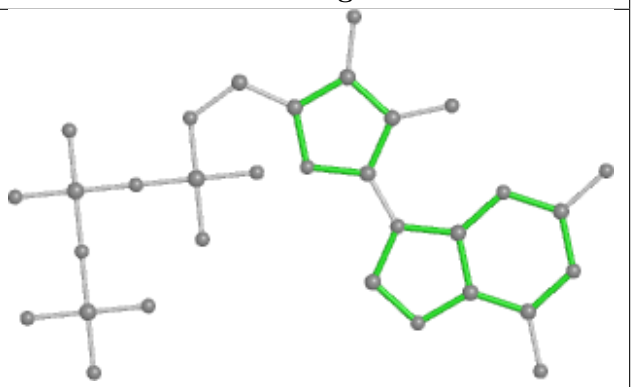
Bond lengths



Bond angles

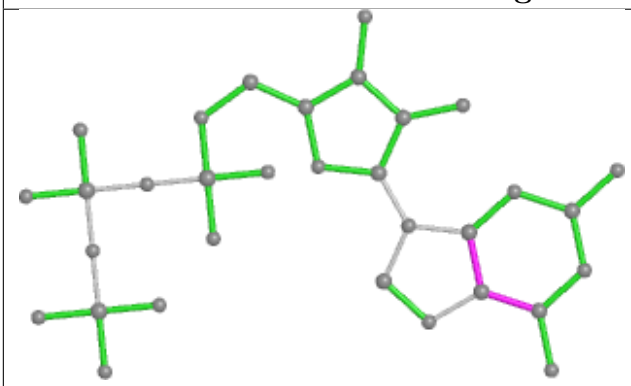


Torsions



Rings

Ligand GTP T6 501



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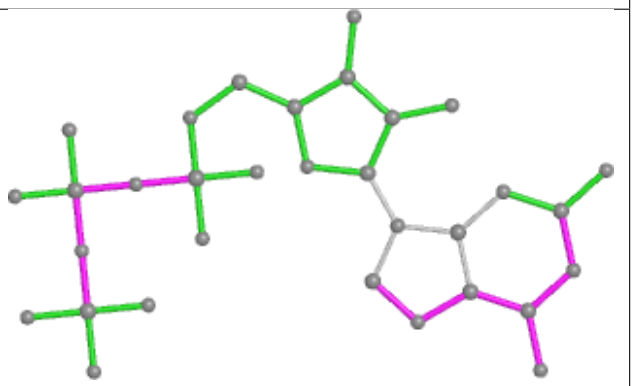

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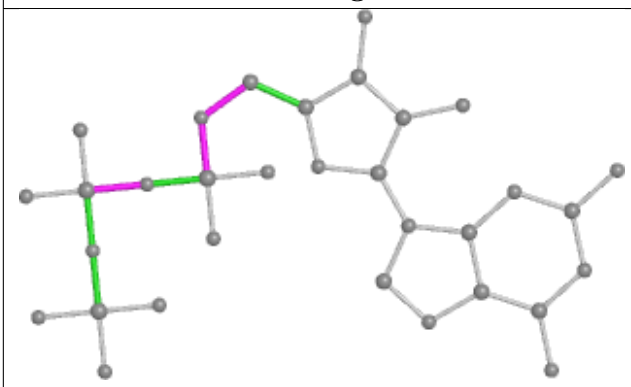

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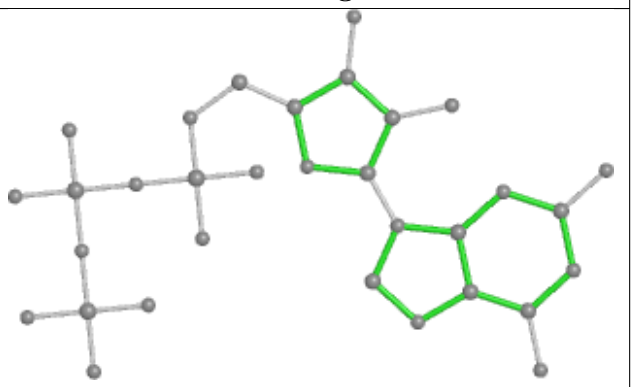
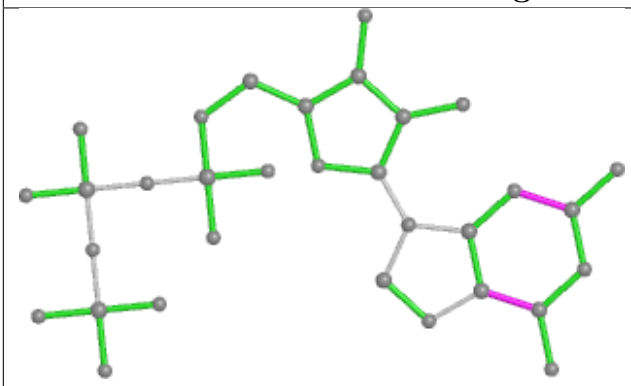


Rings

Ligand GTP U7 501



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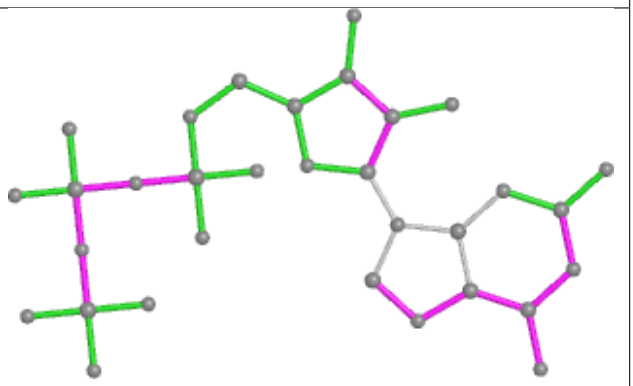
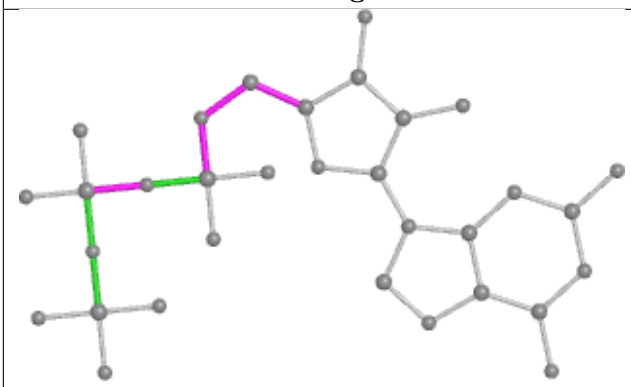


Bond angles



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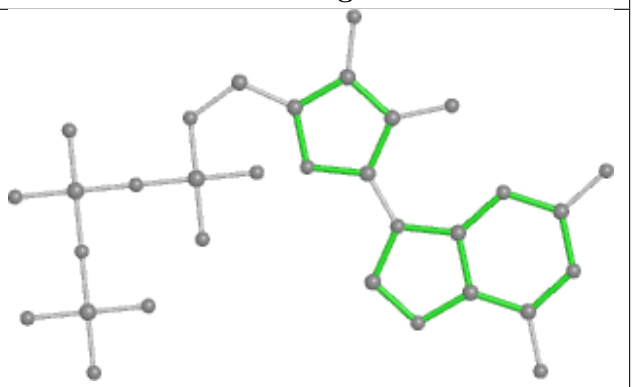
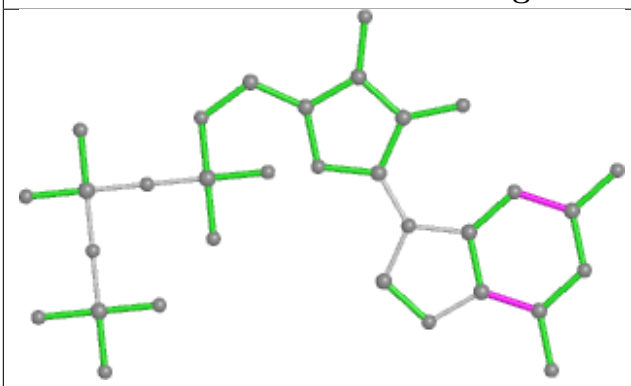


Rings

Ligand GTP G9 501



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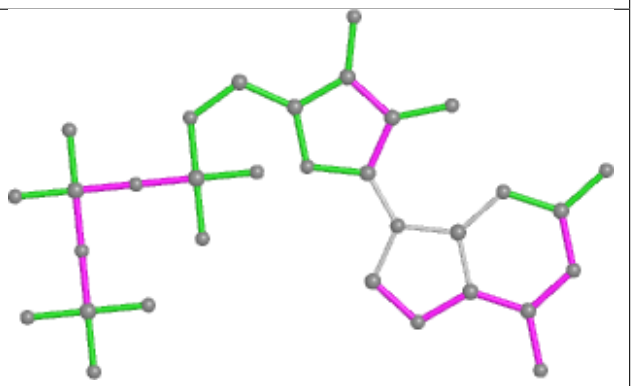
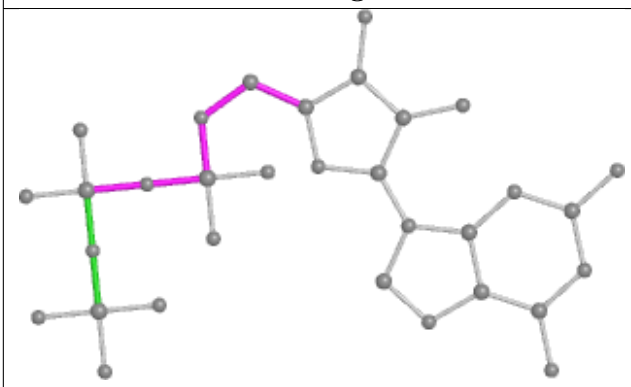


Bond angles



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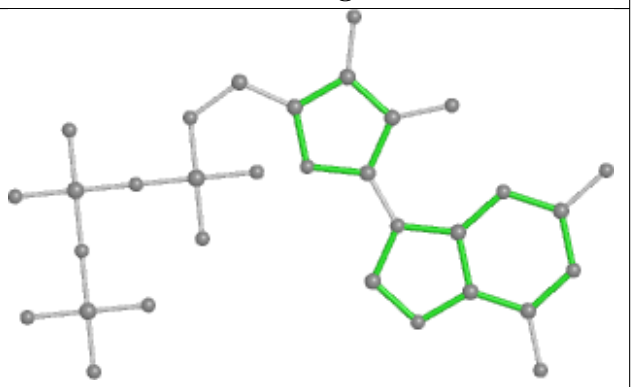
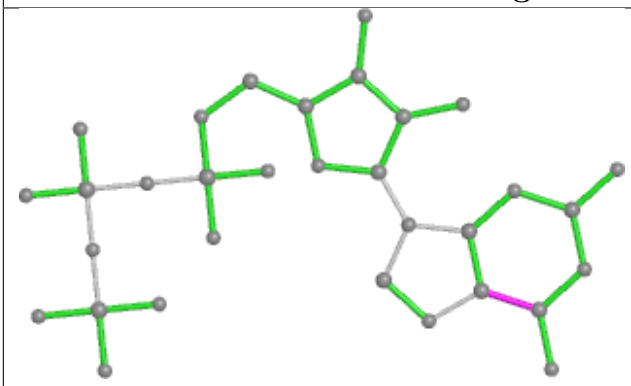
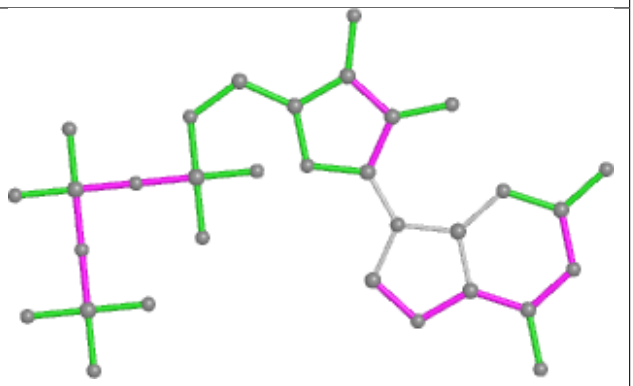


Rings

Ligand GTP Y6 501



Bond lengths



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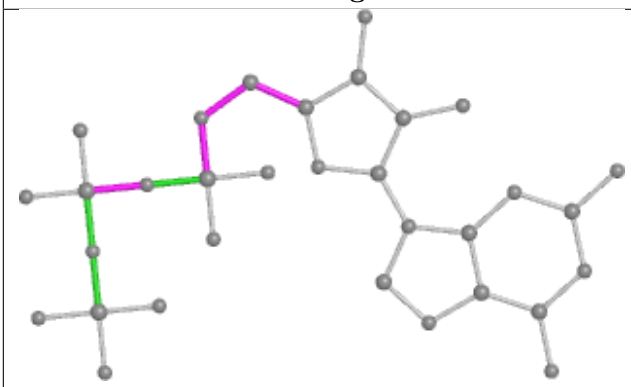
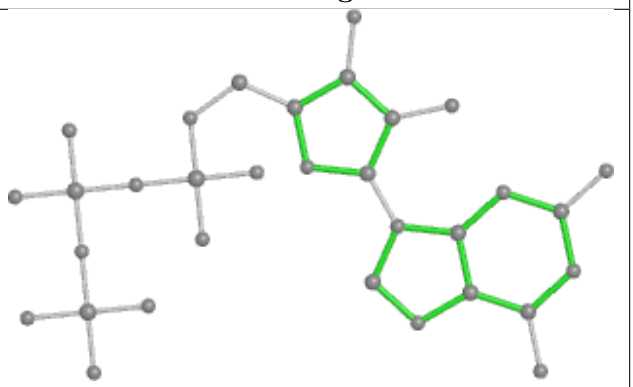
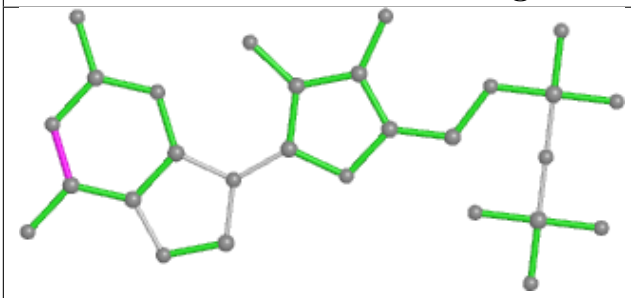


Torsions



Rings

Ligand GDP D4 501



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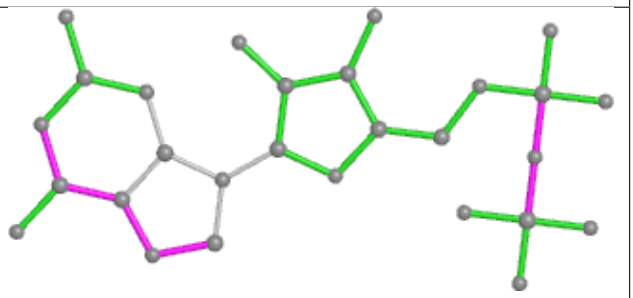

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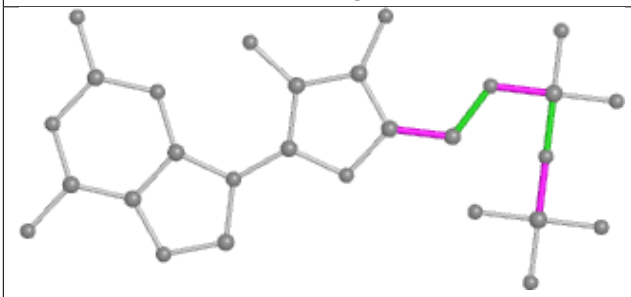

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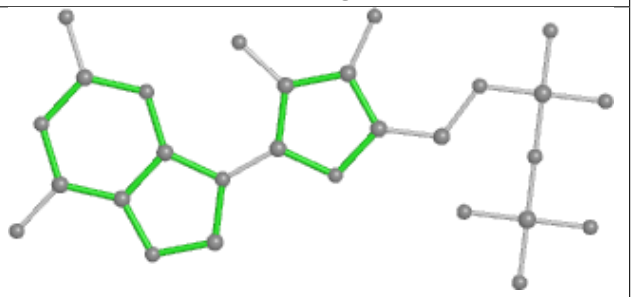
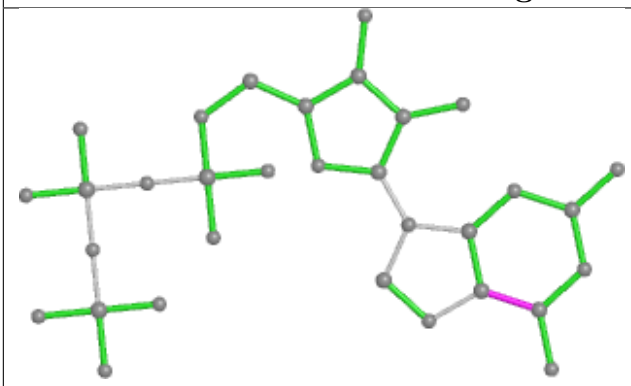


Rings

Ligand GTP F1 501



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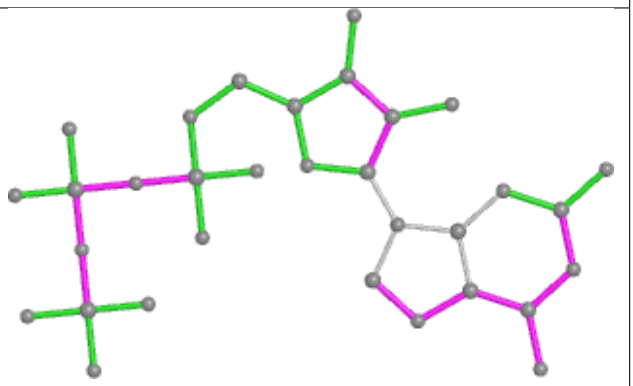

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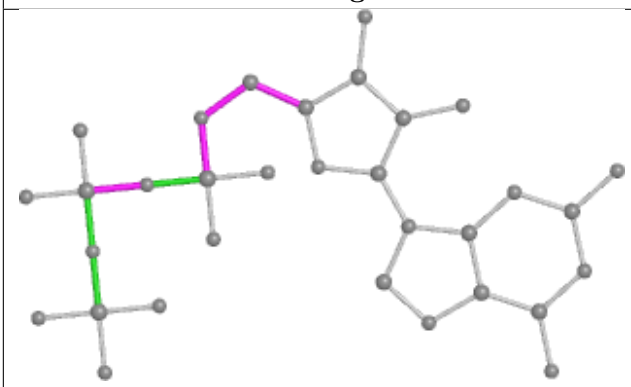

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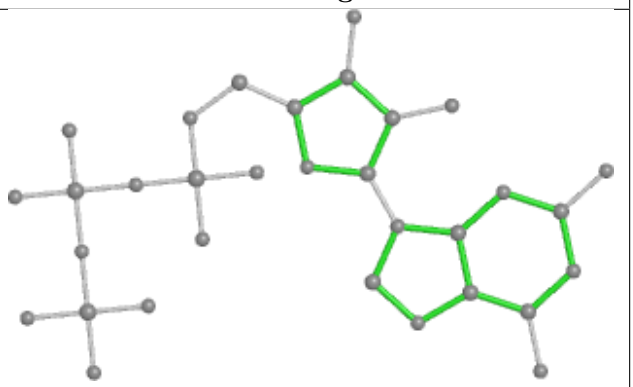
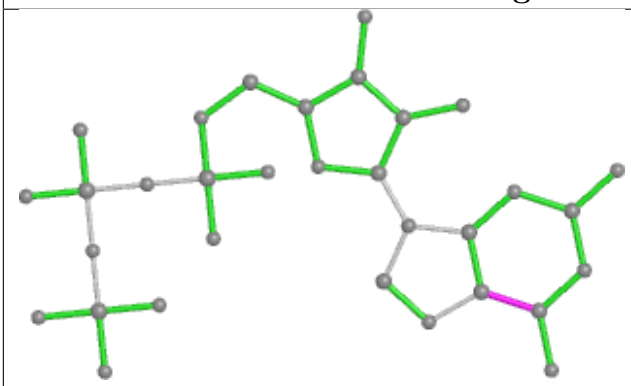


Rings

Ligand GTP A9 501



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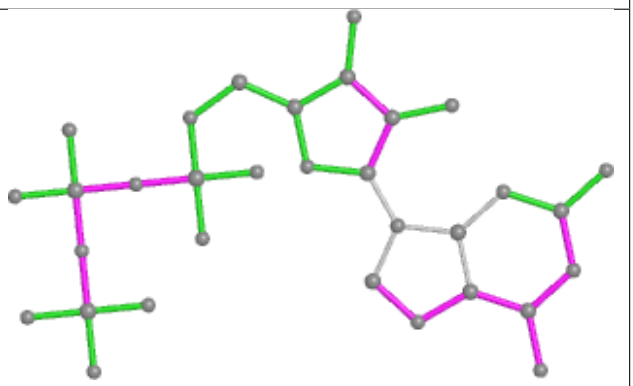

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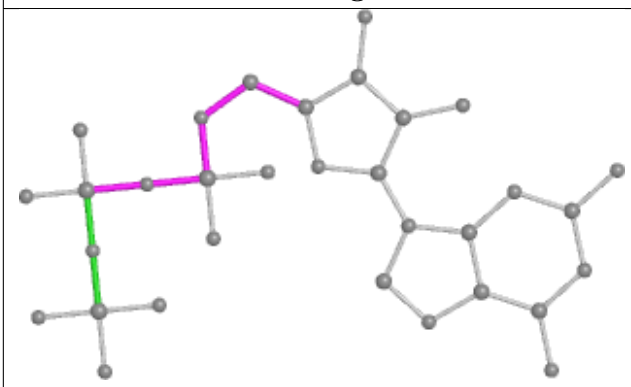

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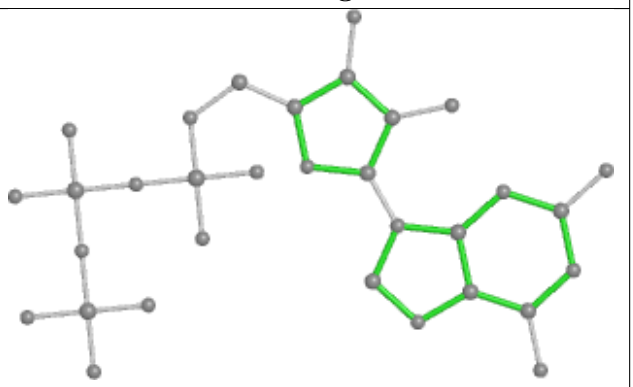
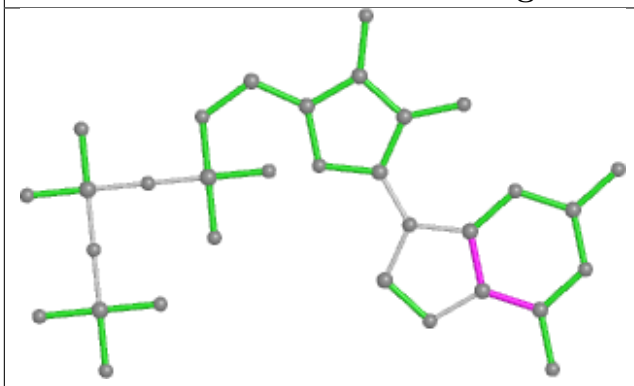


Rings

Ligand GTP L6 501



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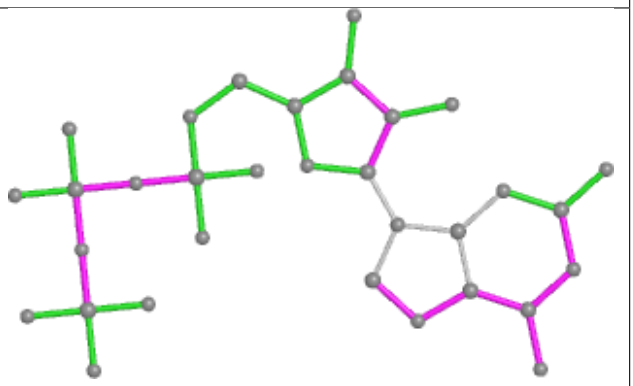

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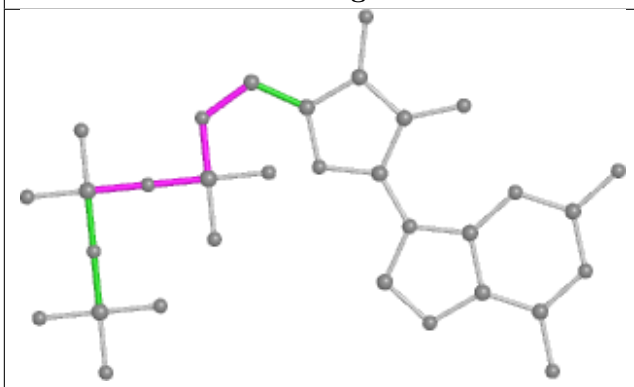

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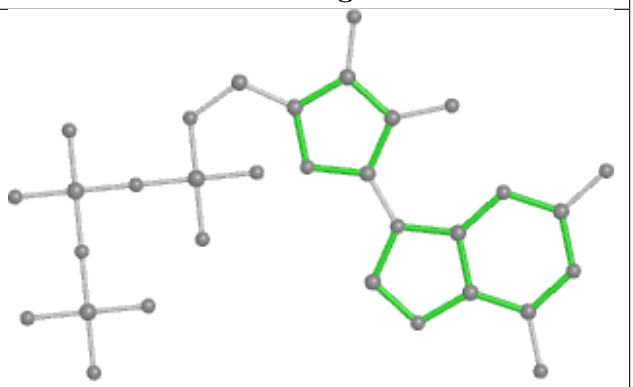
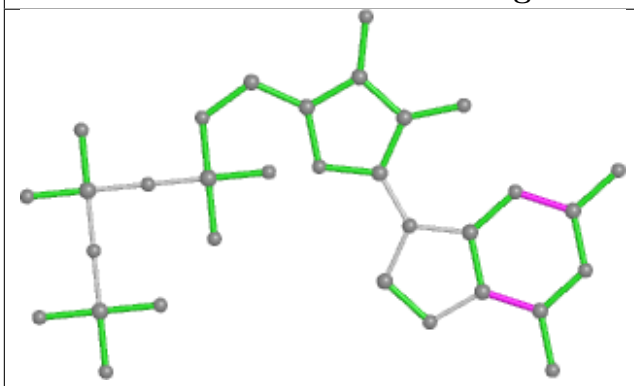


Rings

Ligand GTP K1 501



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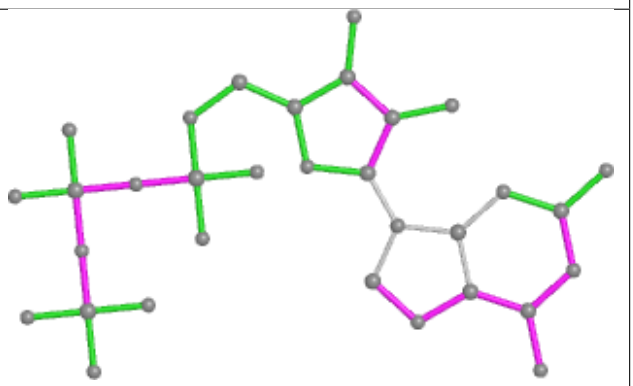

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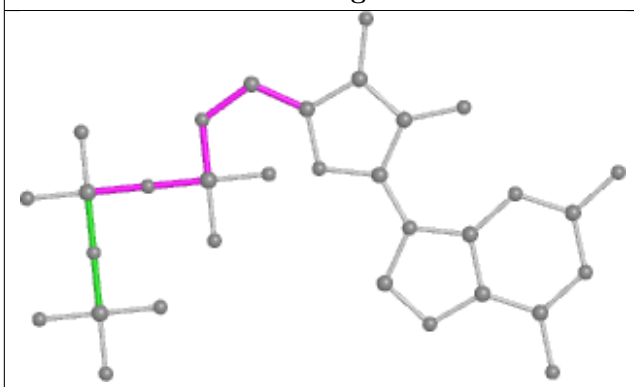

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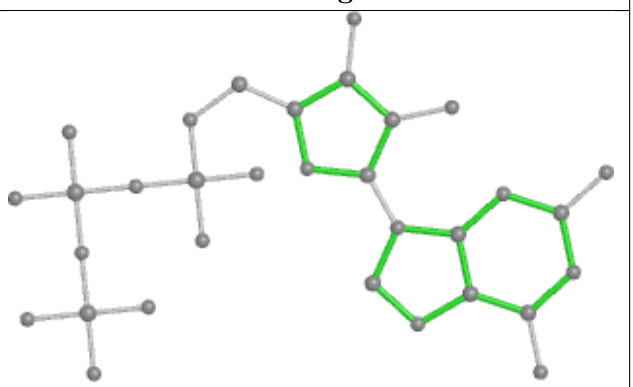

Rings

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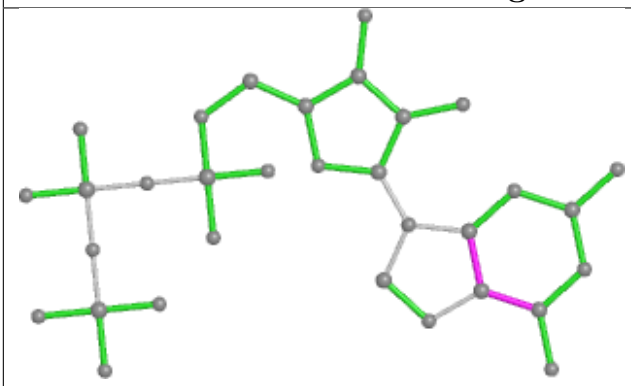

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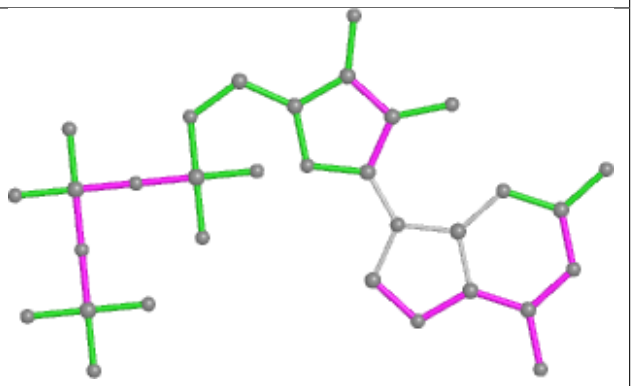

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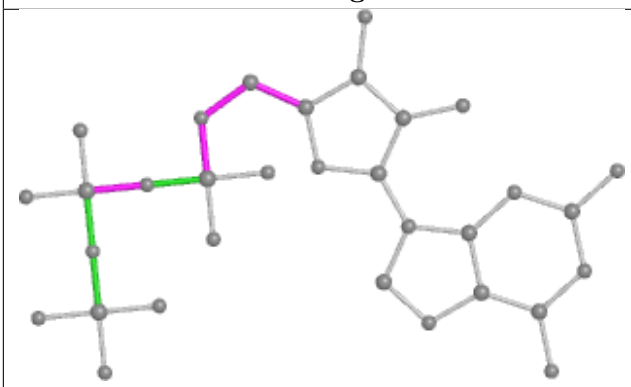

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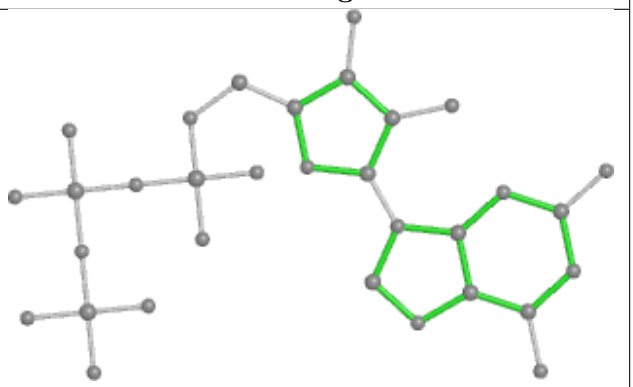

Rings

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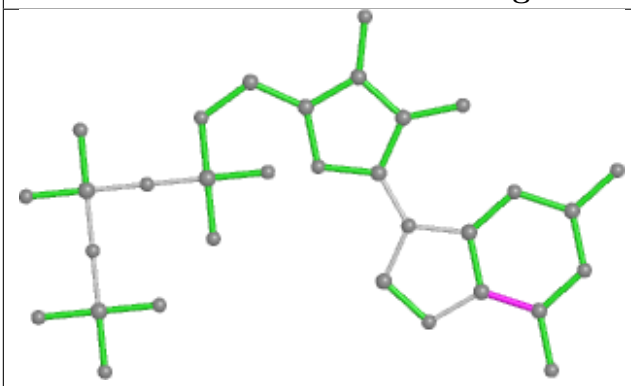

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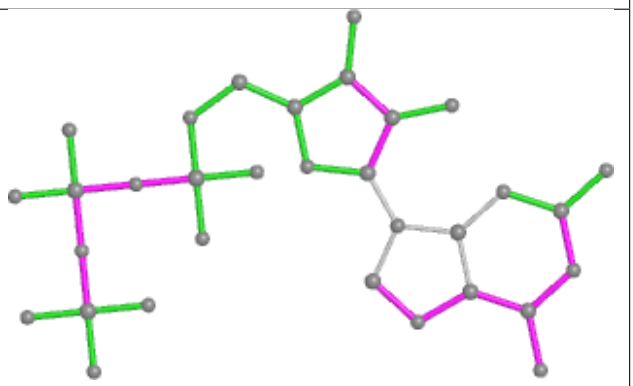

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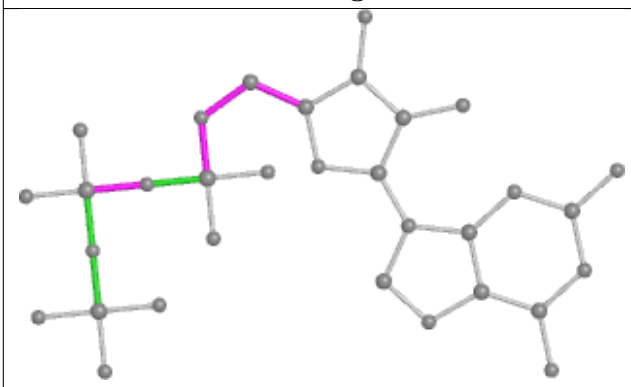

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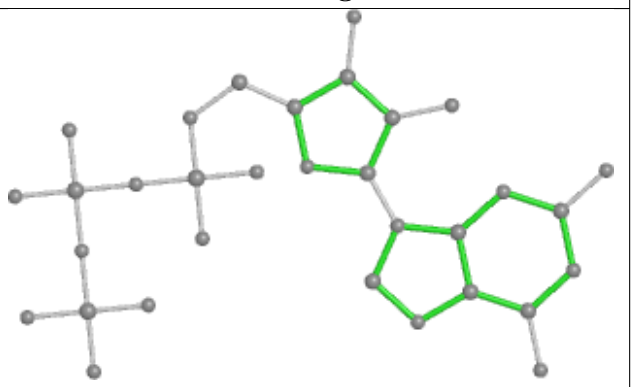
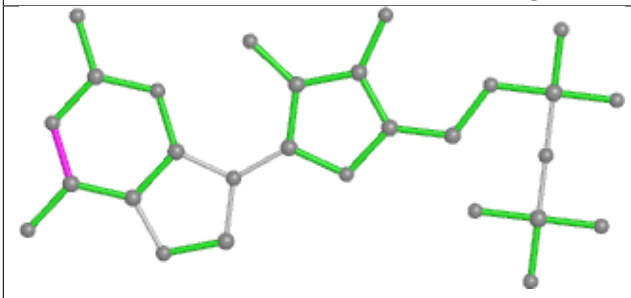


Rings

Ligand GDP 5 501



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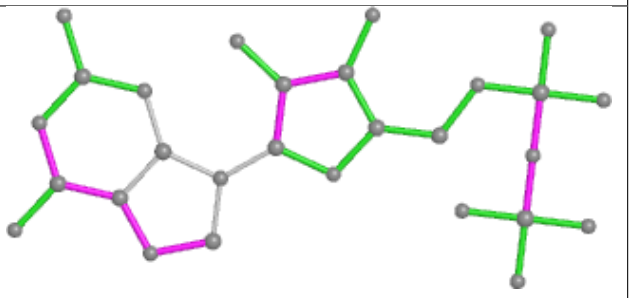

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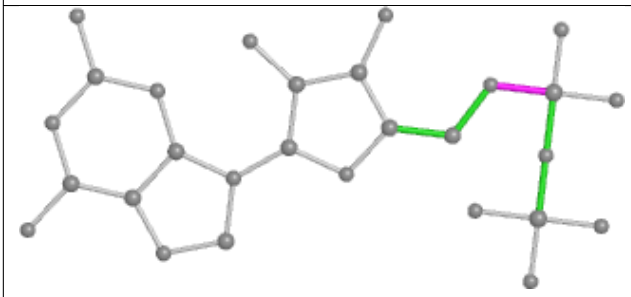

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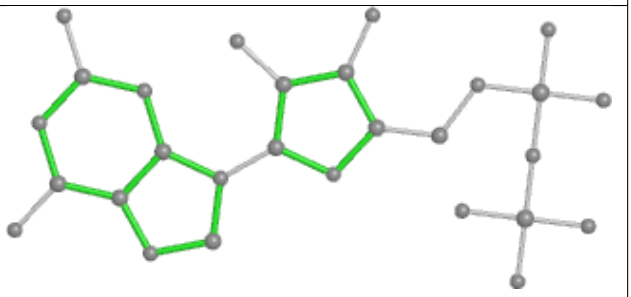
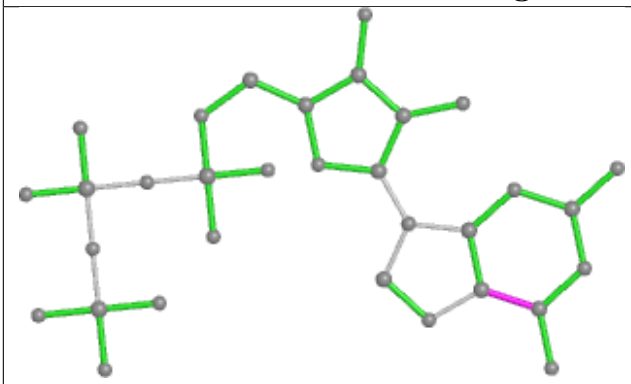


Rings

Ligand GTP A4 501



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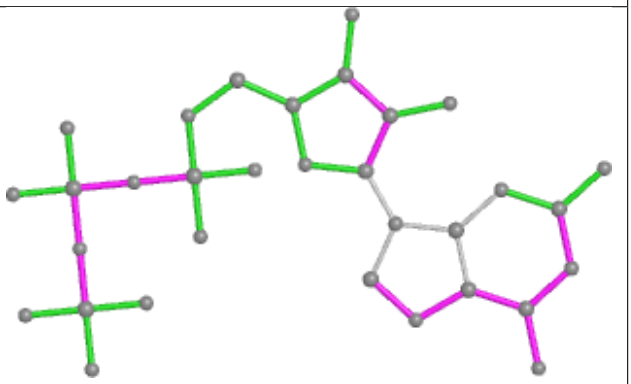

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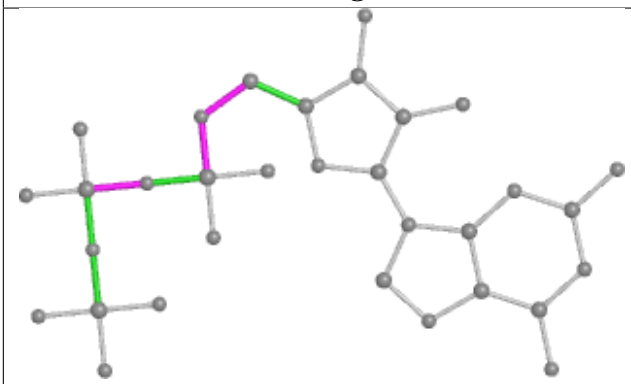

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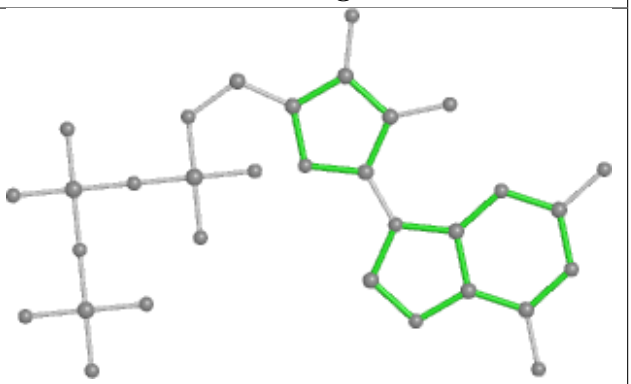
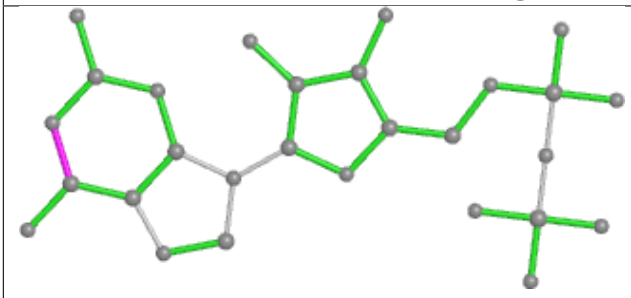
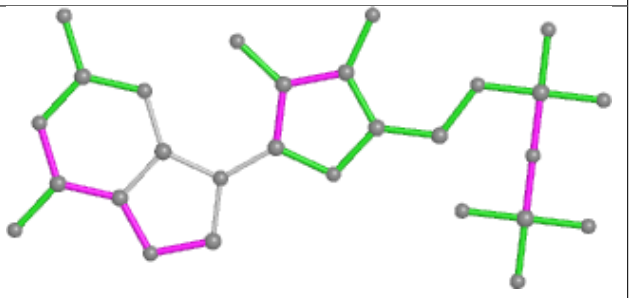
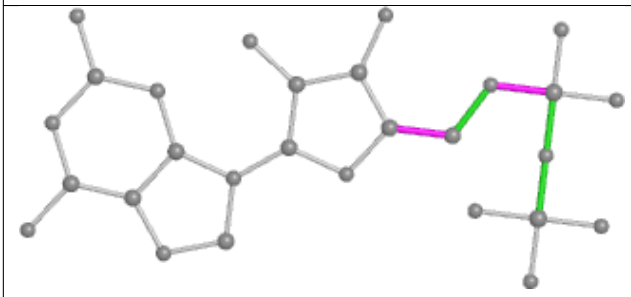
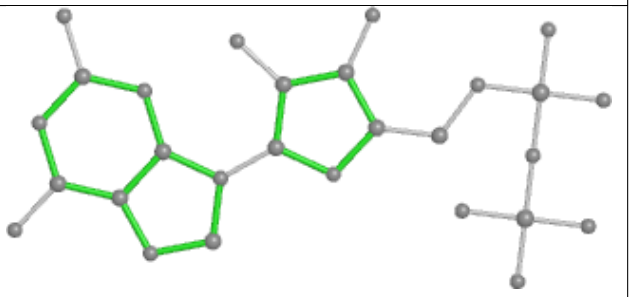


Rings

Ligand GDP U6 502	
	
Bond lengths	Bond angles
	
Torsions	Rings

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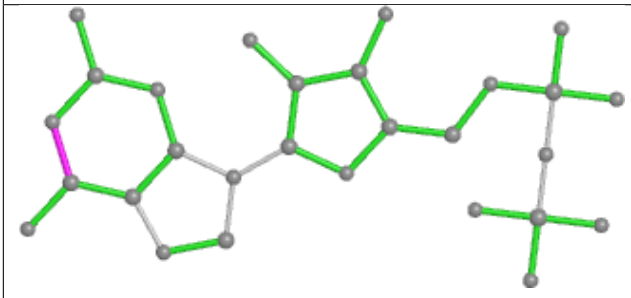	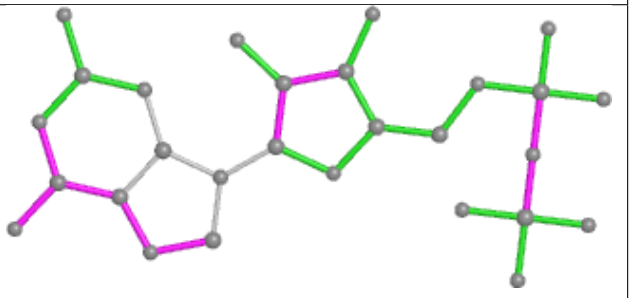
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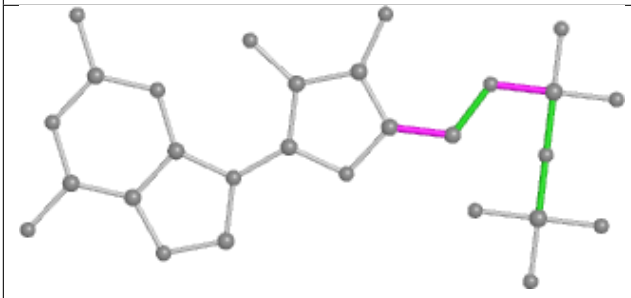	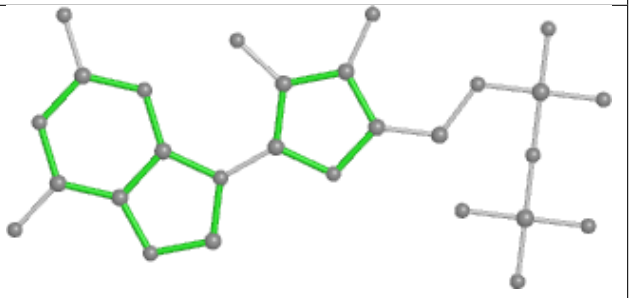
Torsions	Rings

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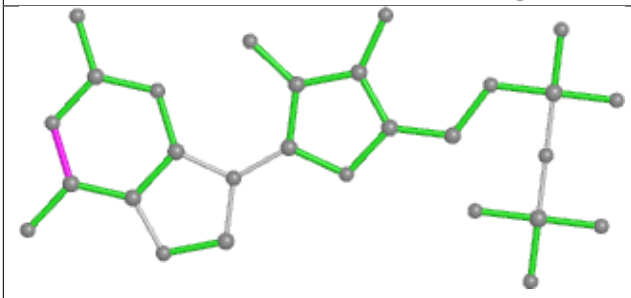
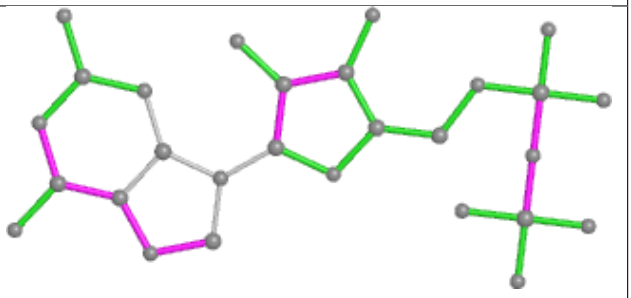
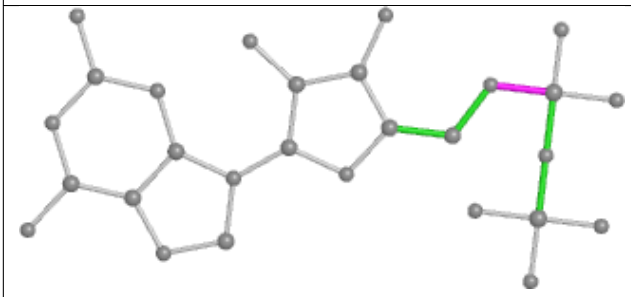
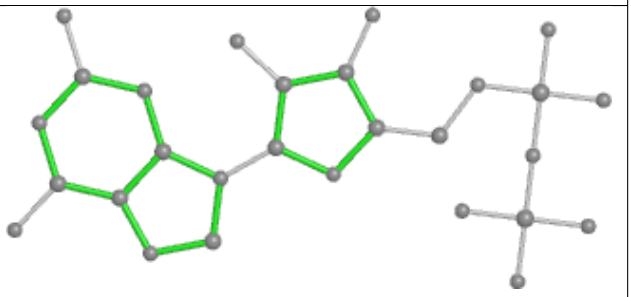
 Bond lengths	 Bond angles
 Torsions	 Rings

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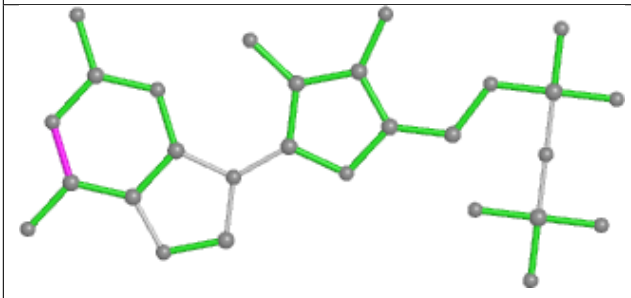
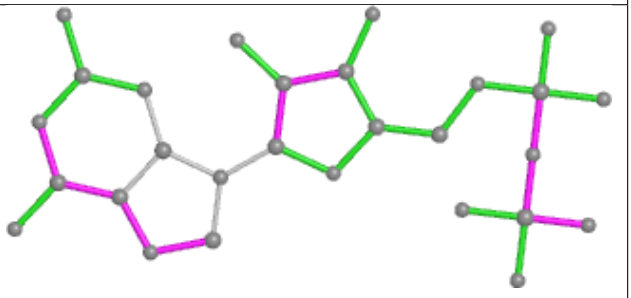
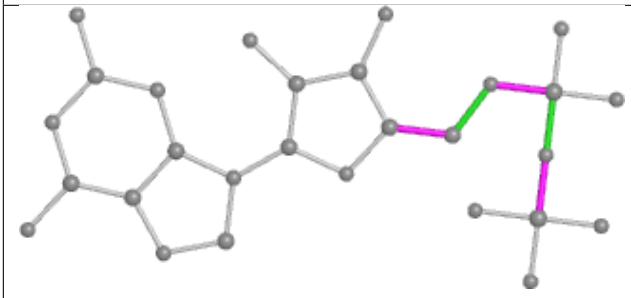
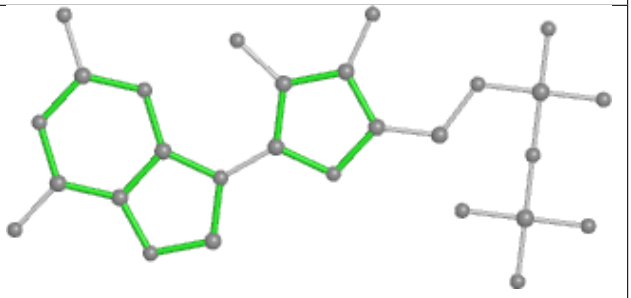
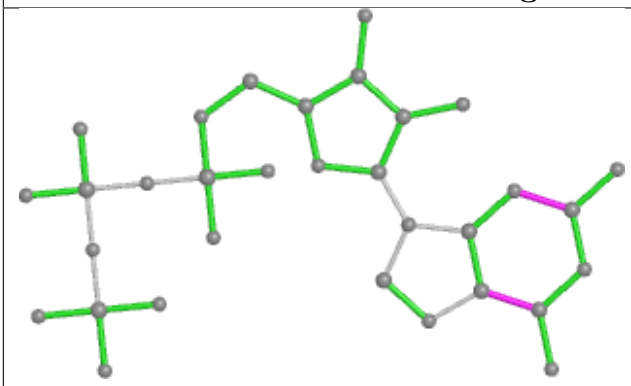
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GTP I4 501



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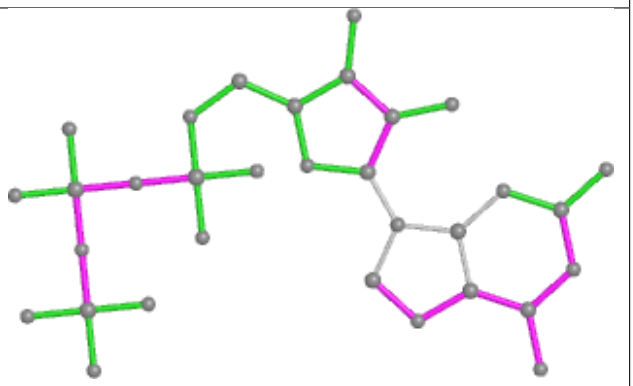

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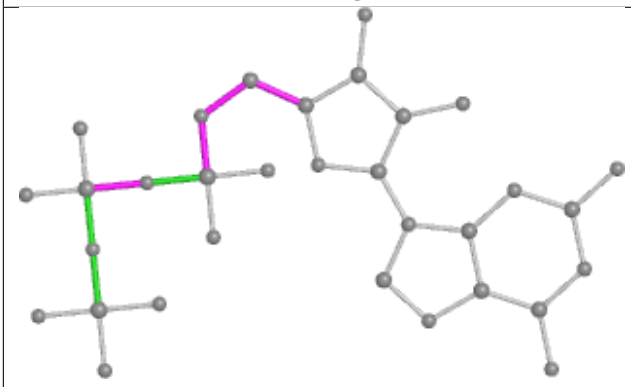
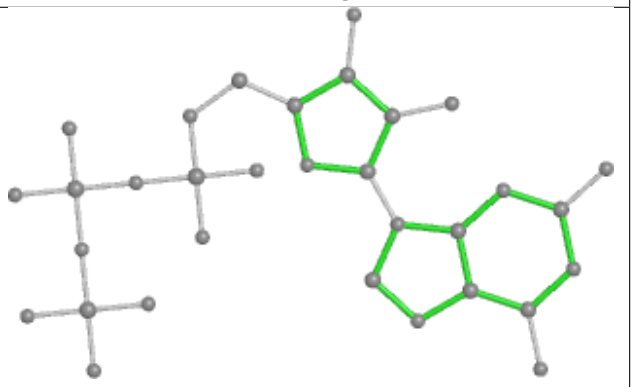
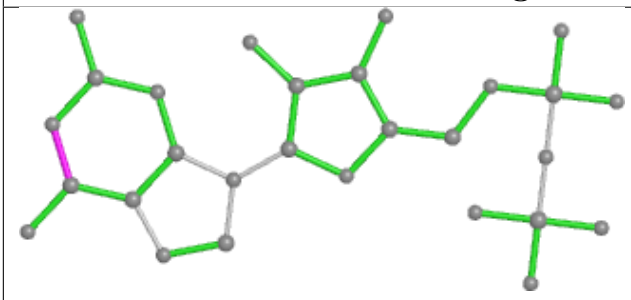


Torsions



Rings

Ligand GDP R2 502



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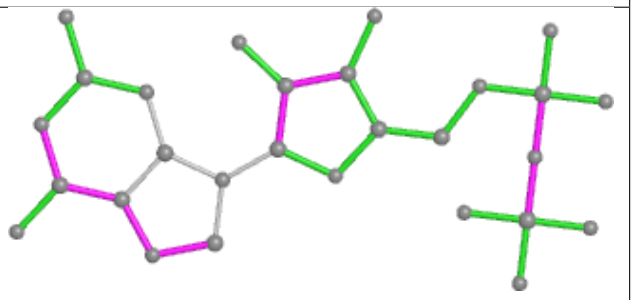

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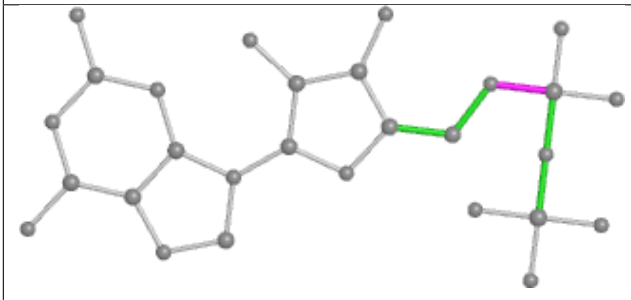

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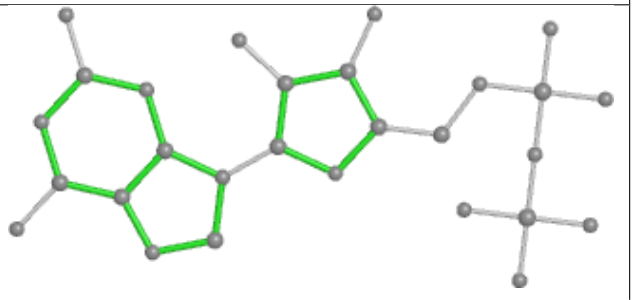
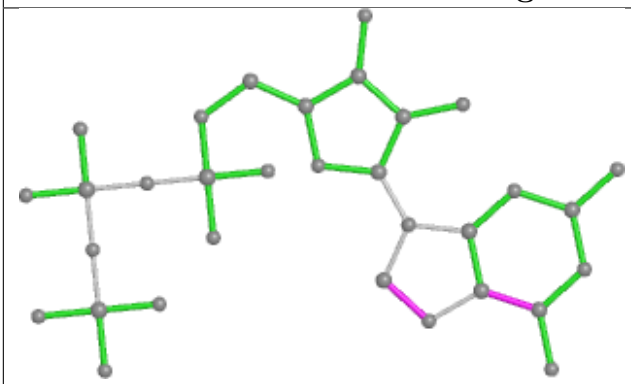


Rings

Ligand GTP S9 501



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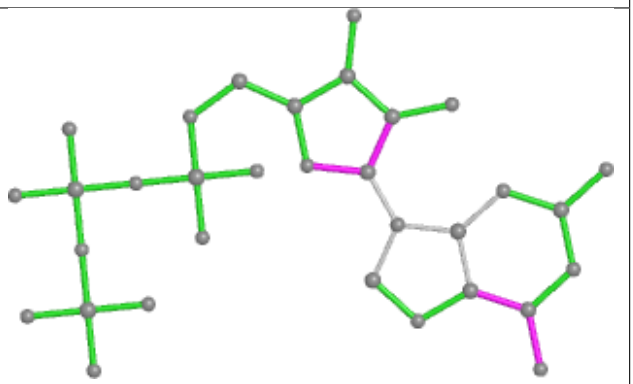

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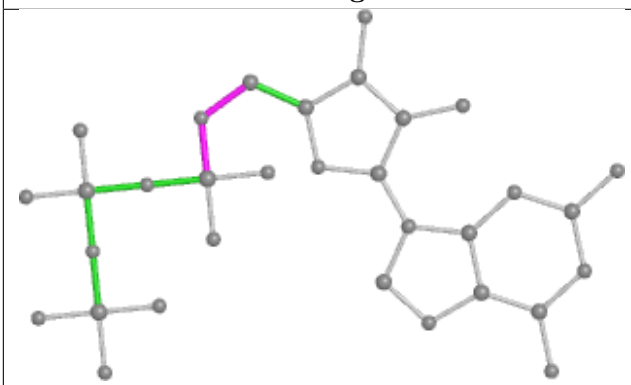

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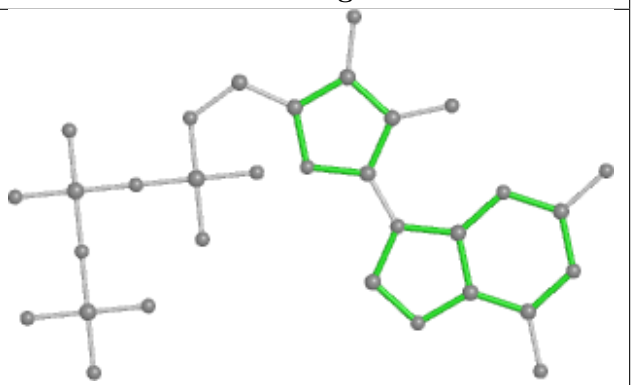
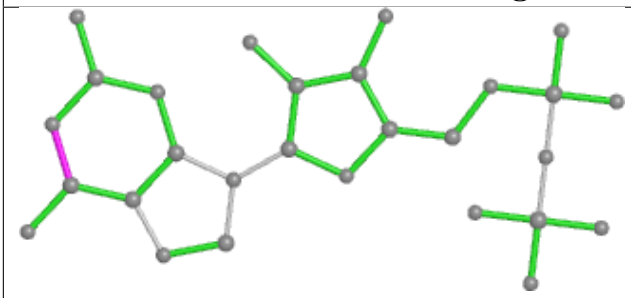


Rings

Ligand GDP 1G 502



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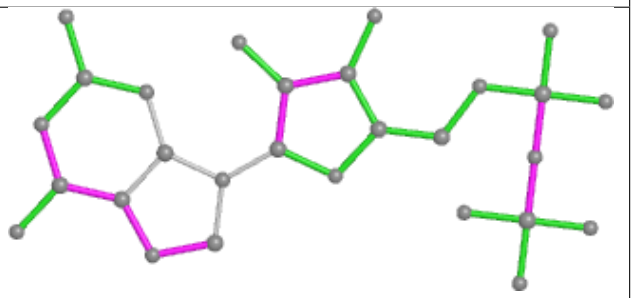

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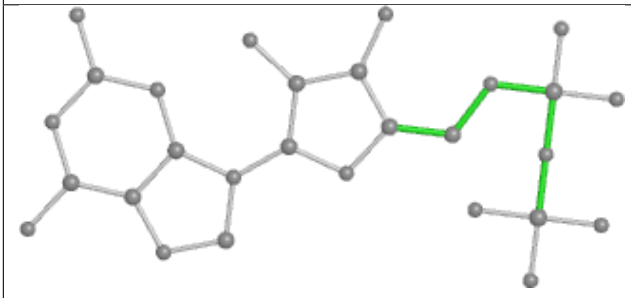

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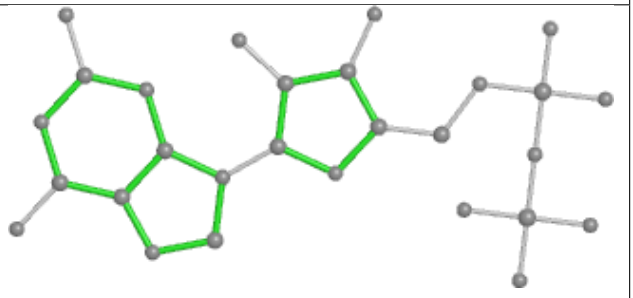
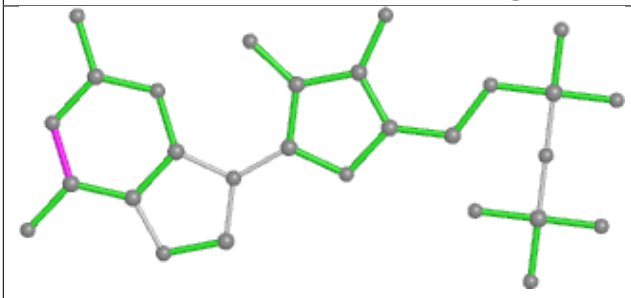
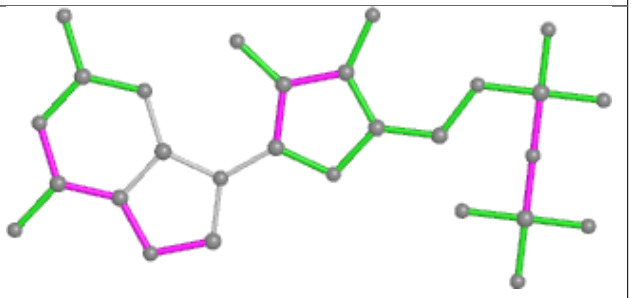
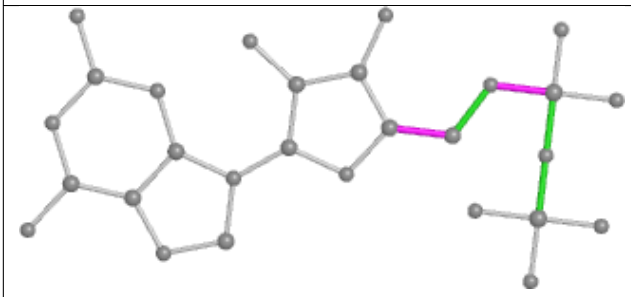
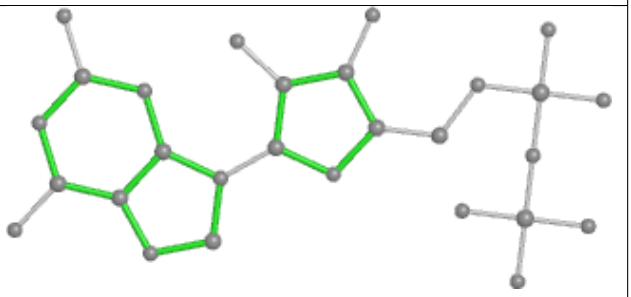


Rings

Ligand GDP 0W 502	
 Bond lengths	 Bond angles
 Torsions	 Rings

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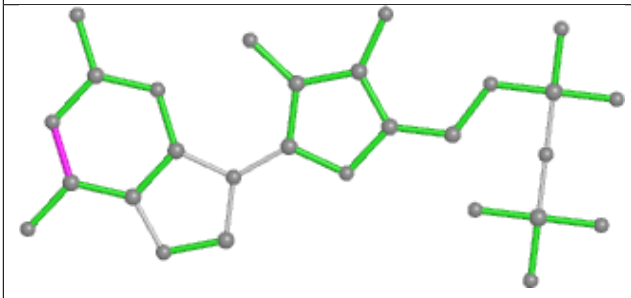
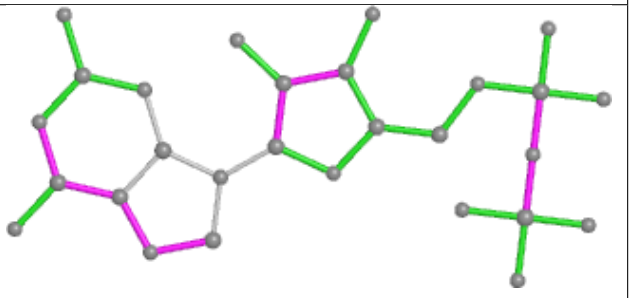
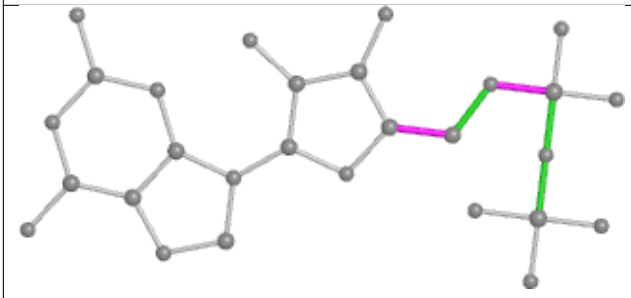
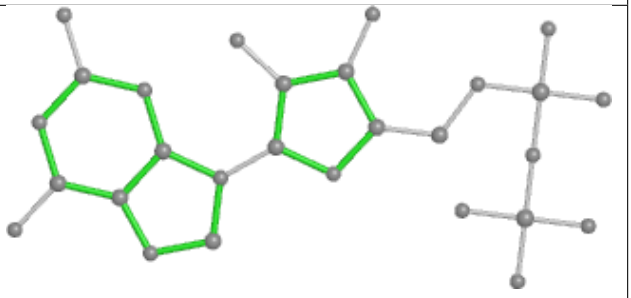
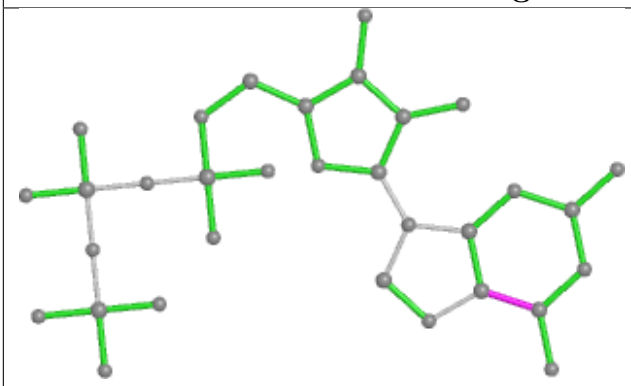
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GTP G5 501



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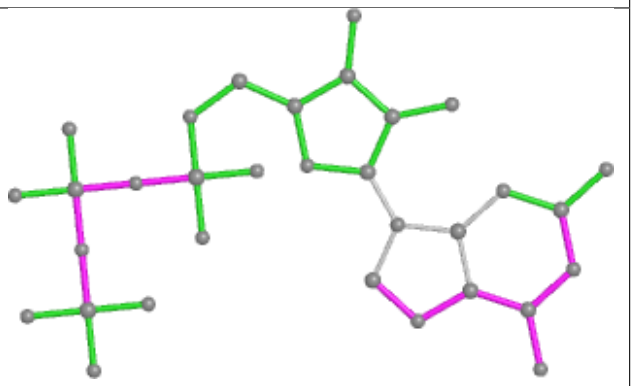

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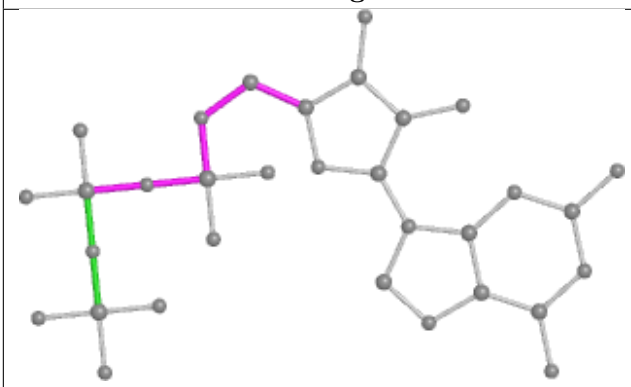

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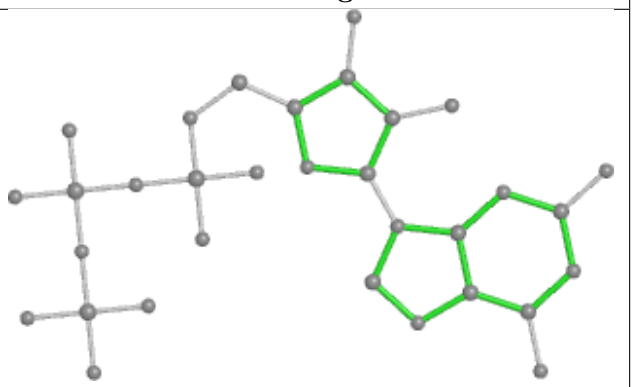
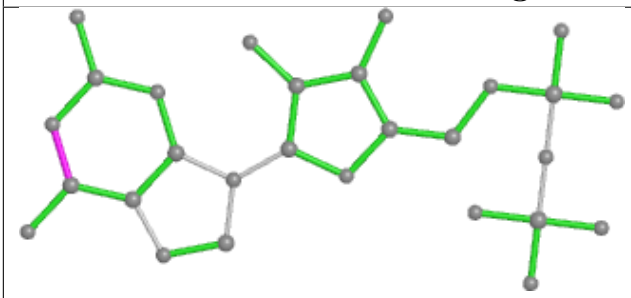


Rings

Ligand GDP G8 501



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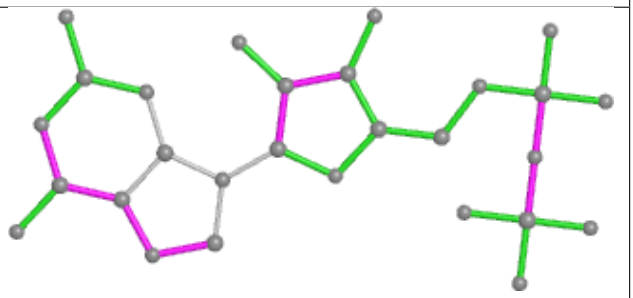

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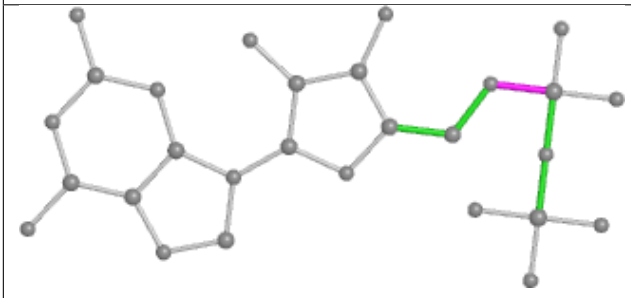

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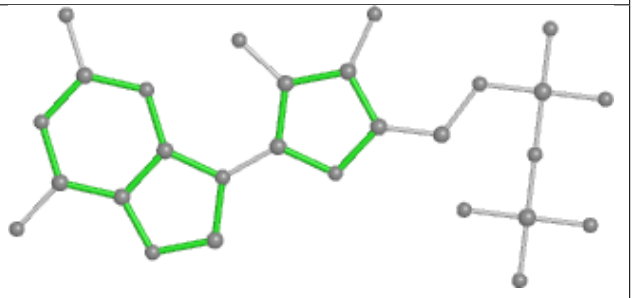
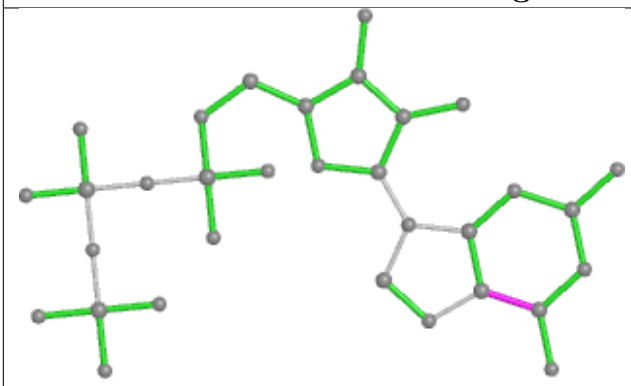


Rings

Ligand GTP 2K 501



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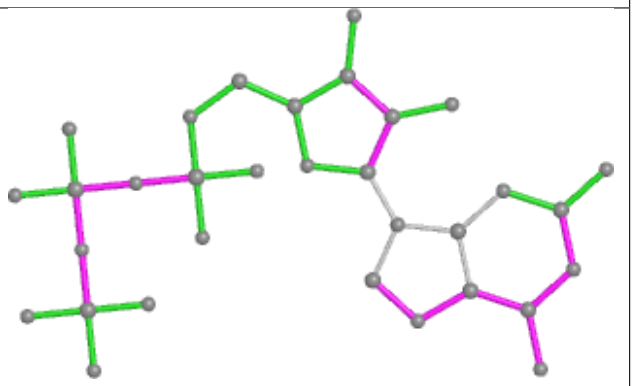

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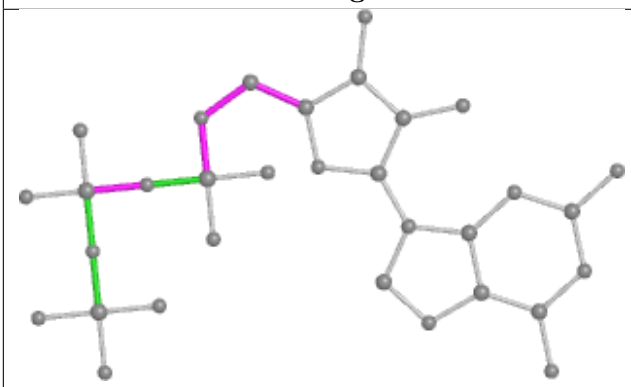

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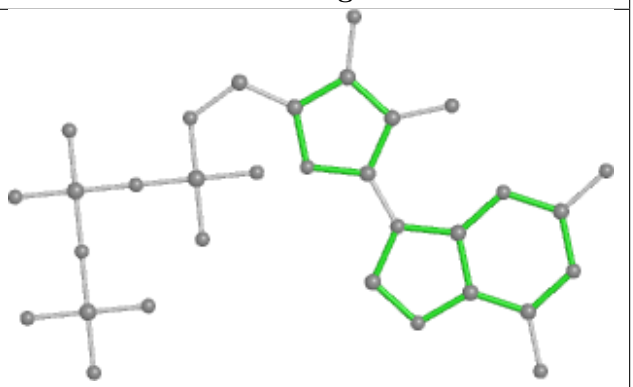
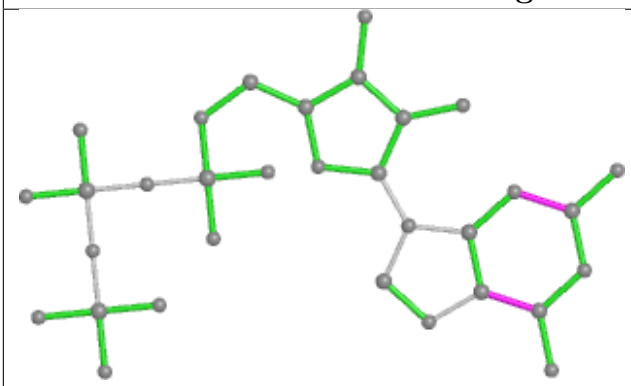


Rings

Ligand GTP Z2 501



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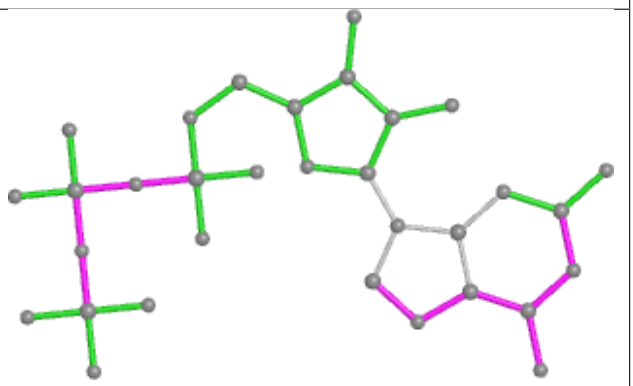

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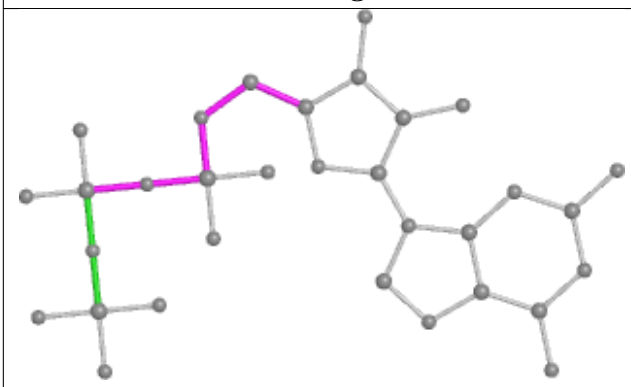

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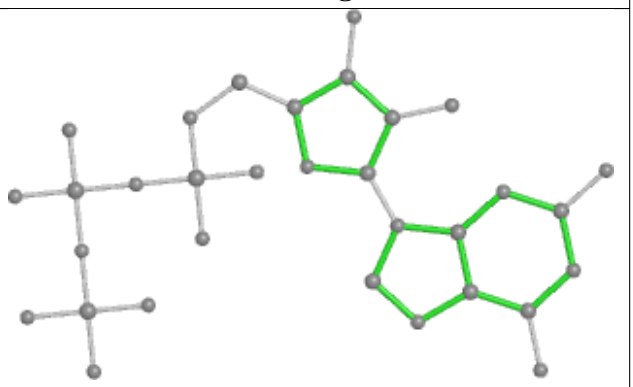
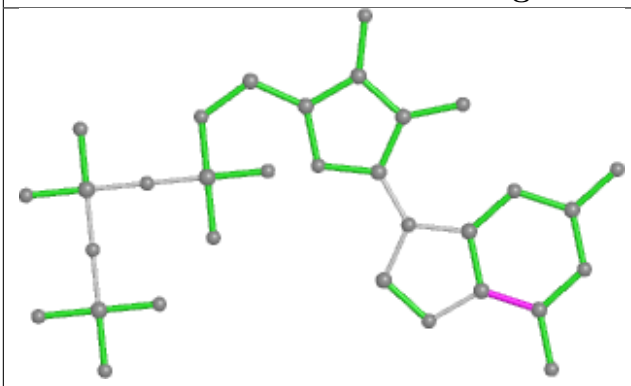


Rings

Ligand GTP K6 501



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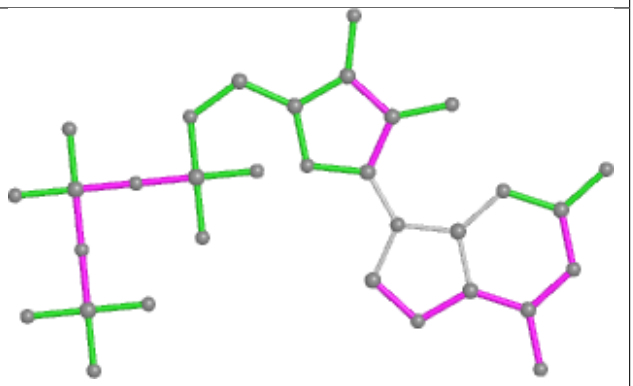

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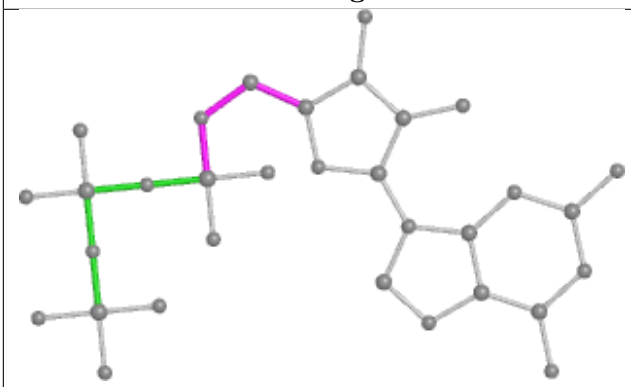

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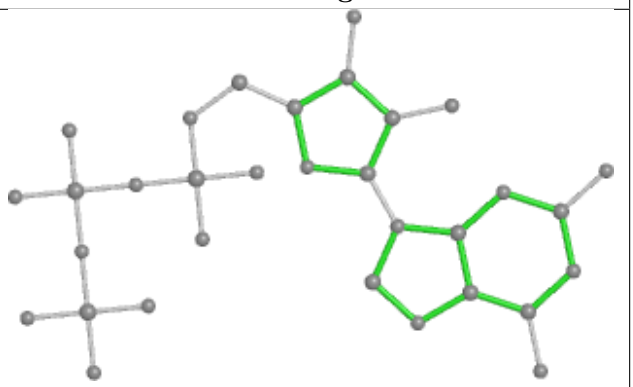
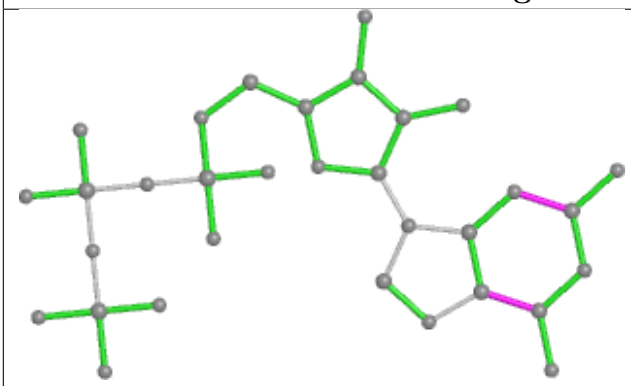


Rings

Ligand GTP C0 501



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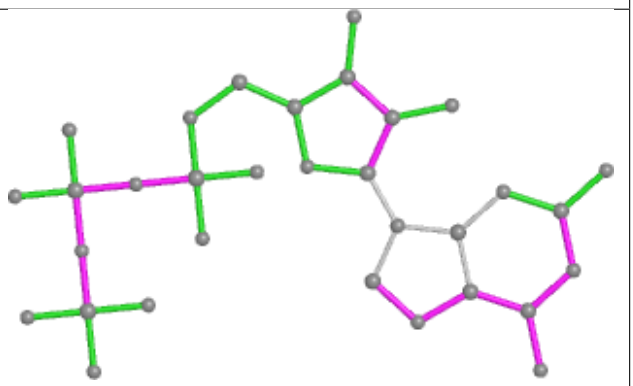

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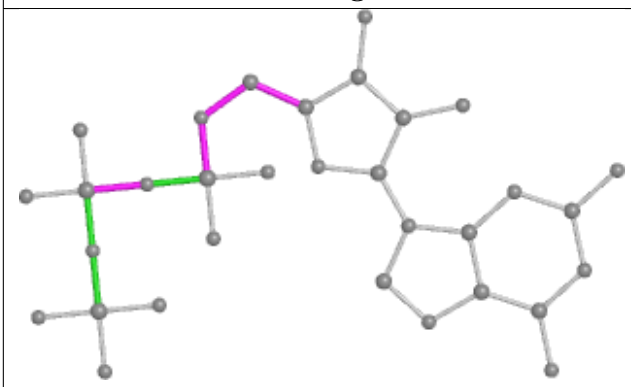

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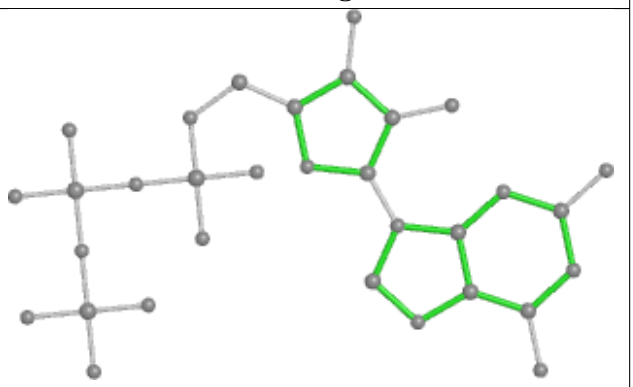
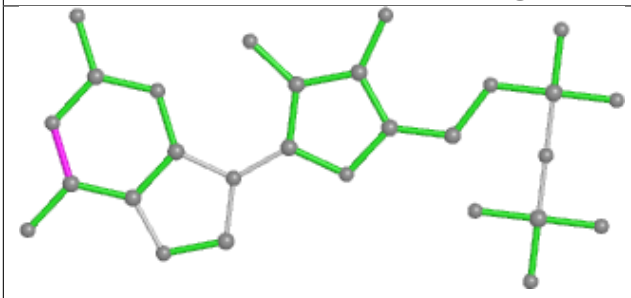
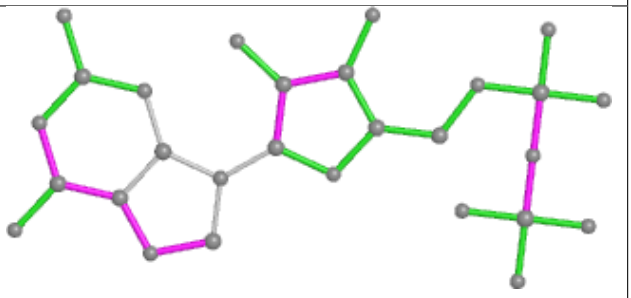


Rings

Ligand GDP G4 502	
	
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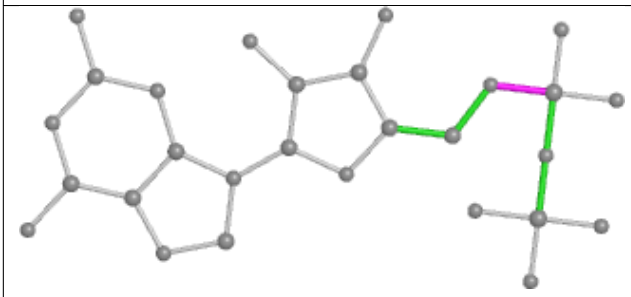
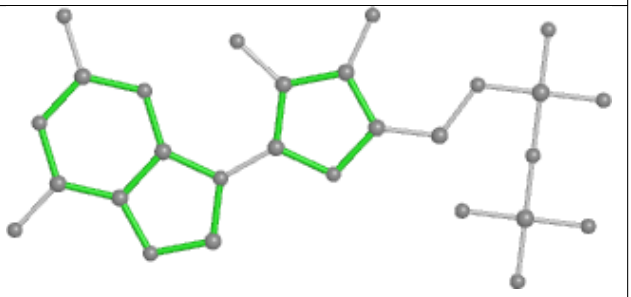
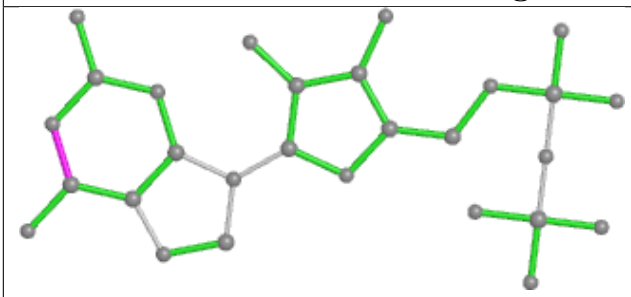
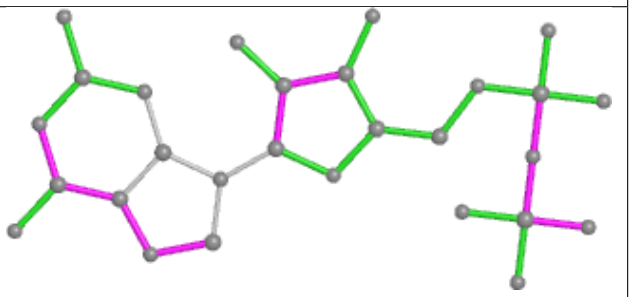
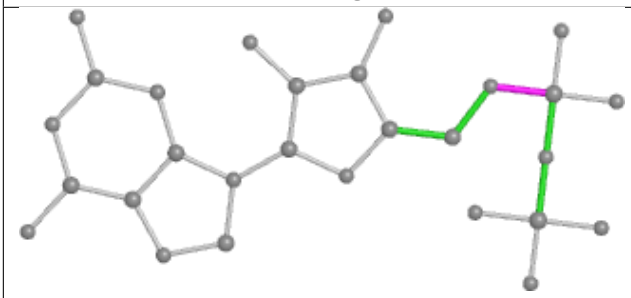
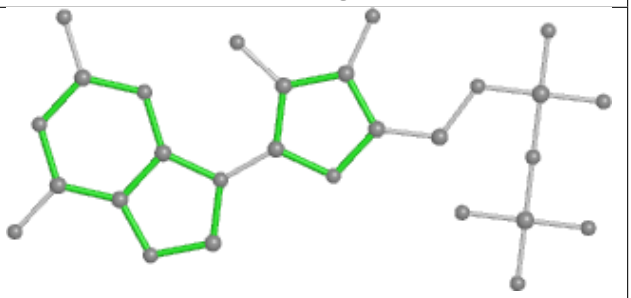
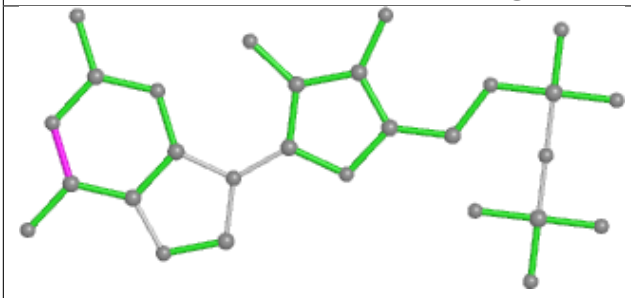
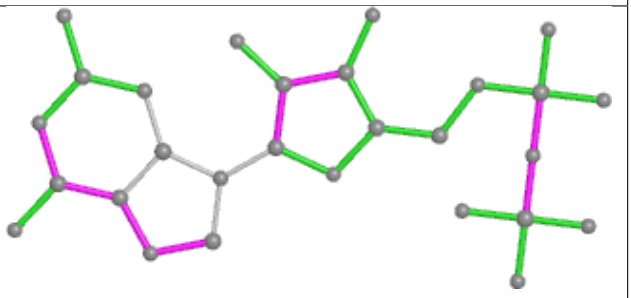
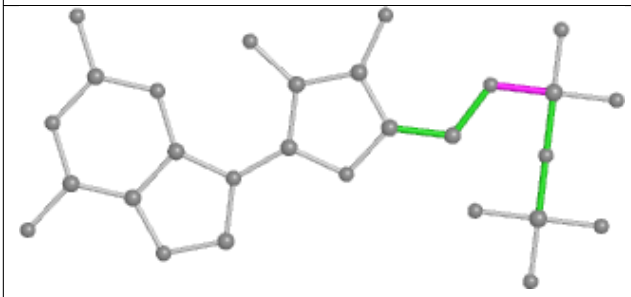
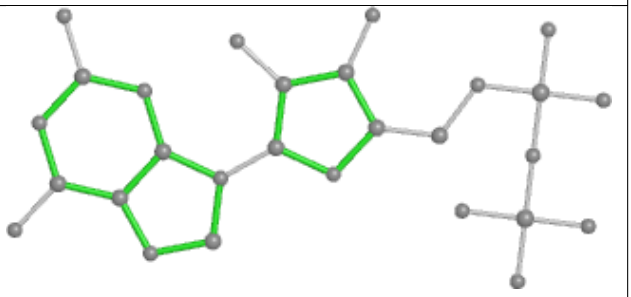
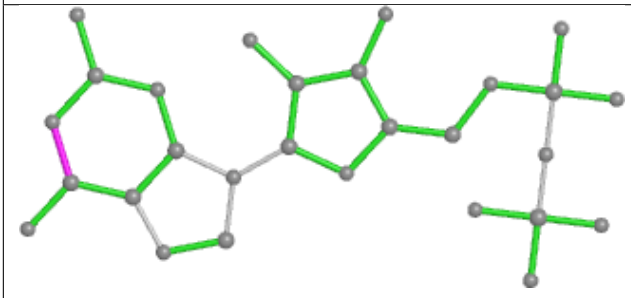
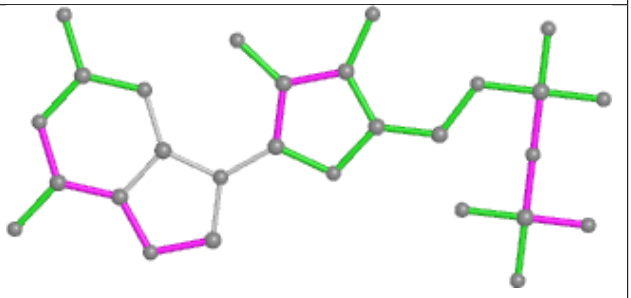
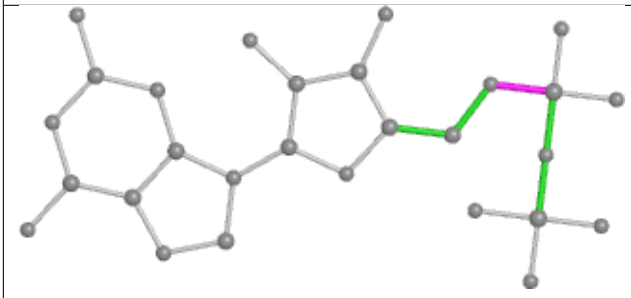
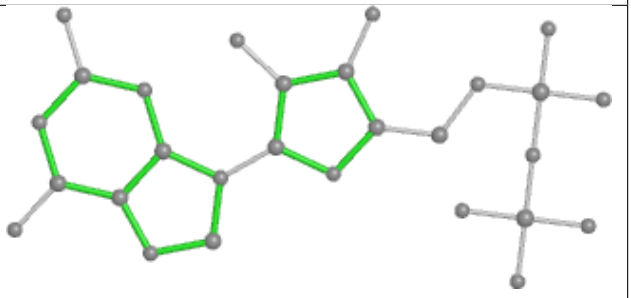
	
Torsions	Rings

Ligand GDP 0O 502	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand GDP M2 502	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GDP C2 501	
 Bond lengths	 Bond angles
 Torsions	 Rings

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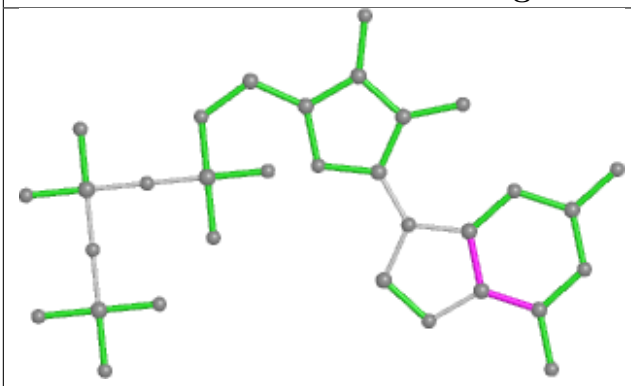

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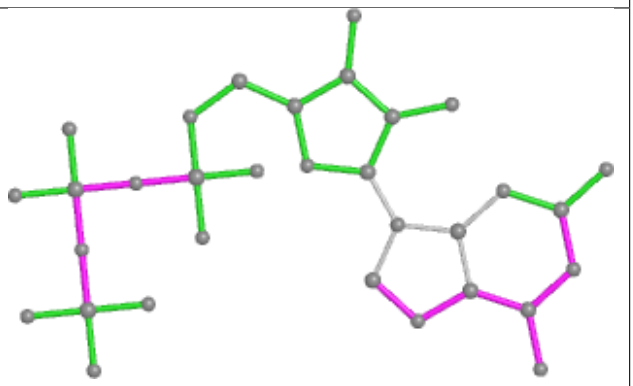

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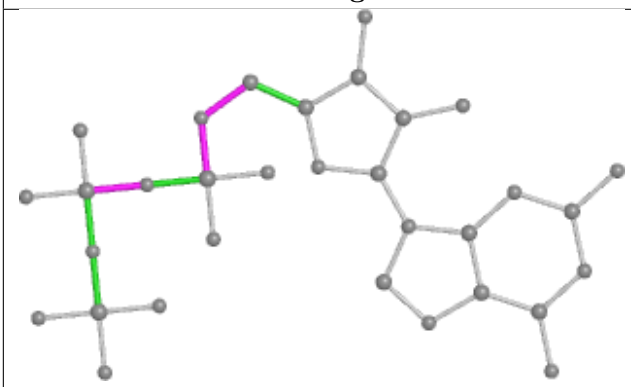

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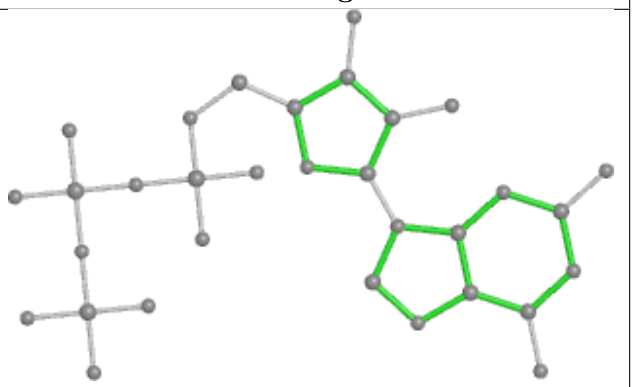

Rings

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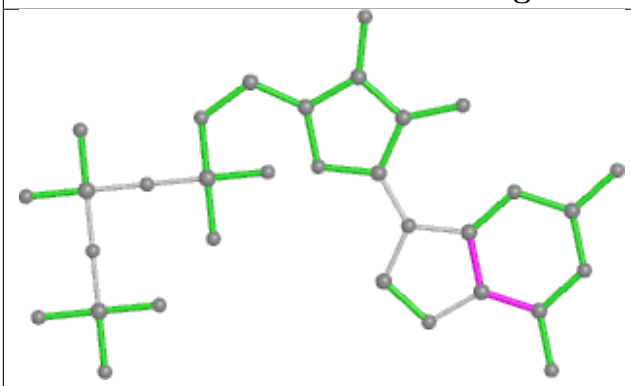

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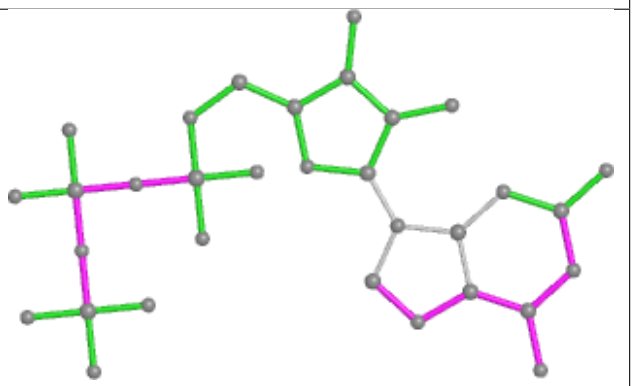

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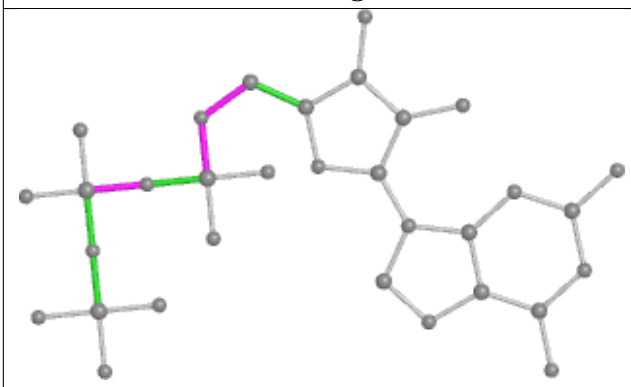

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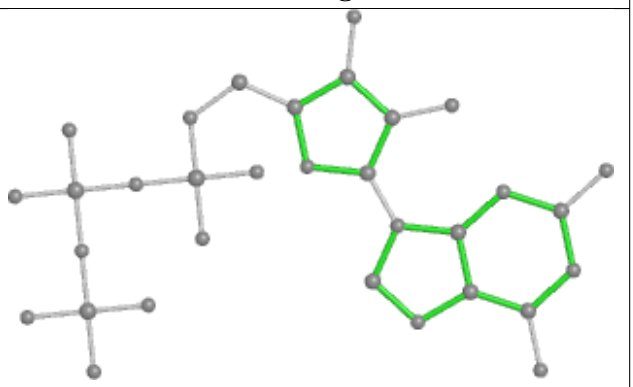

Rings

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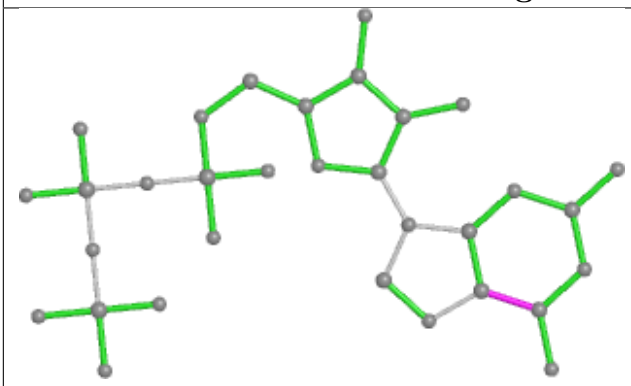

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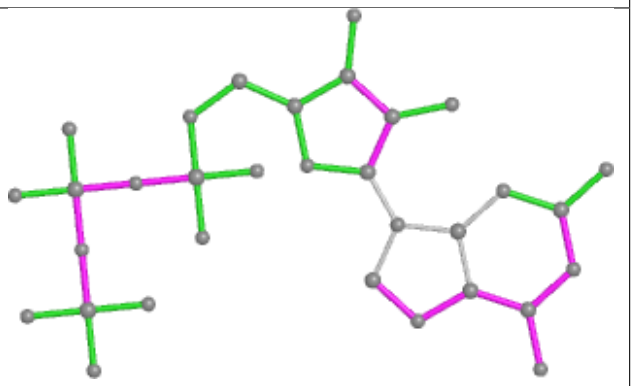

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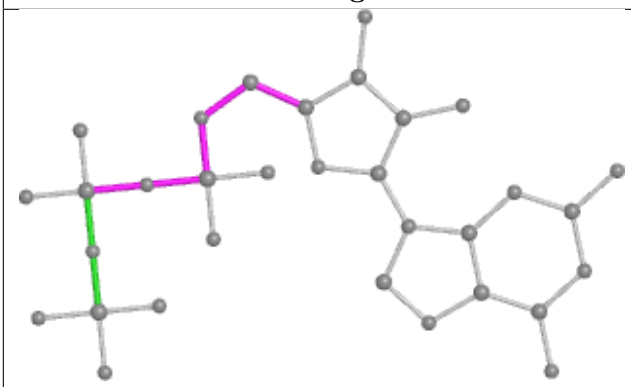

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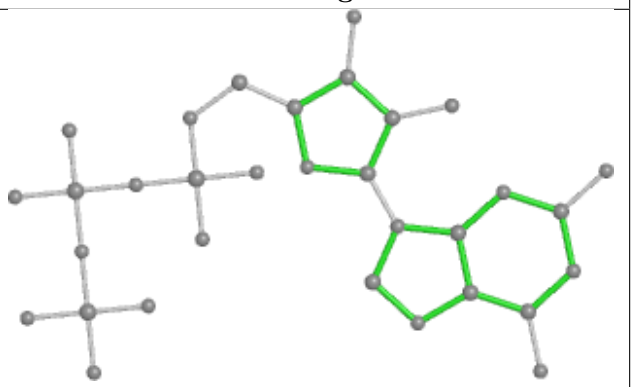

Rings

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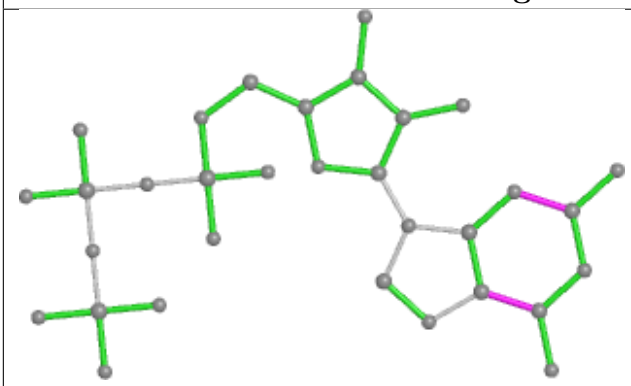

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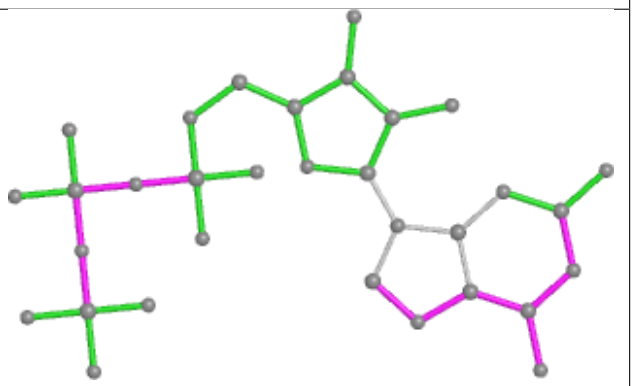

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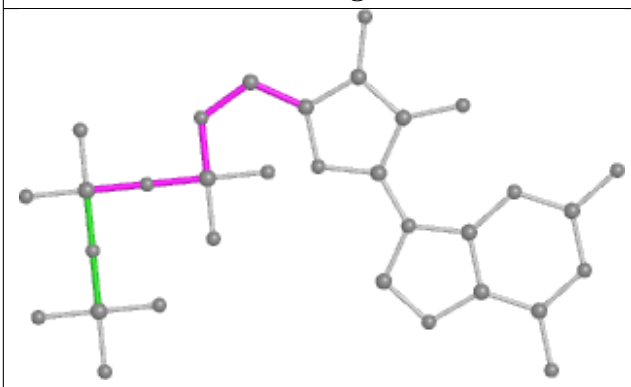

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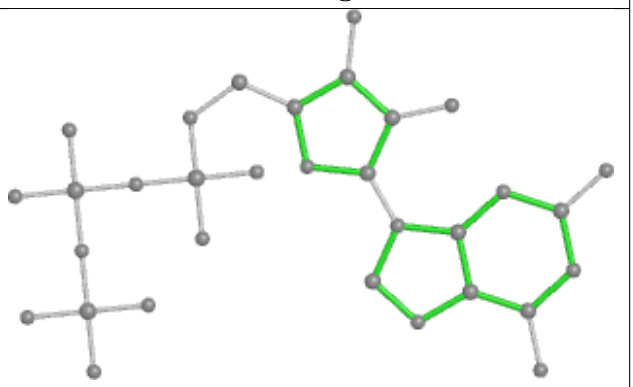
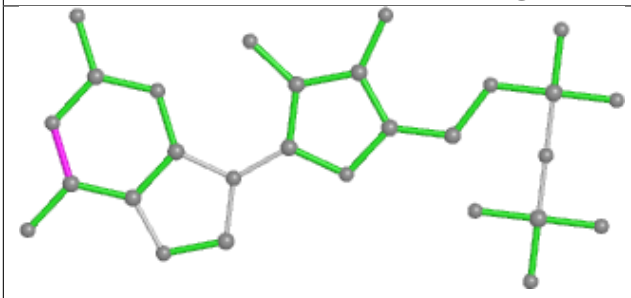


Rings

Ligand GDP T2 502



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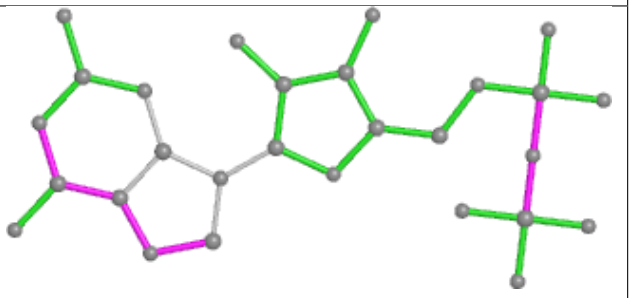

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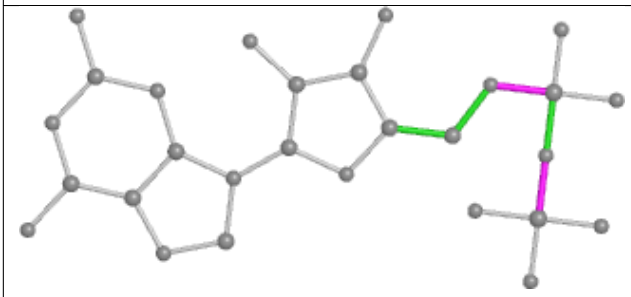

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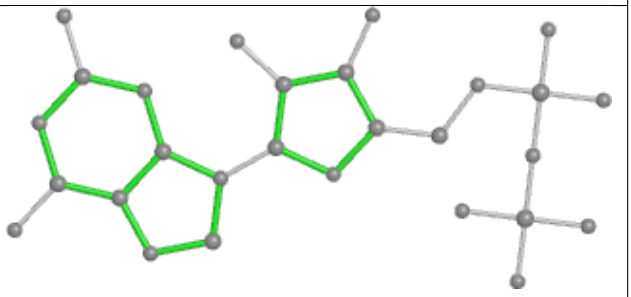

Rings

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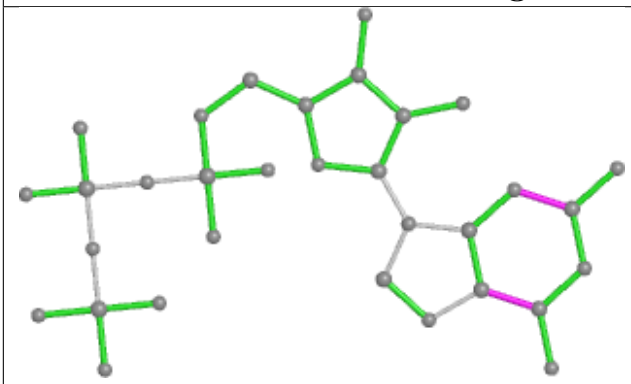

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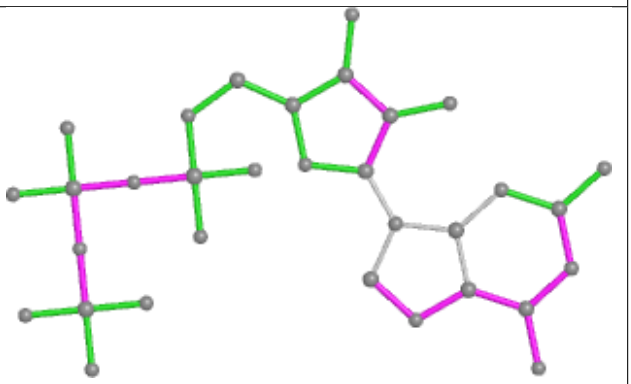

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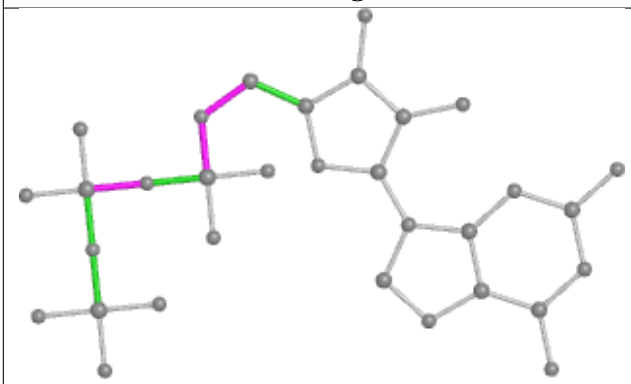

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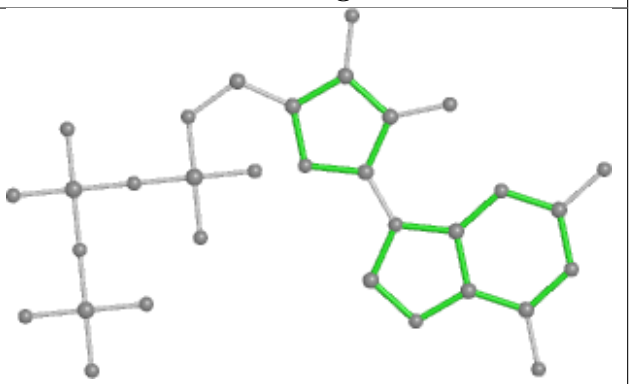

Rings

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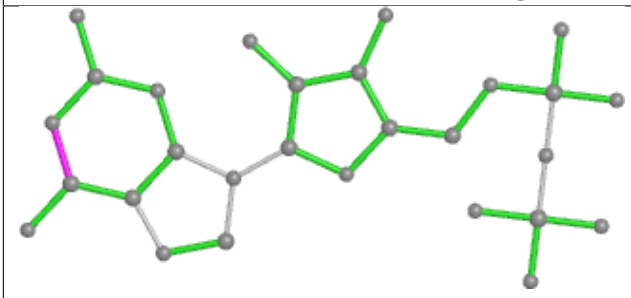	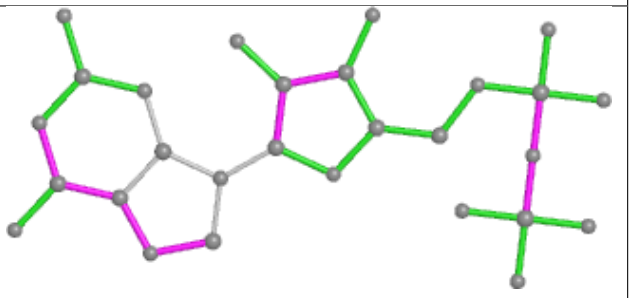
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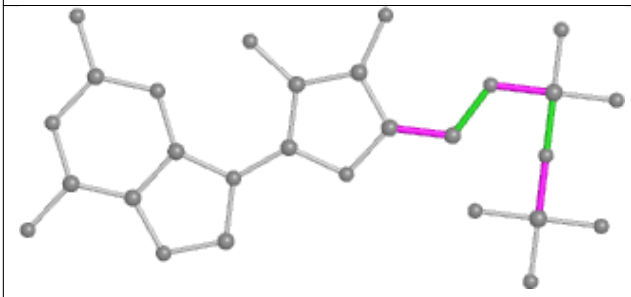	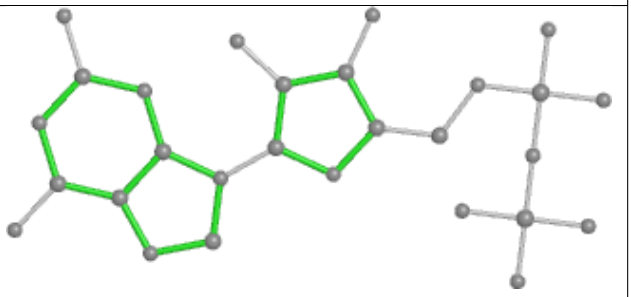
Torsions	Rings

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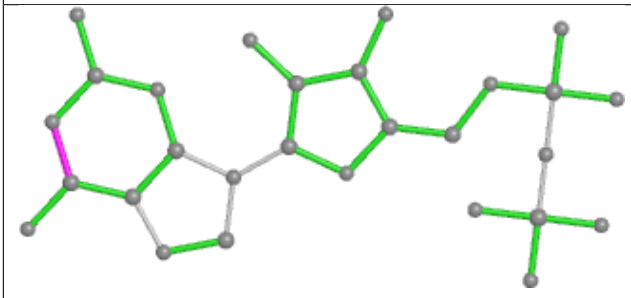	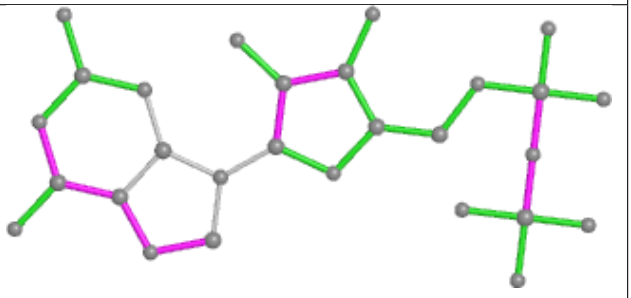
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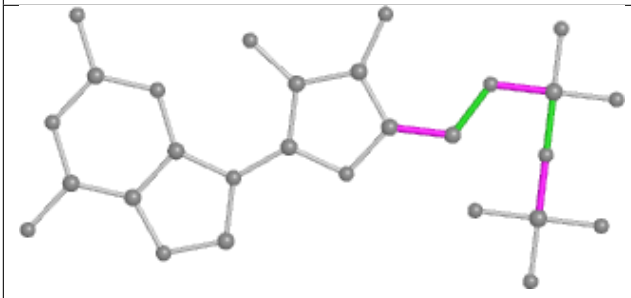	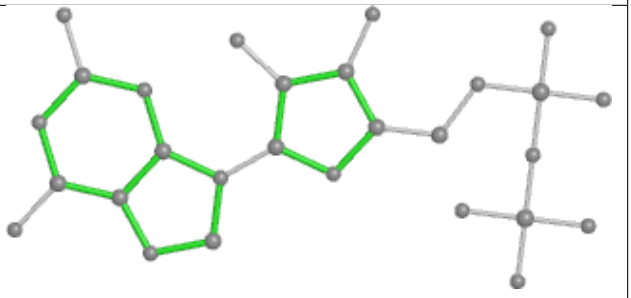
Torsions	Rings

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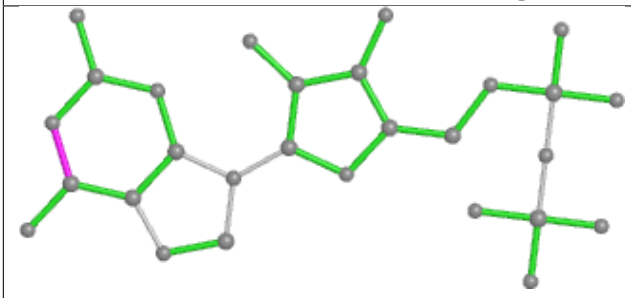

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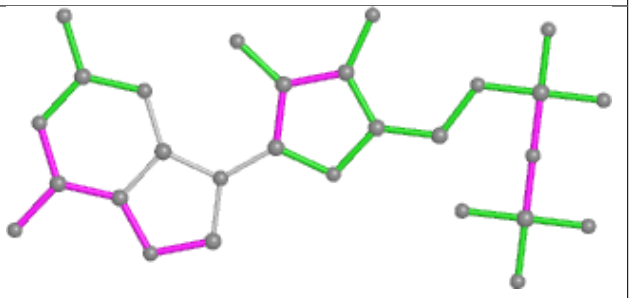

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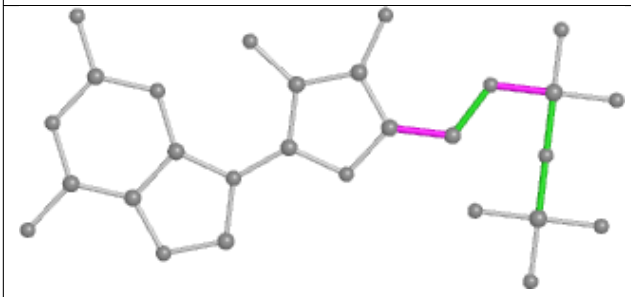

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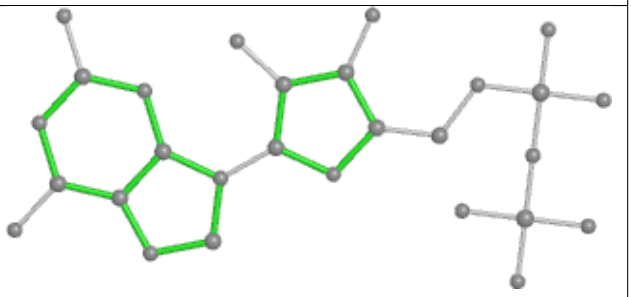
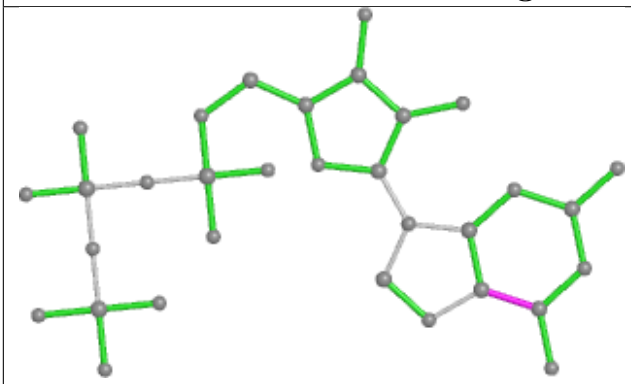


Rings

Ligand GTP S5 501



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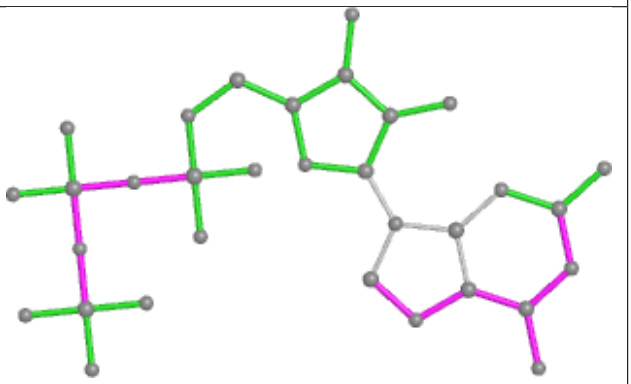

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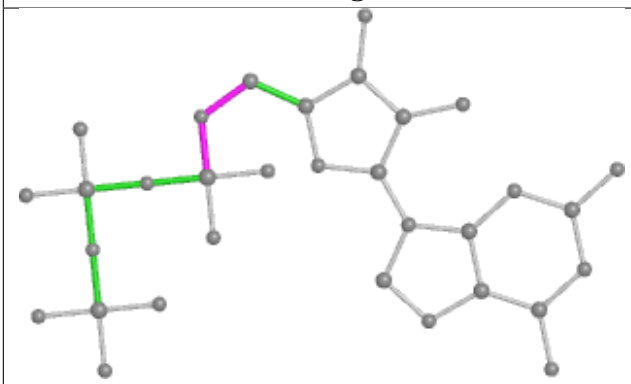

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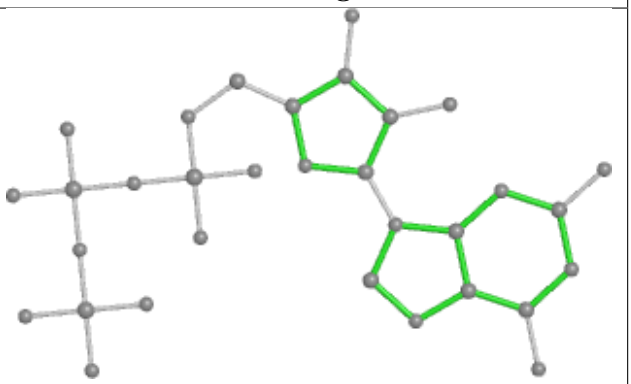
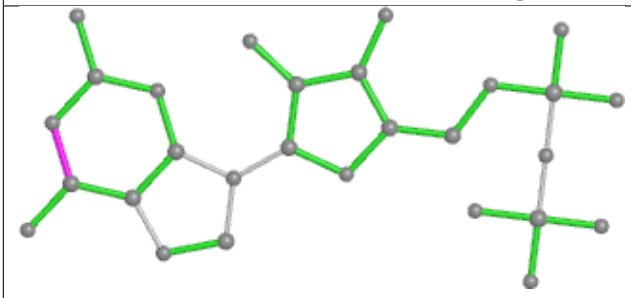


Rings

Ligand GDP K6 502



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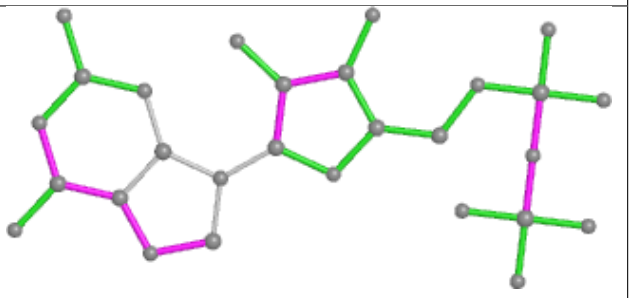

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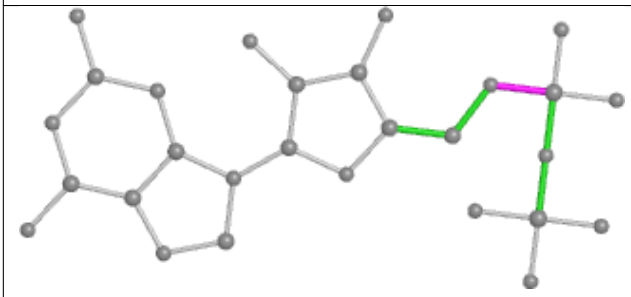

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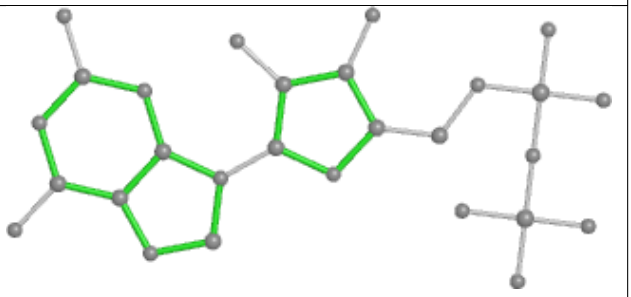
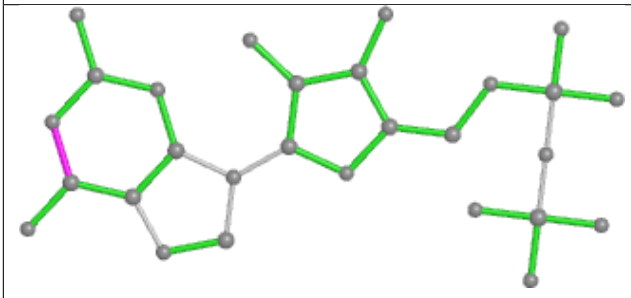


Rings

Ligand GDP C0 502



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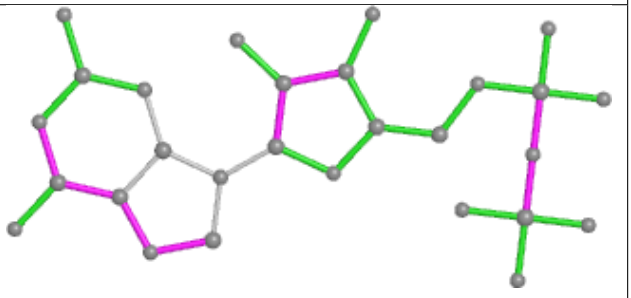

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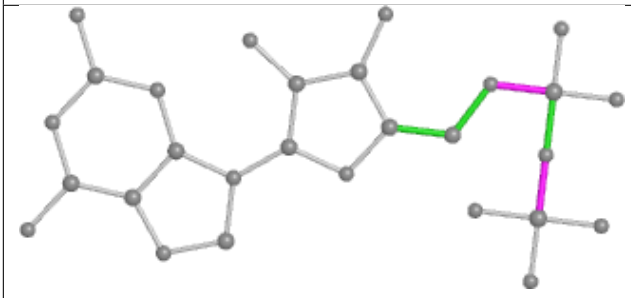

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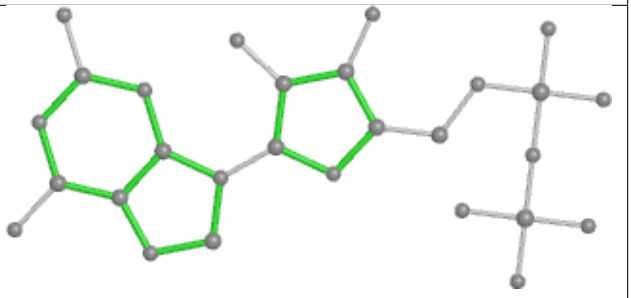
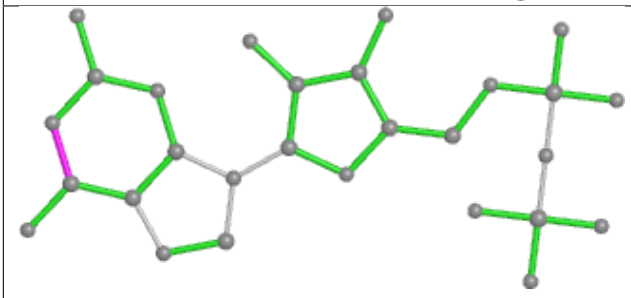
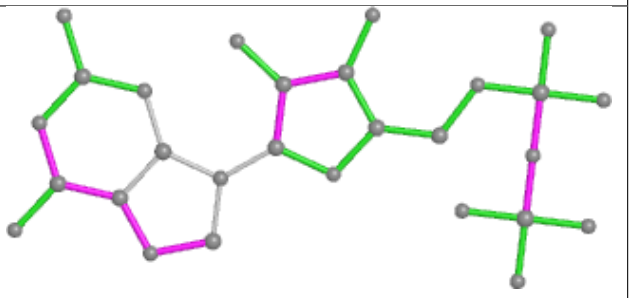
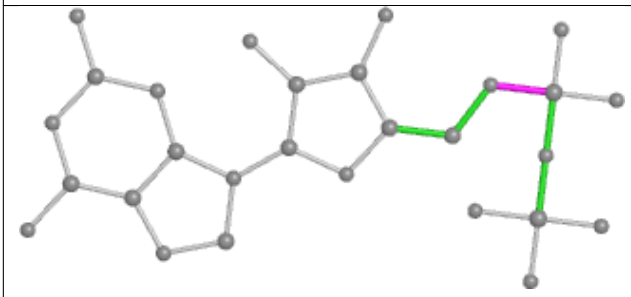
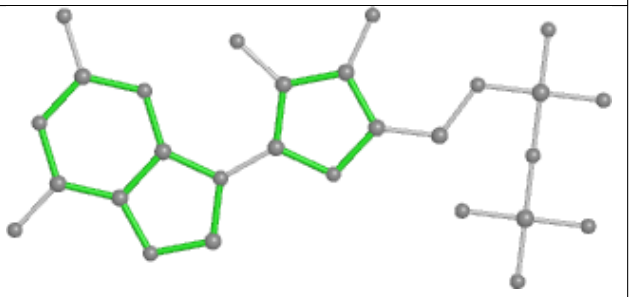
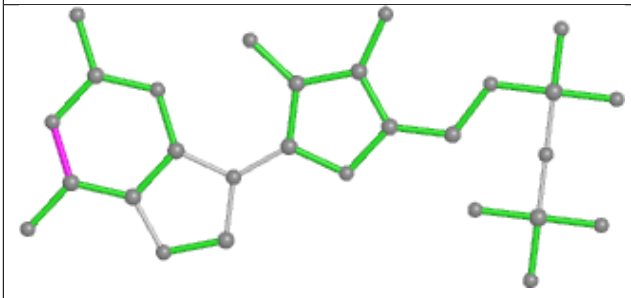
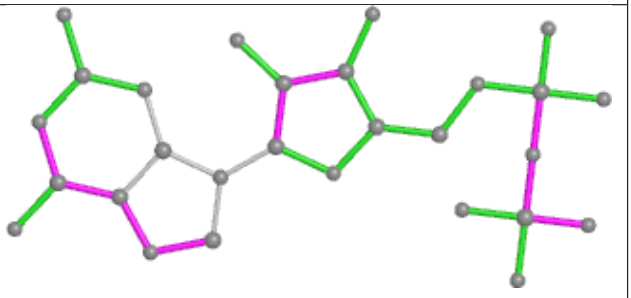
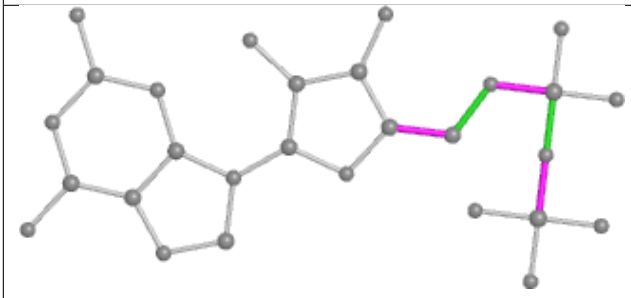
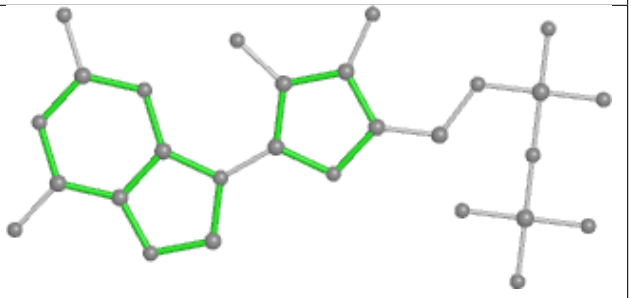


Rings

Ligand GDP 2A 502	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GDP K0 502	
 Bond lengths	 Bond angles
 Torsions	 Rings

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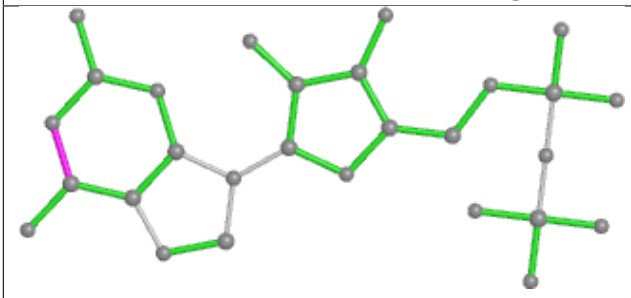

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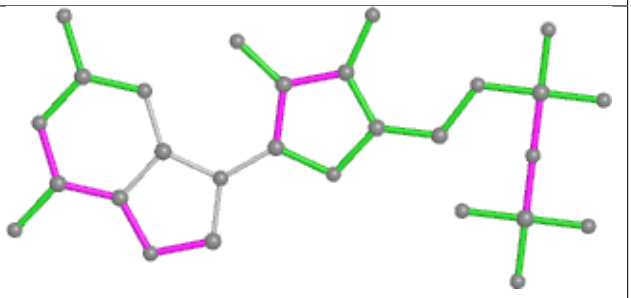

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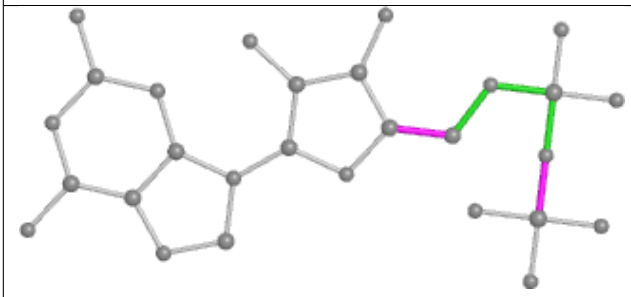

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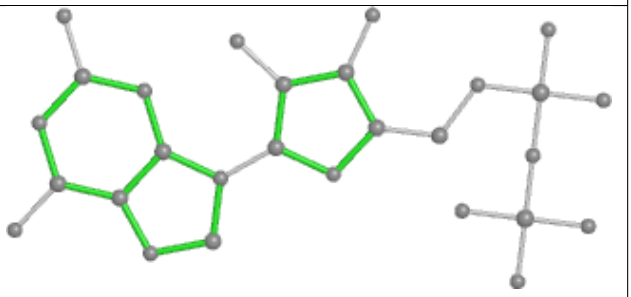
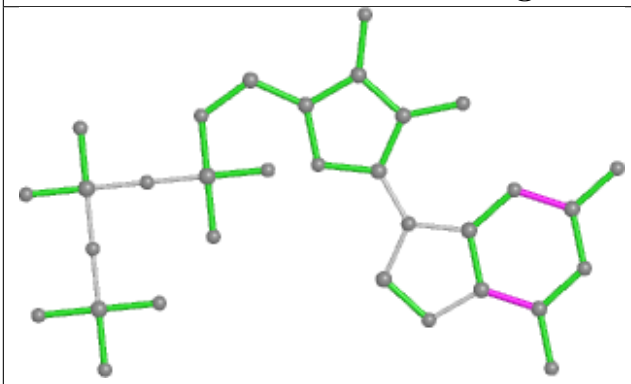


Rings

Ligand GTP L7 501



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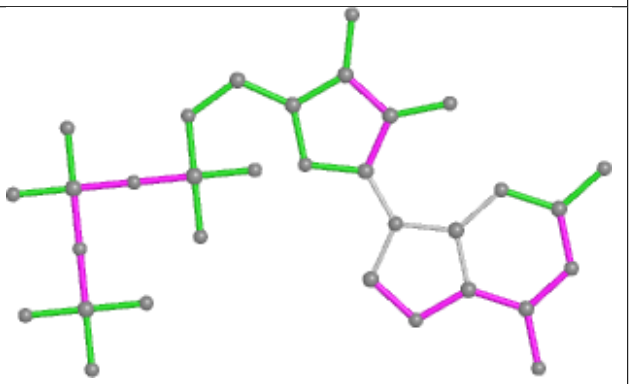

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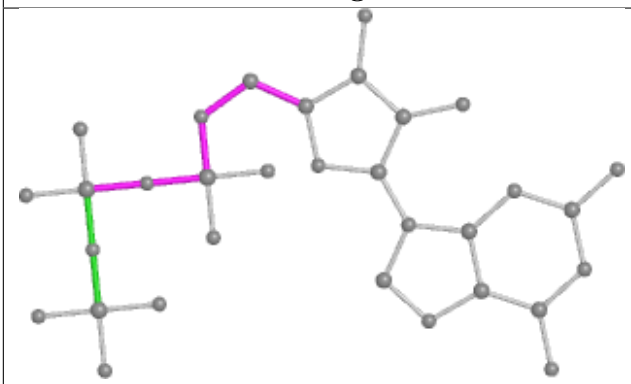

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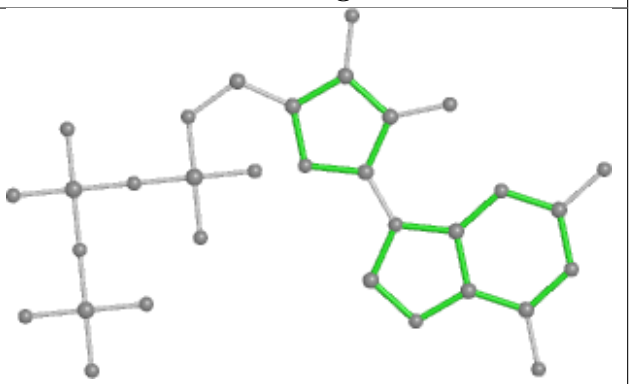

Rings

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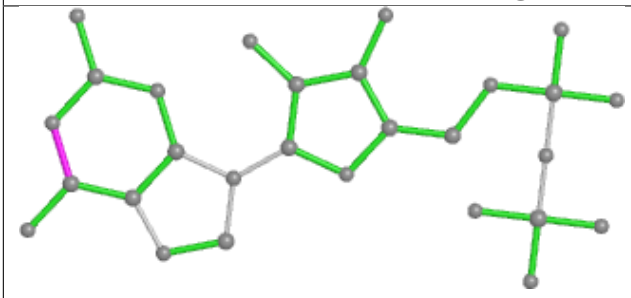

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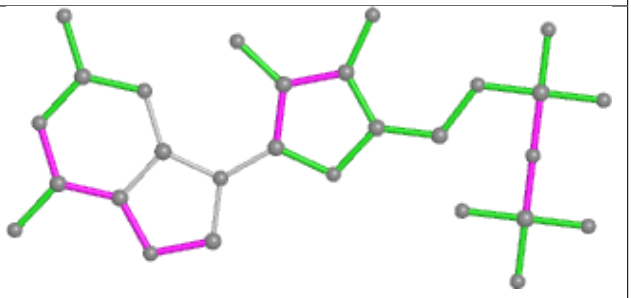

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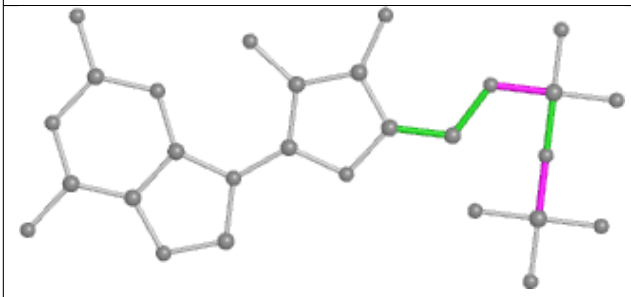

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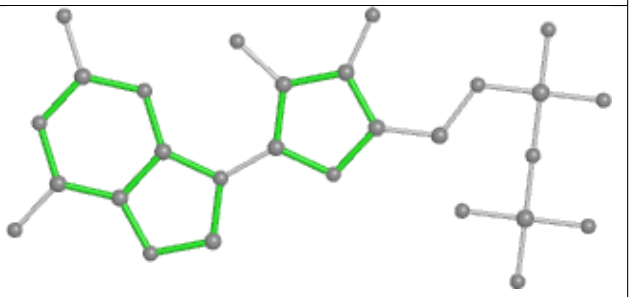

Rings

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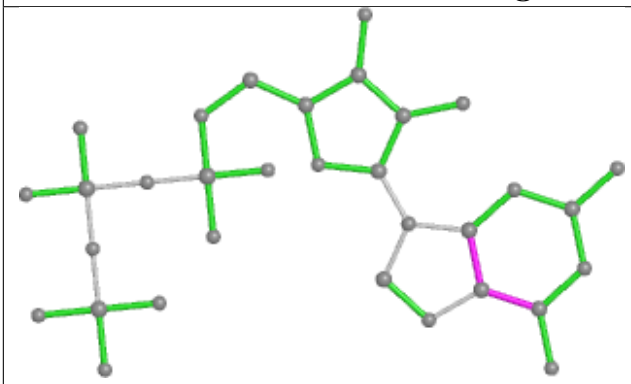

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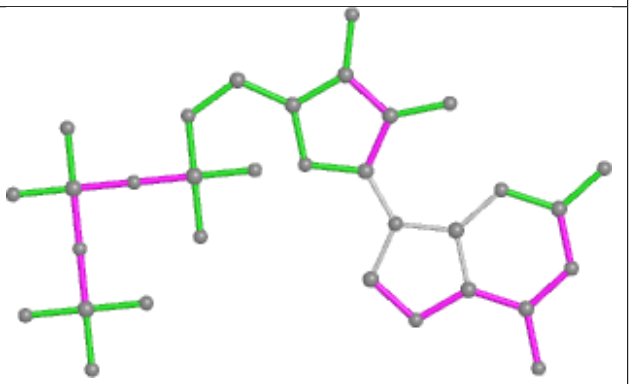

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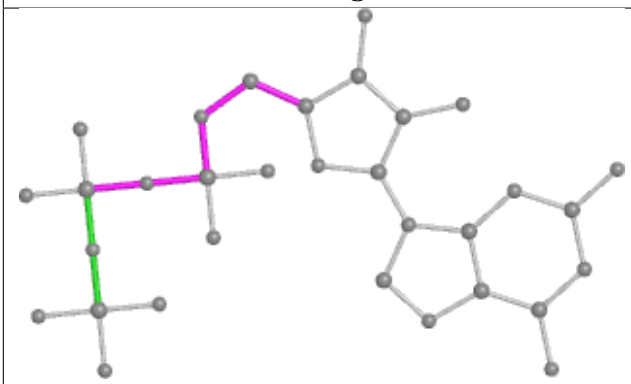

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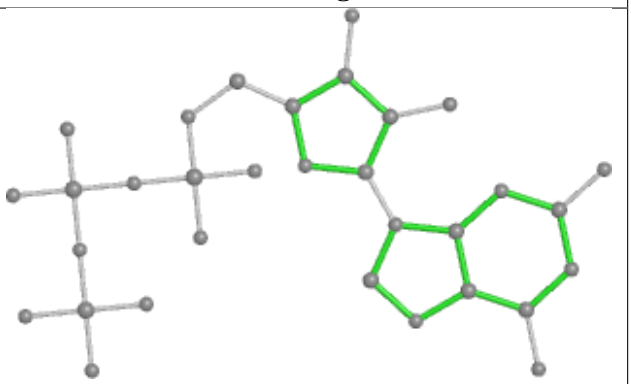

Rings

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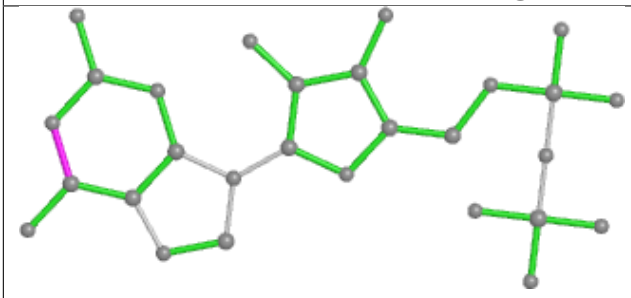
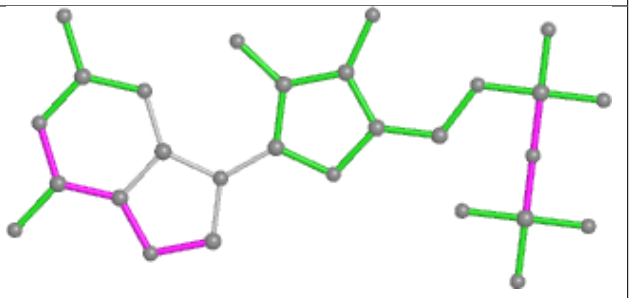
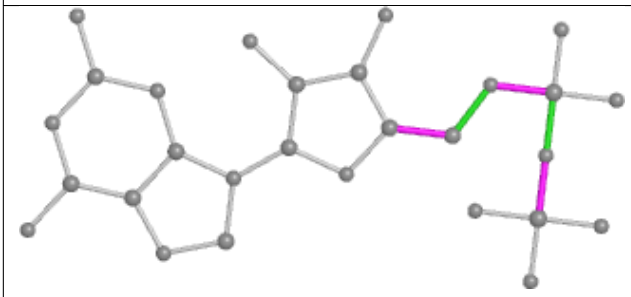
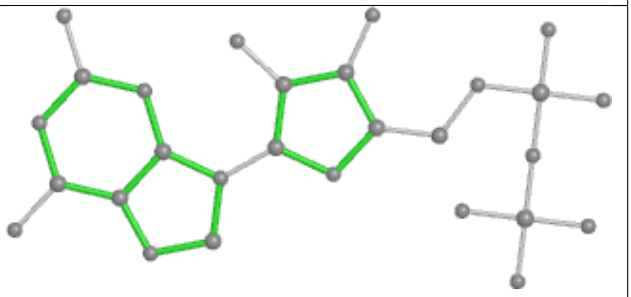
 Bond lengths	 Bond angles
 Torsions	 Rings

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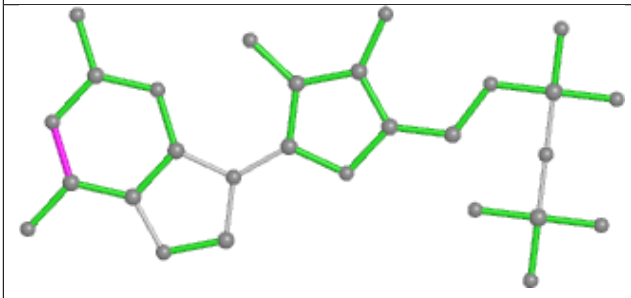
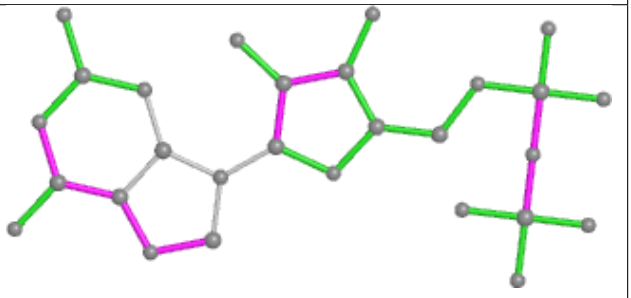
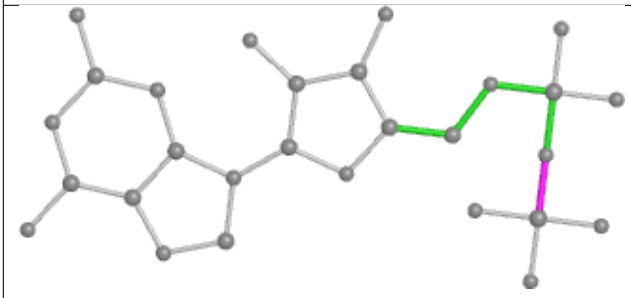
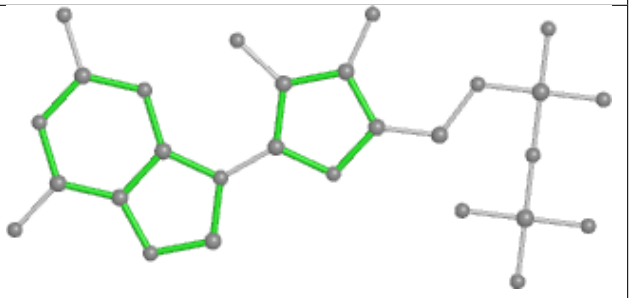
 Bond lengths	 Bond angles
 Torsions	 Rings

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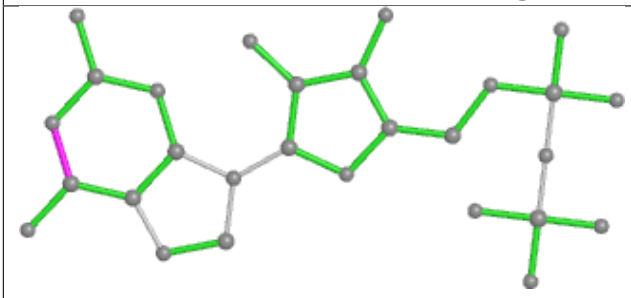

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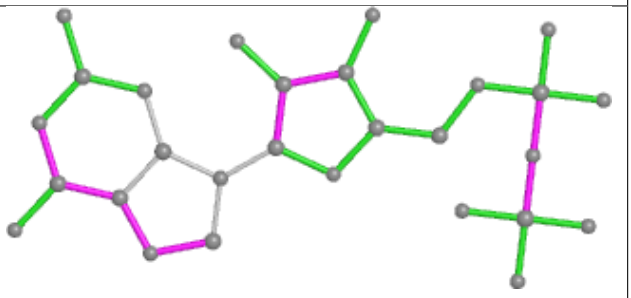

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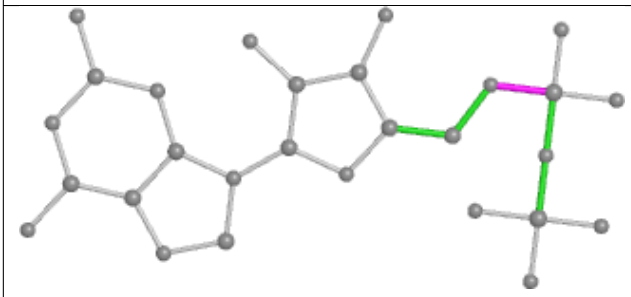

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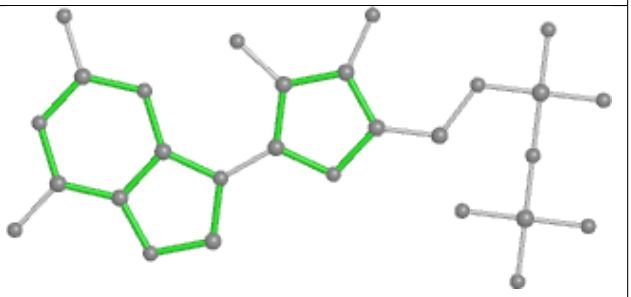

Rings

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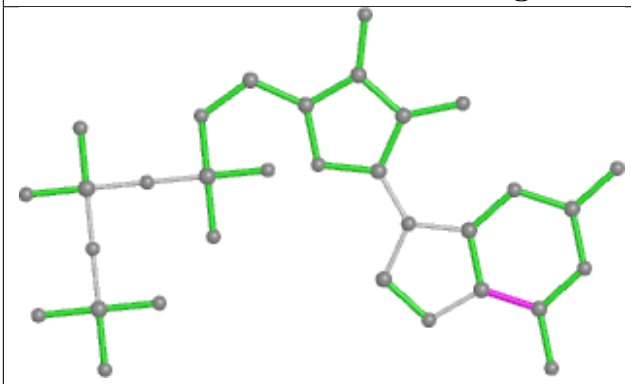

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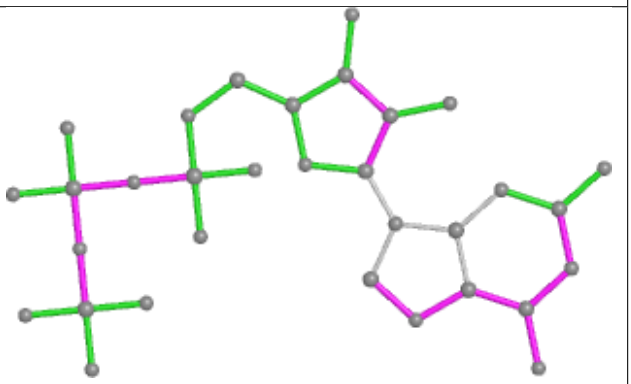

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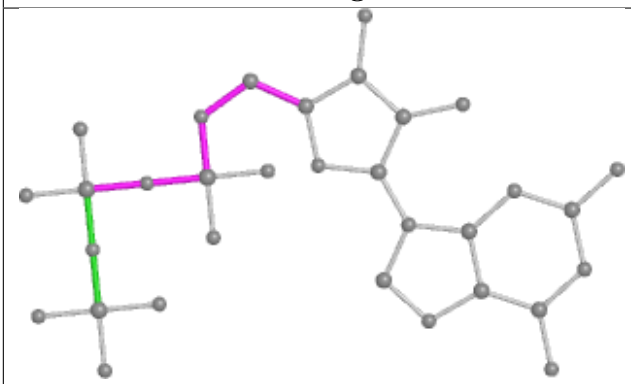

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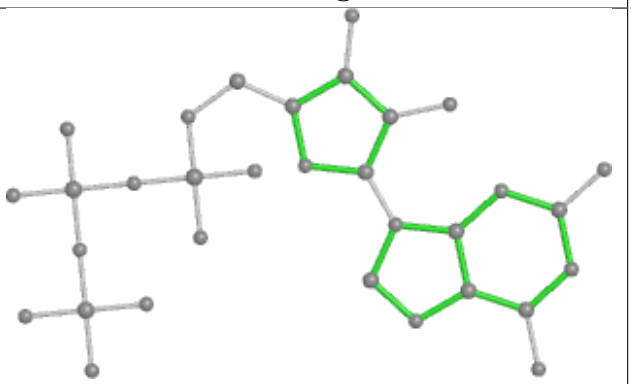
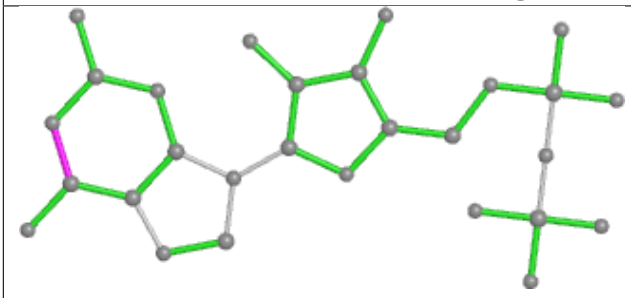


Rings

Ligand GDP 3A 502



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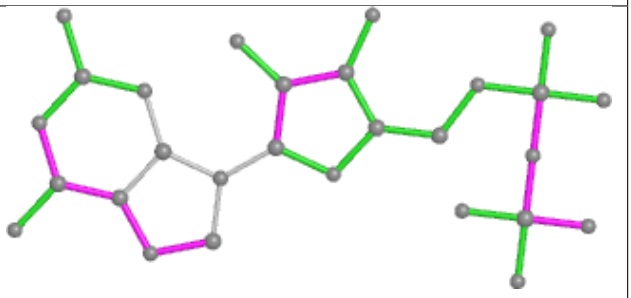

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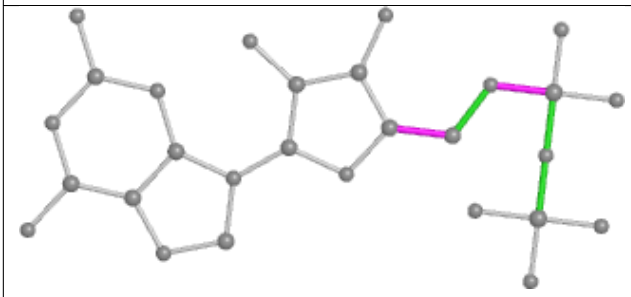

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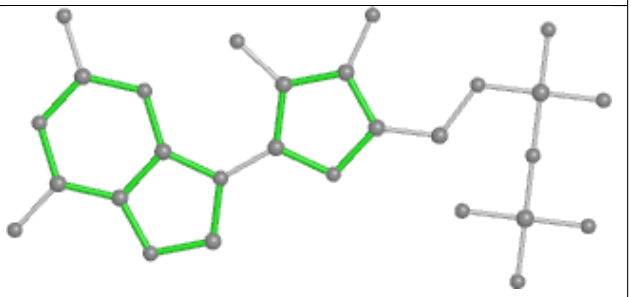
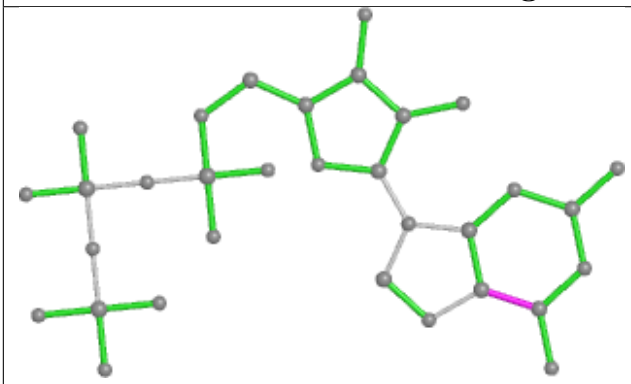


Rings

Ligand GTP 2I 501



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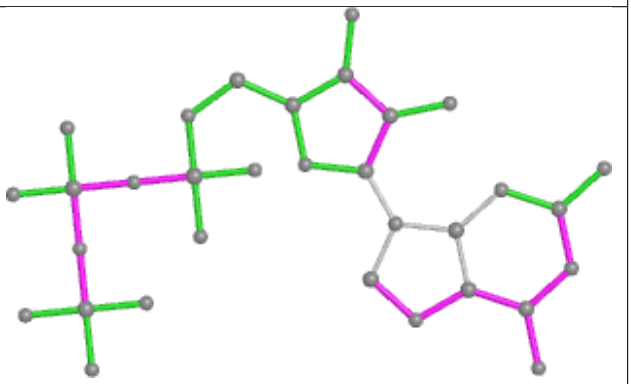

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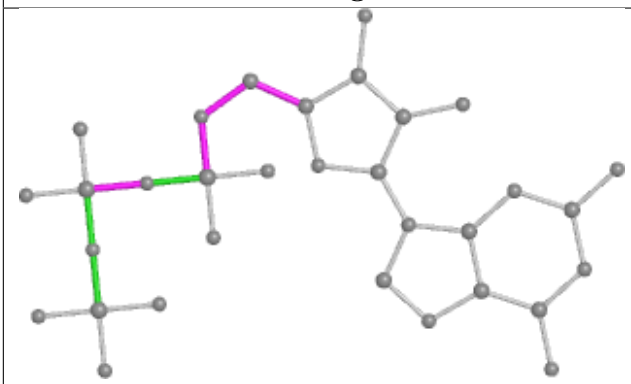

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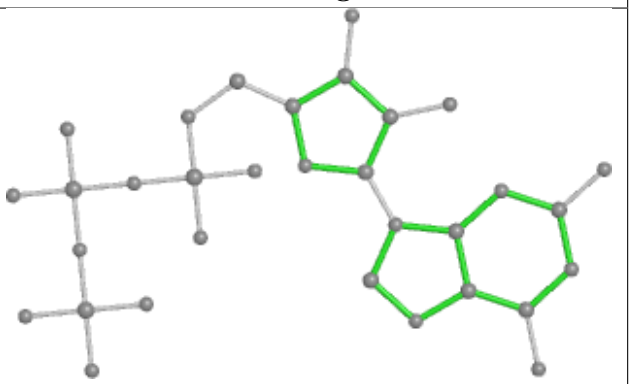
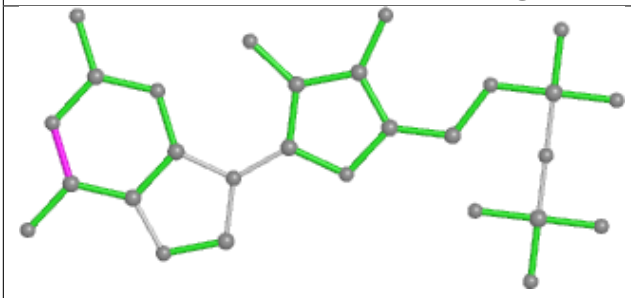


Rings

Ligand GDP E0 501



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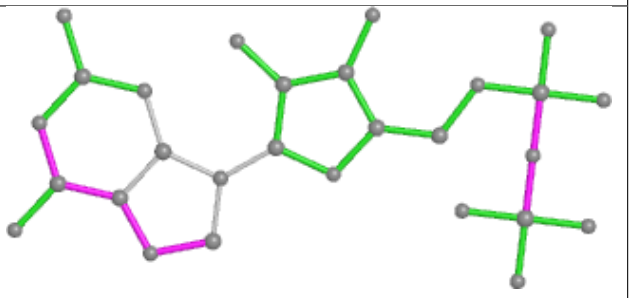

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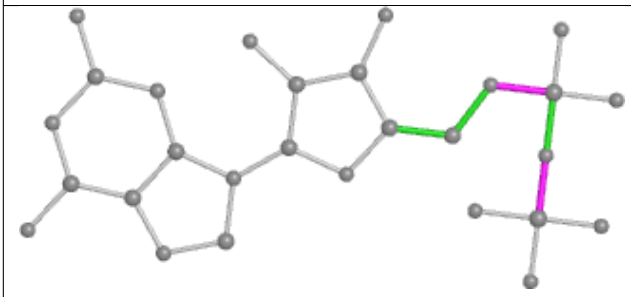

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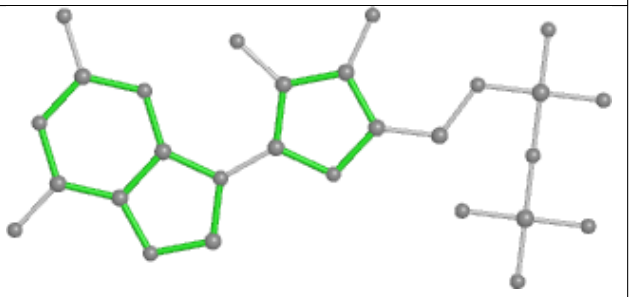
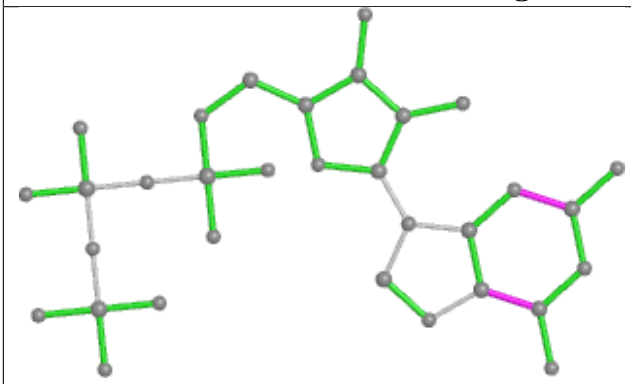


Rings

Ligand GTP V2 501



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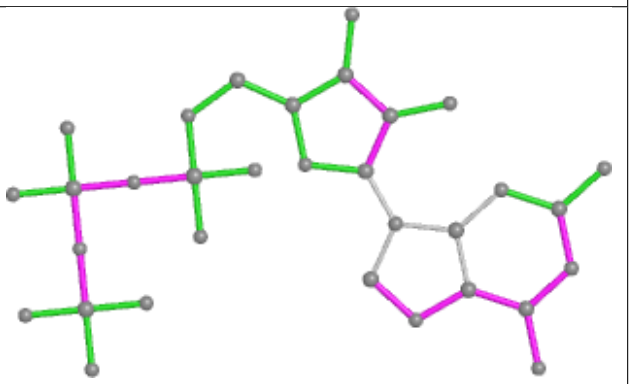

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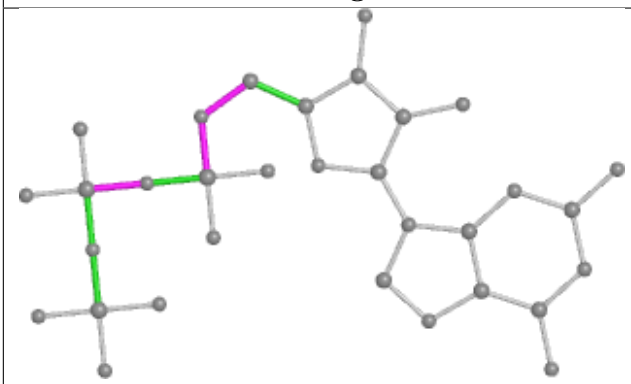

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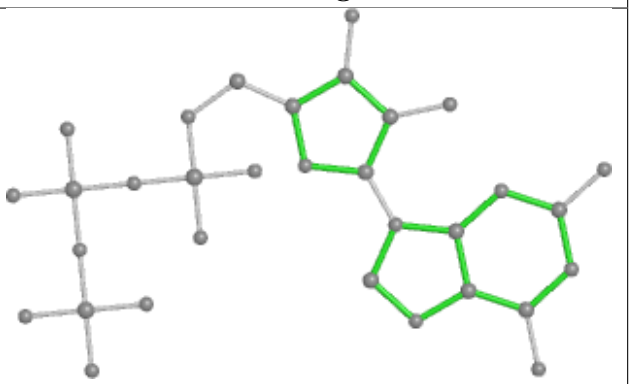
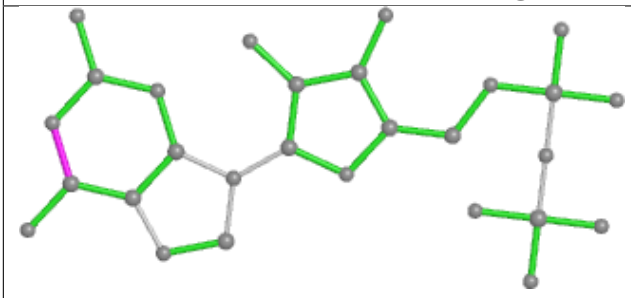


Rings

Ligand GDP O0 503



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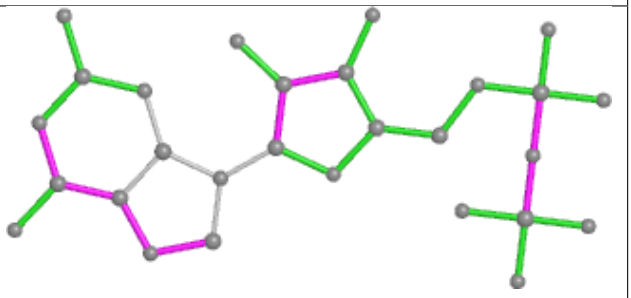

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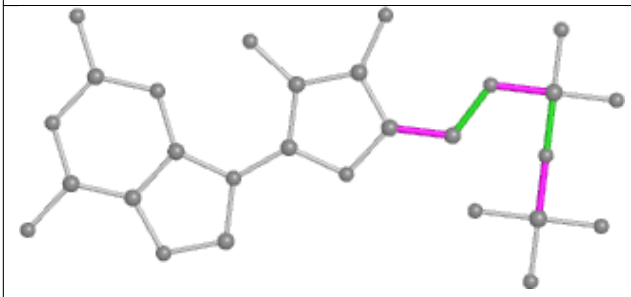

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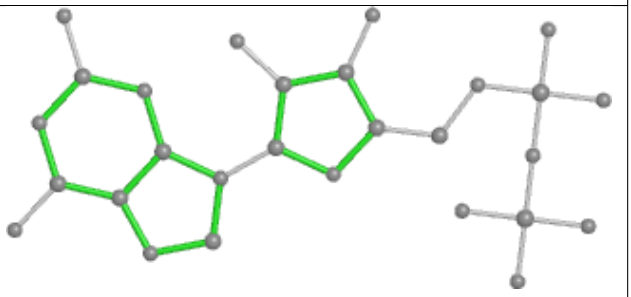
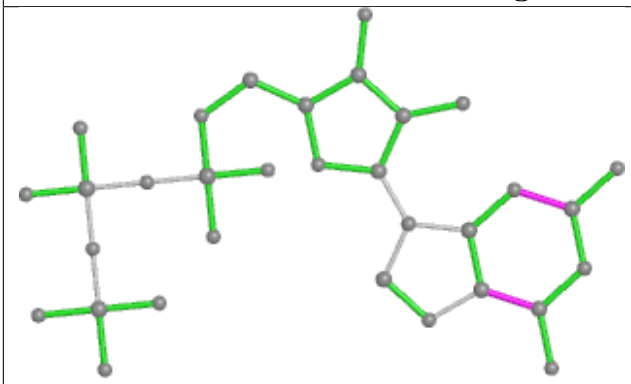
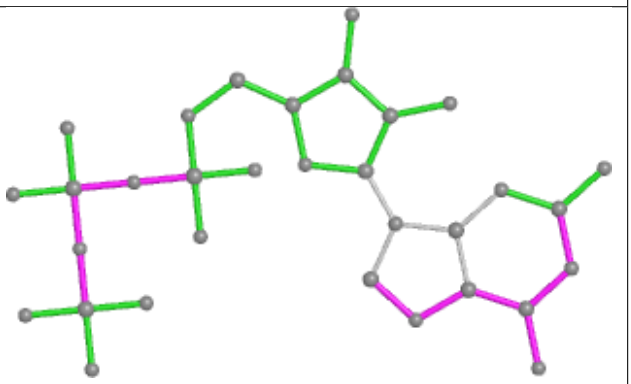


Rings

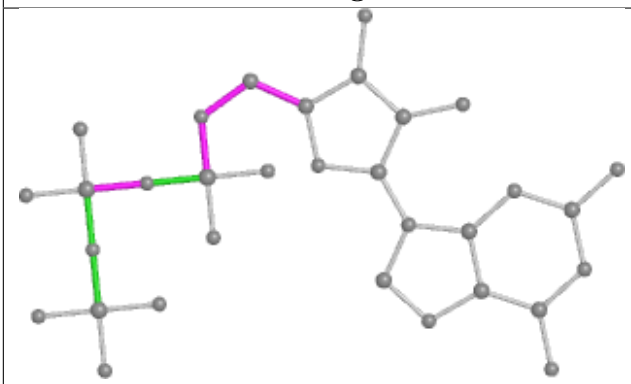
Ligand GTP 2G 501



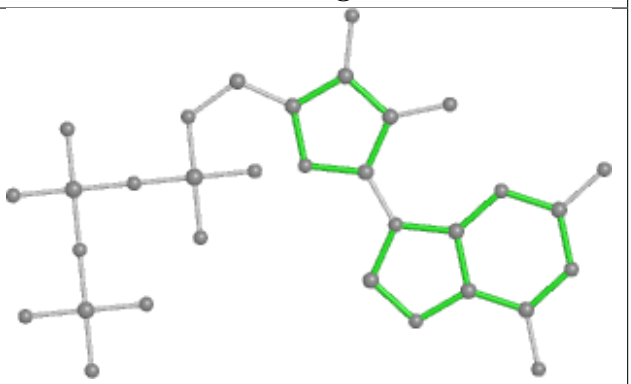
Bond lengths



Bond angles

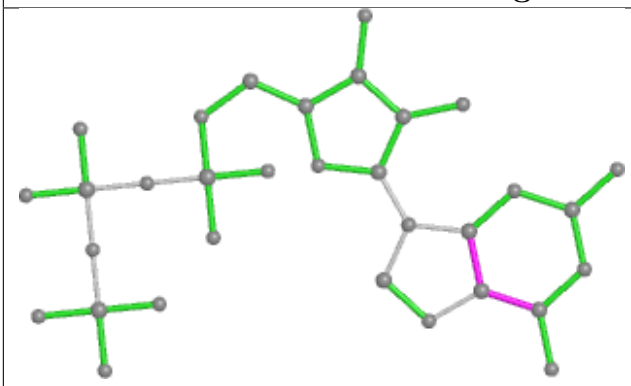


Torsions



Rings

Ligand GTP O2 501



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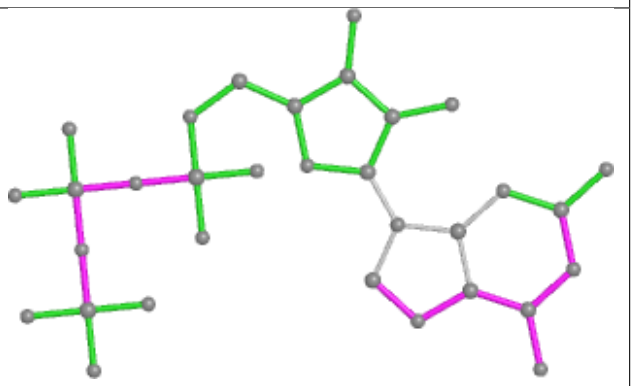

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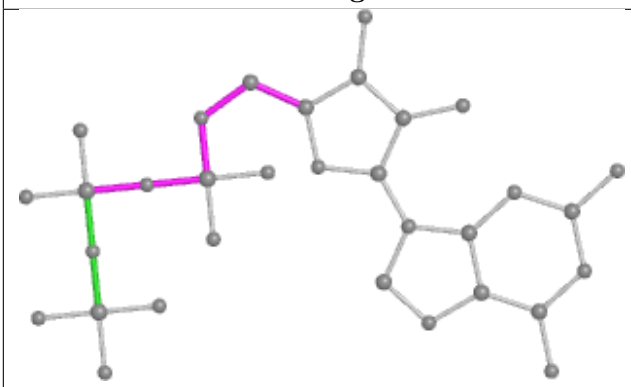

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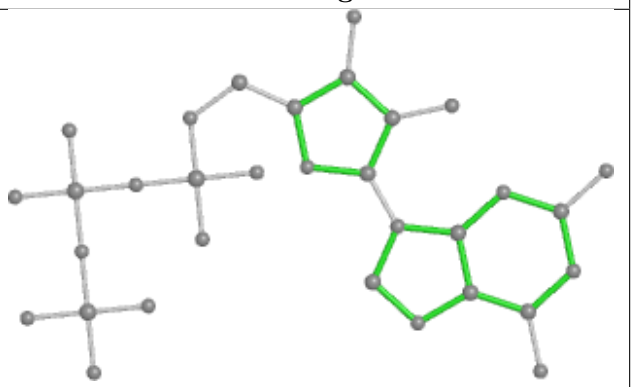
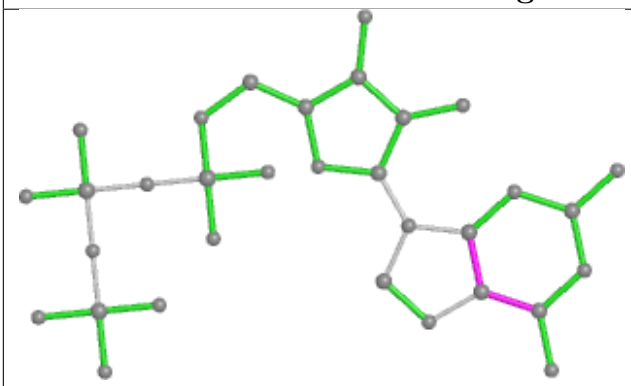


Rings

Ligand GTP S8 501



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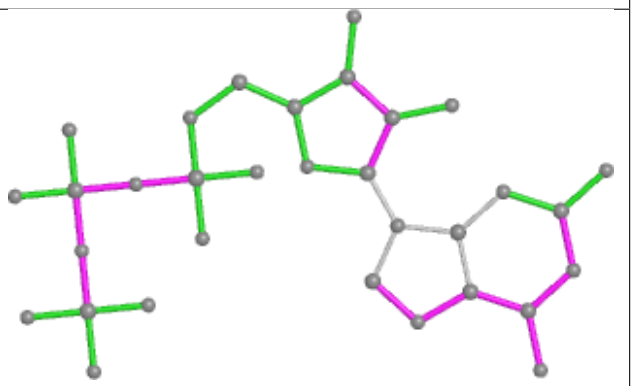

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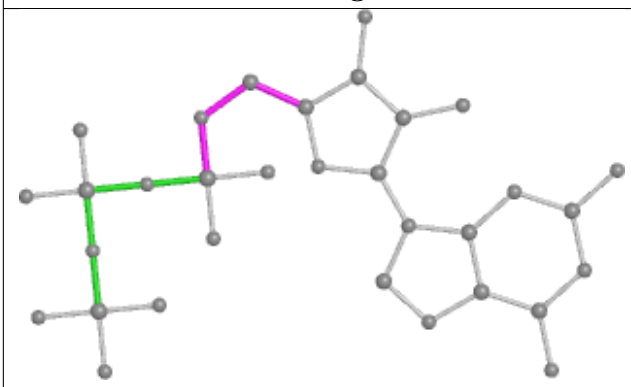

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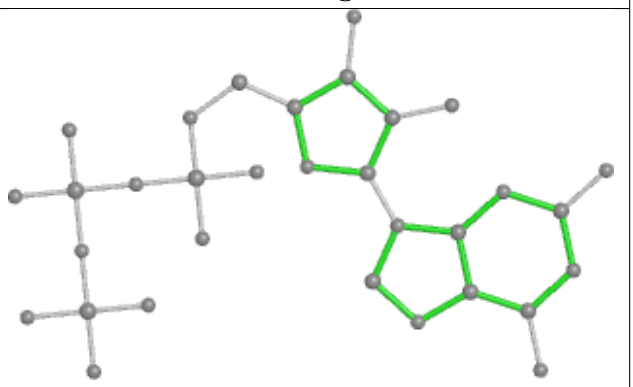
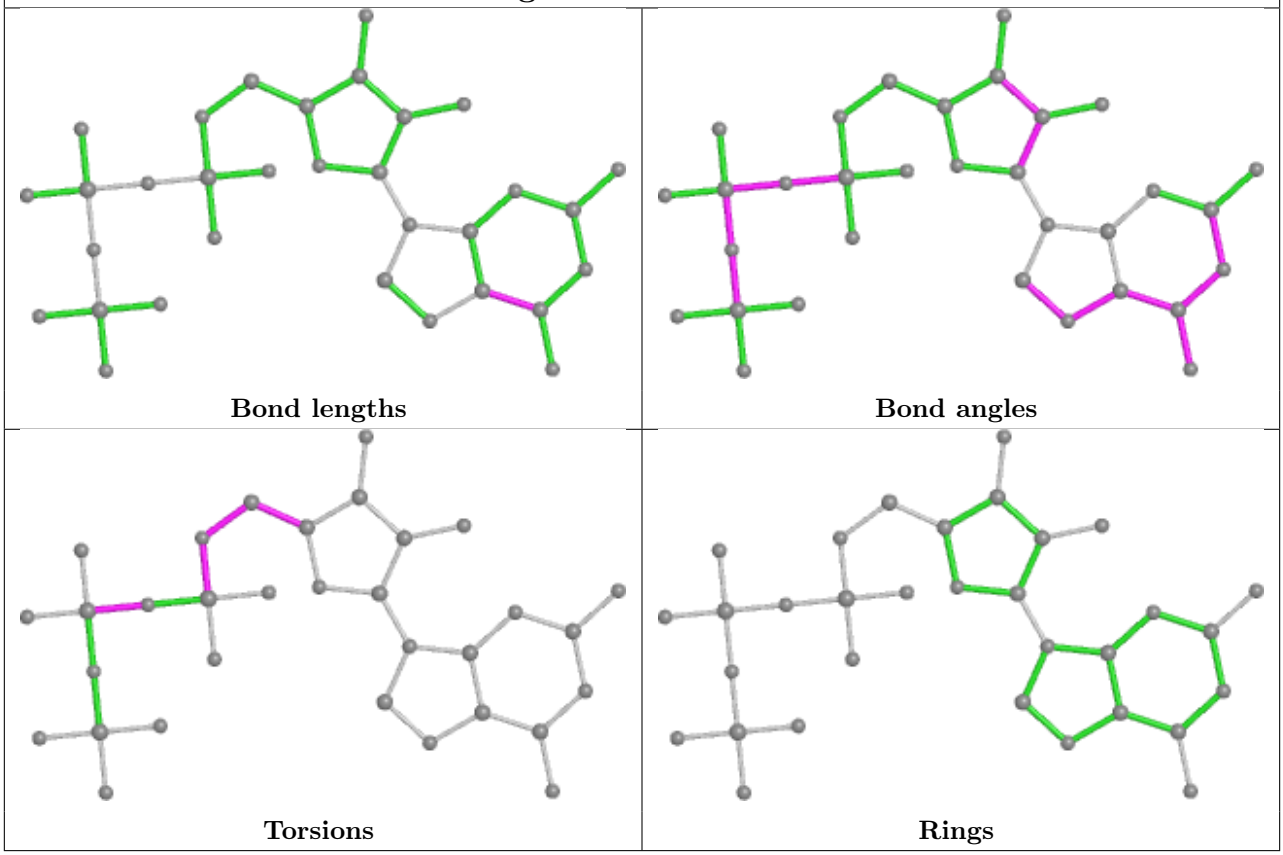
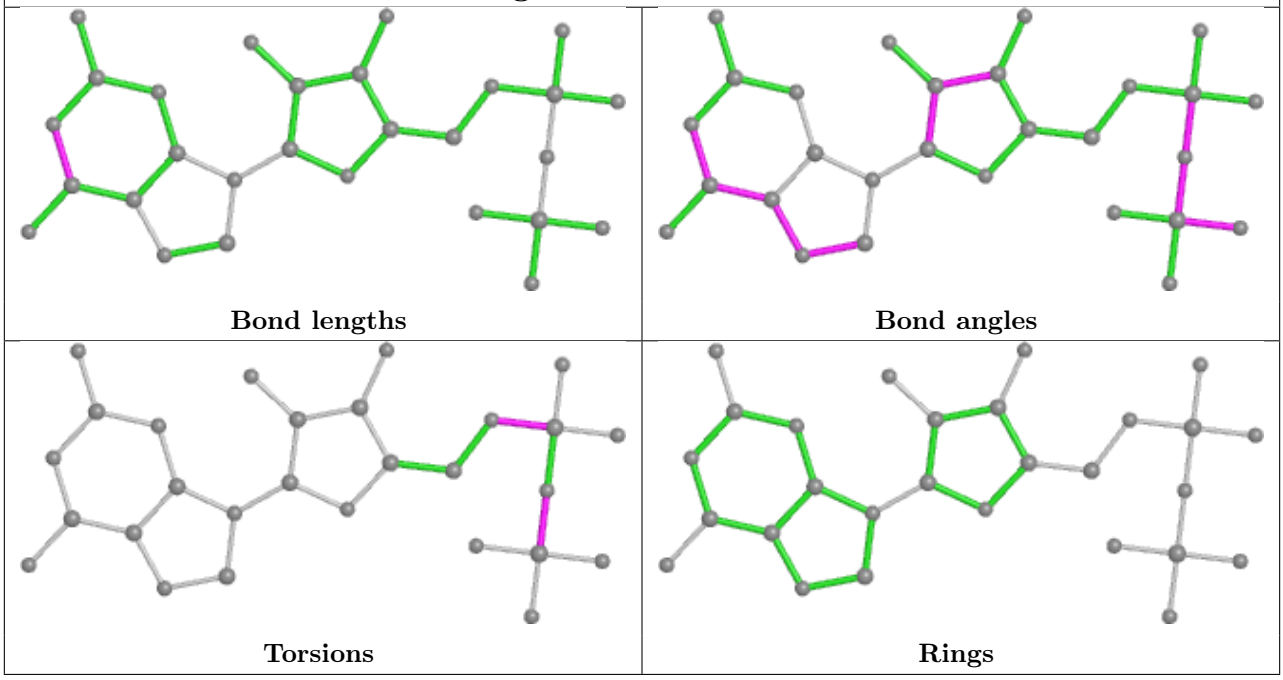


Rings

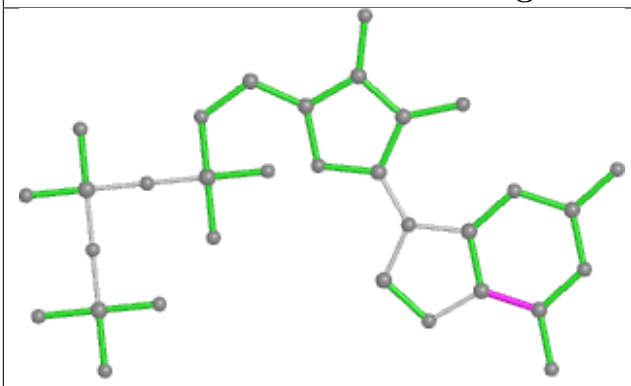
Ligand GTP J2 501



Ligand GDP 3G 502



Ligand GTP L4 501



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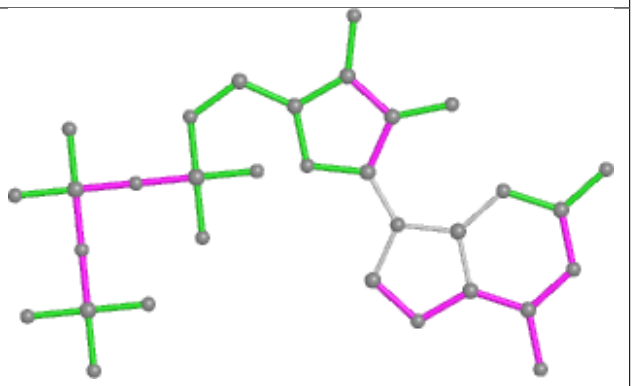

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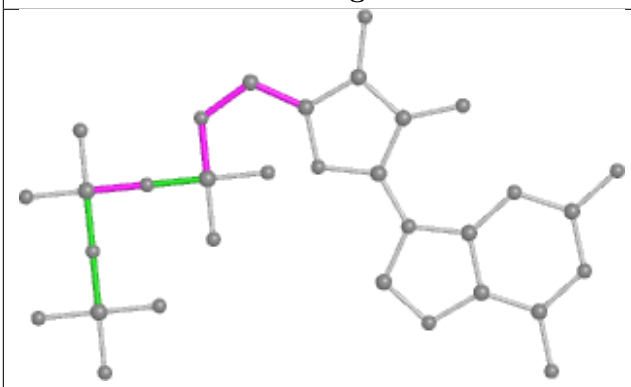

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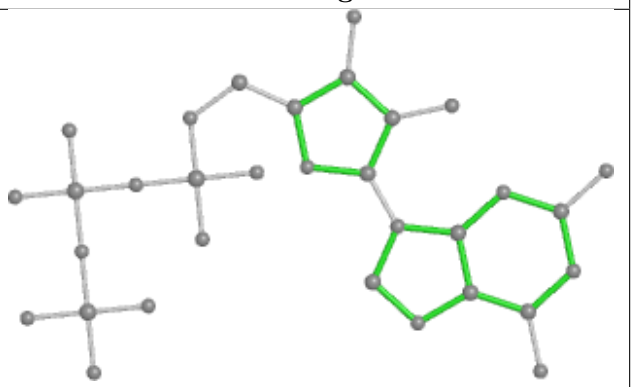
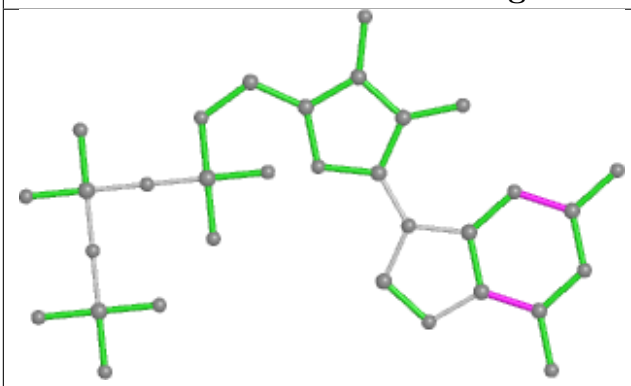


Rings

Ligand GTP W0 501



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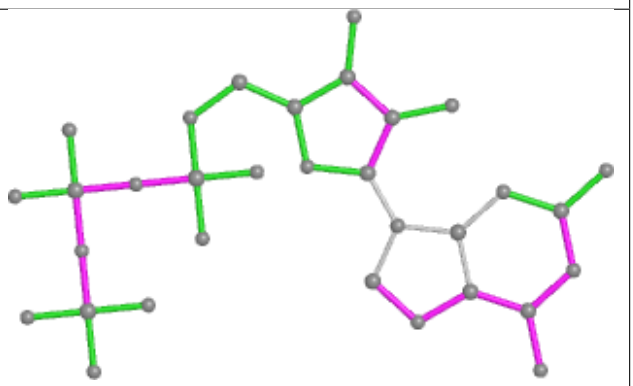

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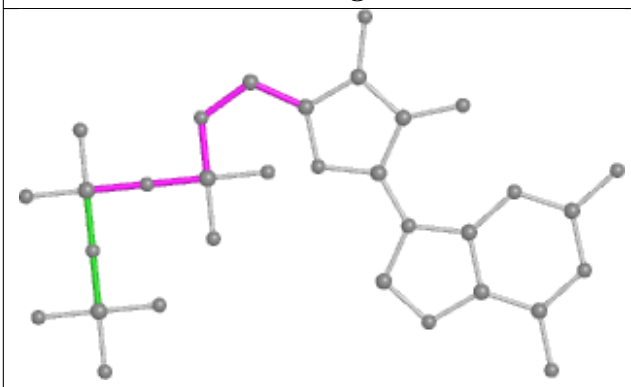

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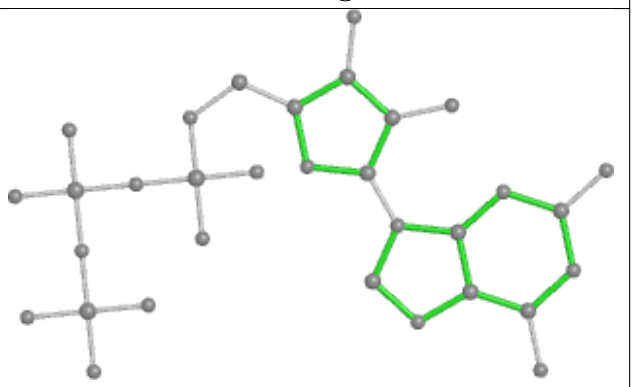
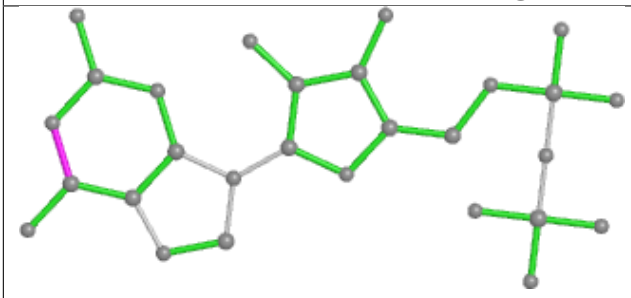
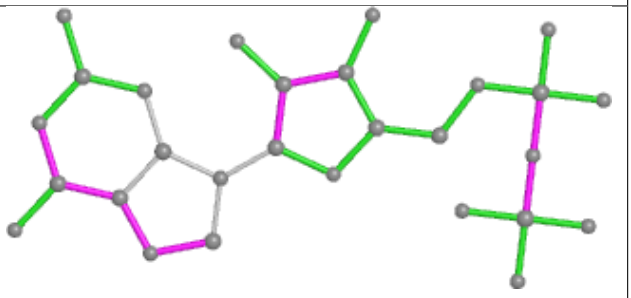
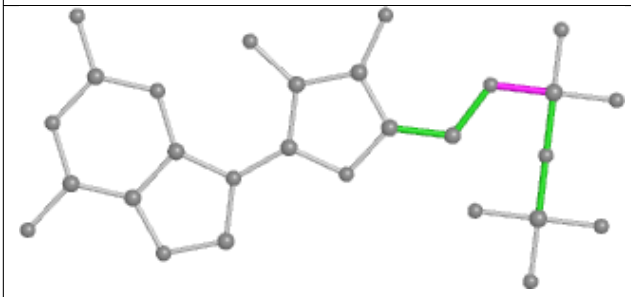
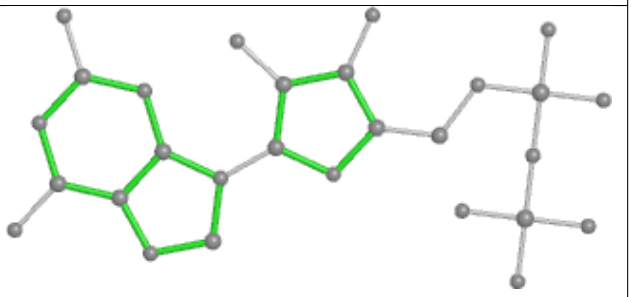
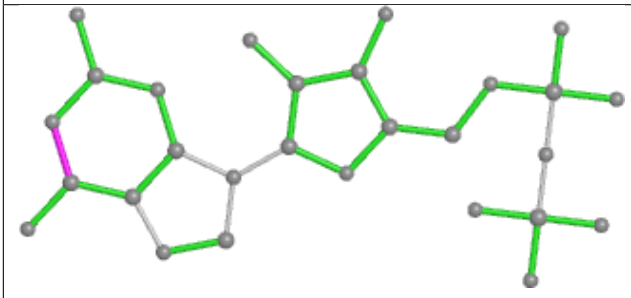
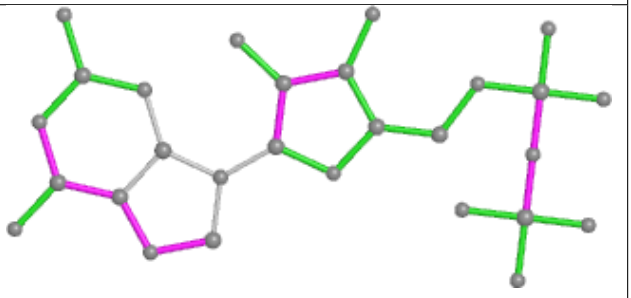
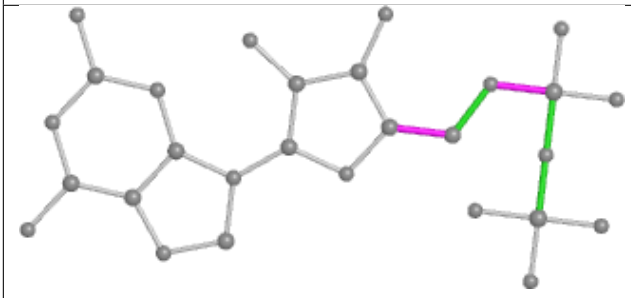
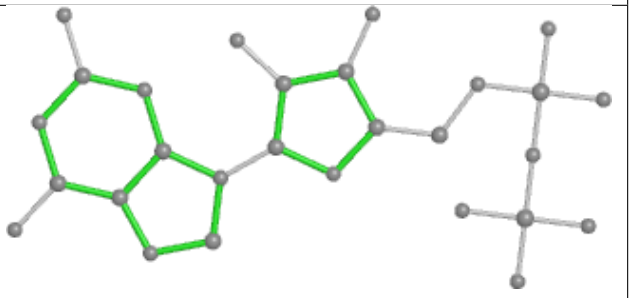
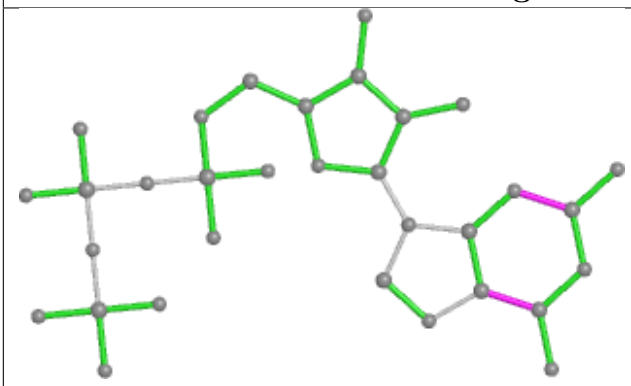


Rings

Ligand GDP X0 502	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GDP 0C 502	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GTP 1X 501



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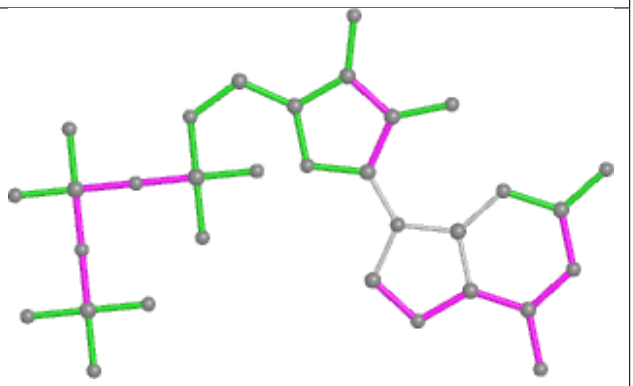

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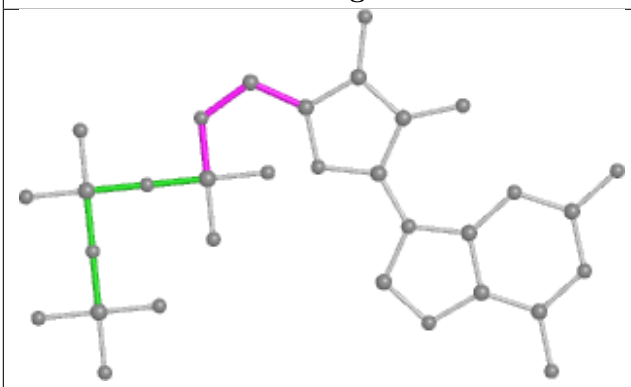
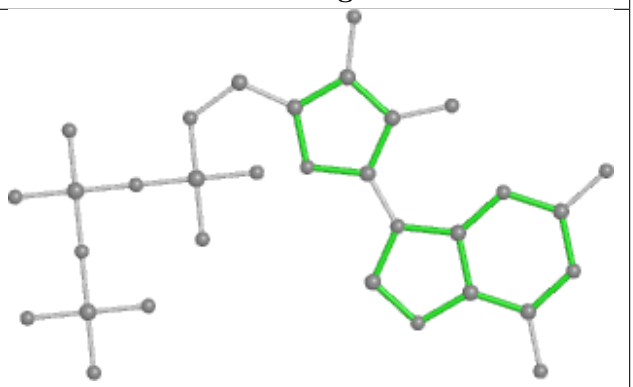
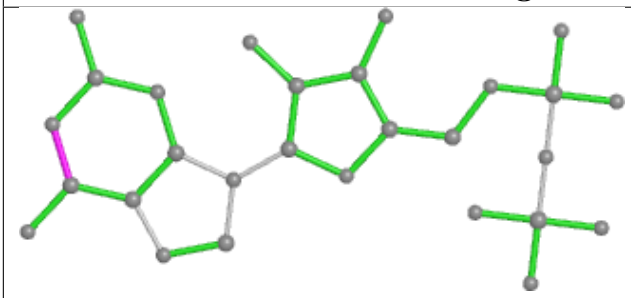


Torsions



Rings

Ligand GDP 1S 502



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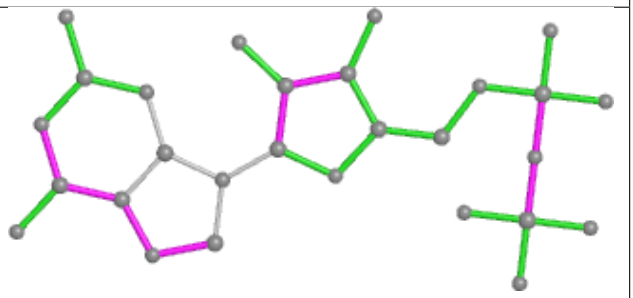

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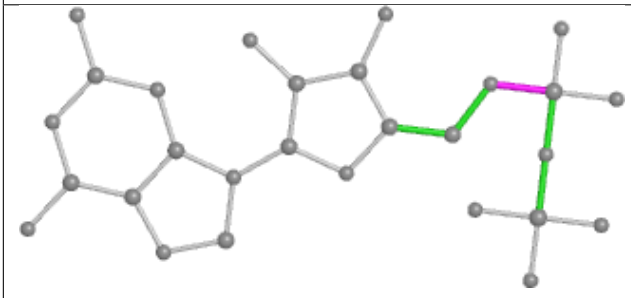

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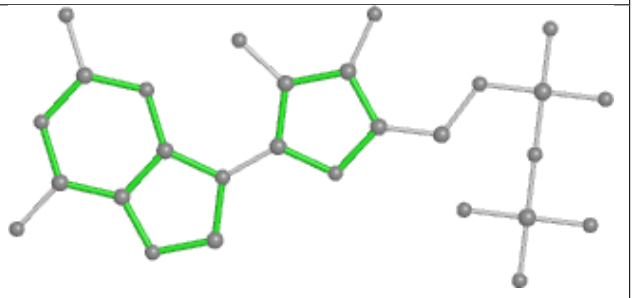
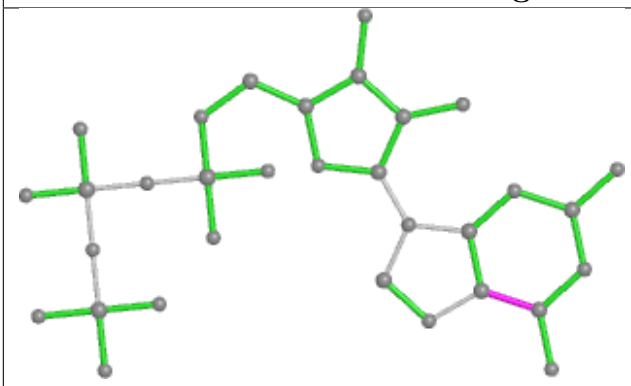


Rings

Ligand GTP G1 501



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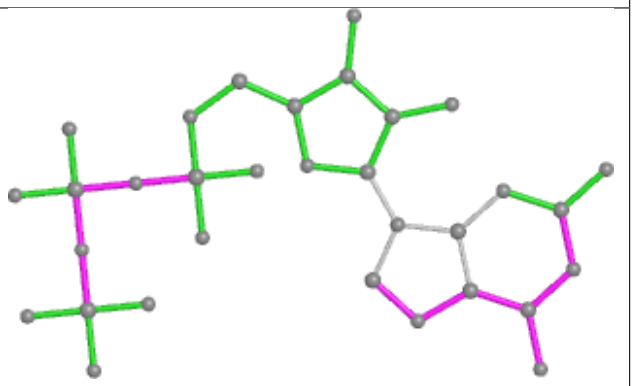

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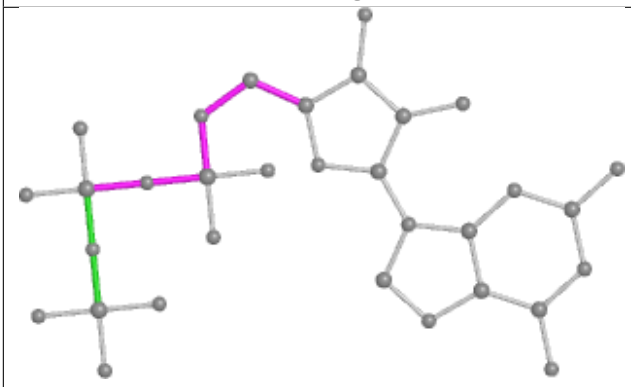

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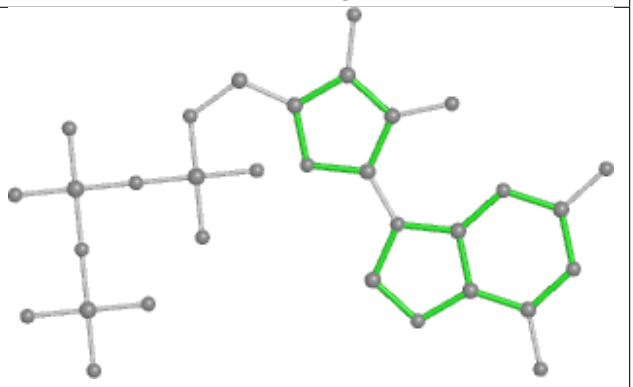
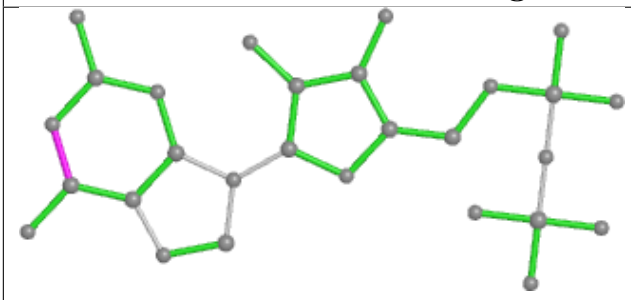


Rings

Ligand GDP M6 502



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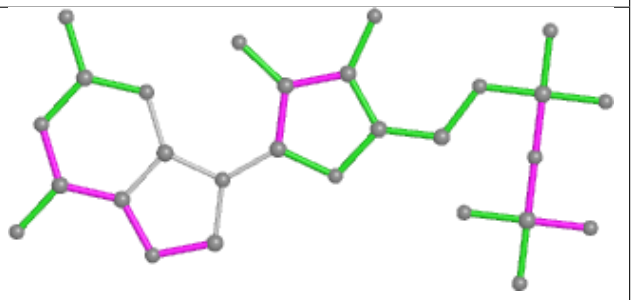

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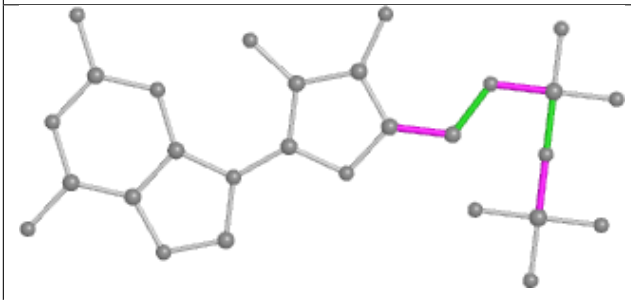

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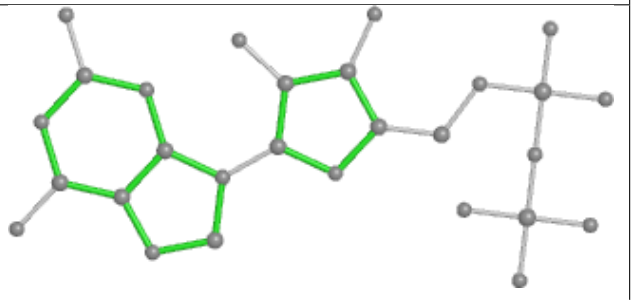
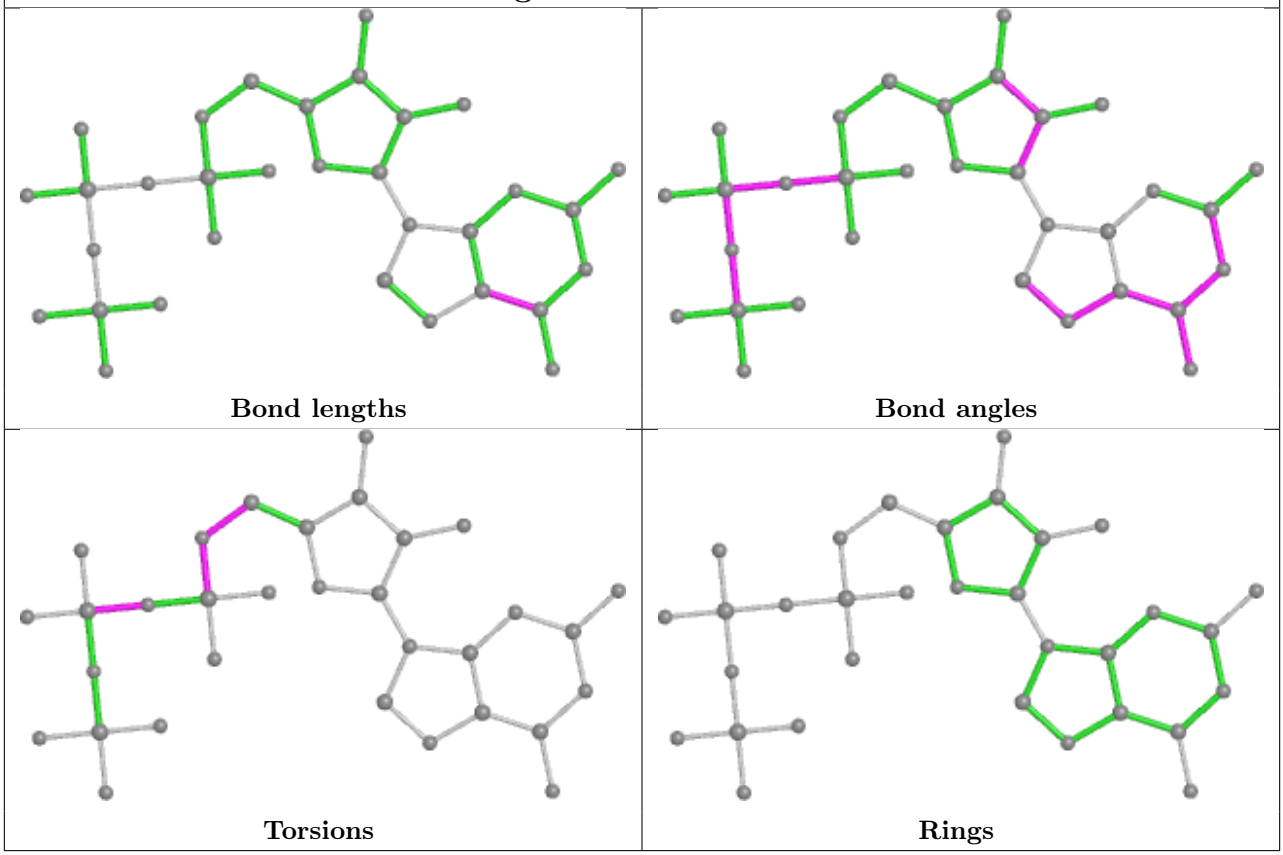
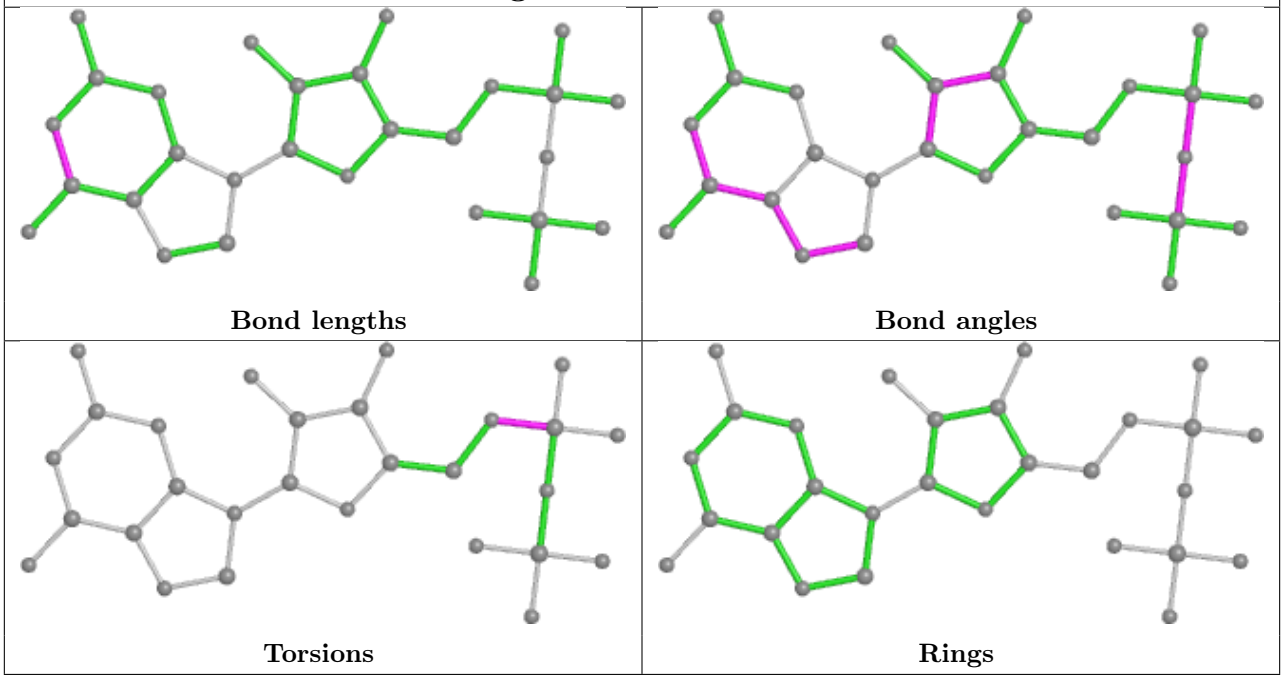


Rings

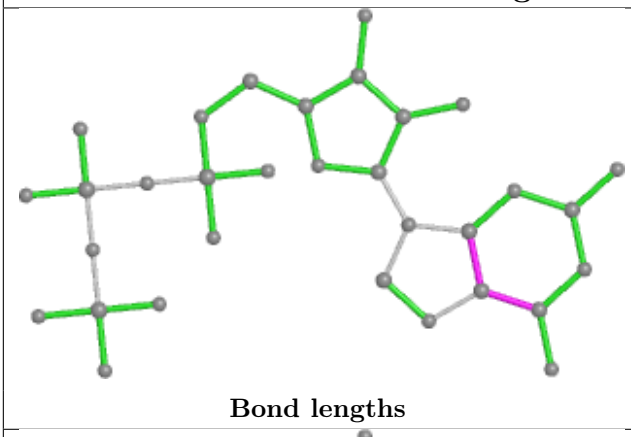
Ligand GTP O9 501



Ligand GDP 2M 501



Ligand GTP Q4 501



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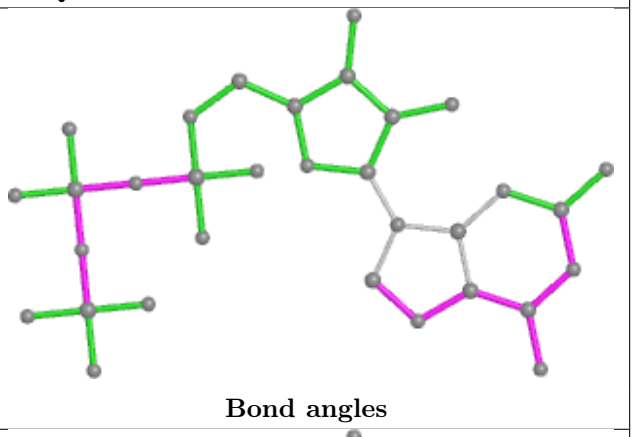
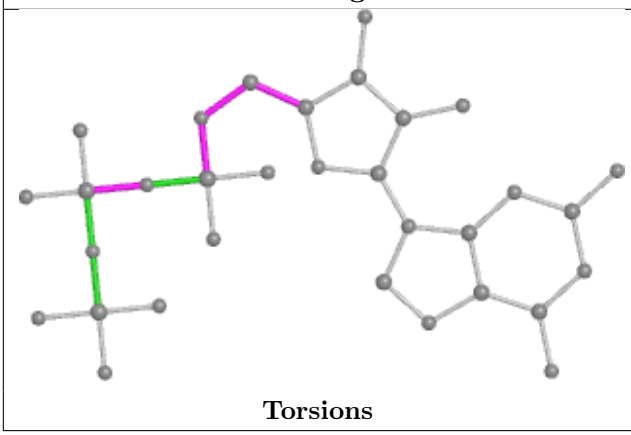


Bond angles



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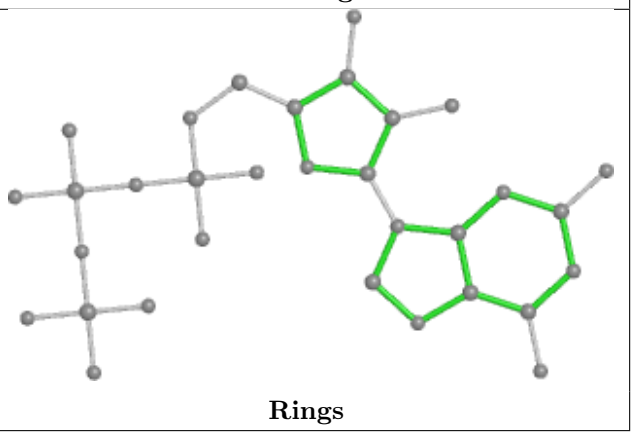
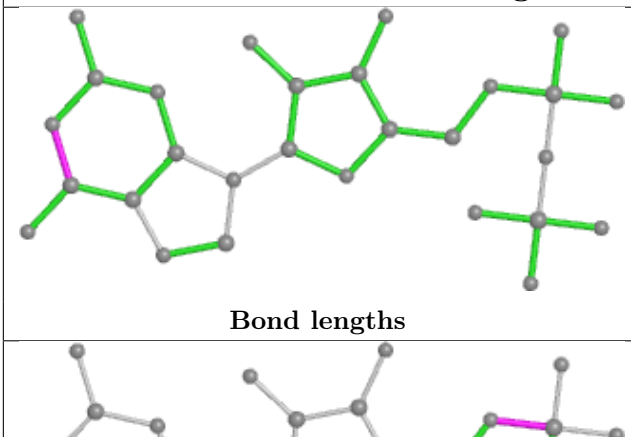


Rings

Ligand GDP C6 501



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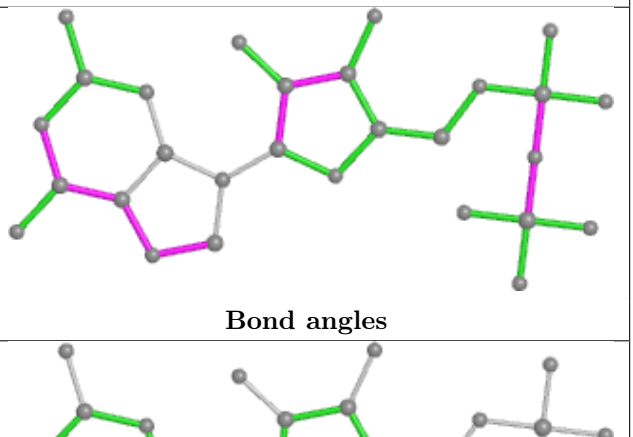
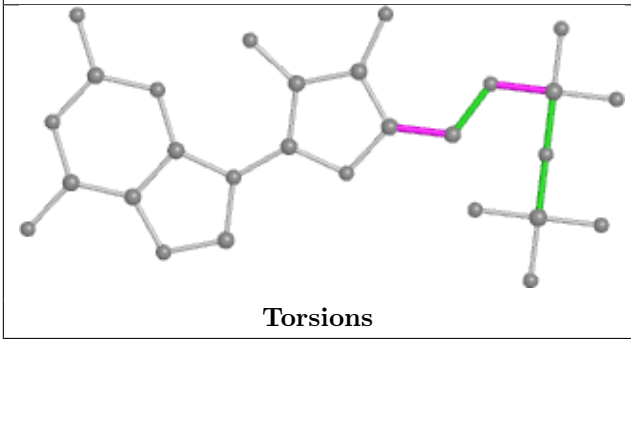


Bond angles



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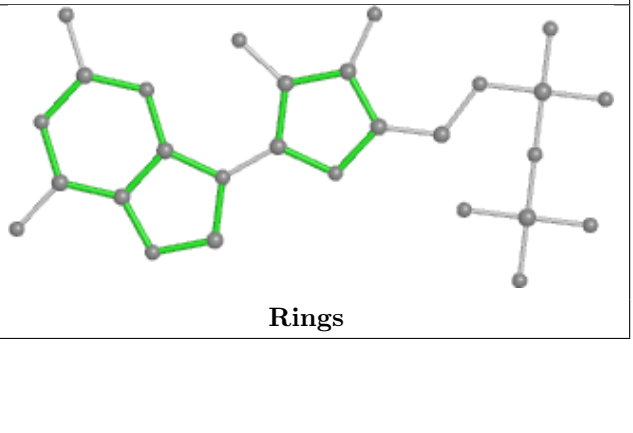
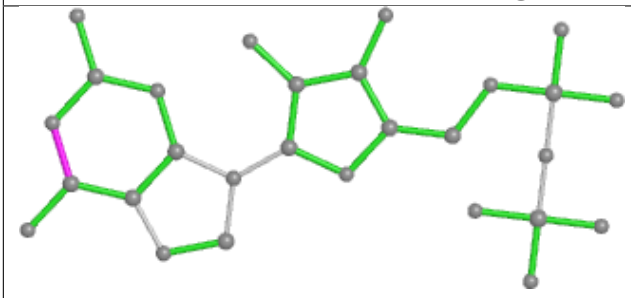
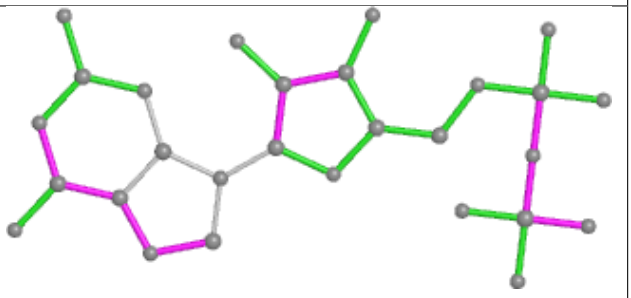
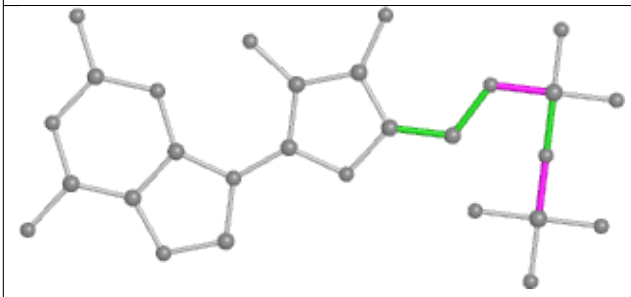
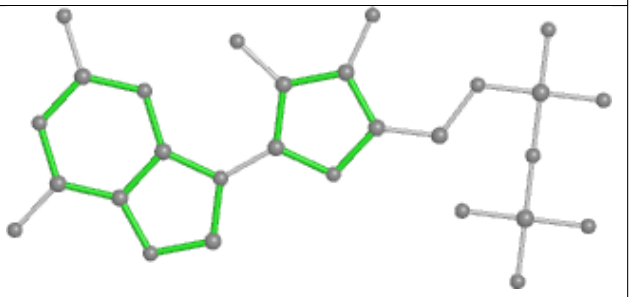


Rings

Ligand GDP 3C 502	
 Bond lengths	 Bond angles
 Torsions	 Rings

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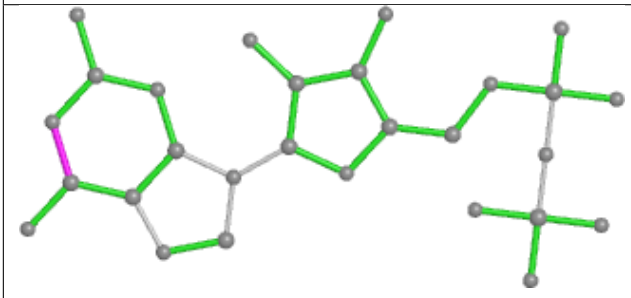
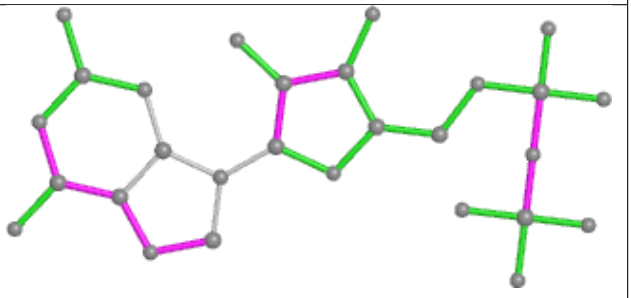
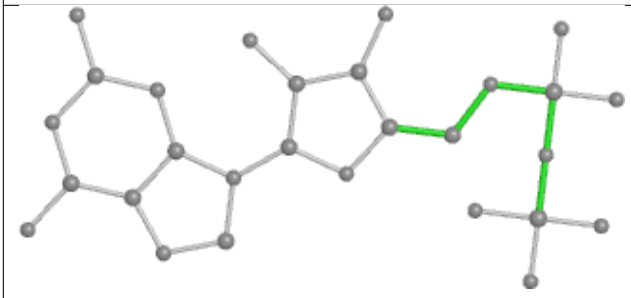
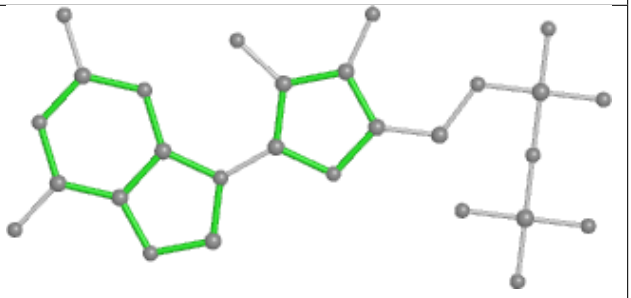
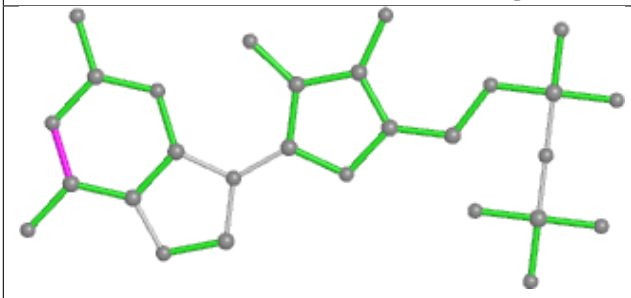
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GDP M4 502



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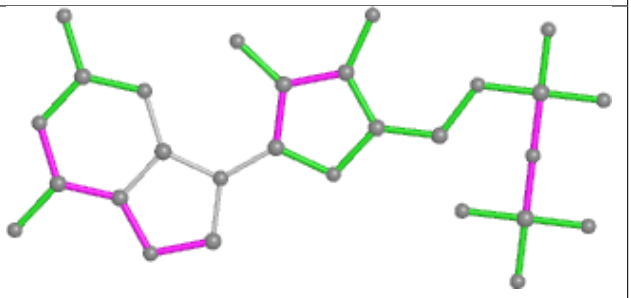

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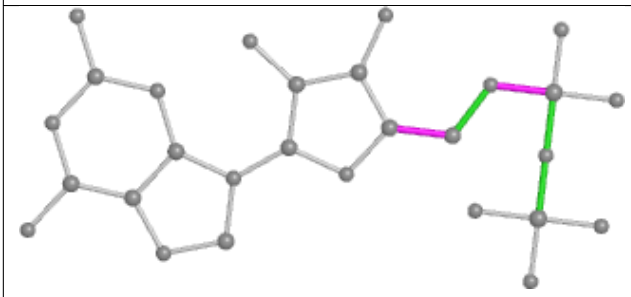

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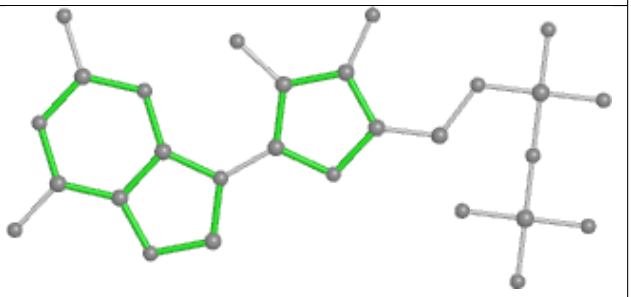
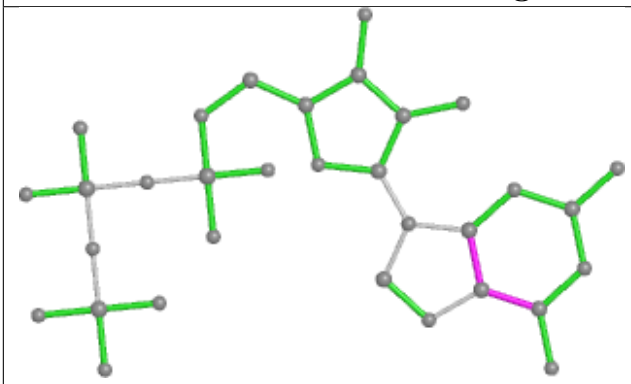


Rings

Ligand GTP 2Y 501



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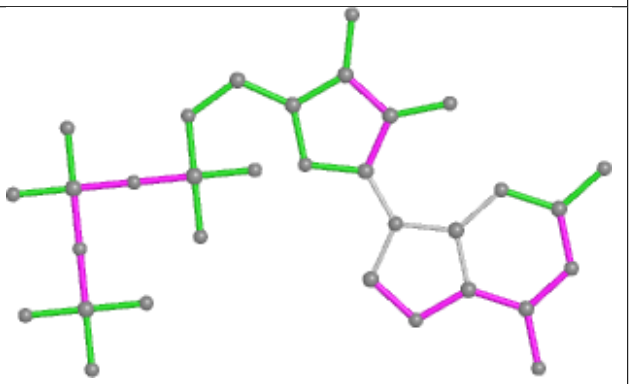

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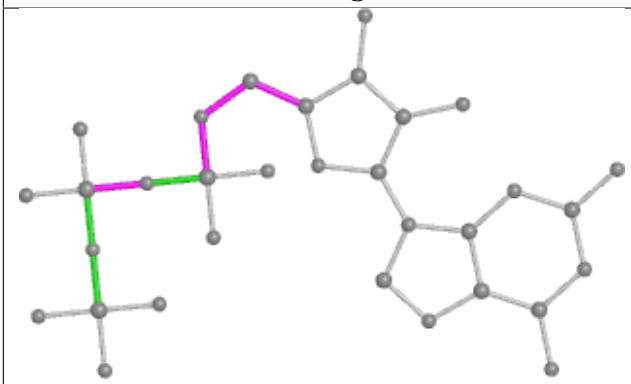

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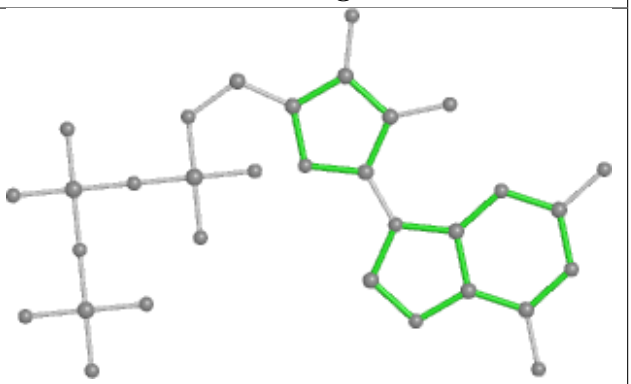
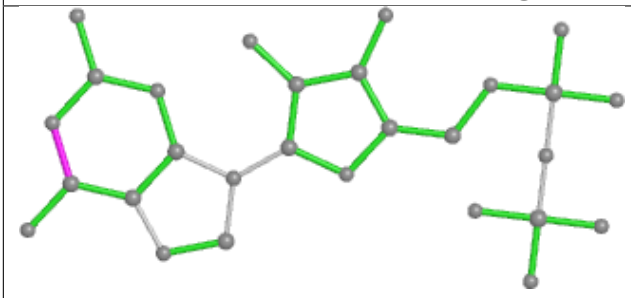


Rings

Ligand GDP S0 502



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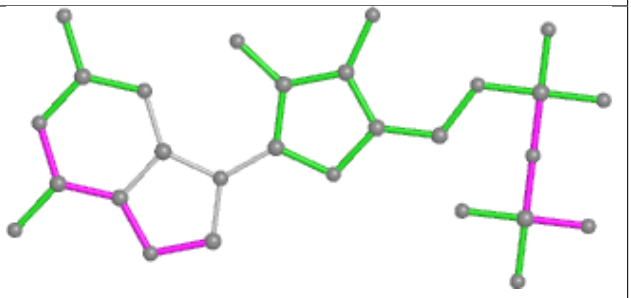

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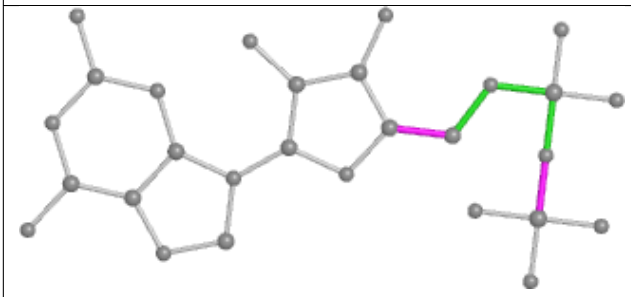

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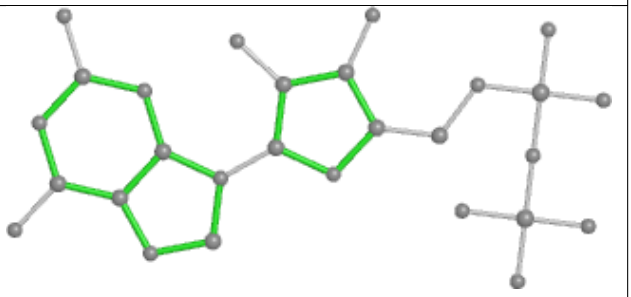
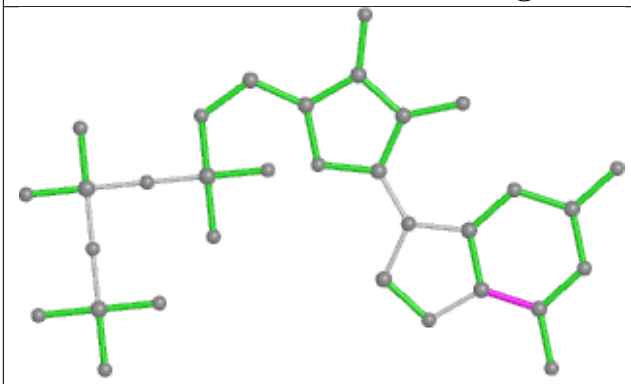


Rings

Ligand GTP Z3 501



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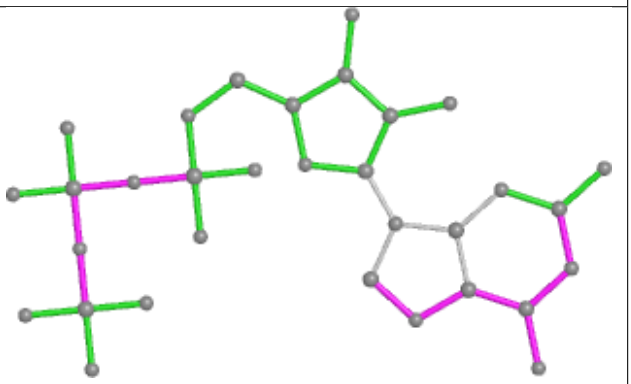

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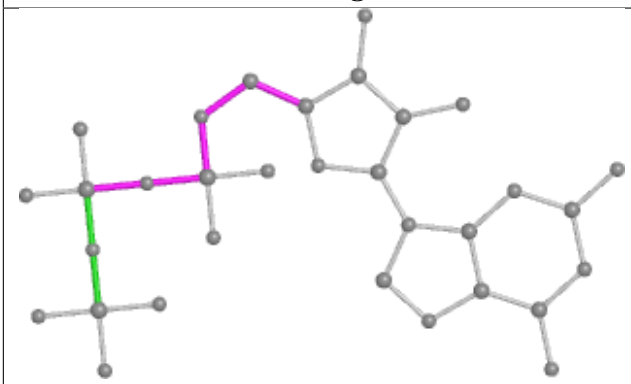

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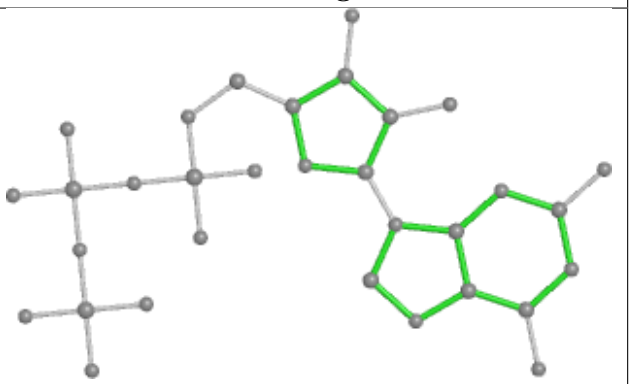

Rings

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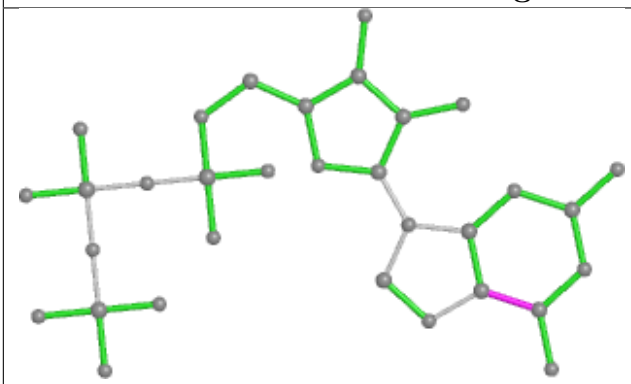

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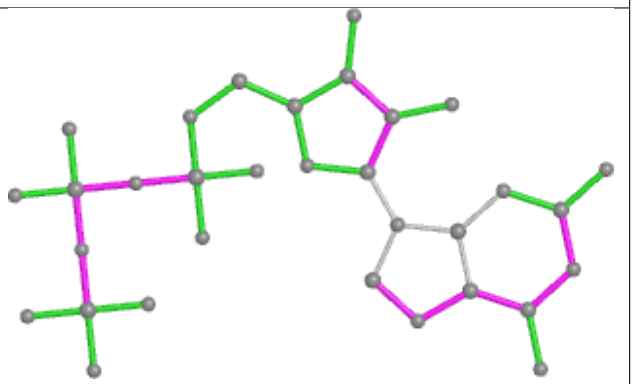

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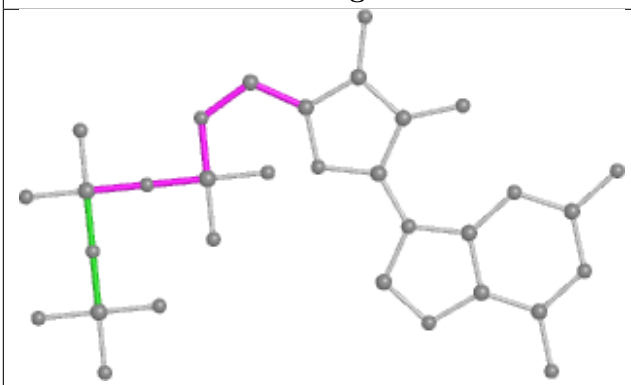

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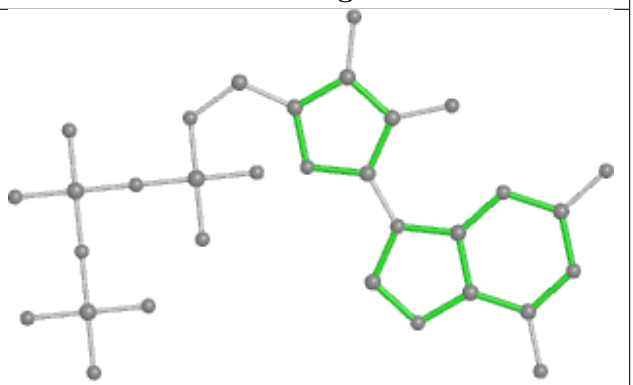
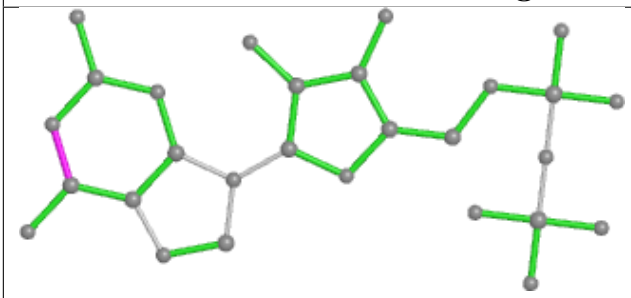


Rings

Ligand GDP 3S 502



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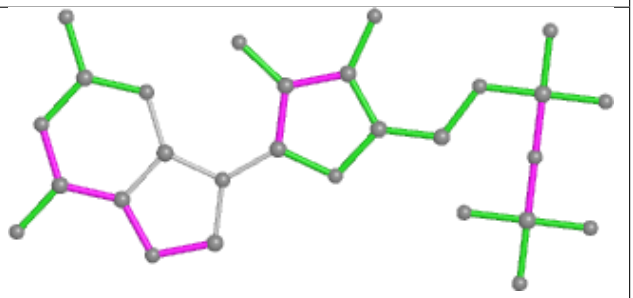

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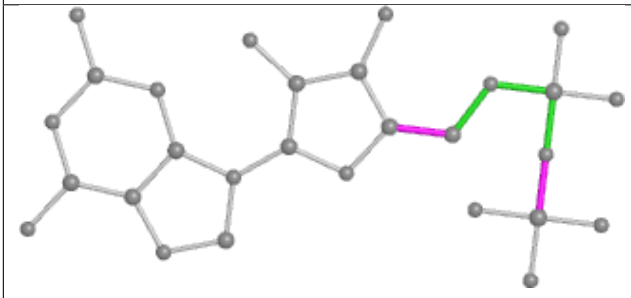

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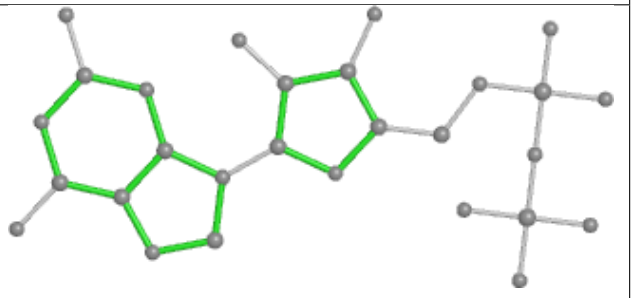

Rings

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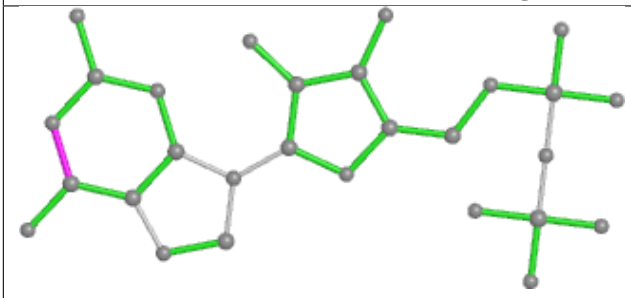
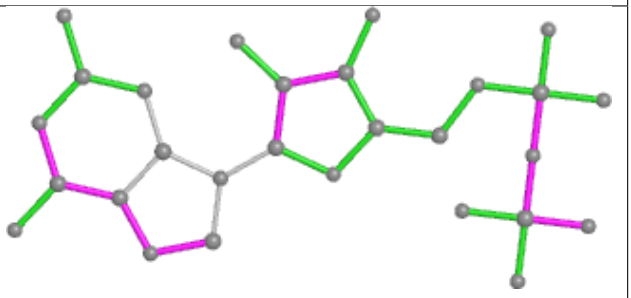
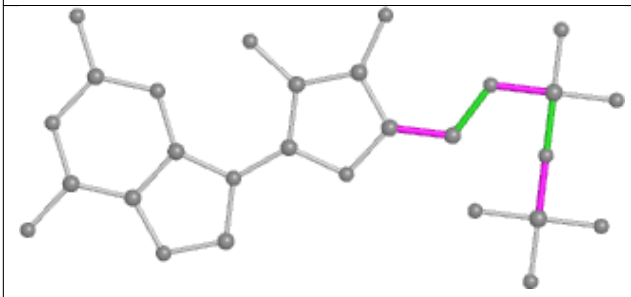
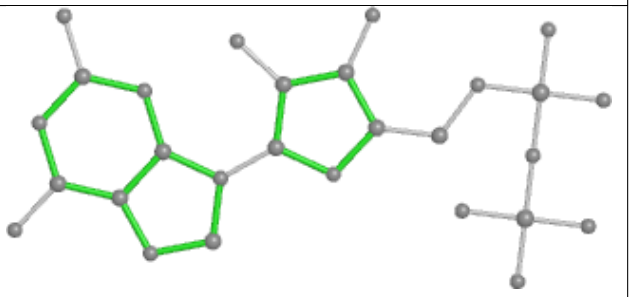
 Bond lengths	 Bond angles
 Torsions	 Rings

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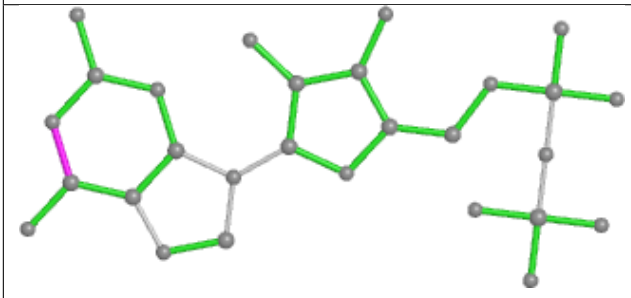
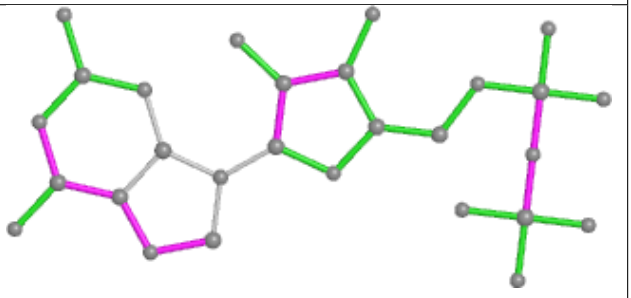
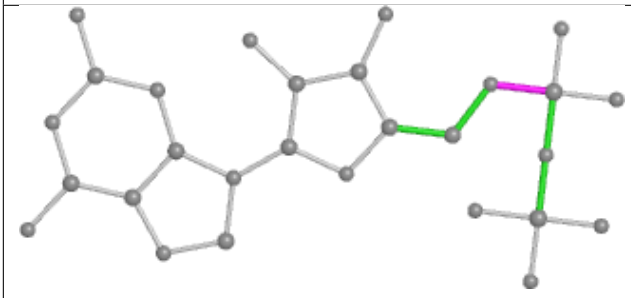
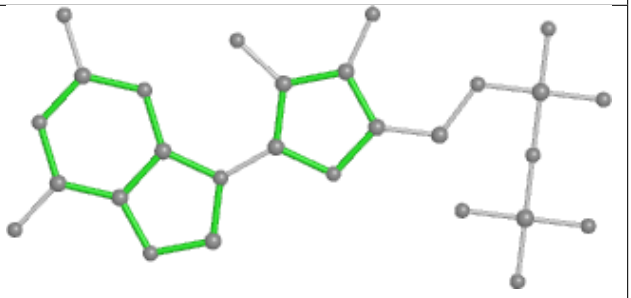
 Bond lengths	 Bond angles
 Torsions	 Rings

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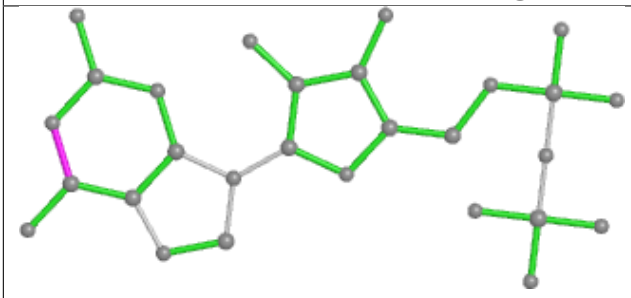
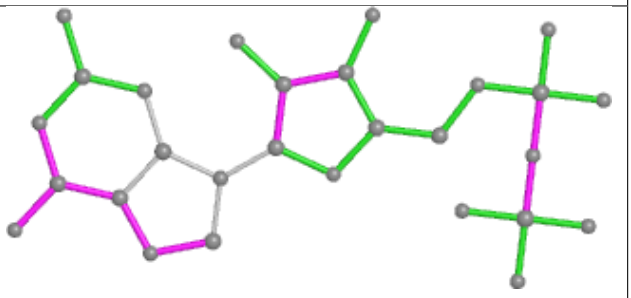
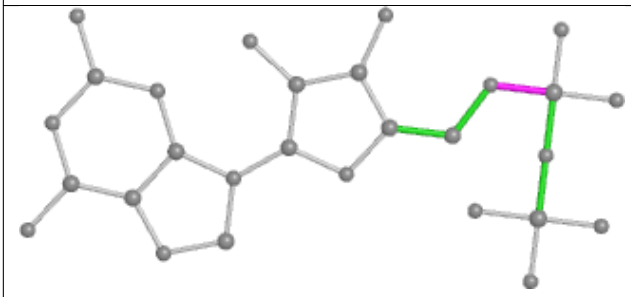
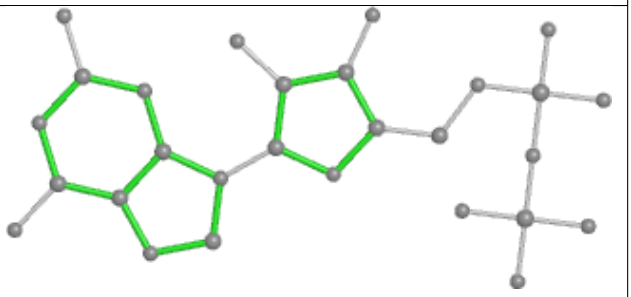
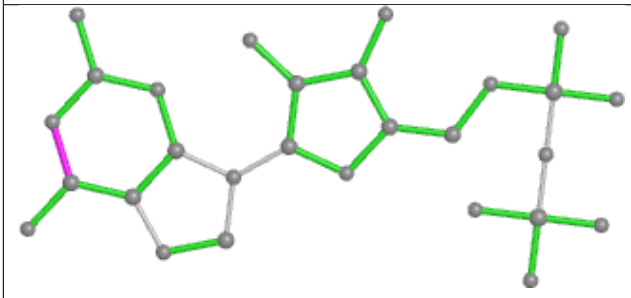
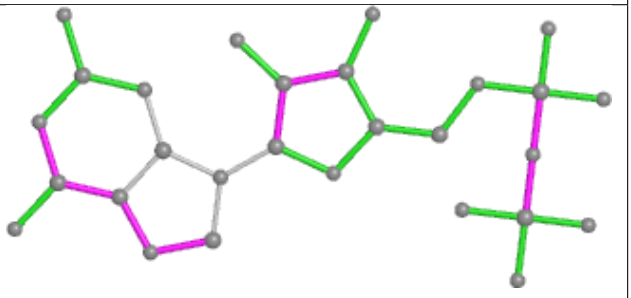
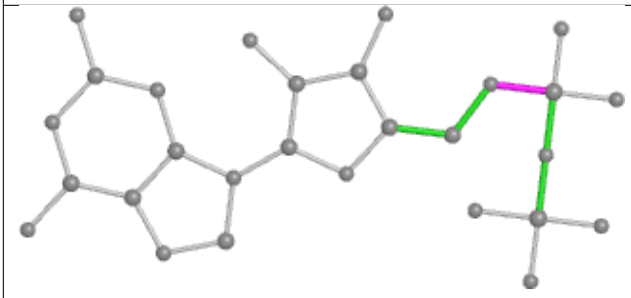
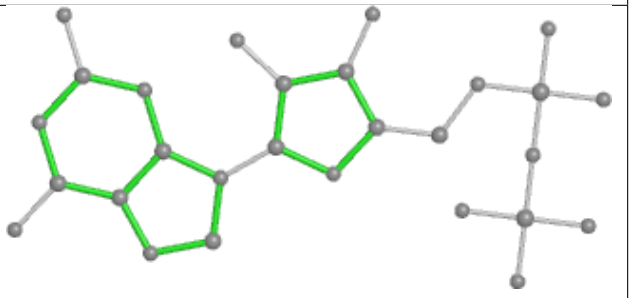
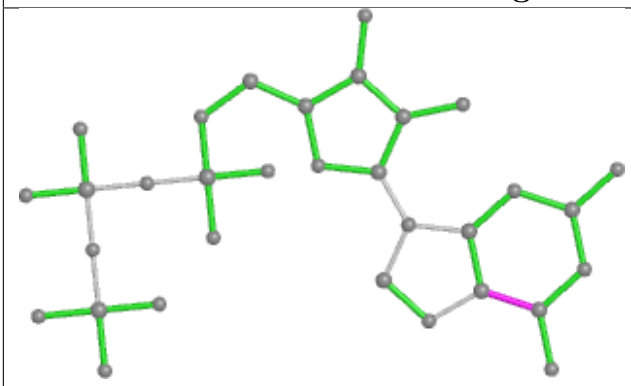
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GDP L0 501	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GTP H6 501



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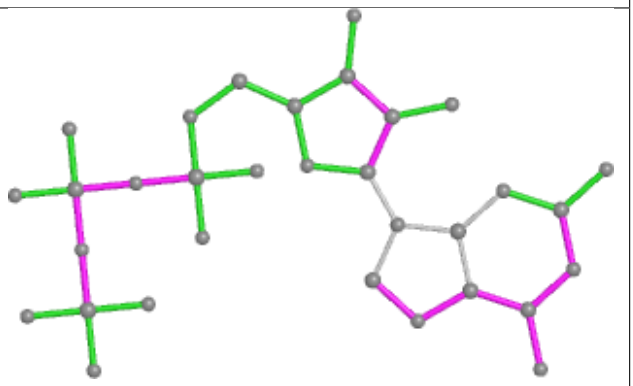

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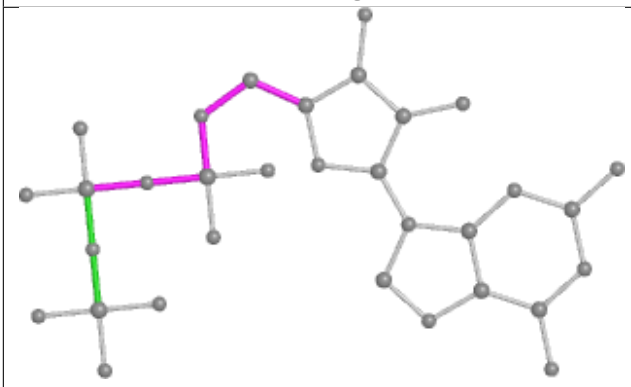

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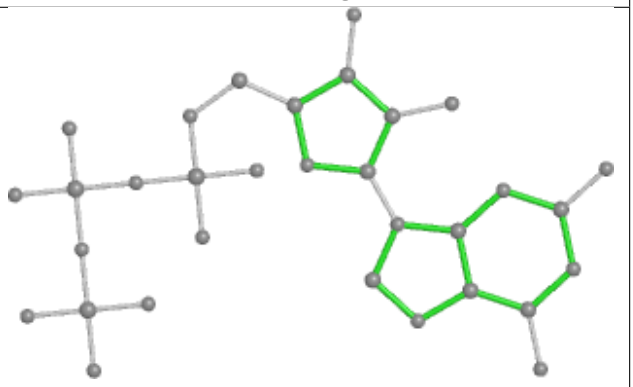
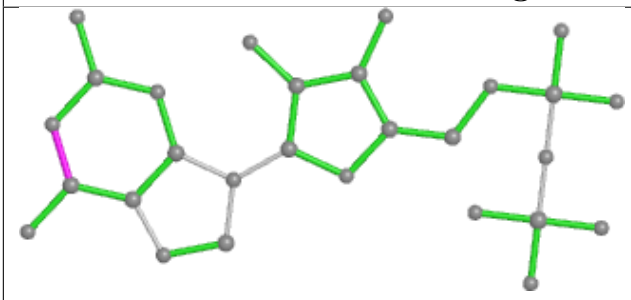


Rings

Ligand GDP Q0 501



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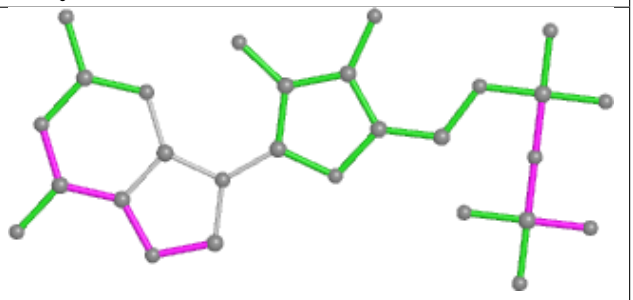

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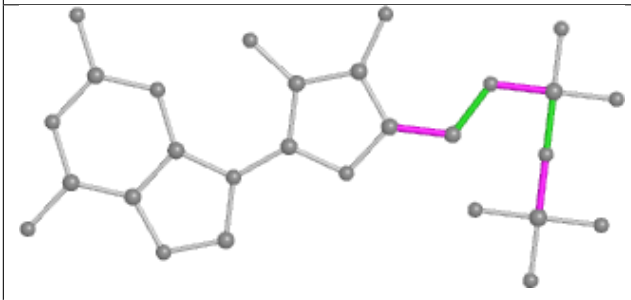

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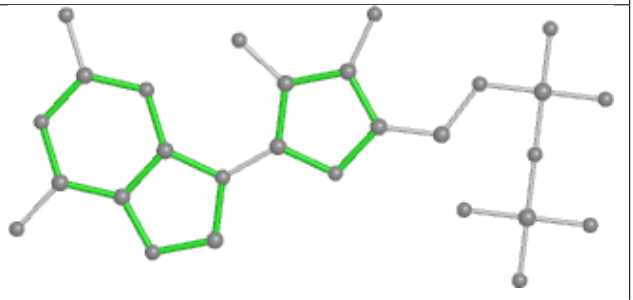
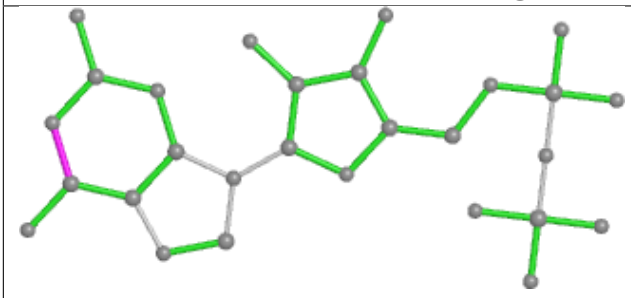


Rings

Ligand GDP H6 502



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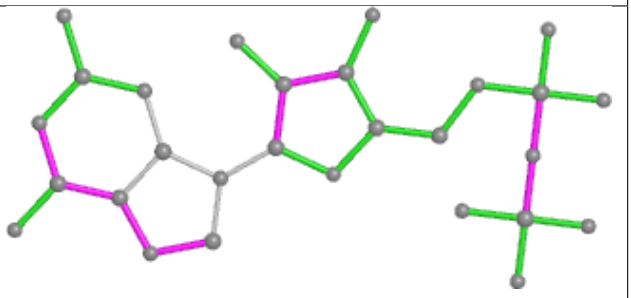

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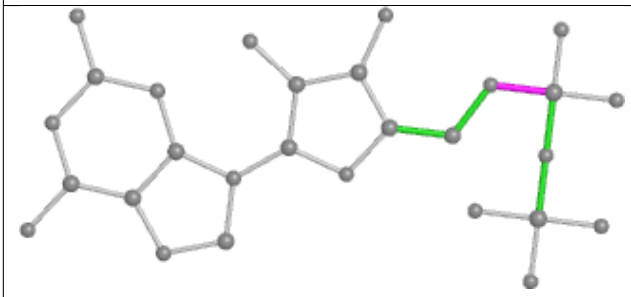
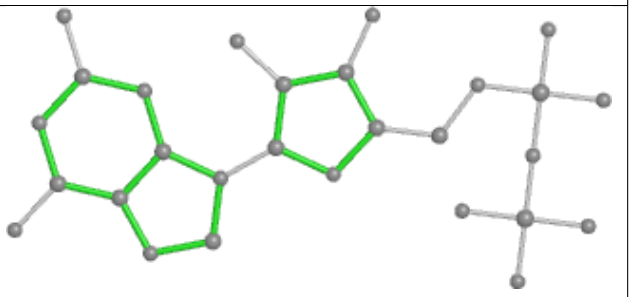
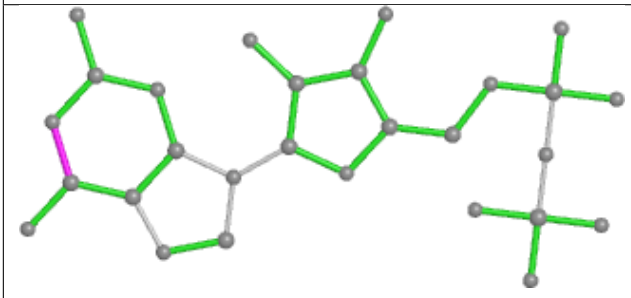


Torsions

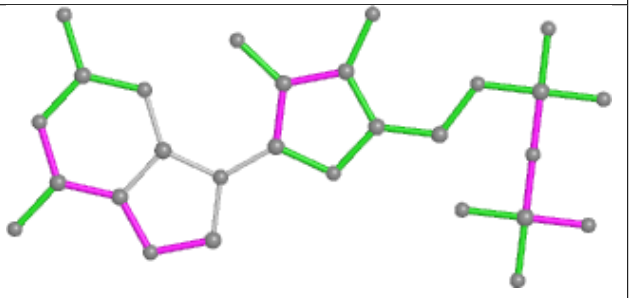


Rings

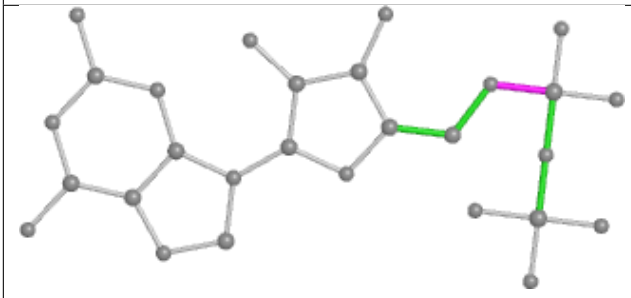
Ligand GDP L4 502



Bond lengths



Bond angles



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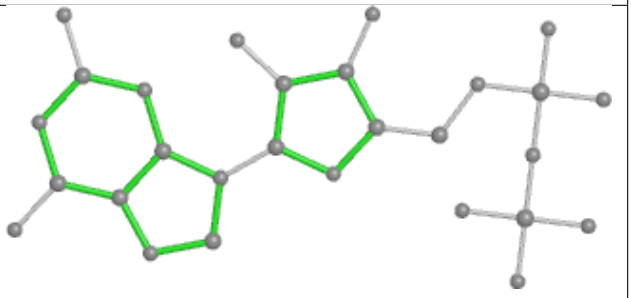
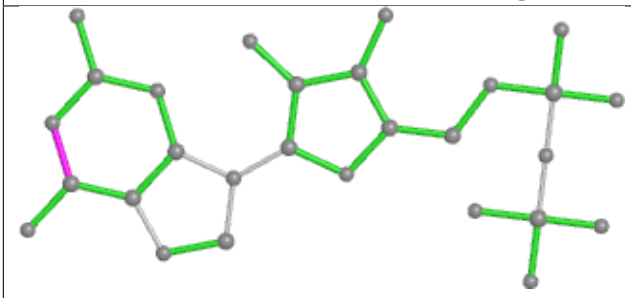
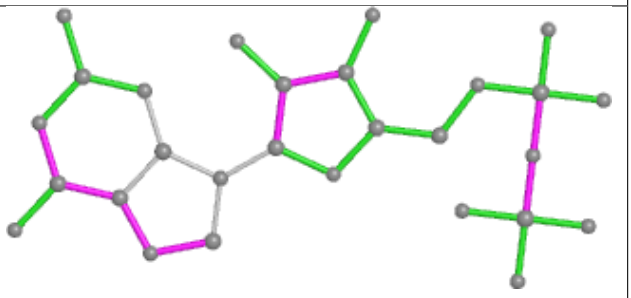
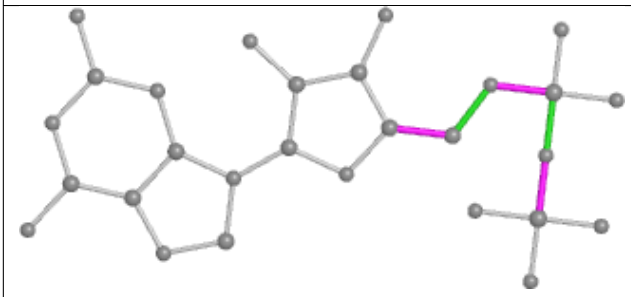
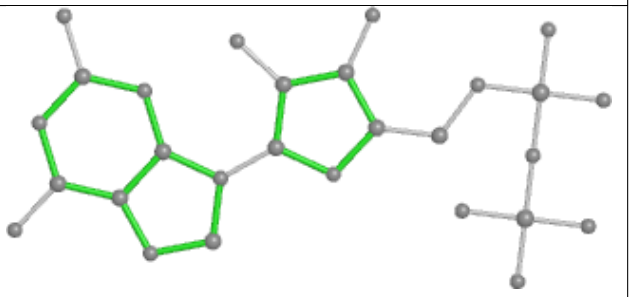
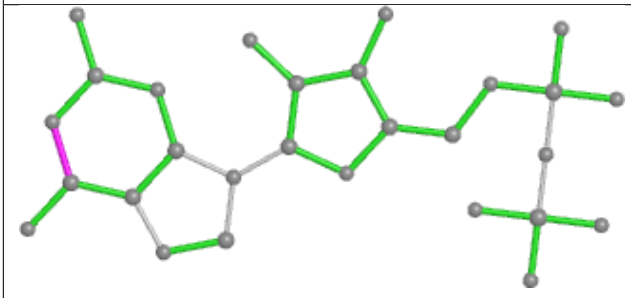
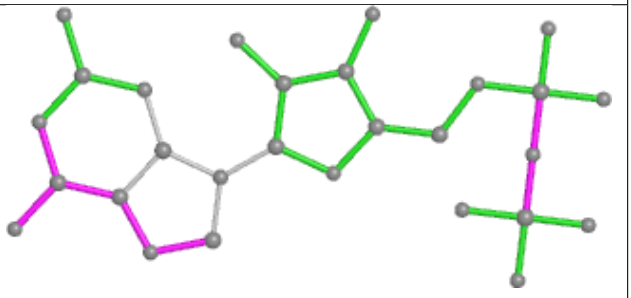
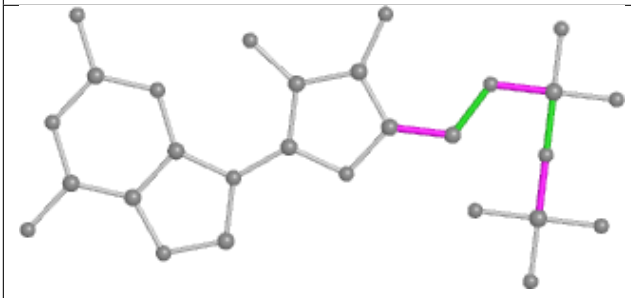
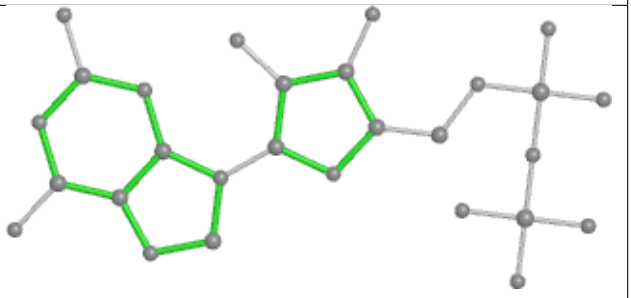
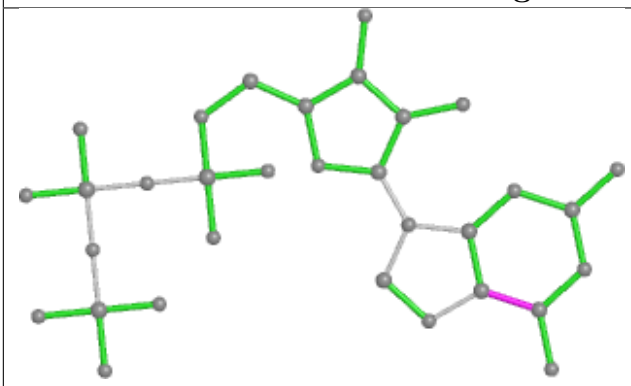


Rings

Ligand GDP T6 502	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand GDP E6 502	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand GTP O6 501



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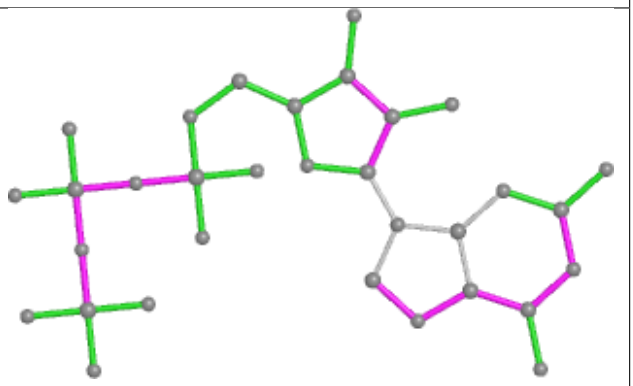

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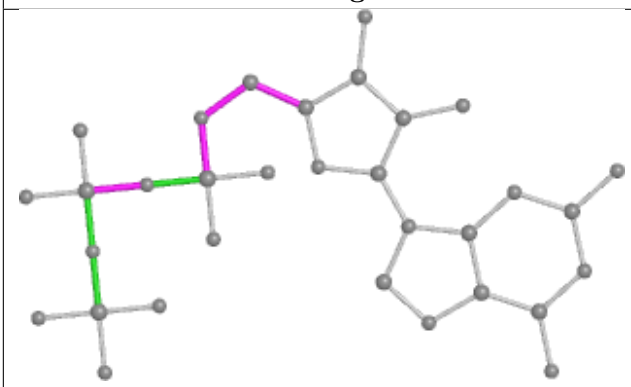

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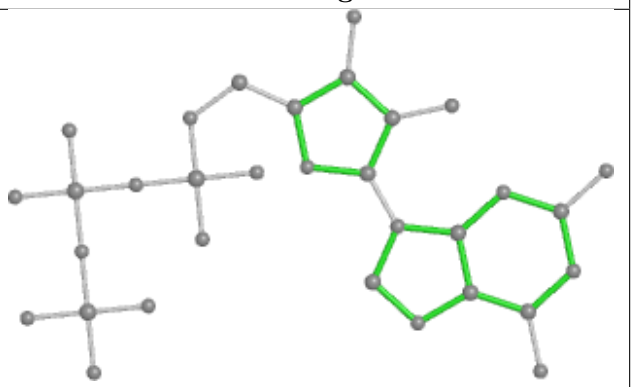
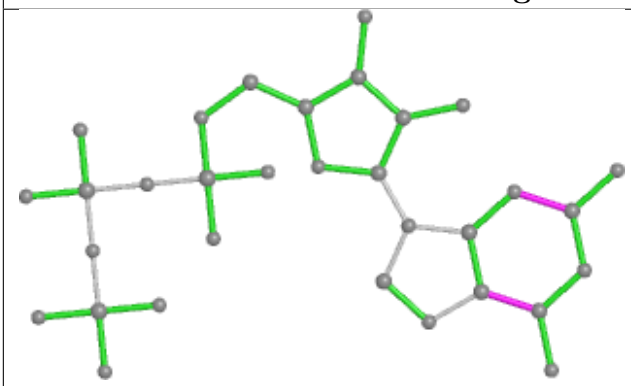


Rings

Ligand GTP 0O 501



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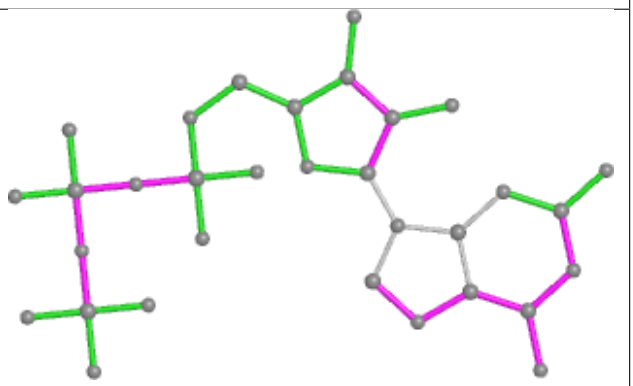

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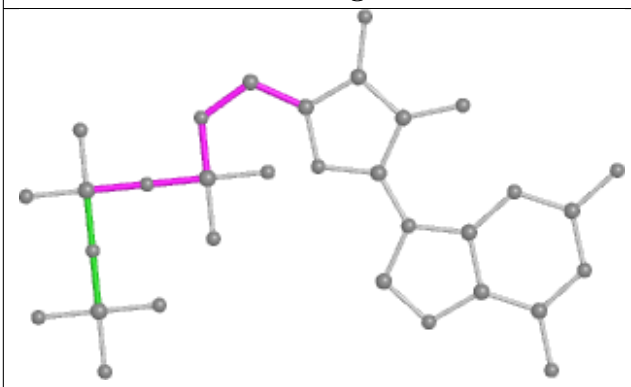

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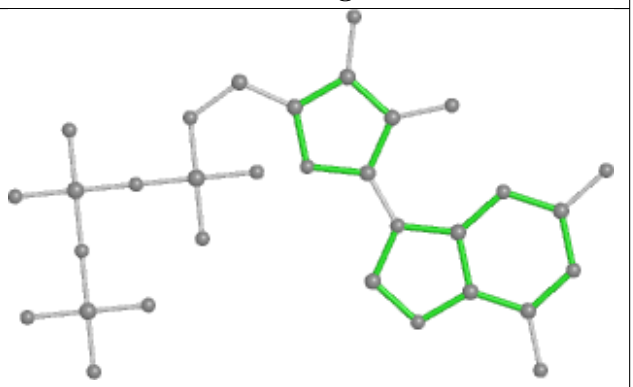
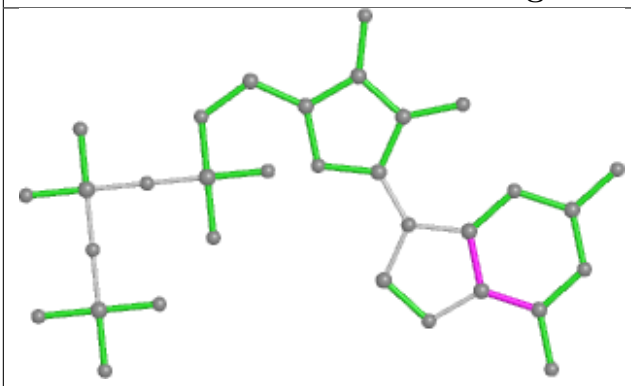


Rings

Ligand GTP 7 501



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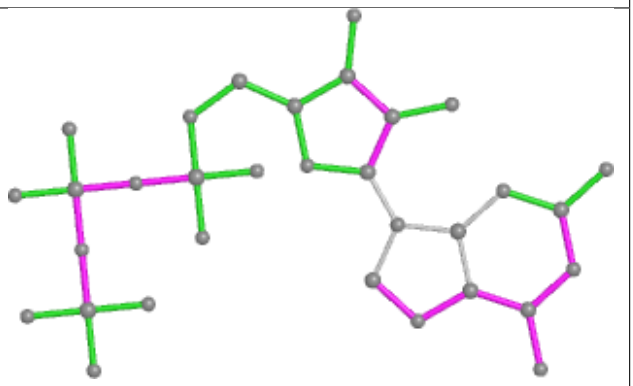

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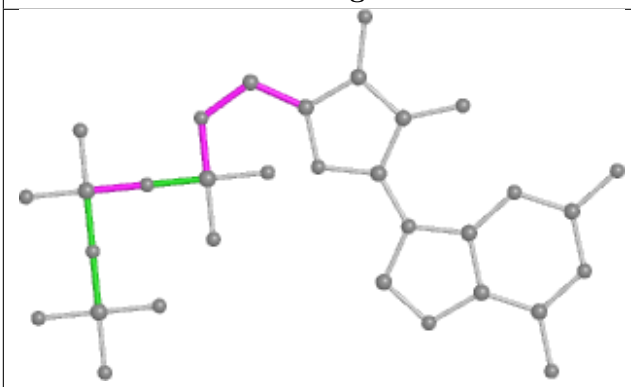

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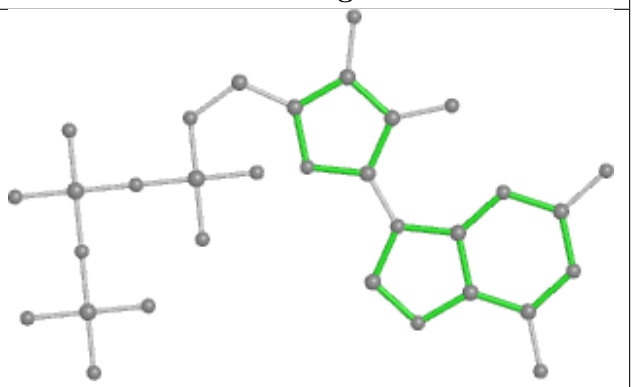
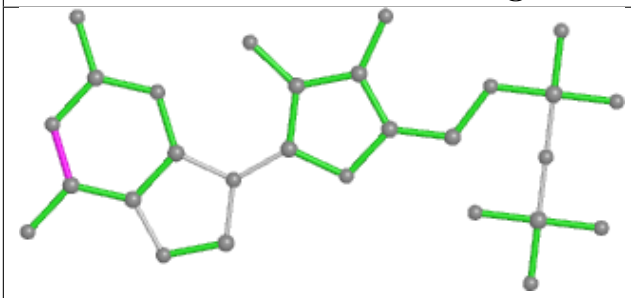


Rings

Ligand GDP W6 501



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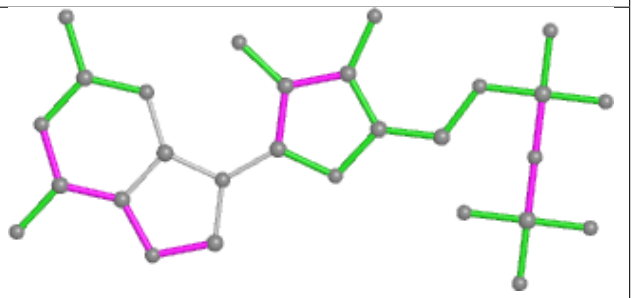

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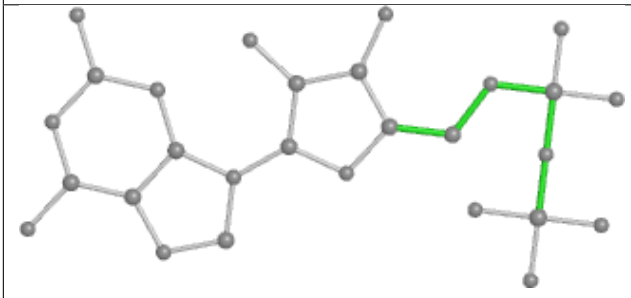

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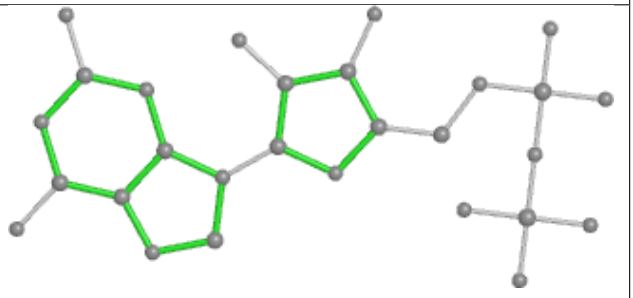
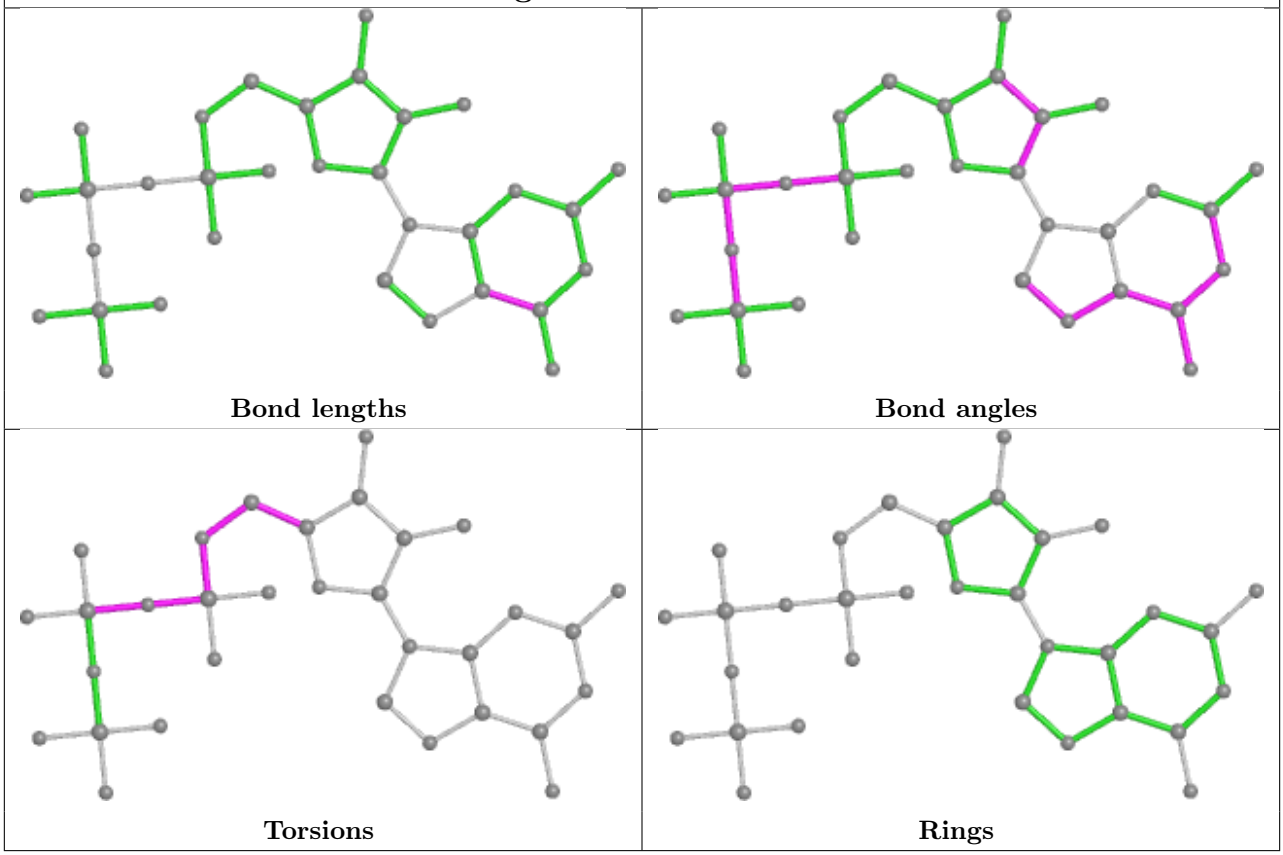


Rings

Ligand GTP 1C 501



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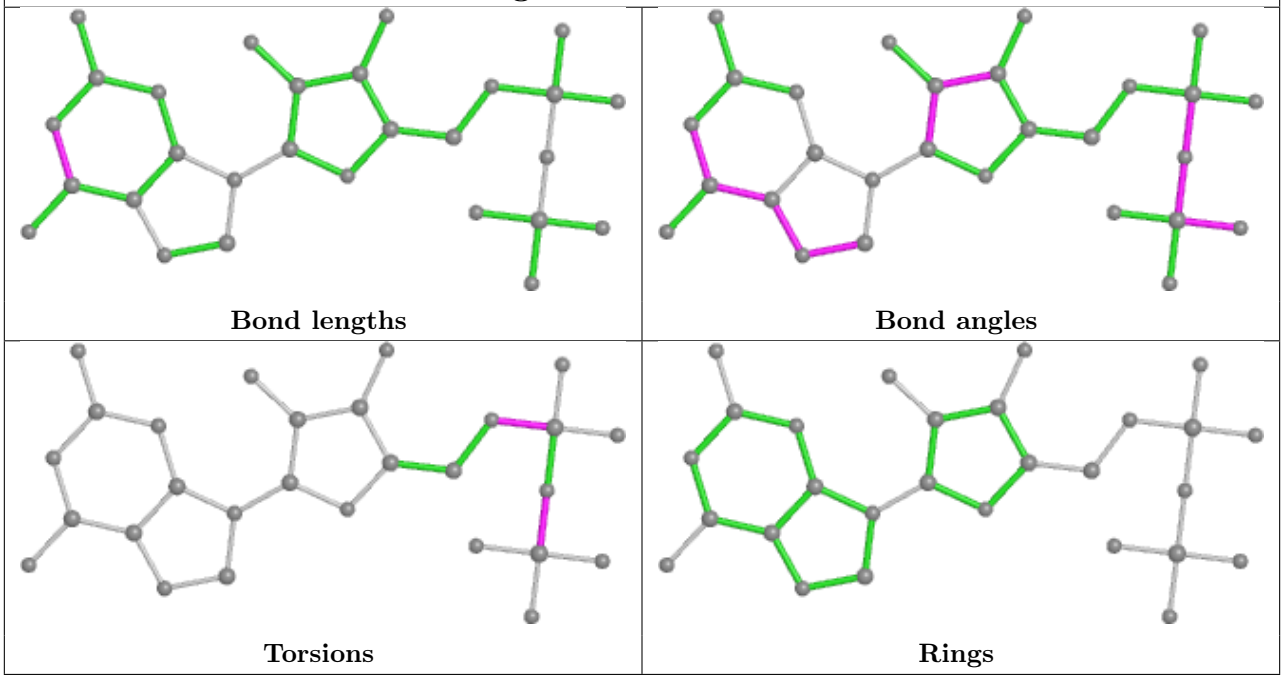

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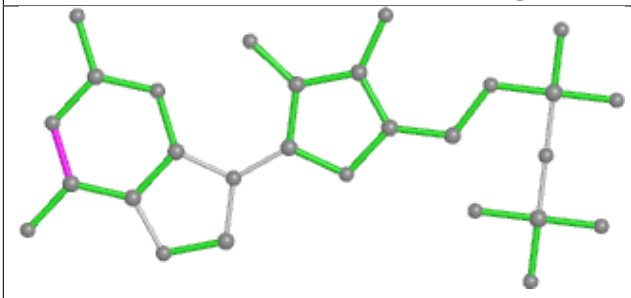

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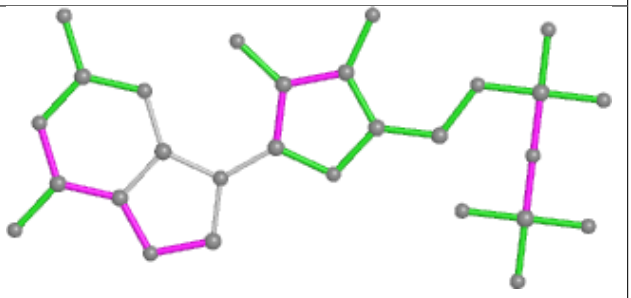

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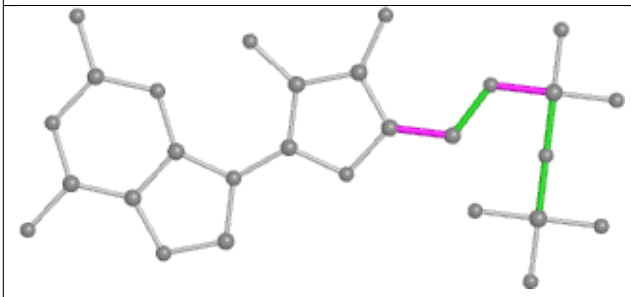

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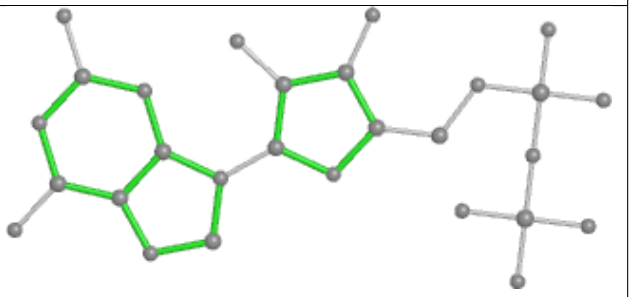

Rings

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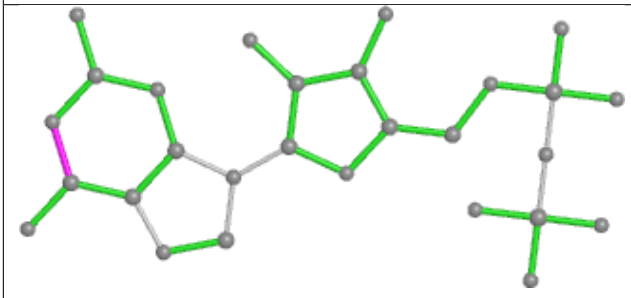

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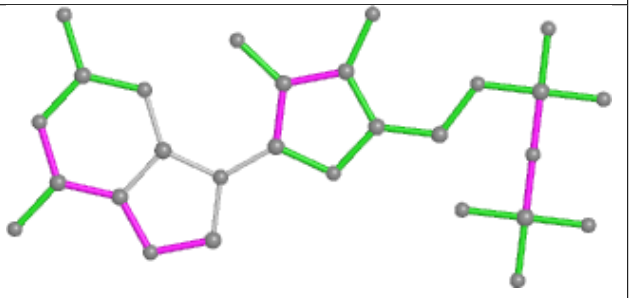

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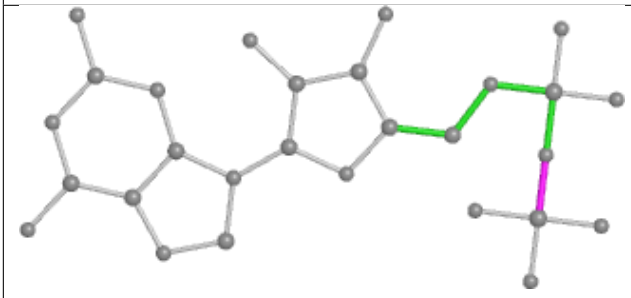

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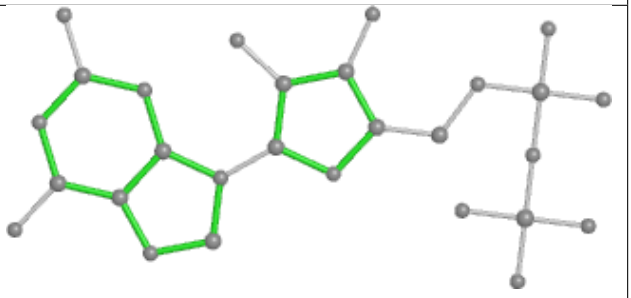
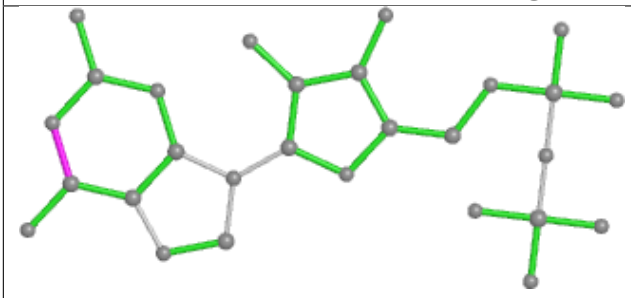


Rings

Ligand GDP 7 502



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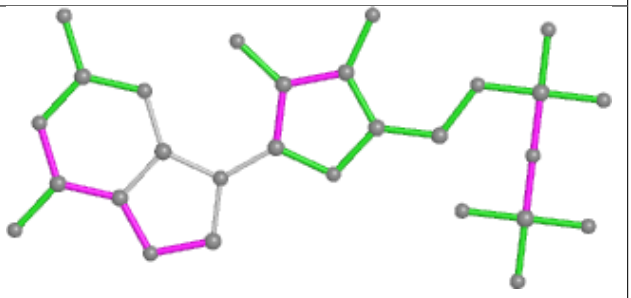

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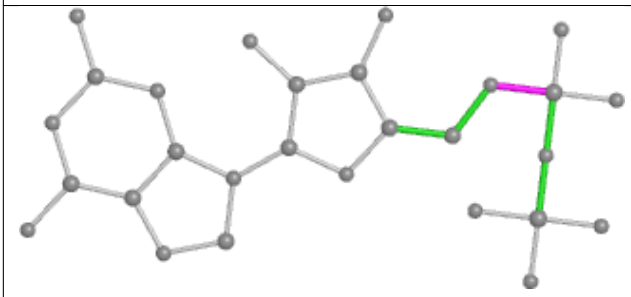

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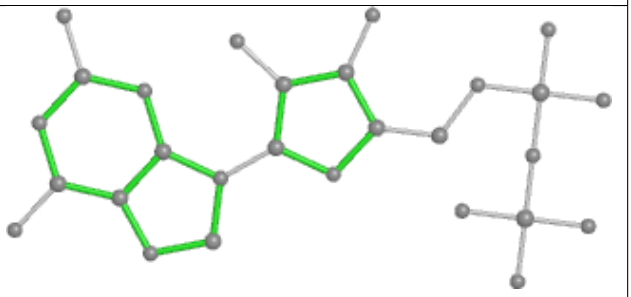
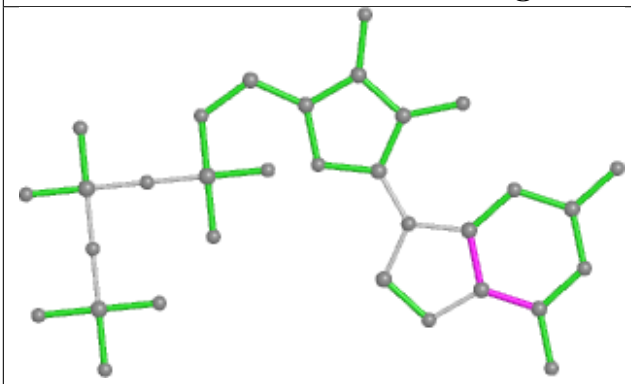


Rings

Ligand GTP T2 501



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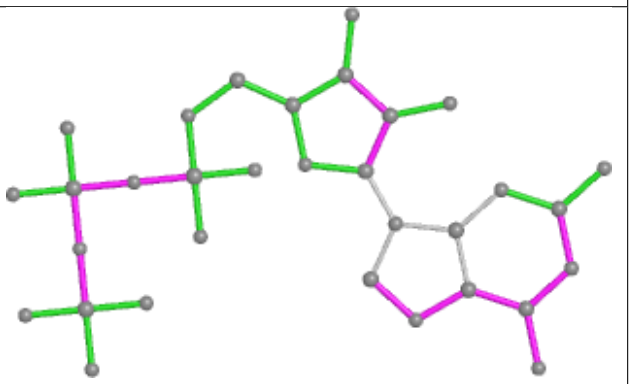

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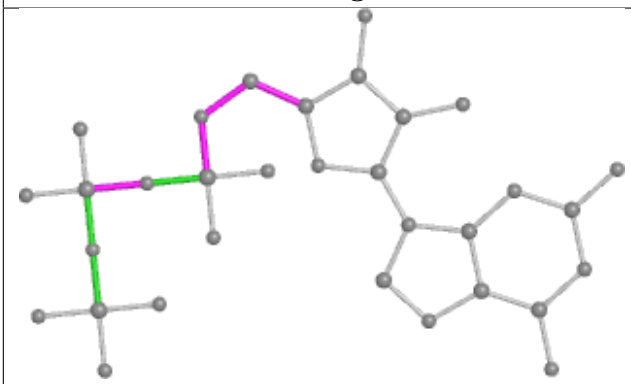

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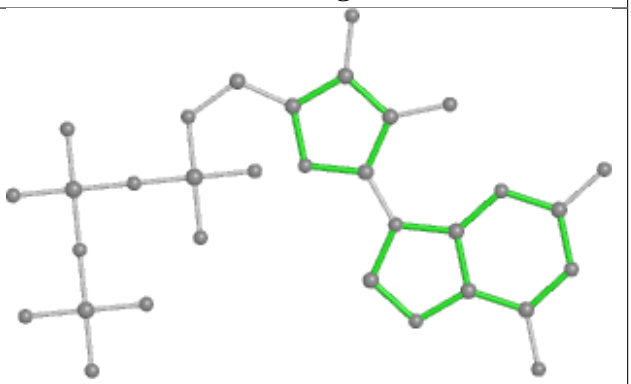
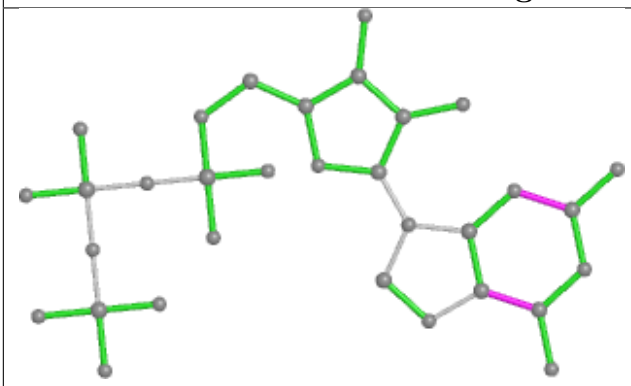


Rings

Ligand GTP F0 501



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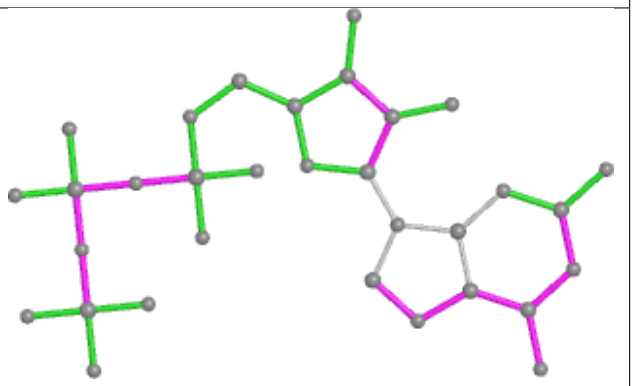

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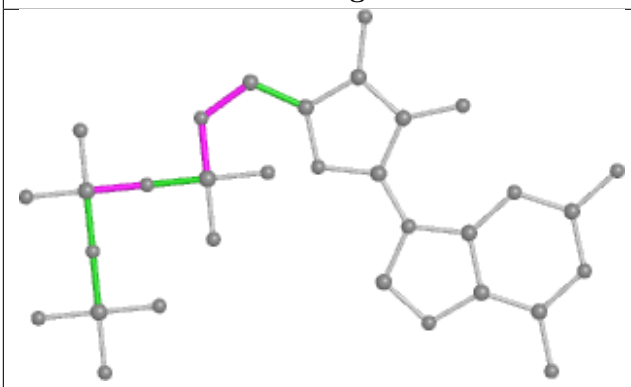

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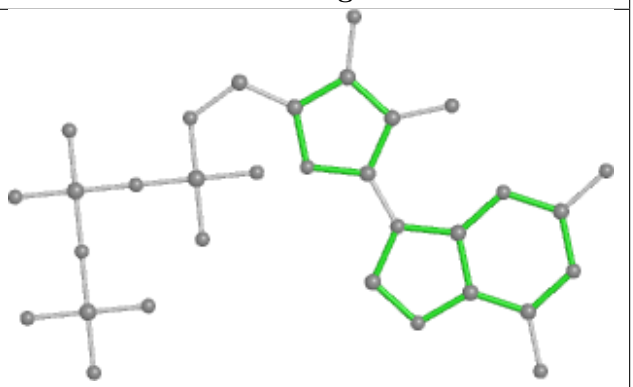
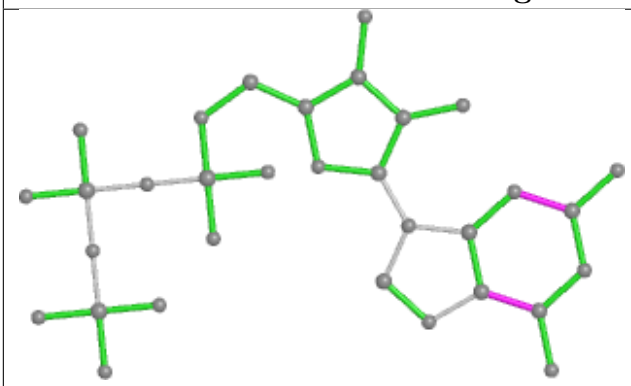


Rings

Ligand GTP B0 501



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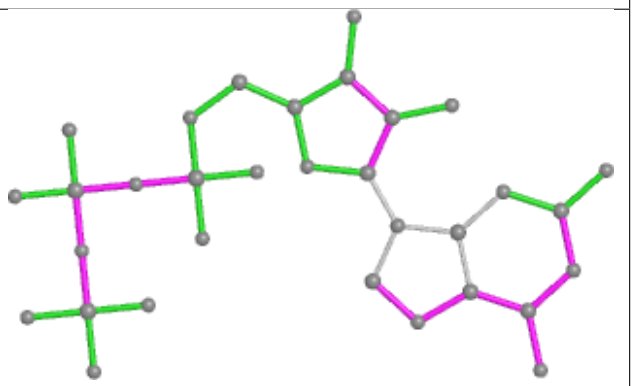
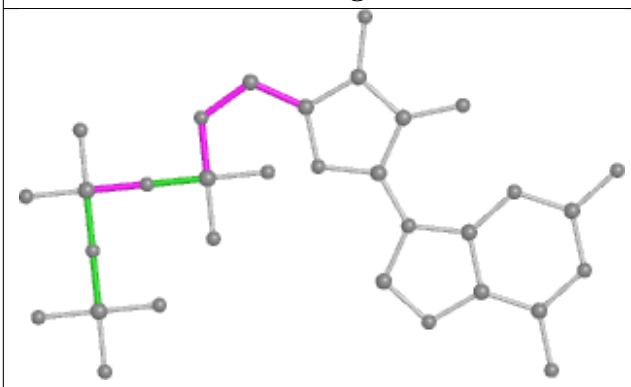


Bond angles



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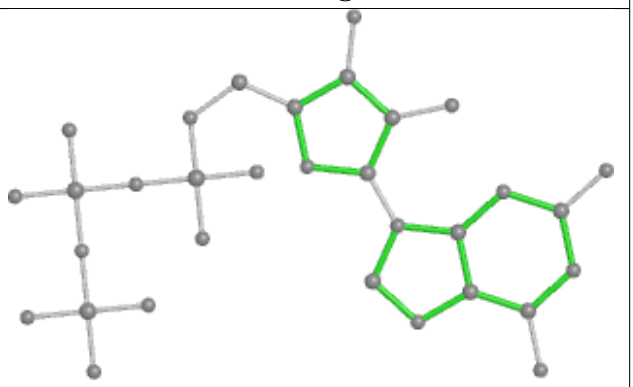
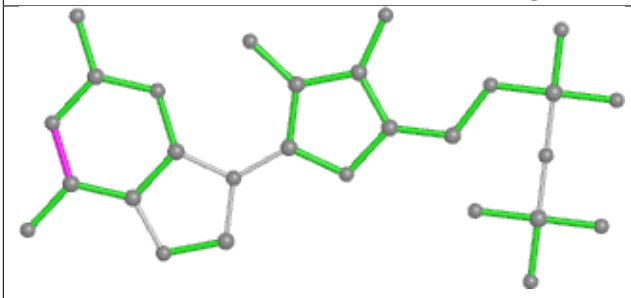


Rings

Ligand GDP 2 501



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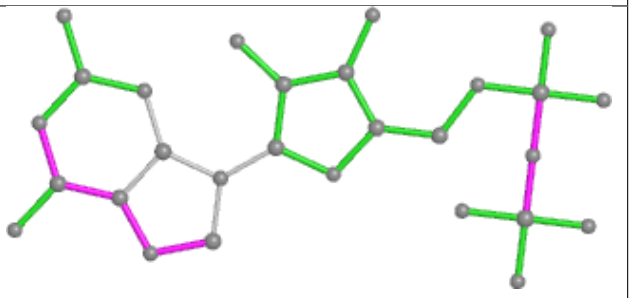
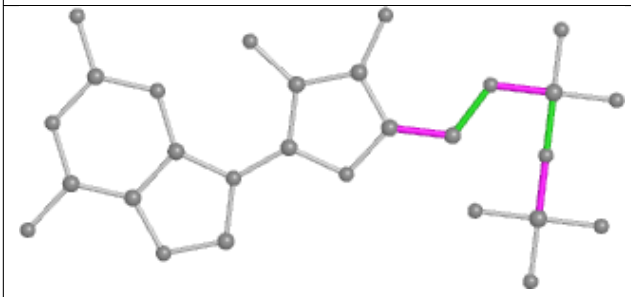
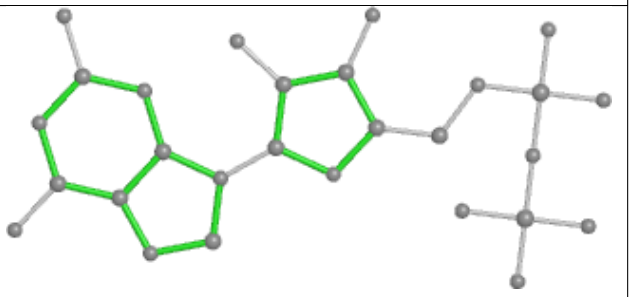


Bond angles

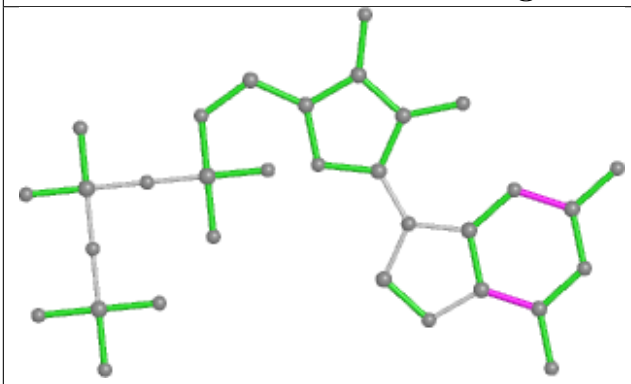


Torsions



Rings

Ligand GTP J8 501



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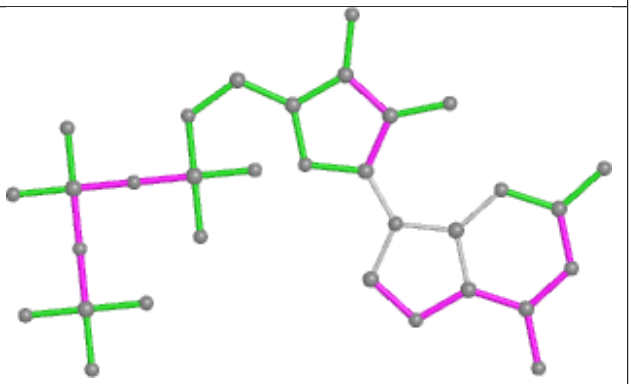

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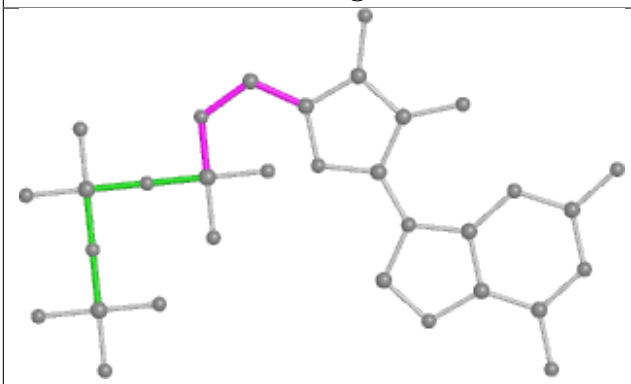

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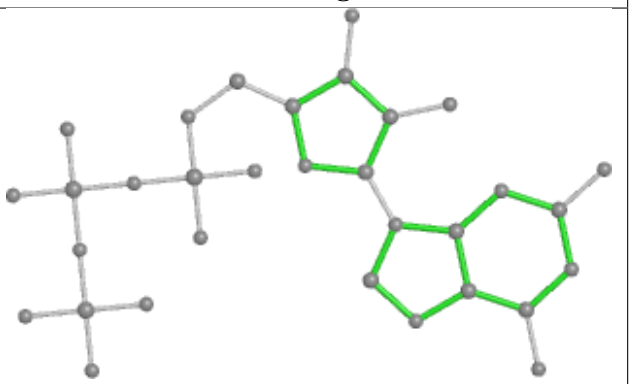
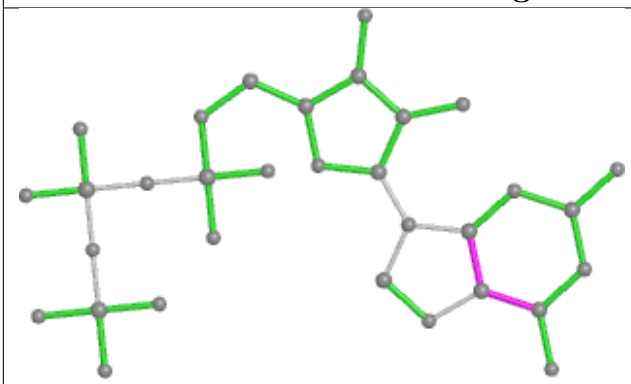


Rings

Ligand GTP K9 501



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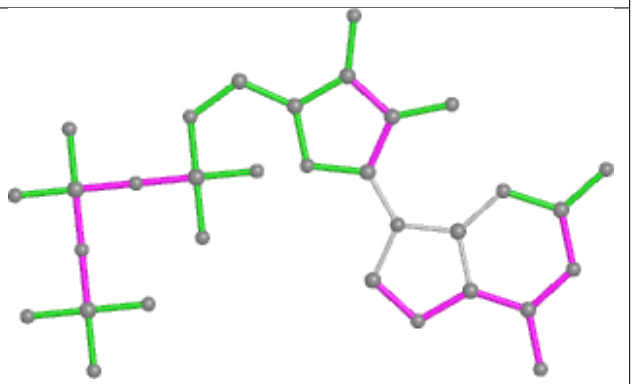

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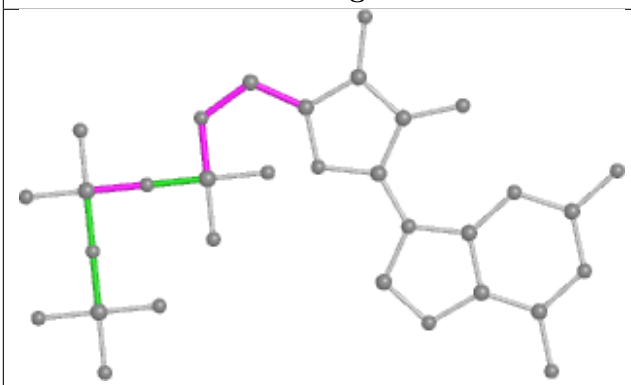

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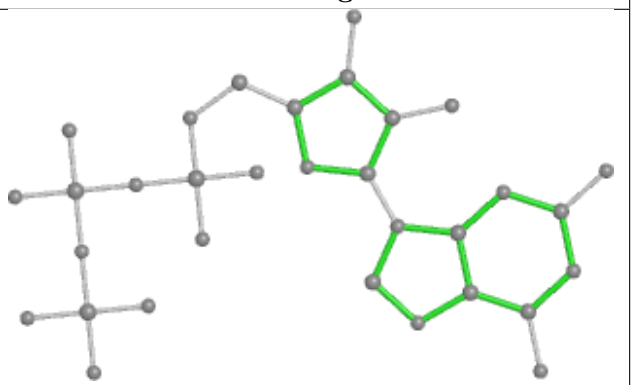
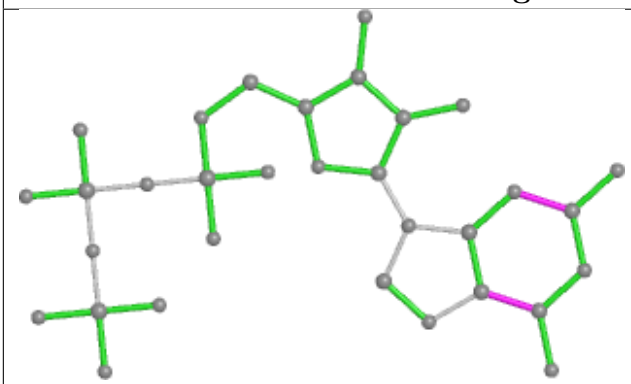


Rings

Ligand GTP 1D 501



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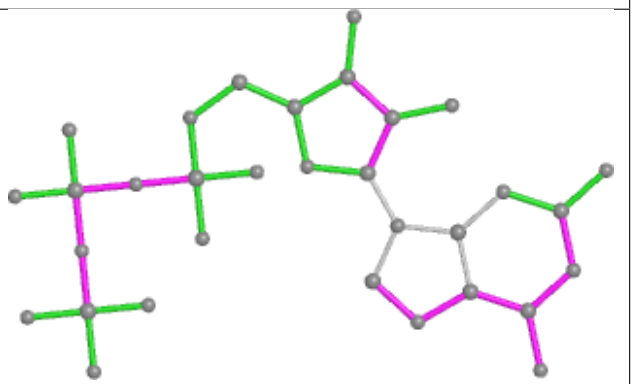

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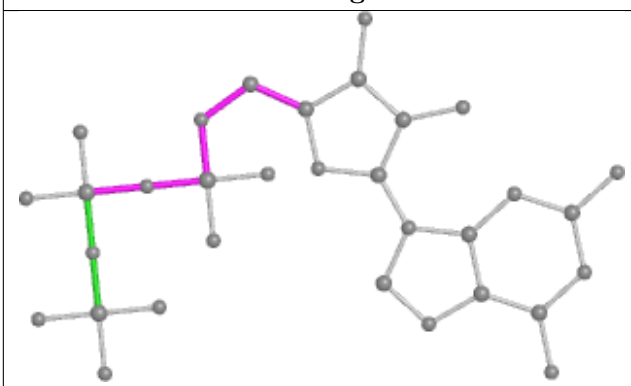

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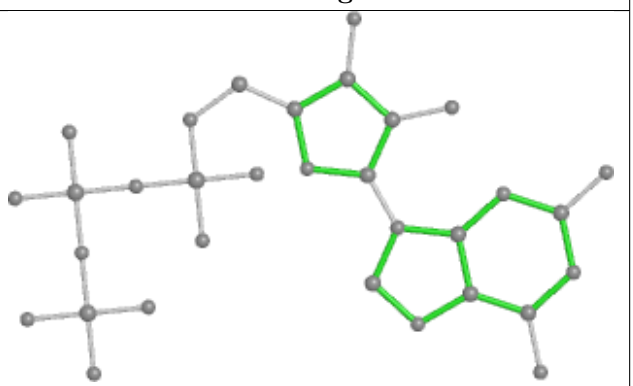
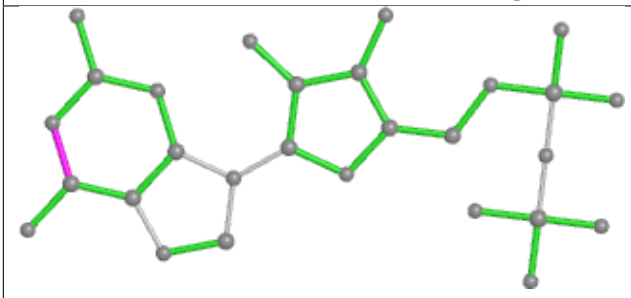


Rings

Ligand GDP M8 501



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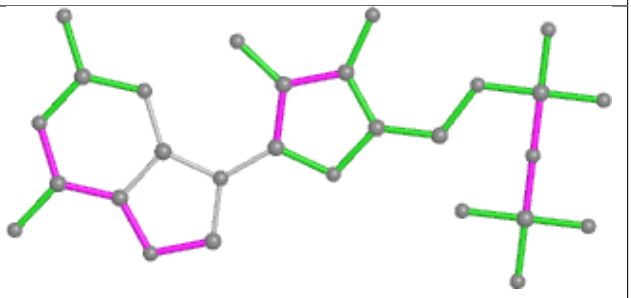

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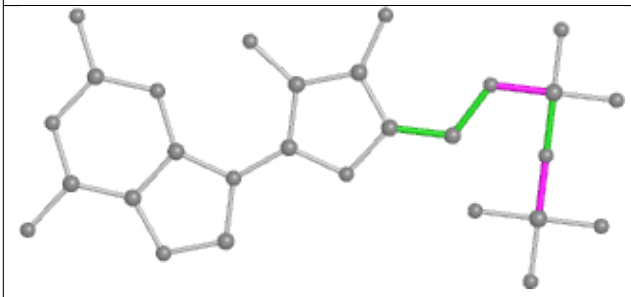

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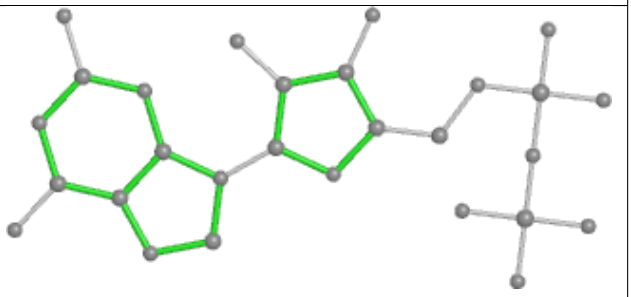
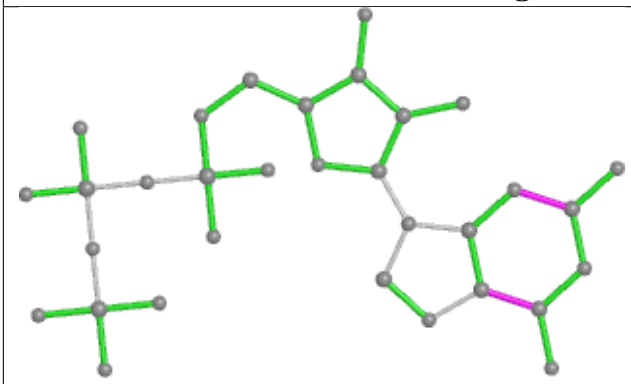


Rings

Ligand GTP R2 501



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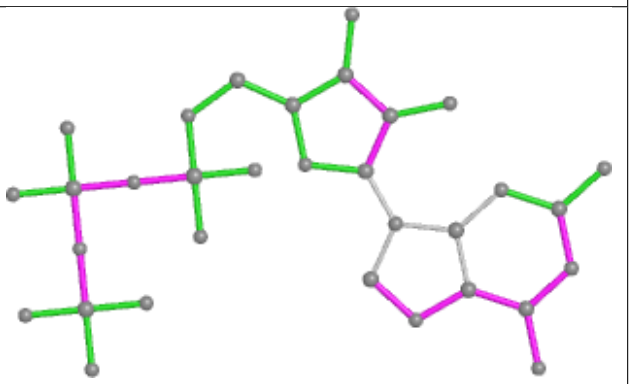

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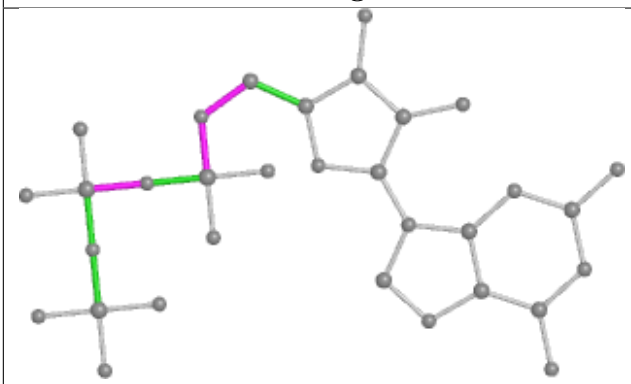

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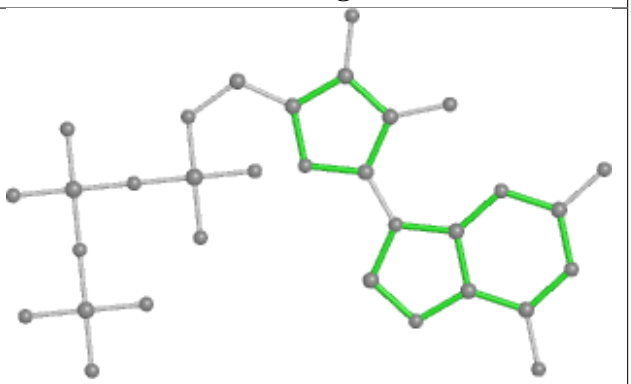
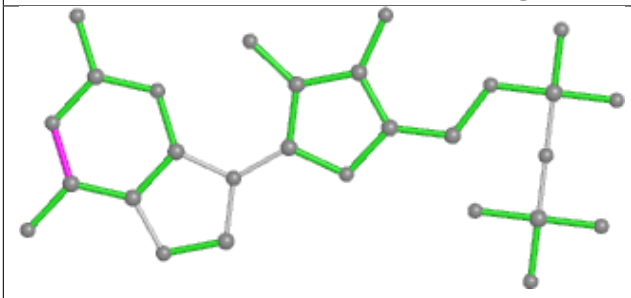


Rings

Ligand GDP L2 502



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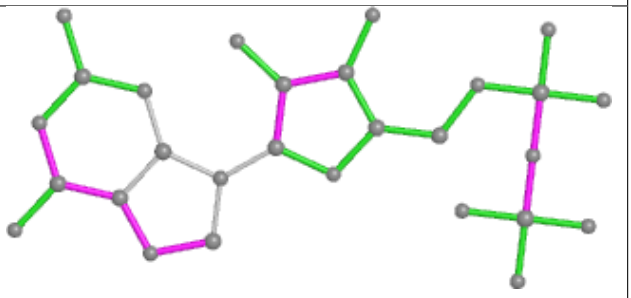

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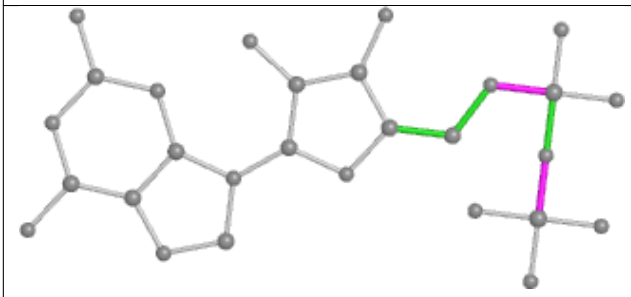

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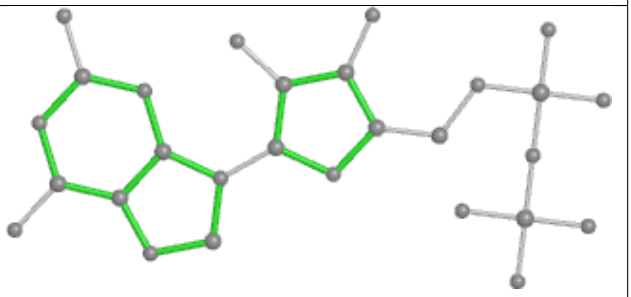
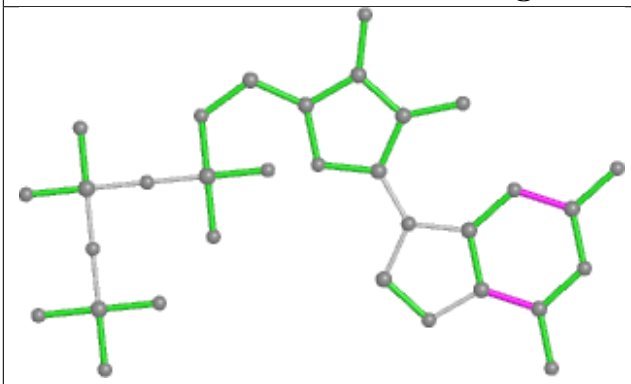


Rings

Ligand GTP E1 501



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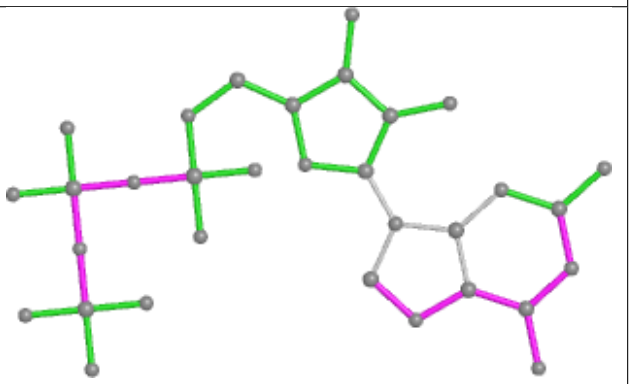

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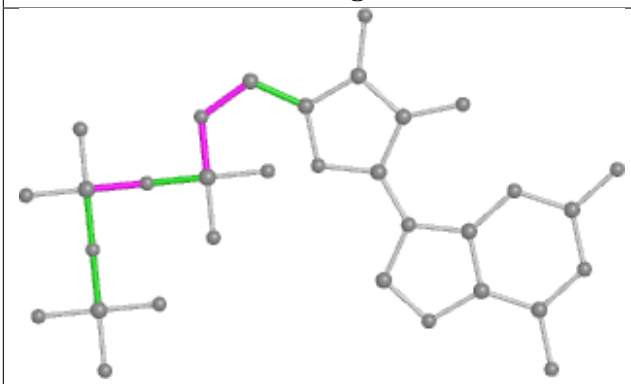

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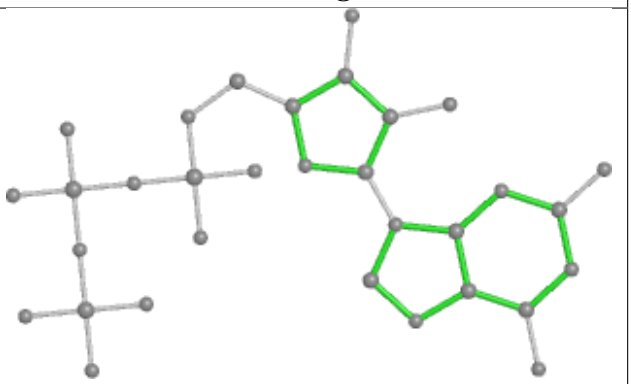
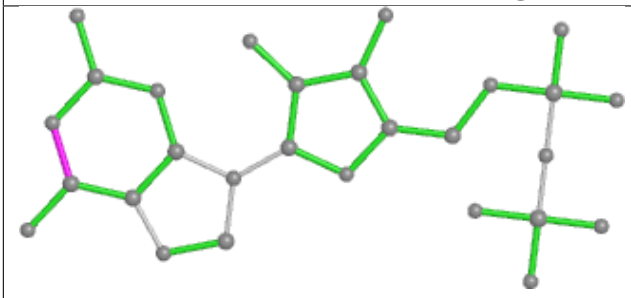
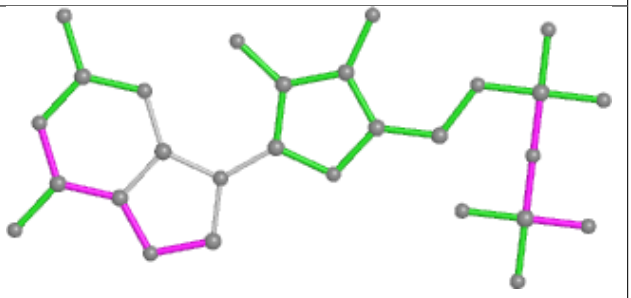
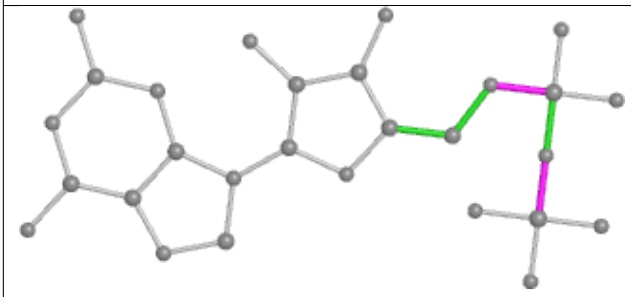
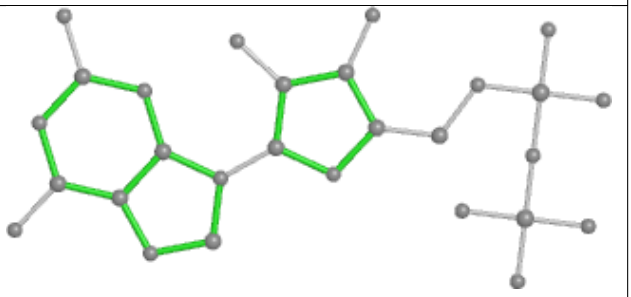
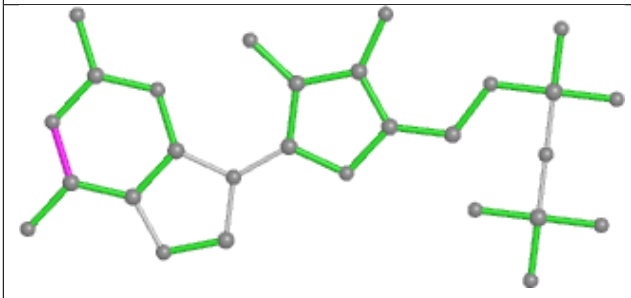
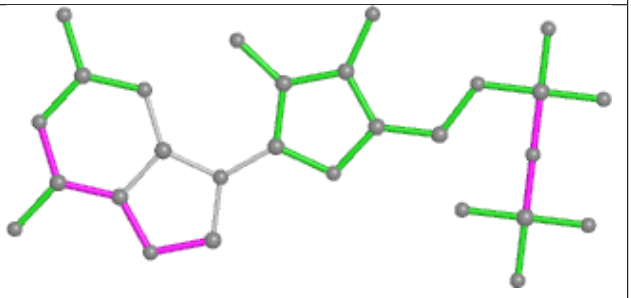
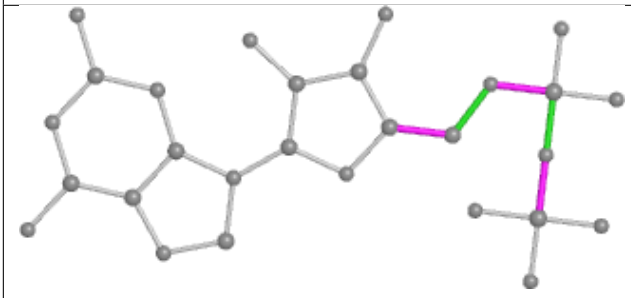
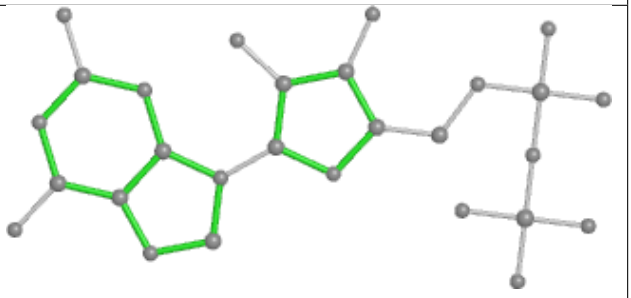
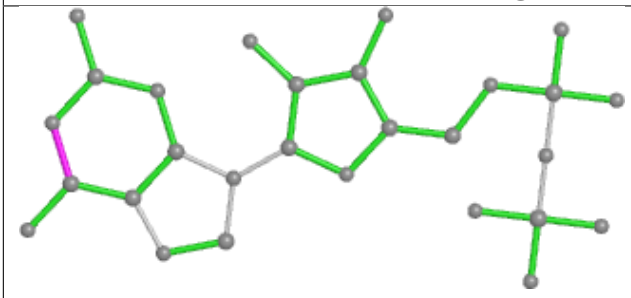


Rings

Ligand GDP R6 503	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GDP E4 502	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GDP R8 502



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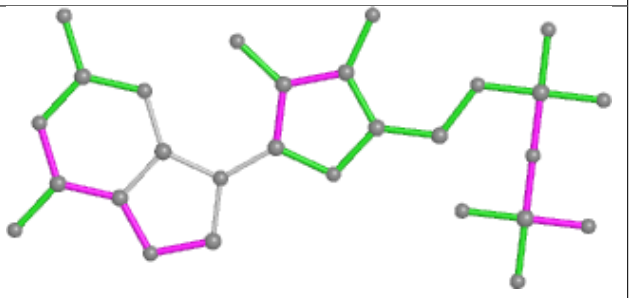

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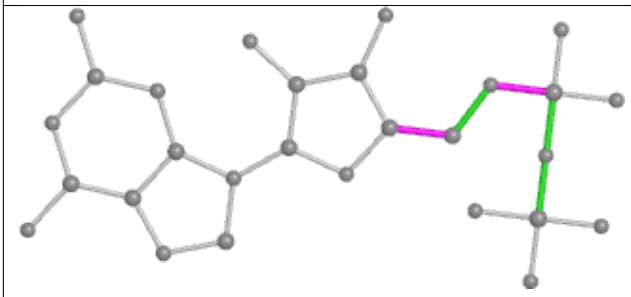

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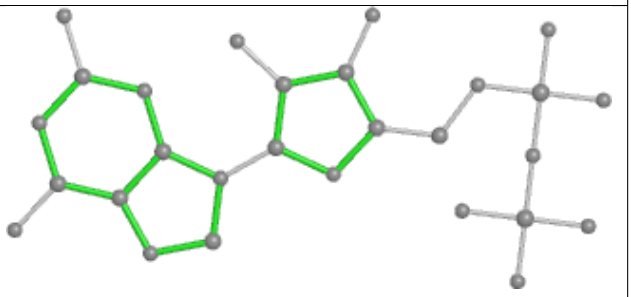
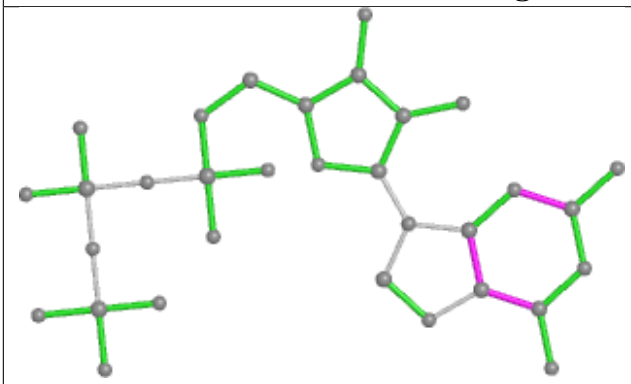


Rings

Ligand GTP 3C 501



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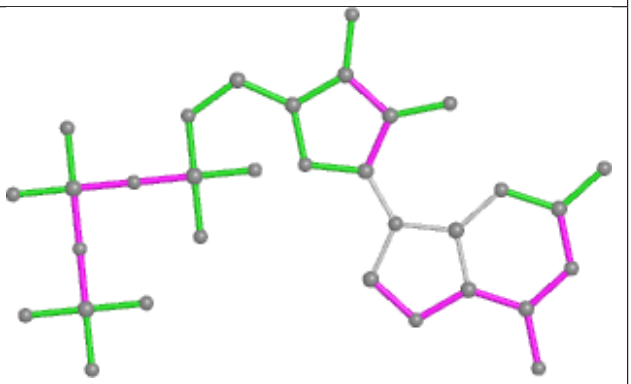

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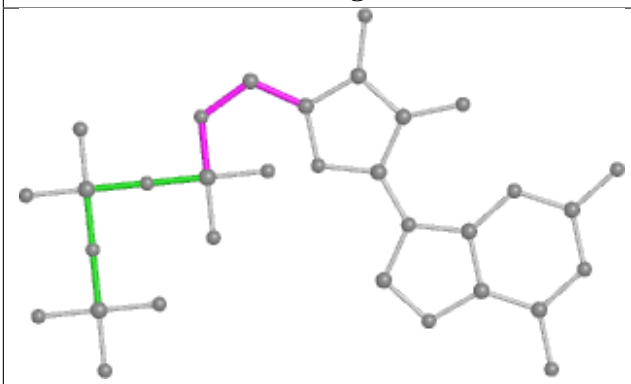

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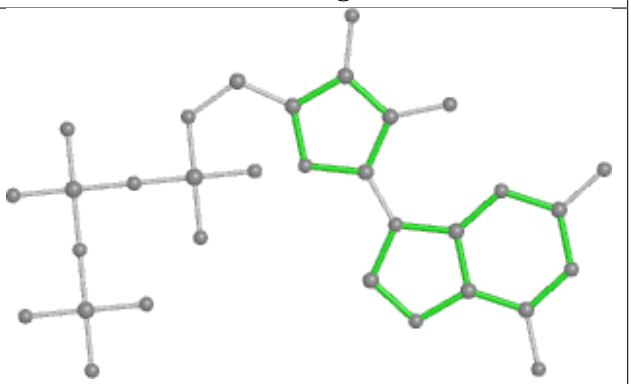
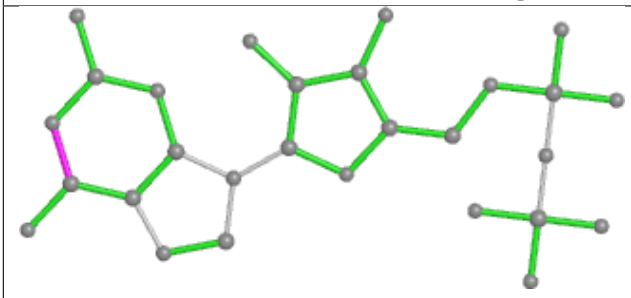
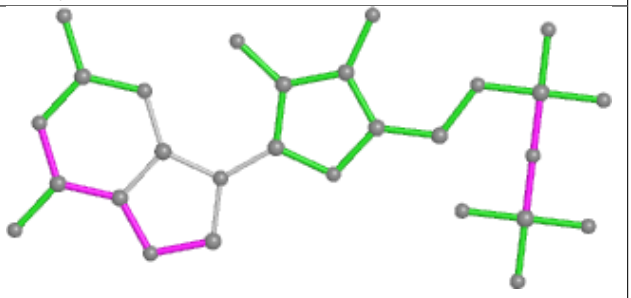
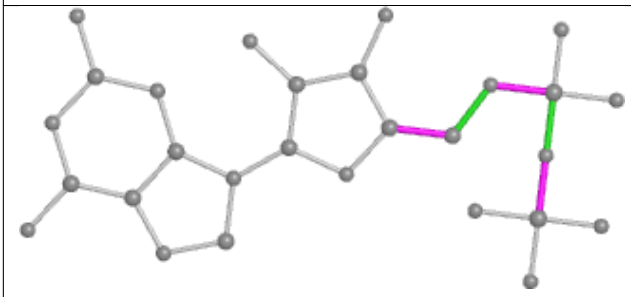
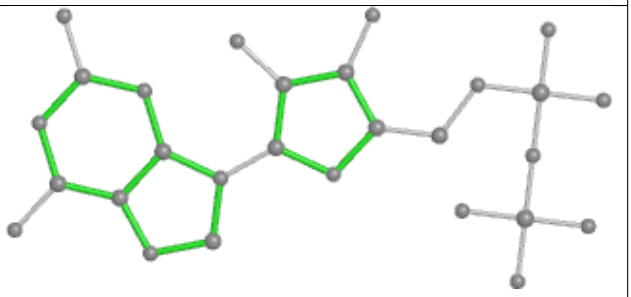
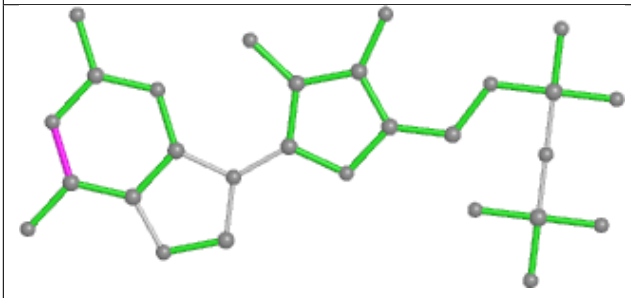
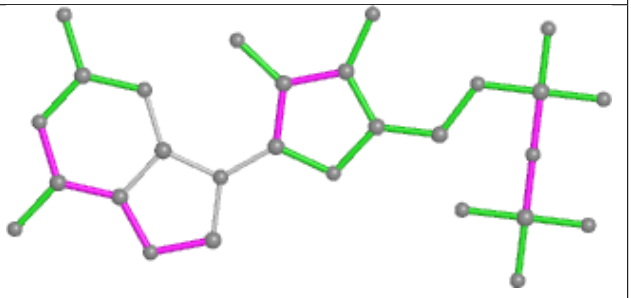
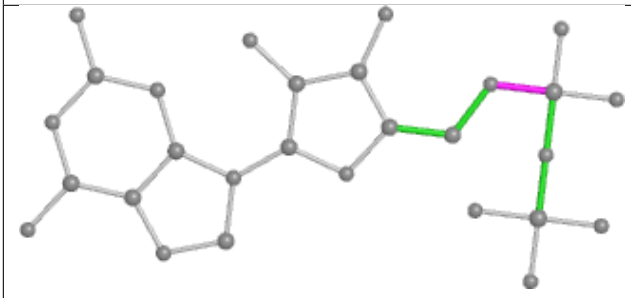
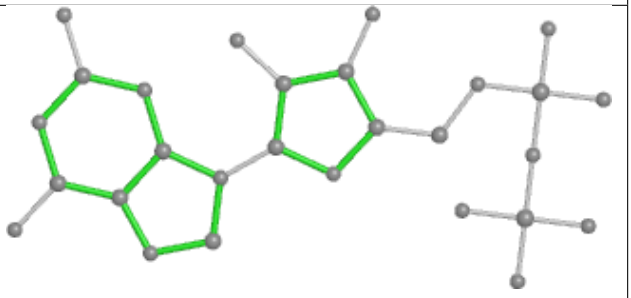
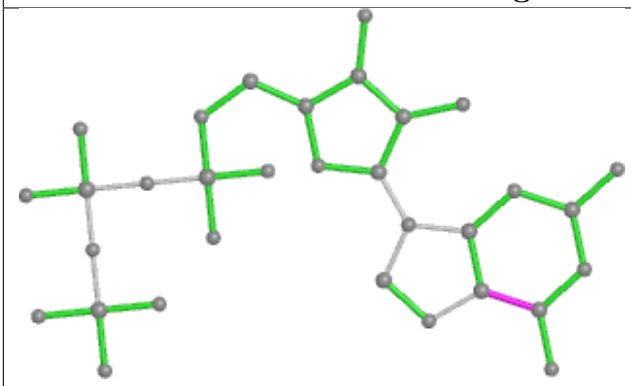


Rings

Ligand GDP Q4 502	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand GDP 3 502	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand GTP Y4 501



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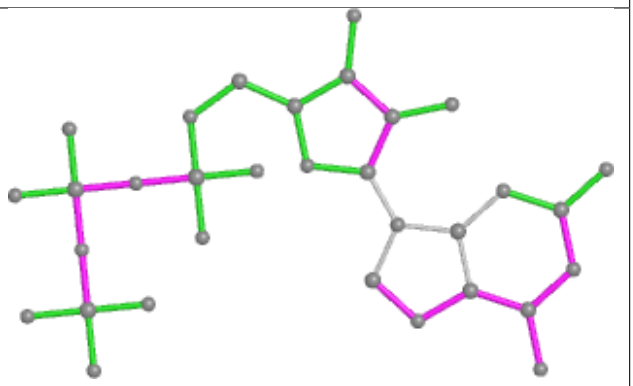
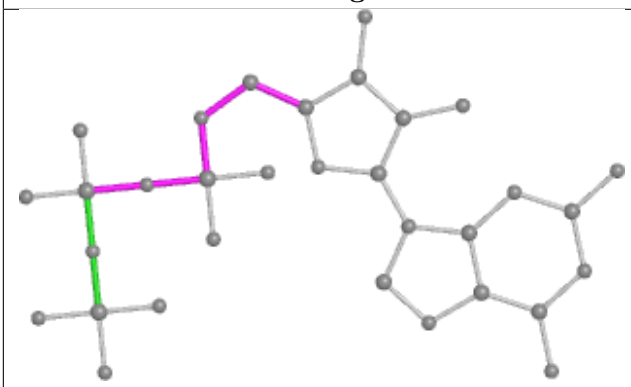
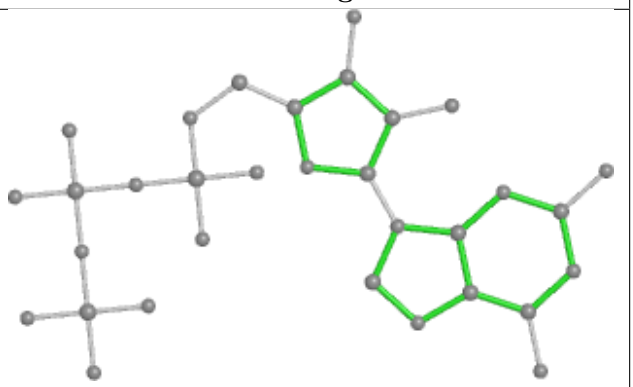


Bond angles

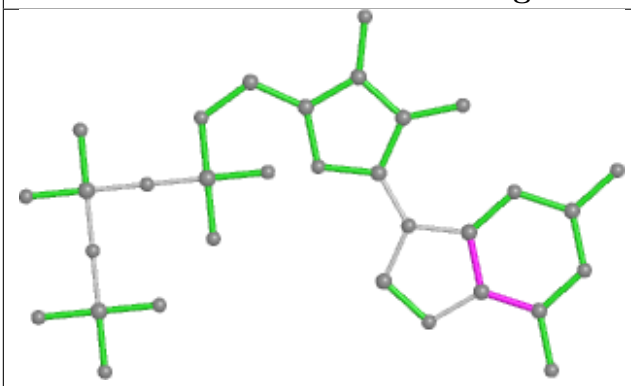


Torsions

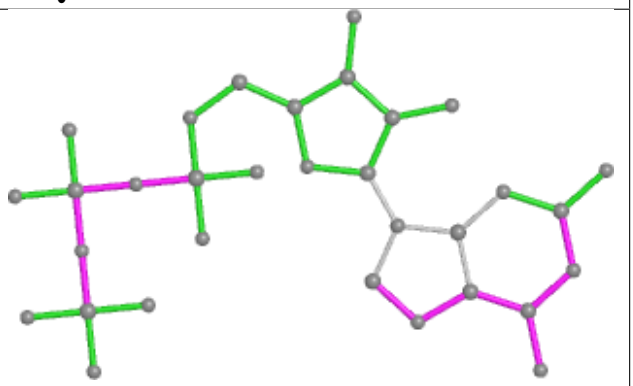


Rings

Ligand GTP Q6 501



Bond lengths



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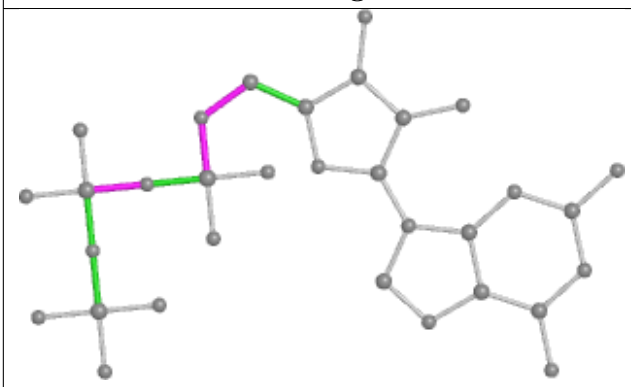
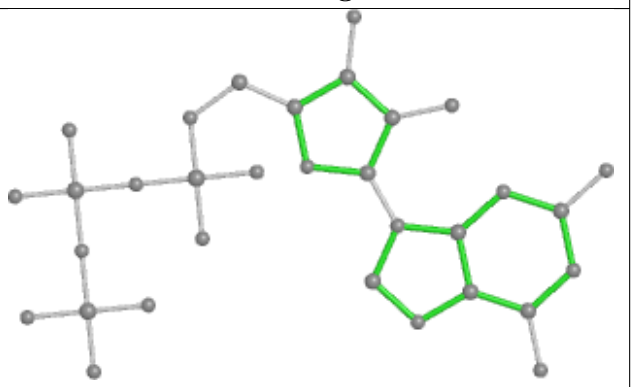
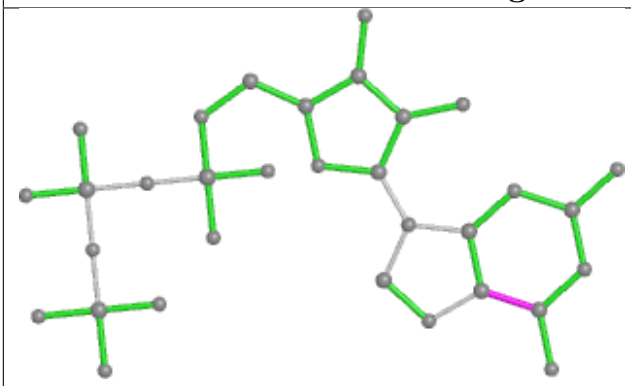


Torsions



Rings

Ligand GTP W8 501



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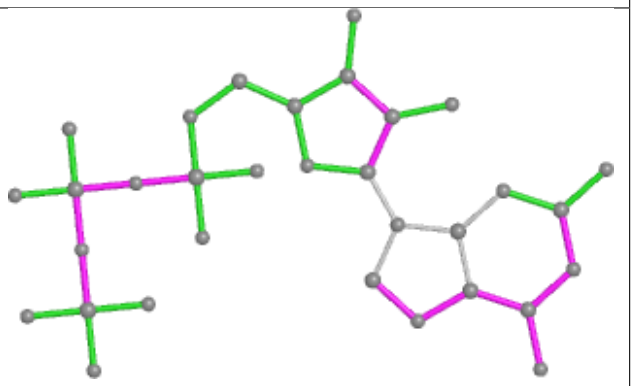

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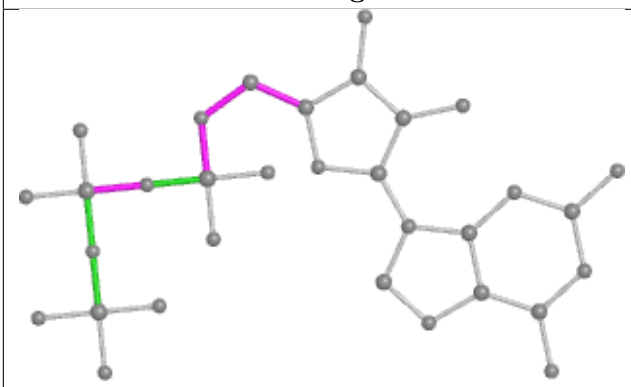

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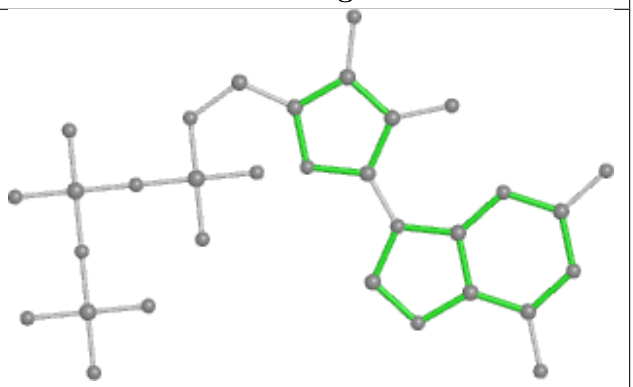
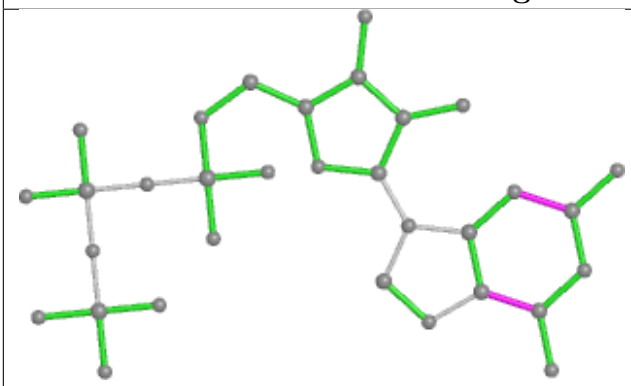


Rings

Ligand GTP X4 501



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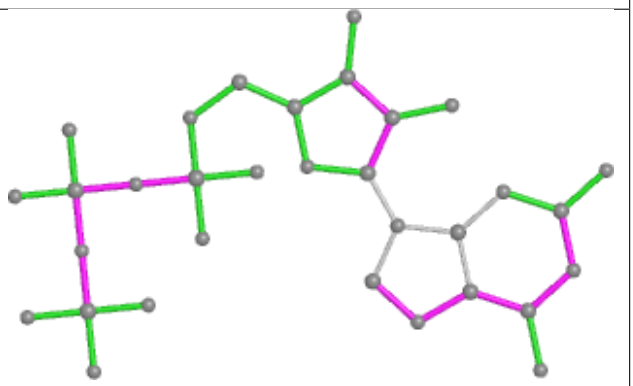

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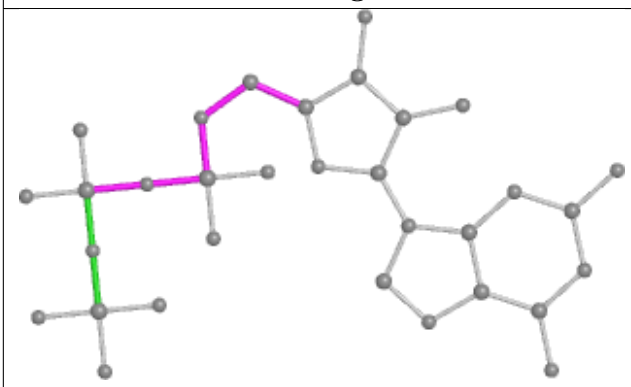

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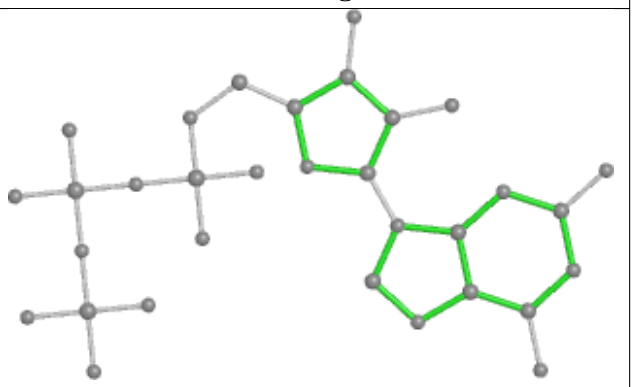
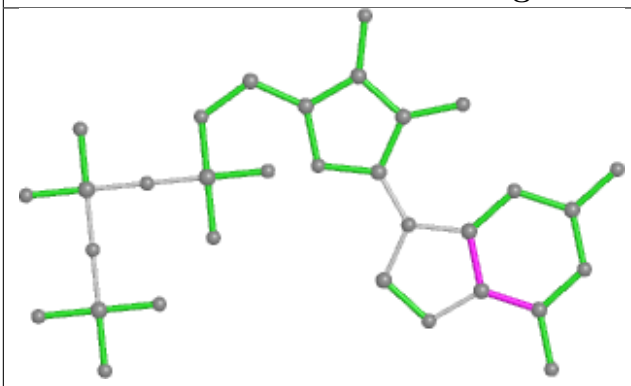


Rings

Ligand GTP 2U 501



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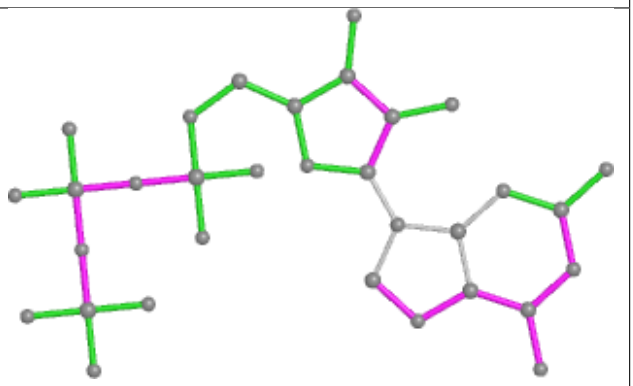

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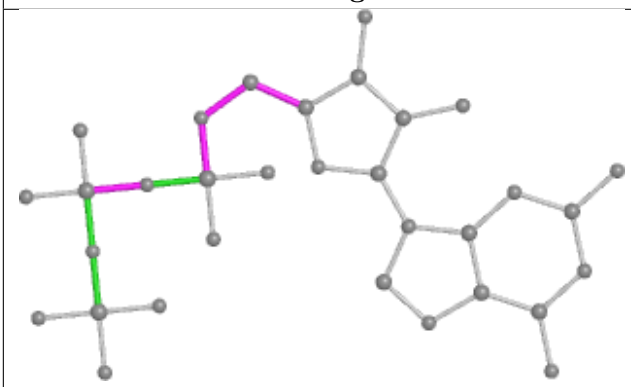

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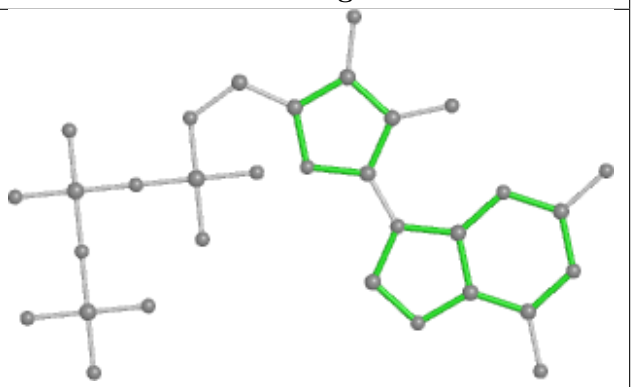
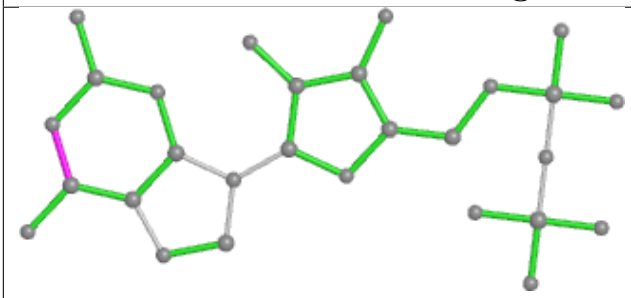


Rings

Ligand GDP Y4 502



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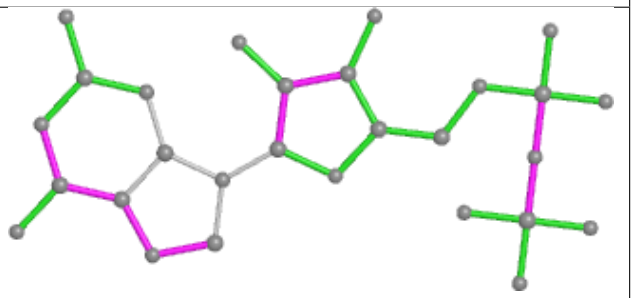

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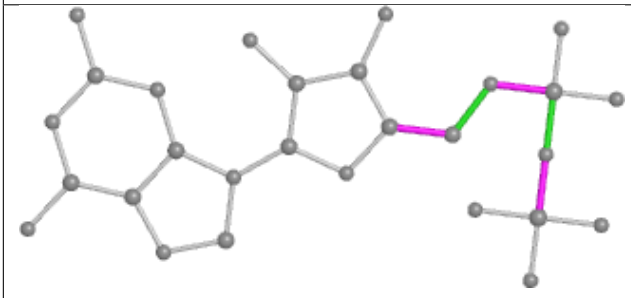

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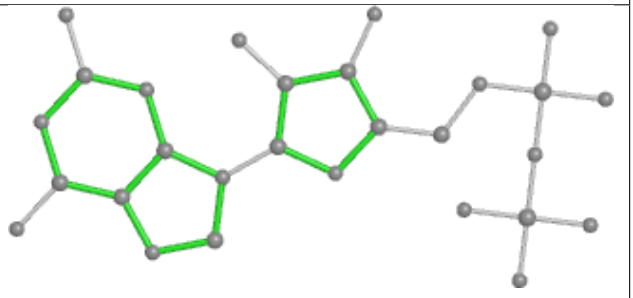
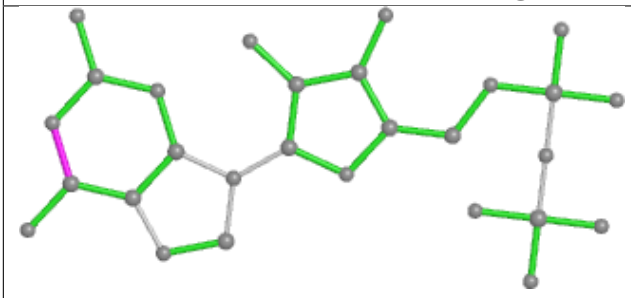


Rings

Ligand GDP Q6 502



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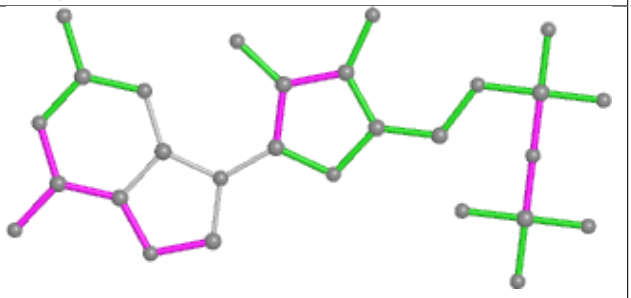

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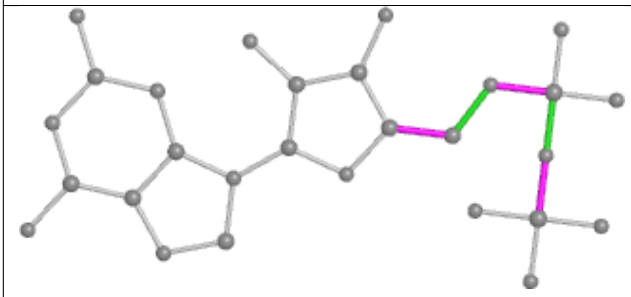

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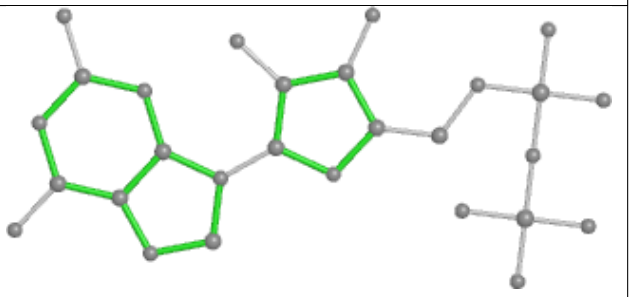
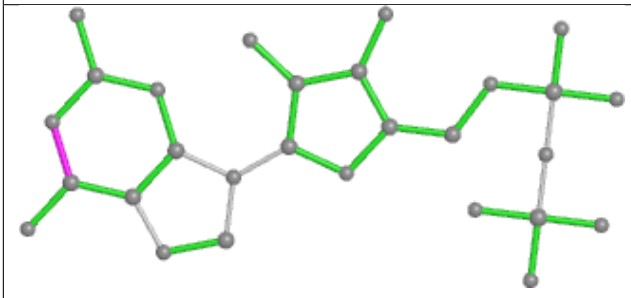


Rings

Ligand GDP Y0 502



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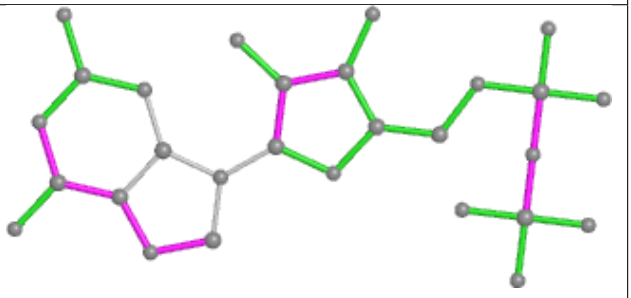

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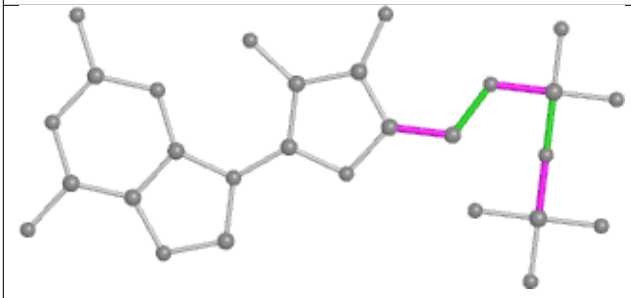

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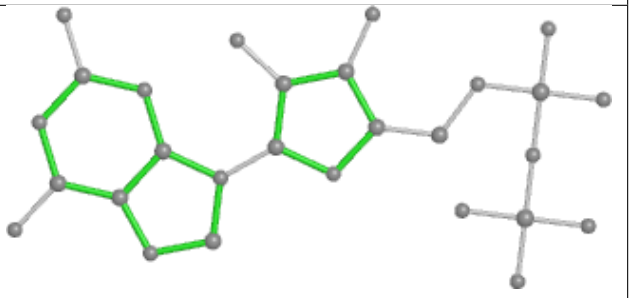
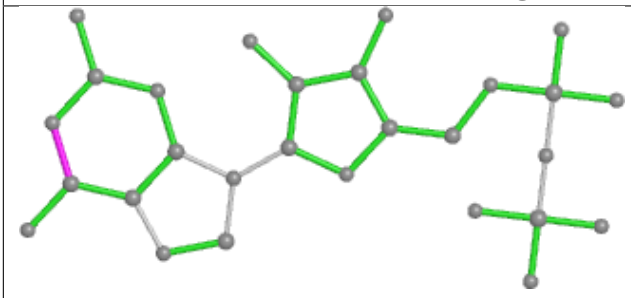


Rings

Ligand GDP E8 502



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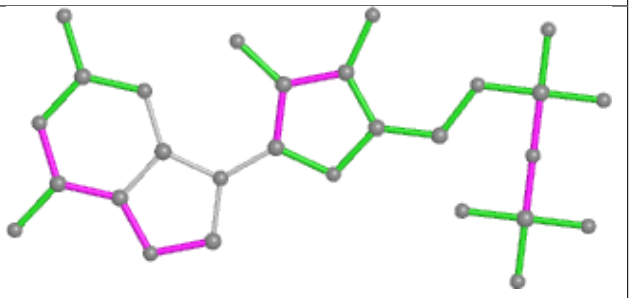

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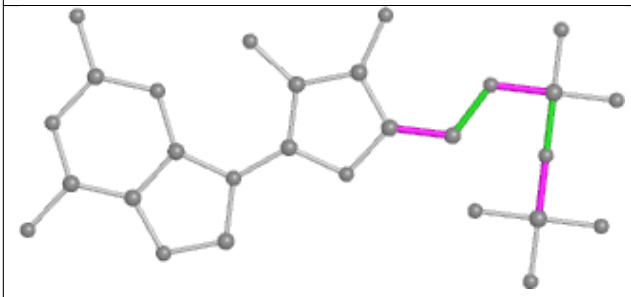

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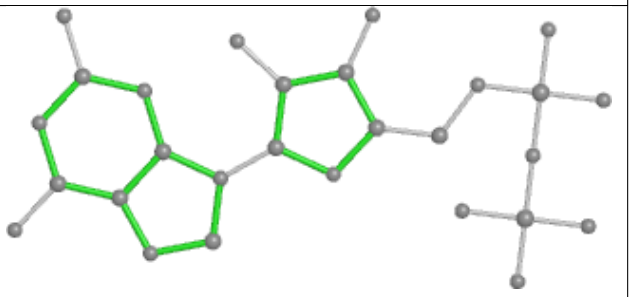
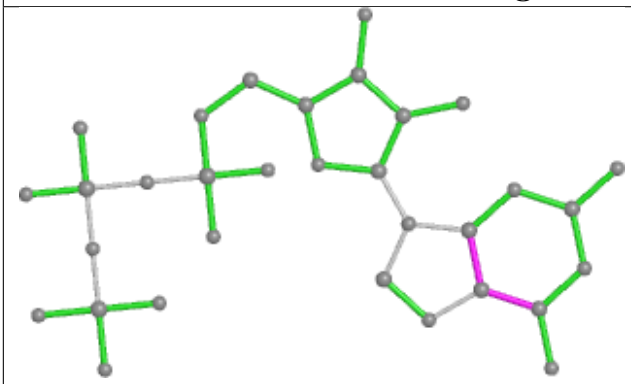


Rings

Ligand GTP P4 501



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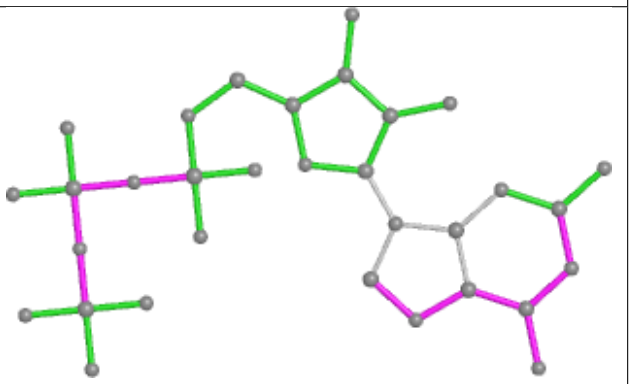

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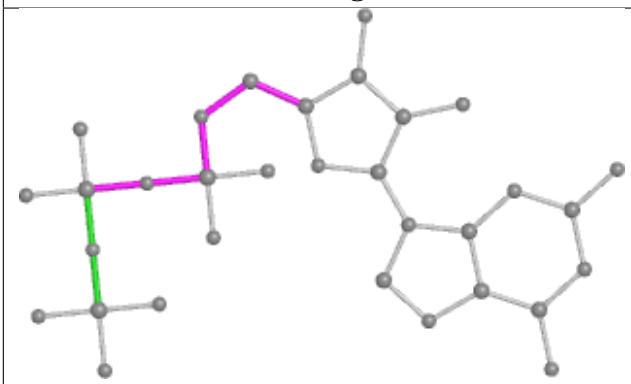

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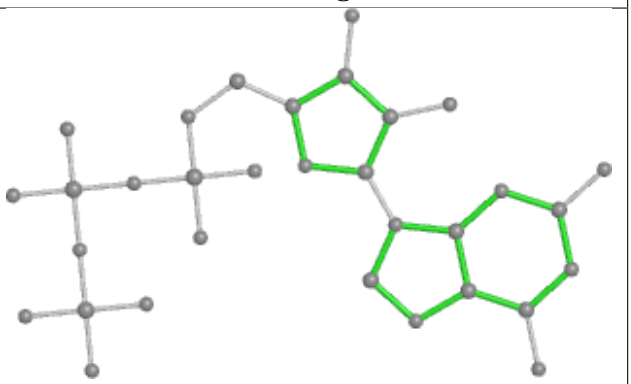
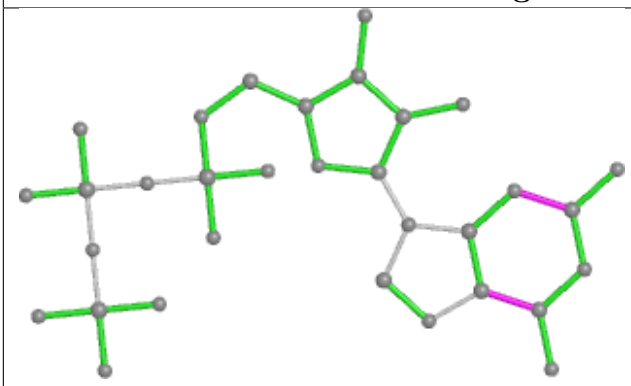


Rings

Ligand GTP 1A 501



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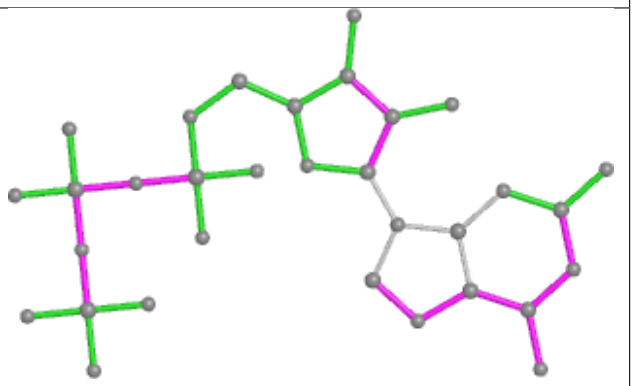

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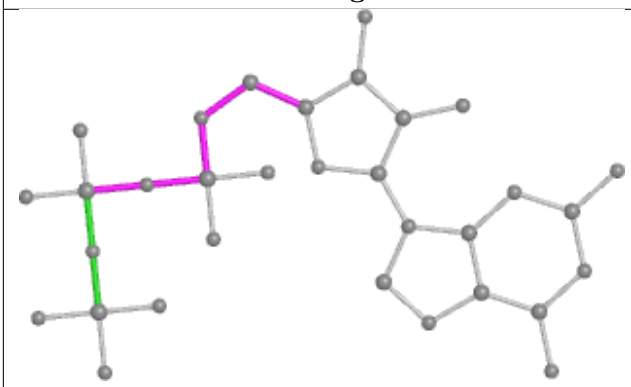

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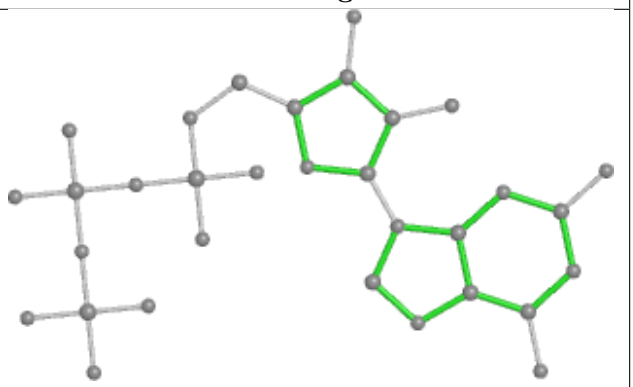

Rings

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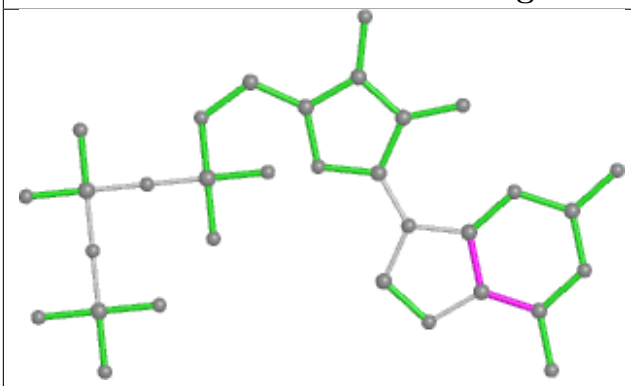

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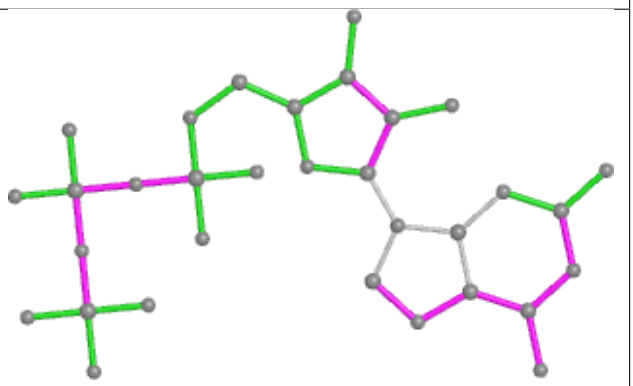

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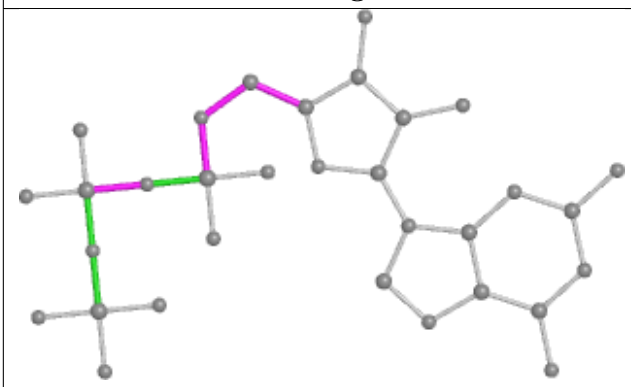

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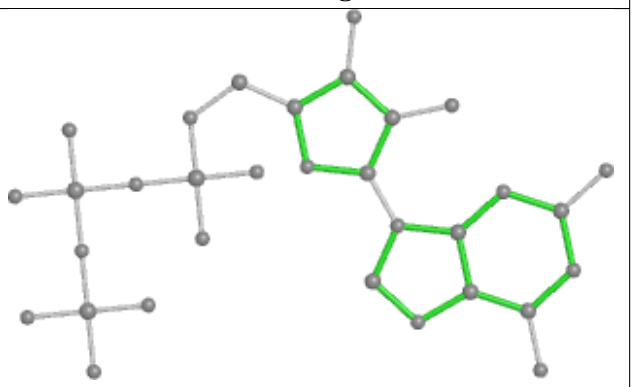
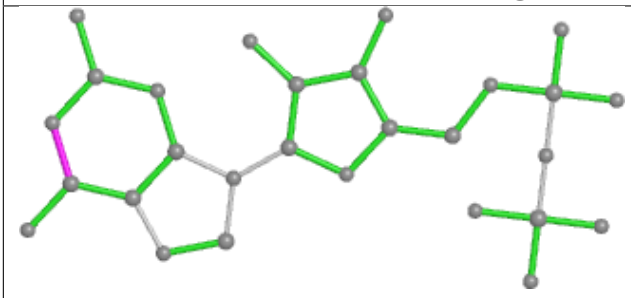
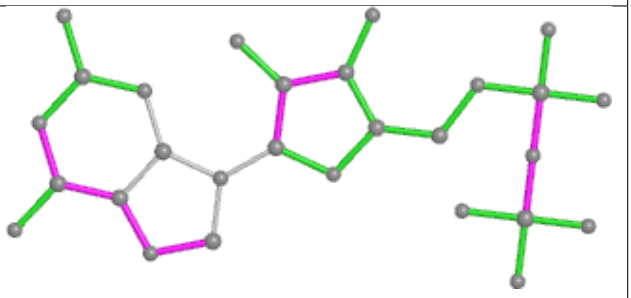
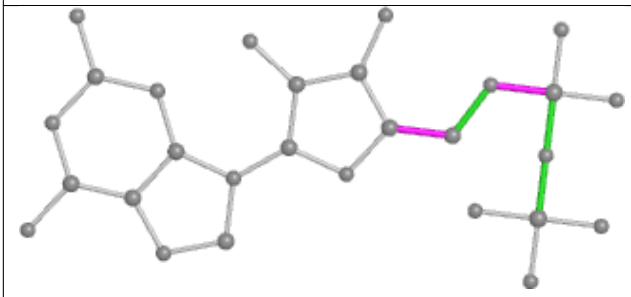
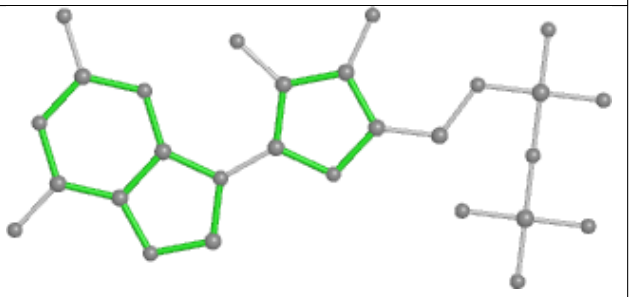


Rings

Ligand GDP H8 503	
 Bond lengths	 Bond angles
 Torsions	 Rings

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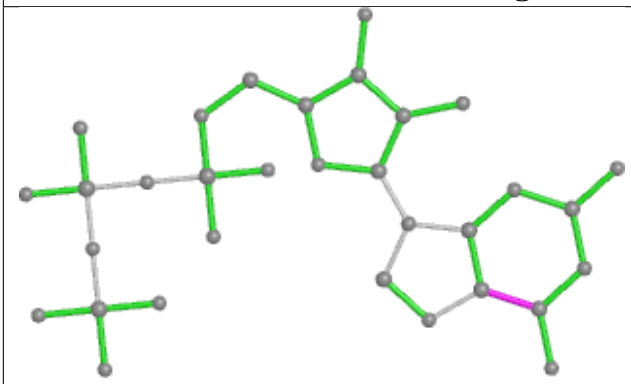
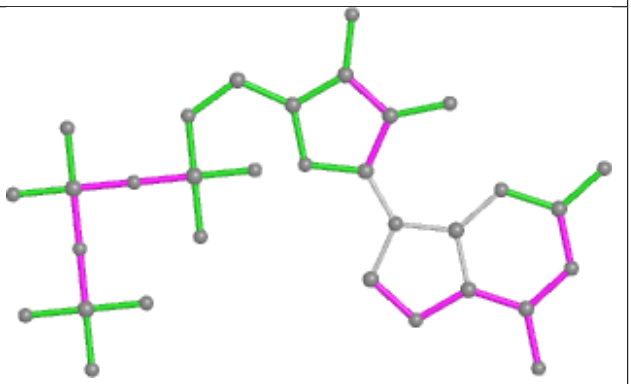
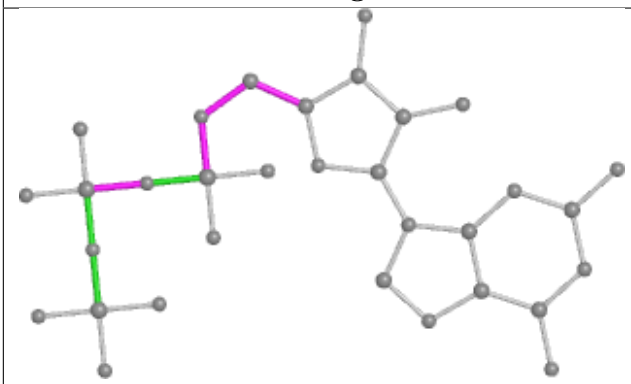
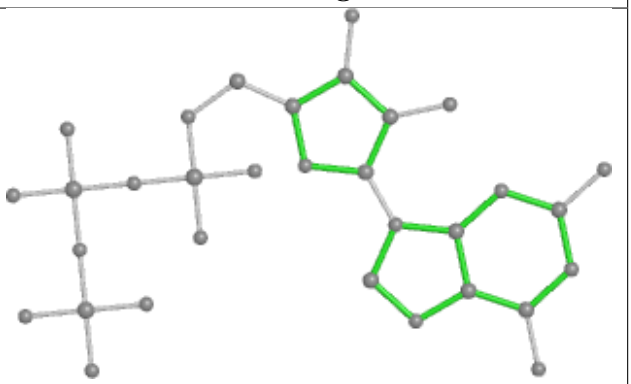
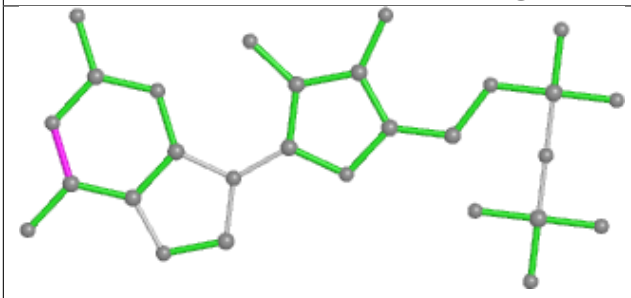
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GDP 1C 502



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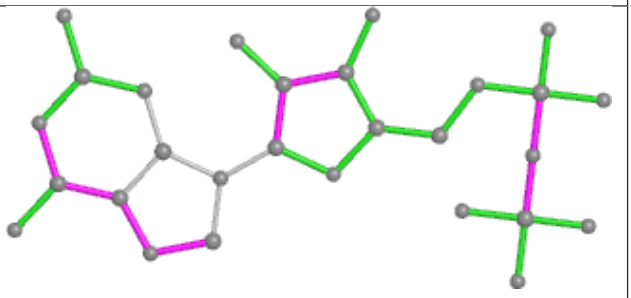
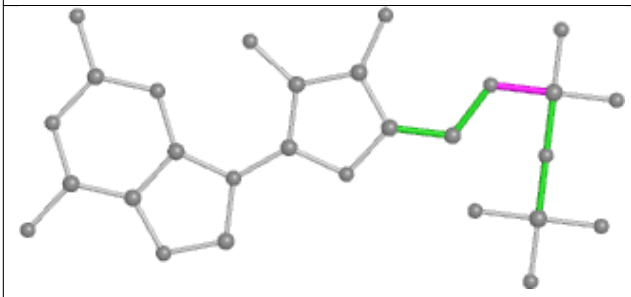
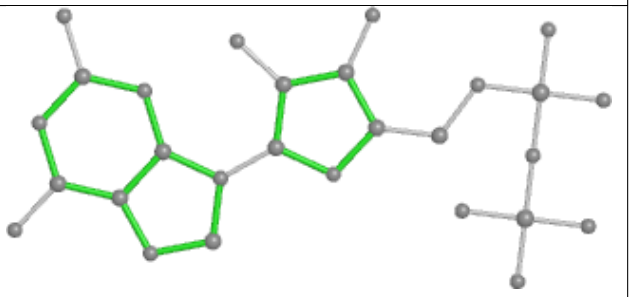


Bond angles

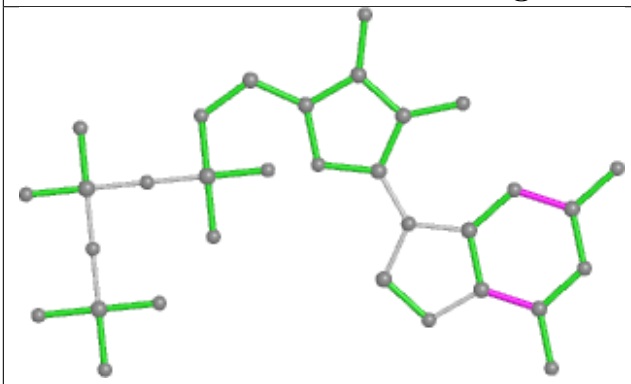


Torsions



Rings

Ligand GTP 3G 501



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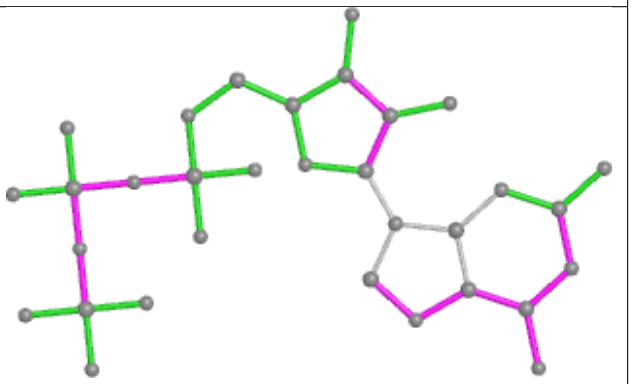

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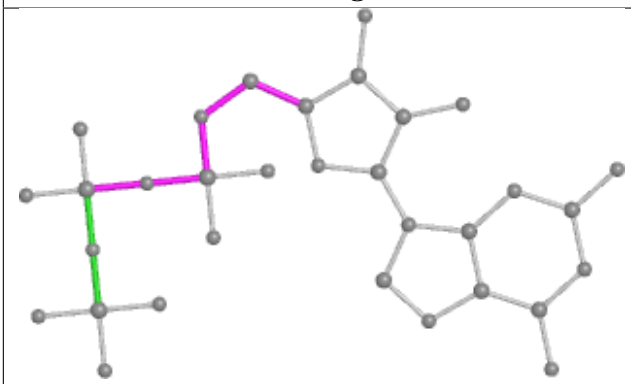
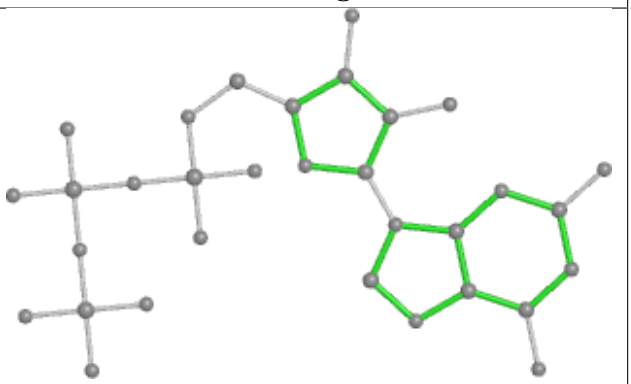
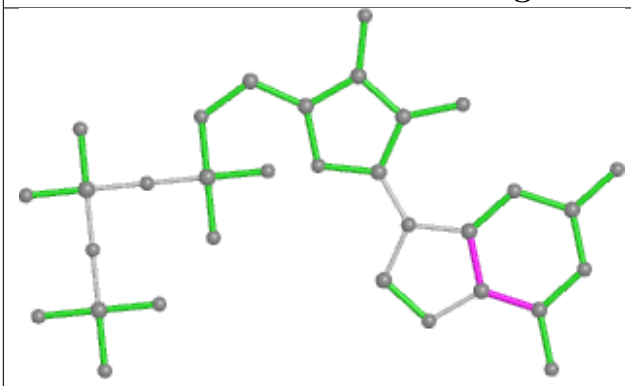


Torsions



Rings

Ligand GTP C9 501



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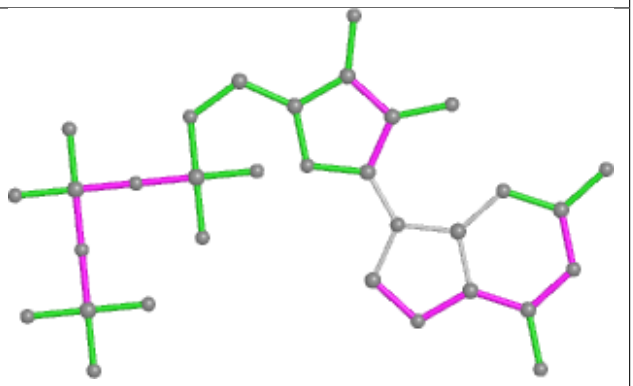

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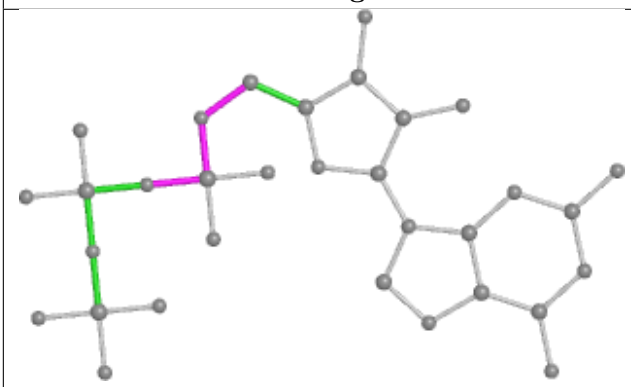

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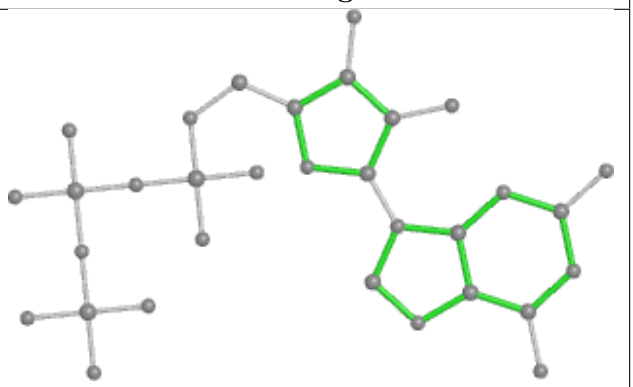
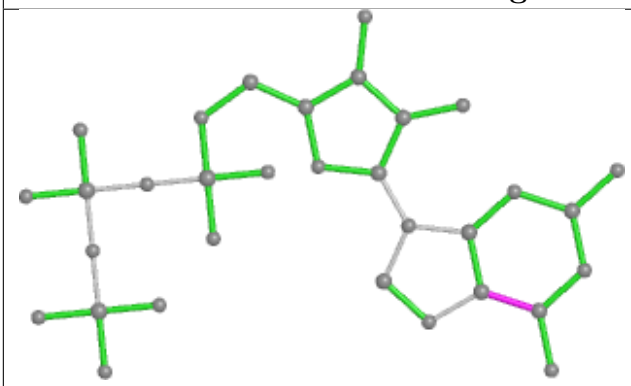


Rings

Ligand GTP M4 501



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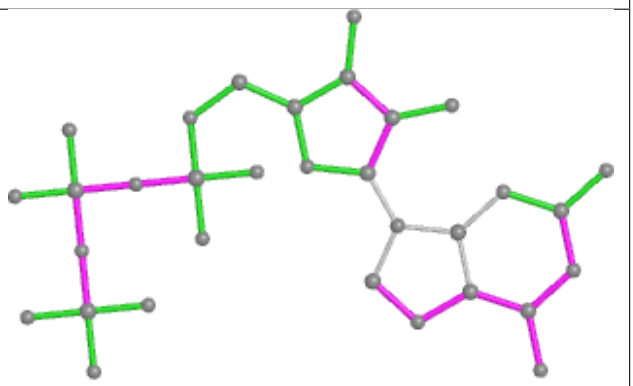

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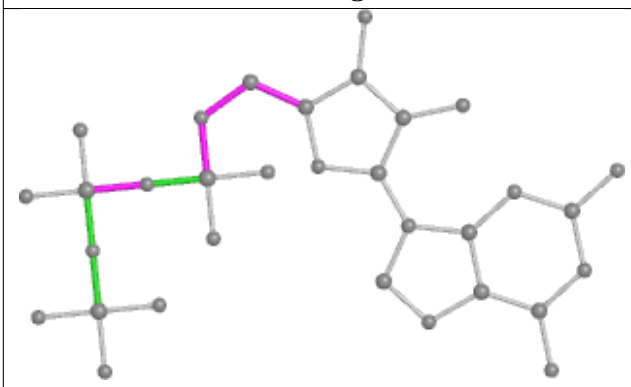

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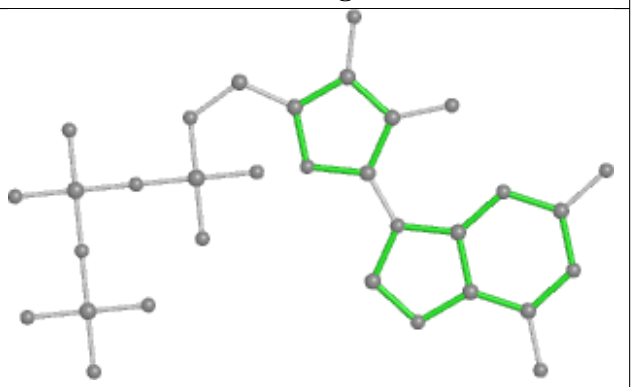
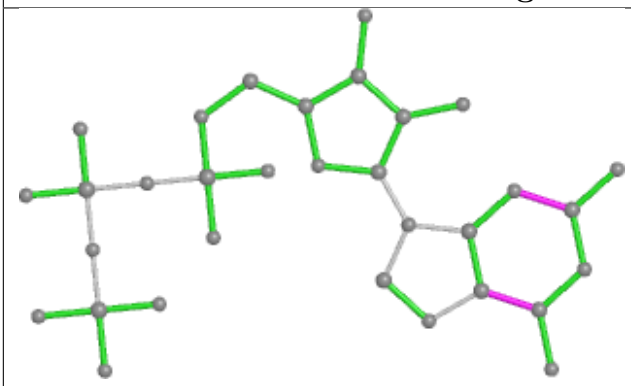


Rings

Ligand GTP 0S 501



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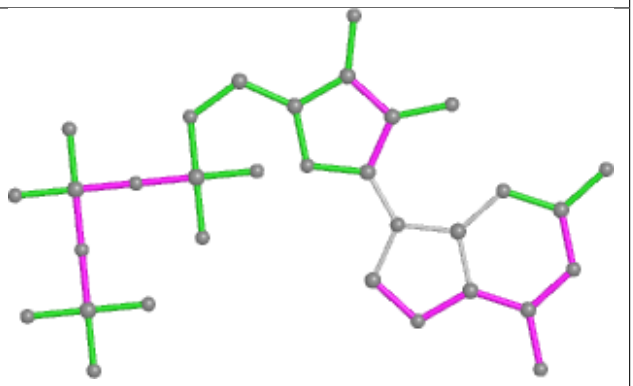

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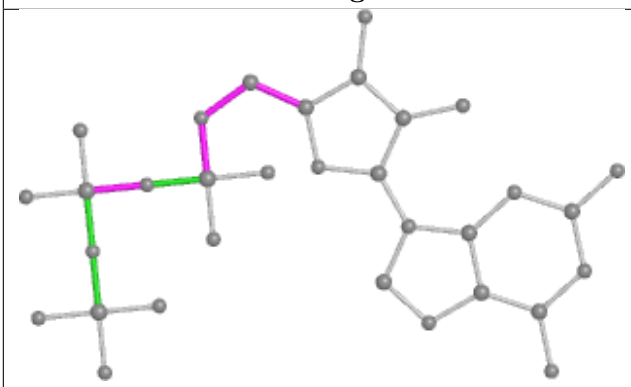

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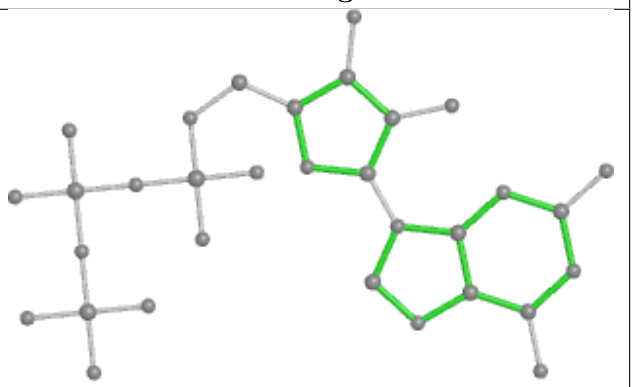
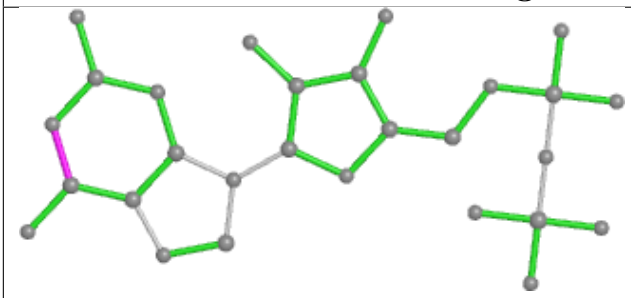


Rings

Ligand GDP J6 502



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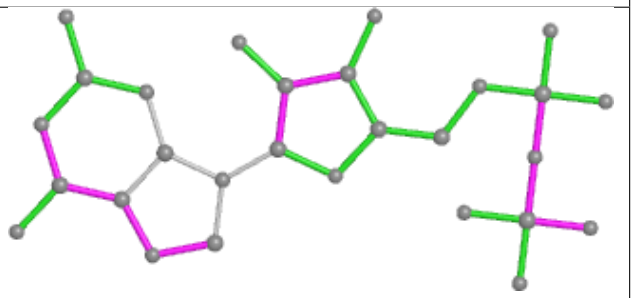

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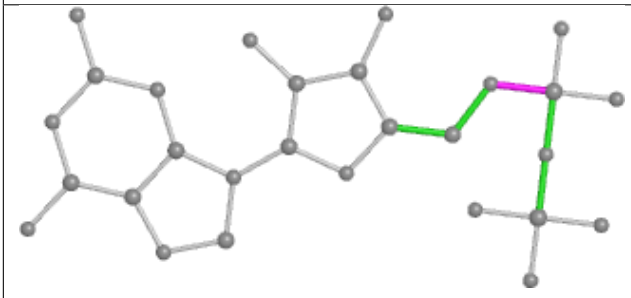

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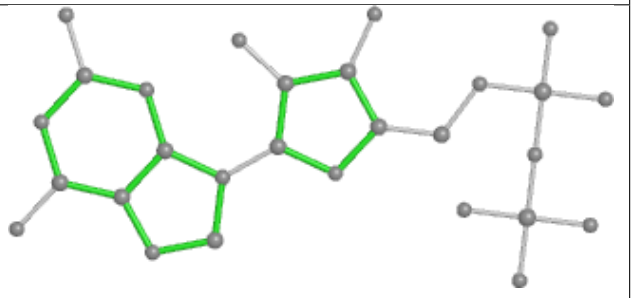
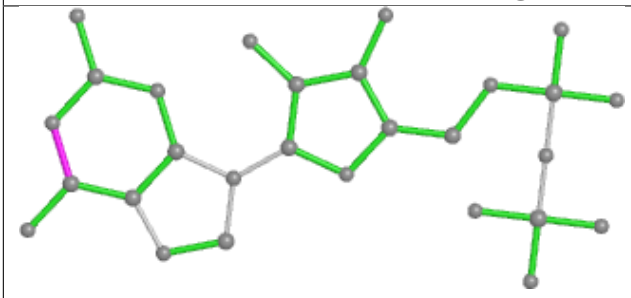


Rings

Ligand GDP V2 503



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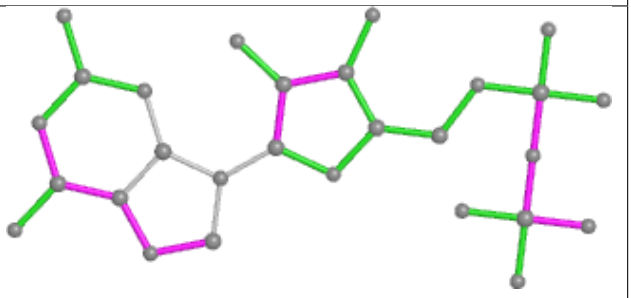

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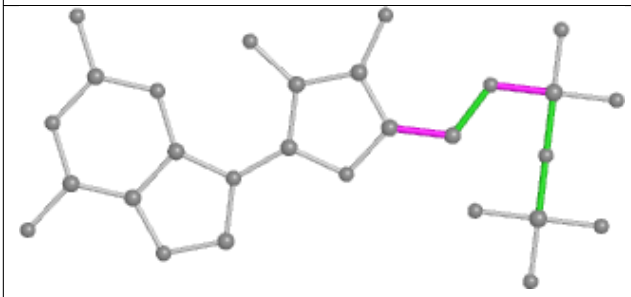

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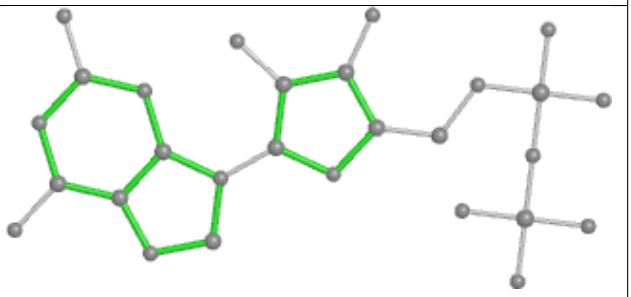
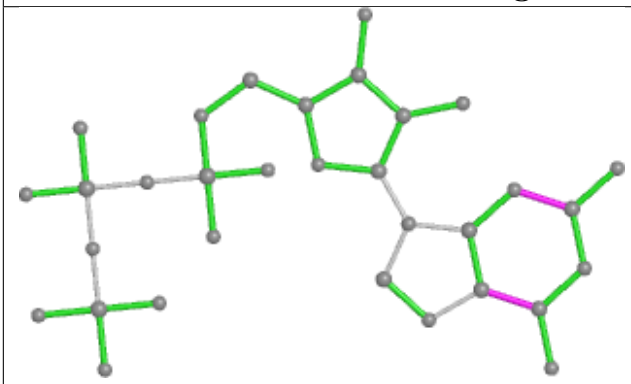


Rings

Ligand GTP U6 501



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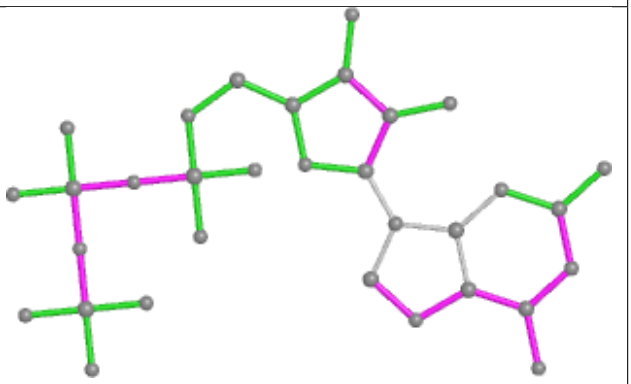

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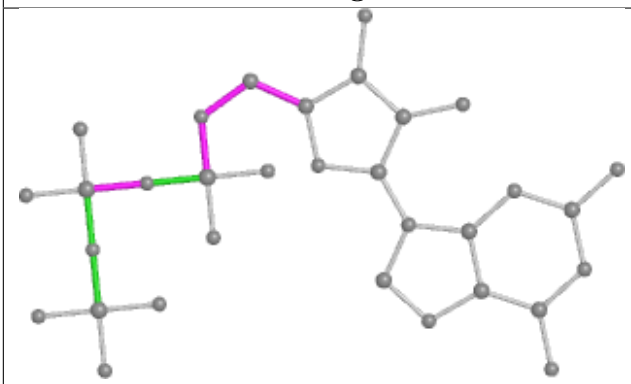

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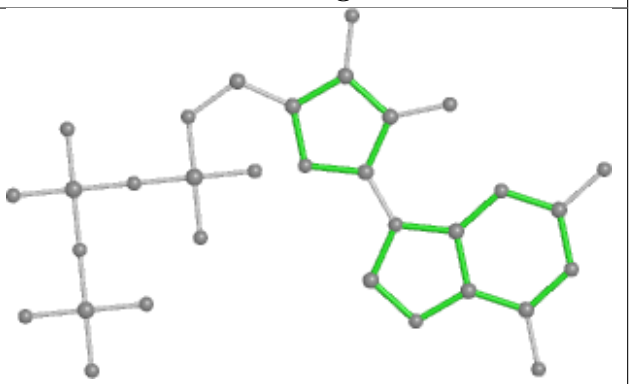
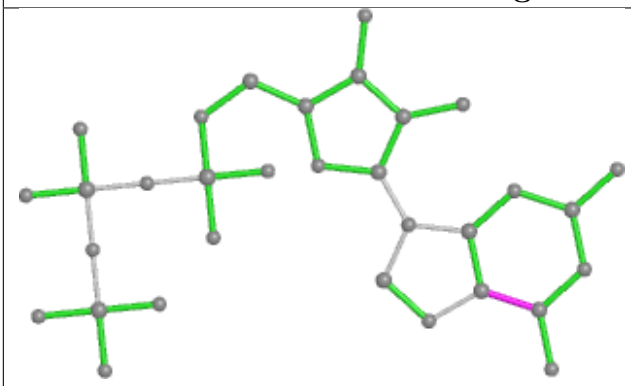


Rings

Ligand GTP 0C 501



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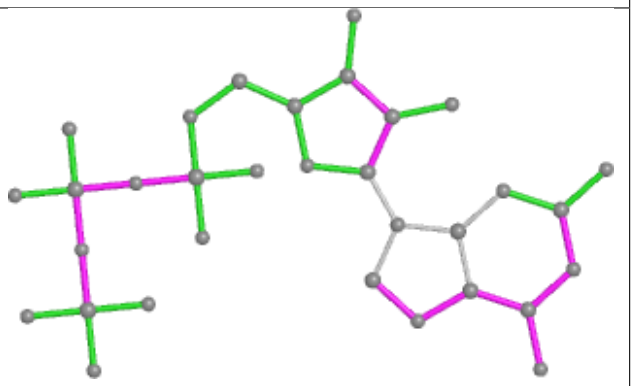

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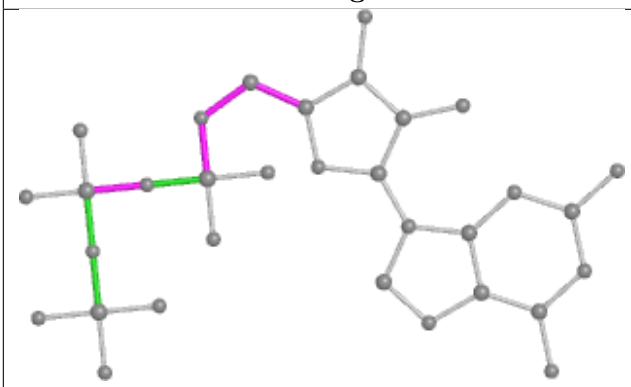

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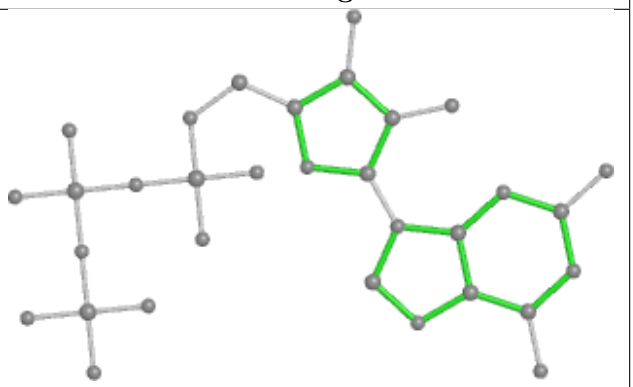
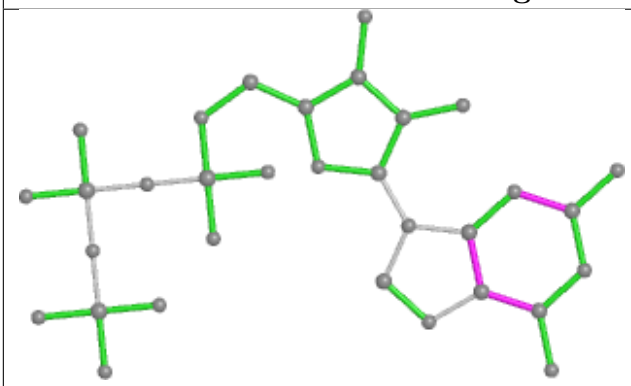


Rings

Ligand GTP 3O 501



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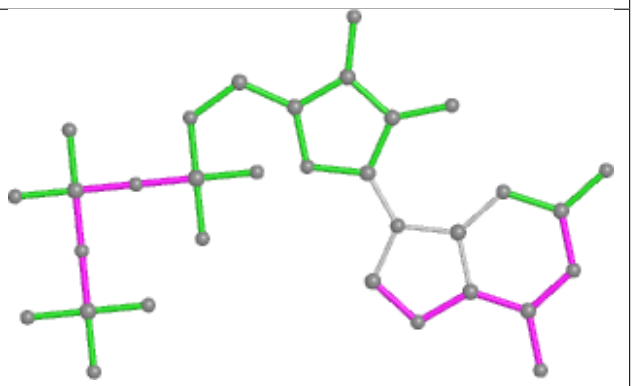

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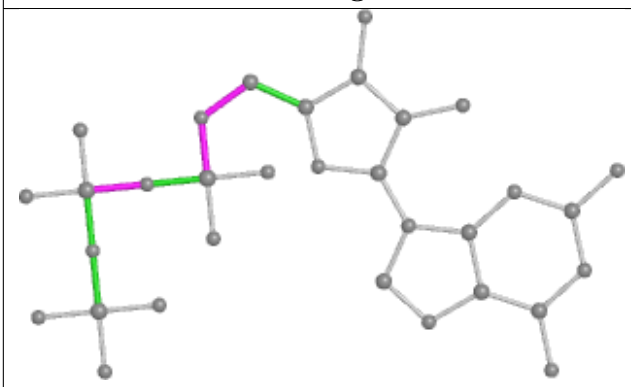

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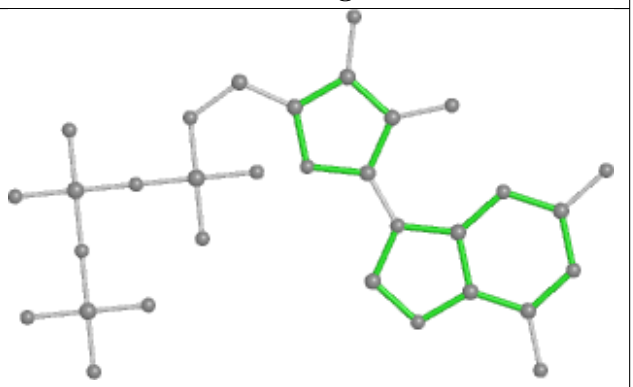
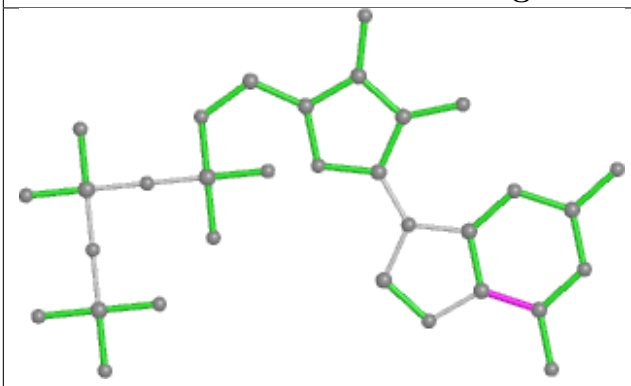


Rings

Ligand GTP G0 501



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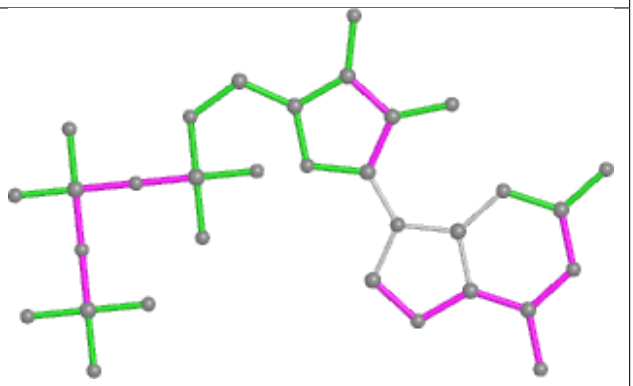

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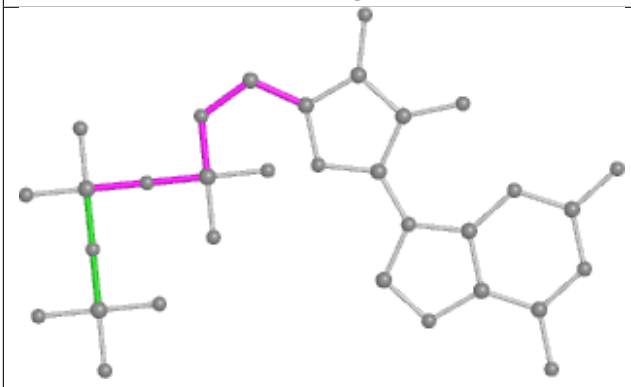

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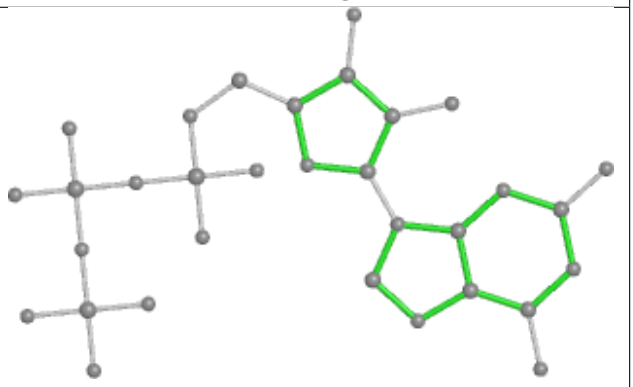
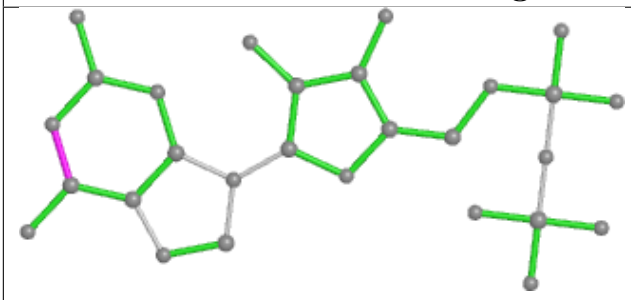


Rings

Ligand GDP N0 502



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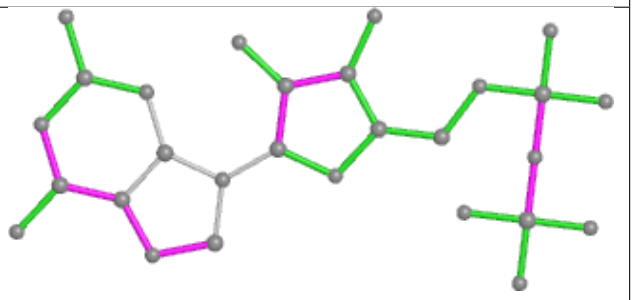

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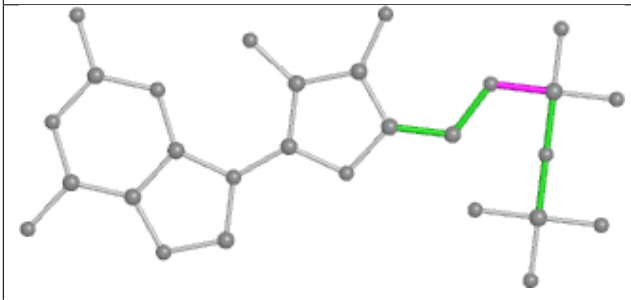

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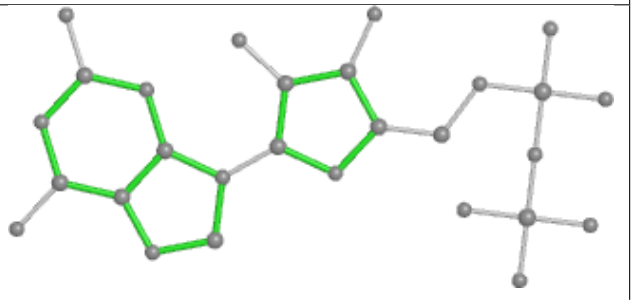

Rings

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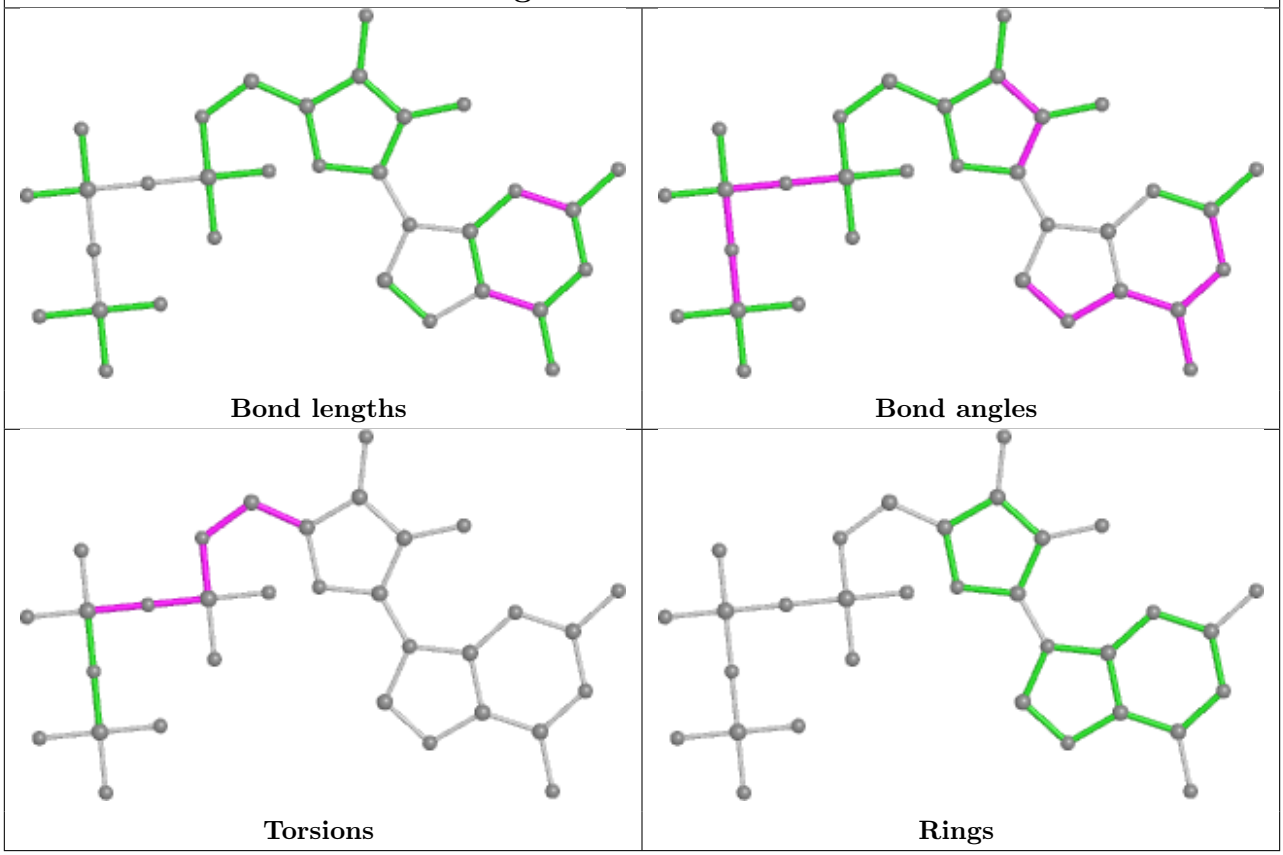
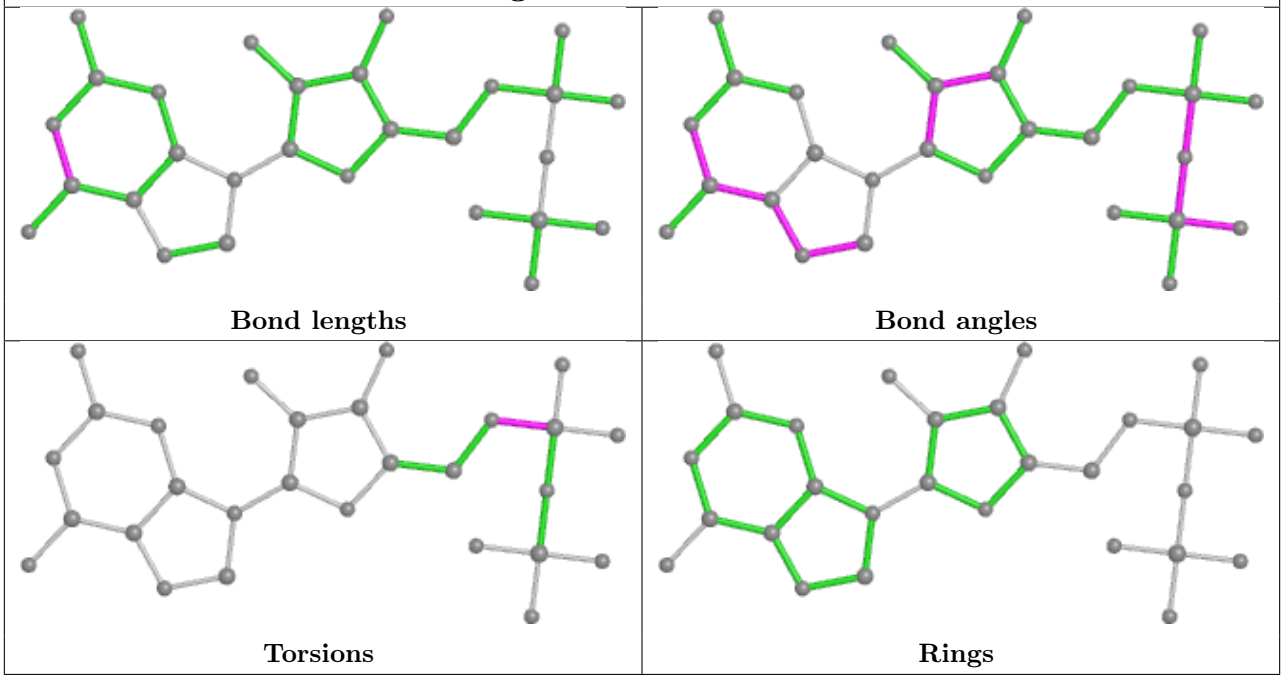
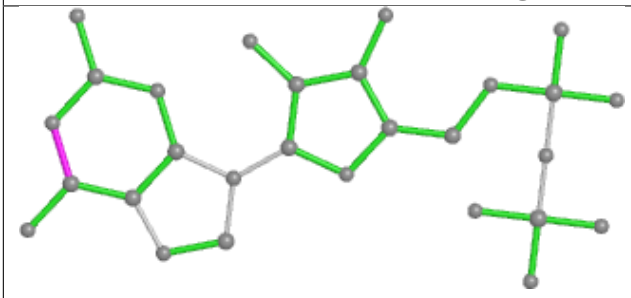
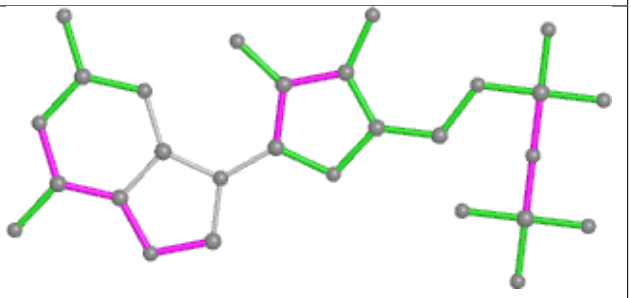
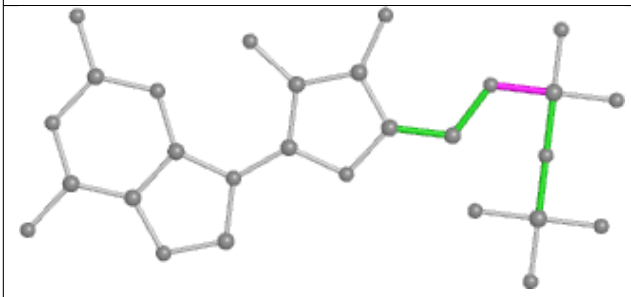
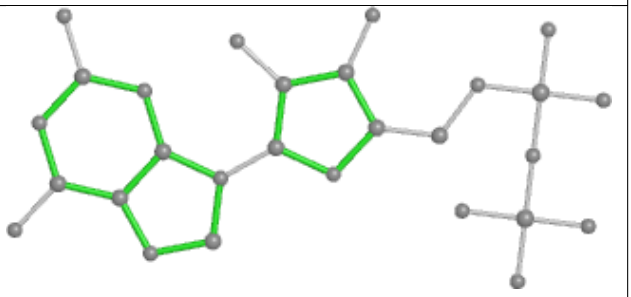
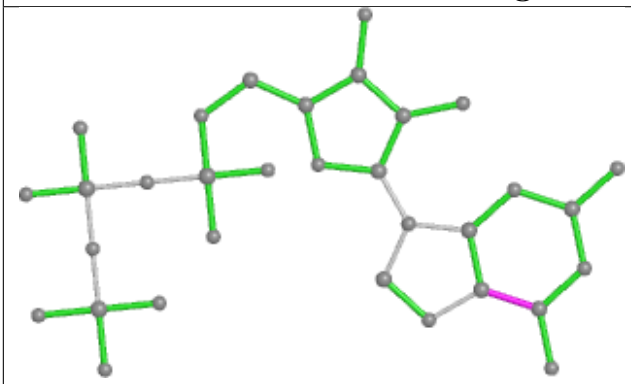
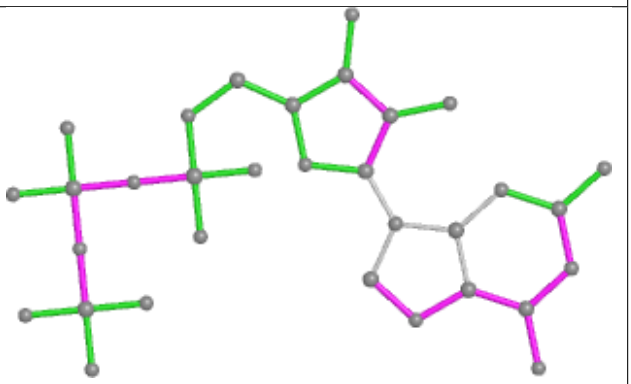
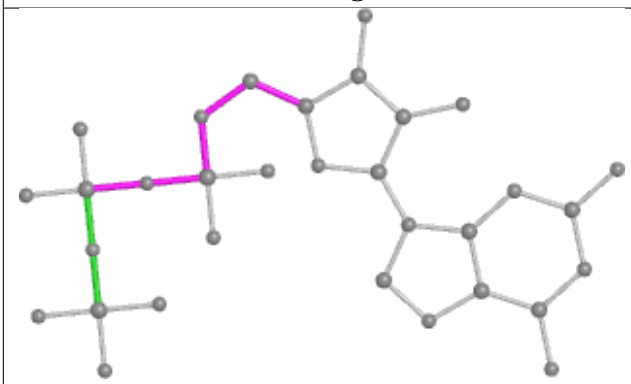
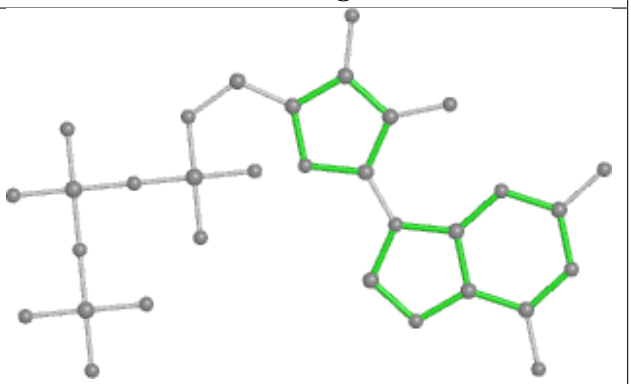


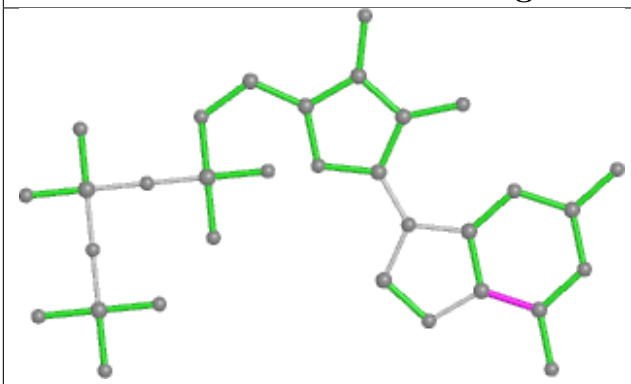
Ligand GDP 1M 501



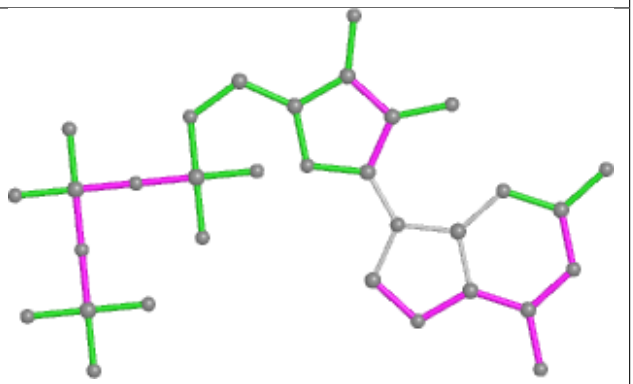
Ligand GDP F8 502	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GTP B7 501	
 Bond lengths	 Bond angles
 Torsions	 Rings

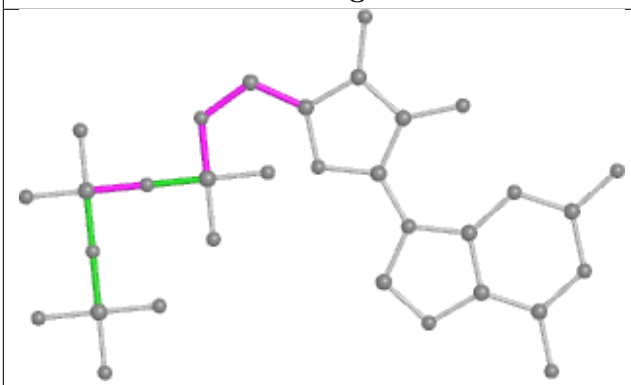
Ligand GTP F5 501



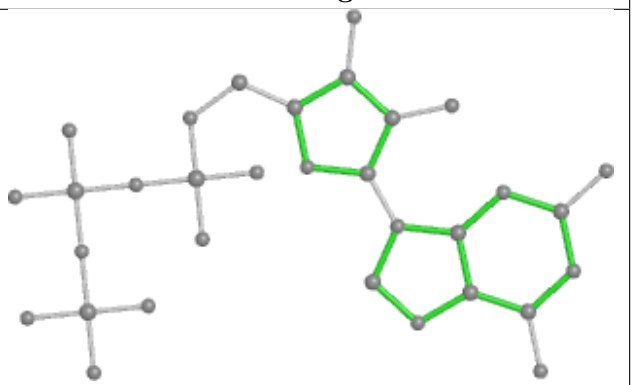
Bond lengths



Bond angles

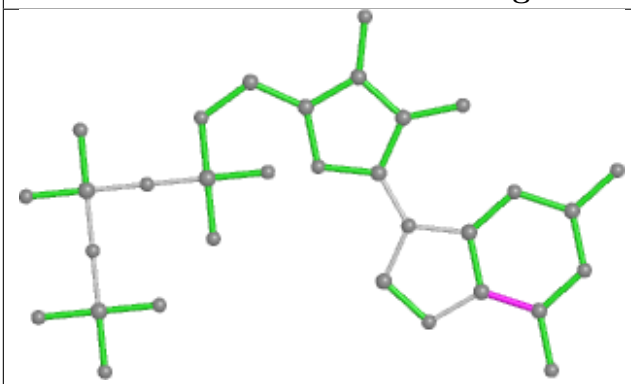


Torsions



Rings

Ligand GTP G4 501



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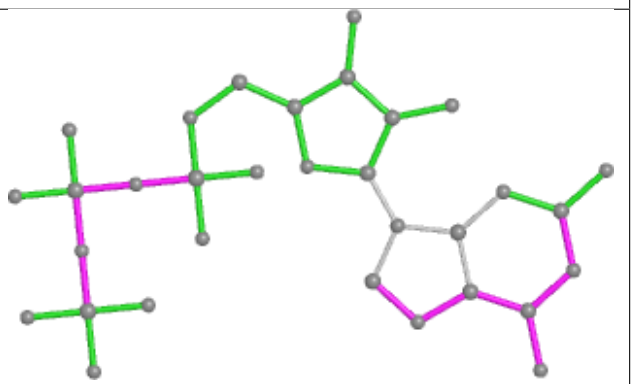
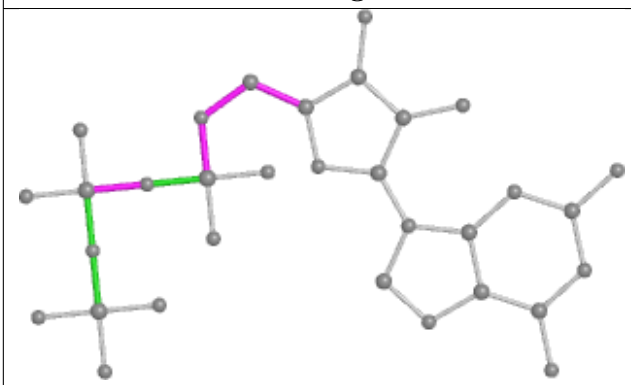
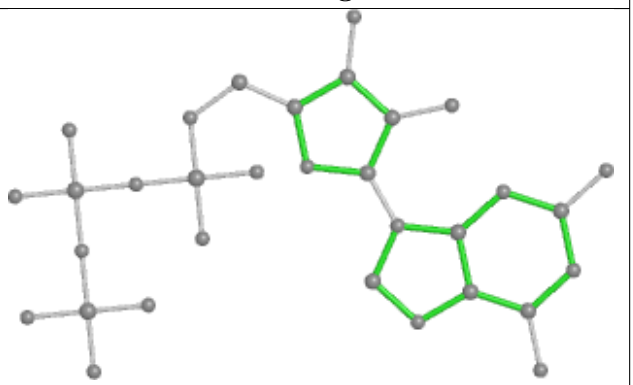


Bond angles

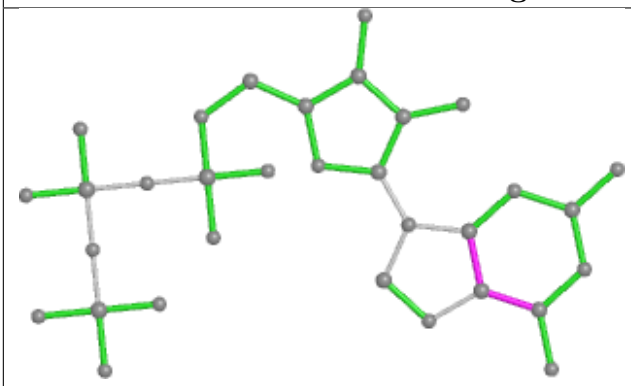


Torsions

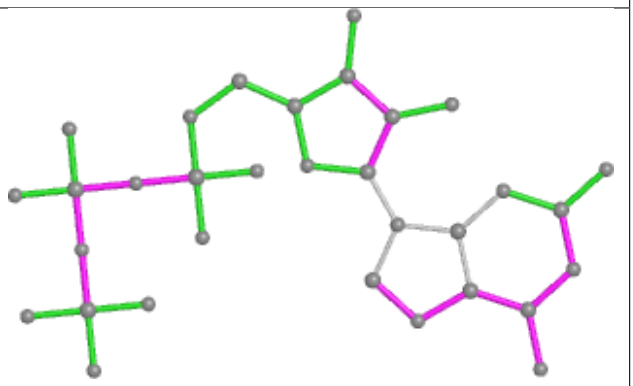


Rings

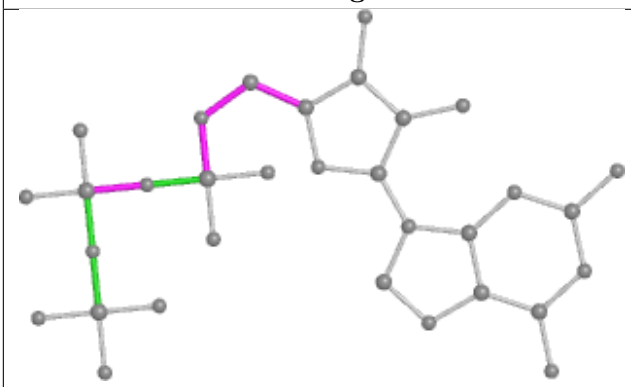
Ligand GTP M6 501



Bond lengths



Bond angles



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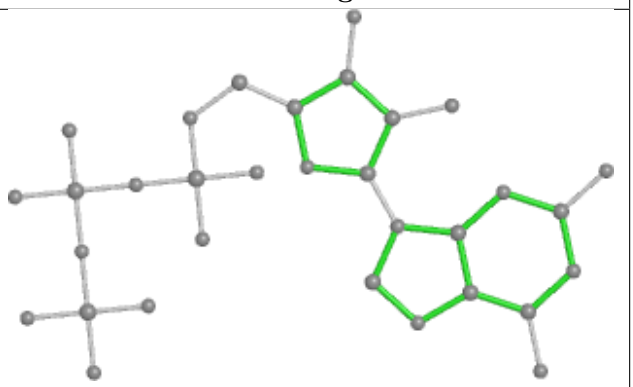
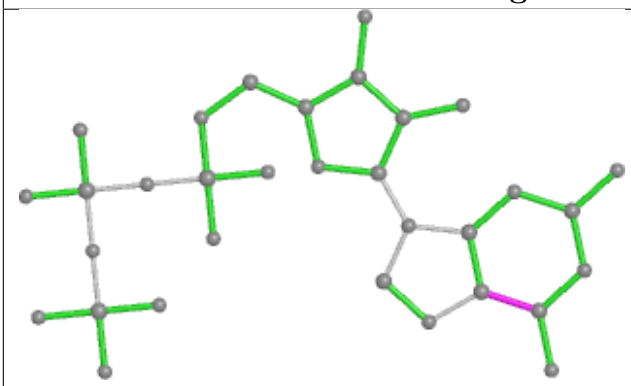


Rings

Ligand GTP M7 501



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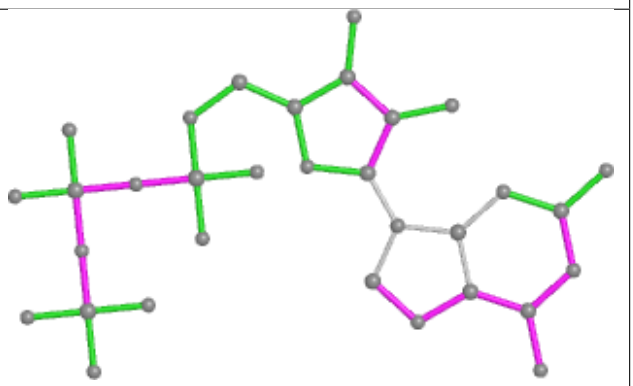

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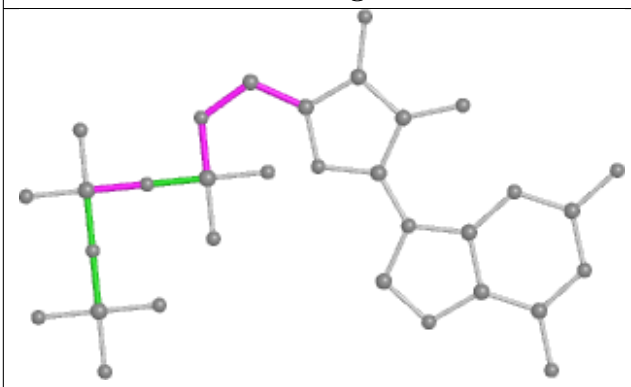

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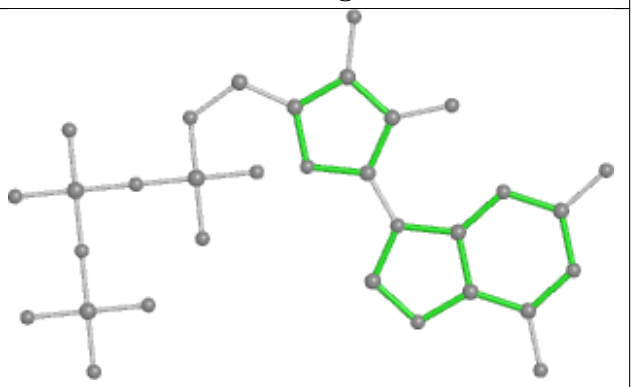
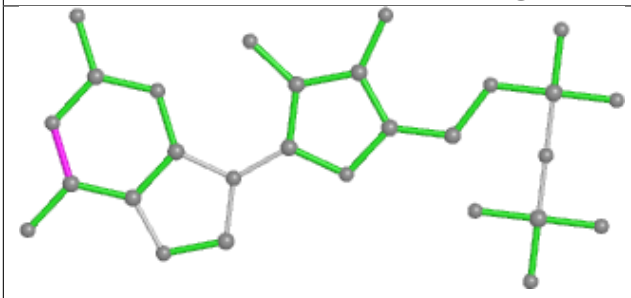
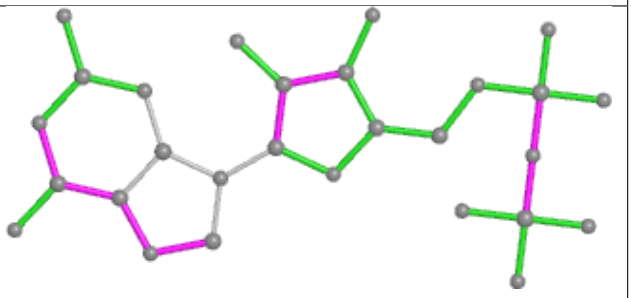
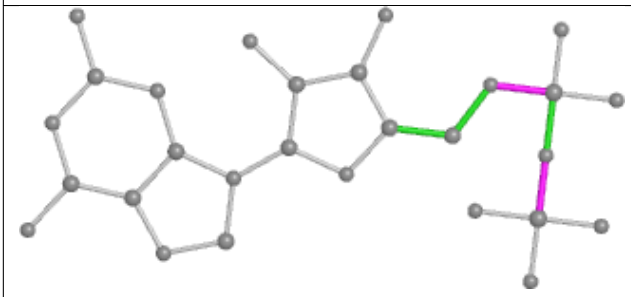
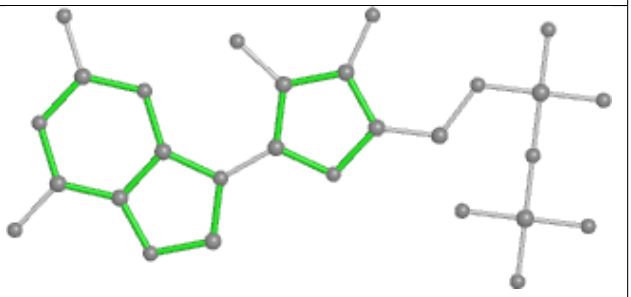
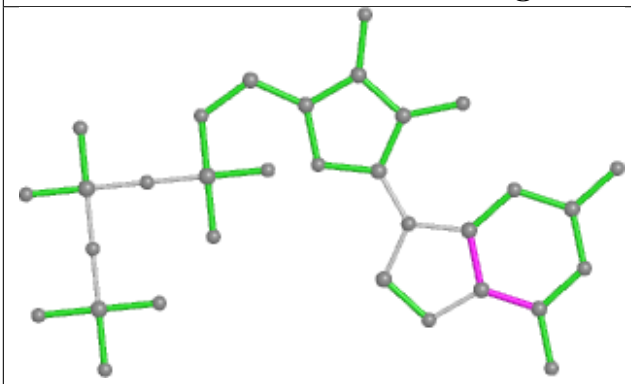
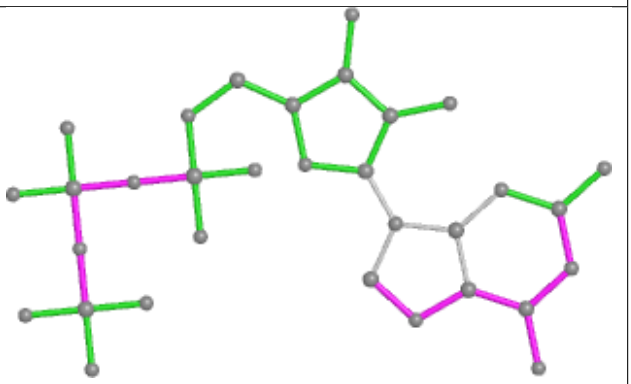
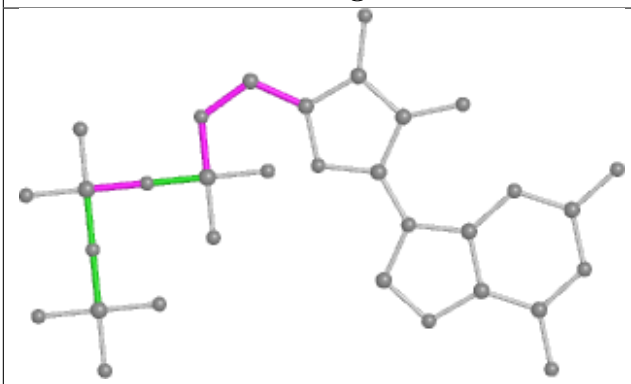
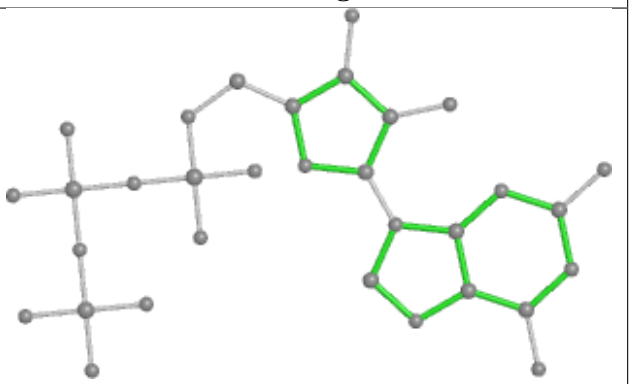
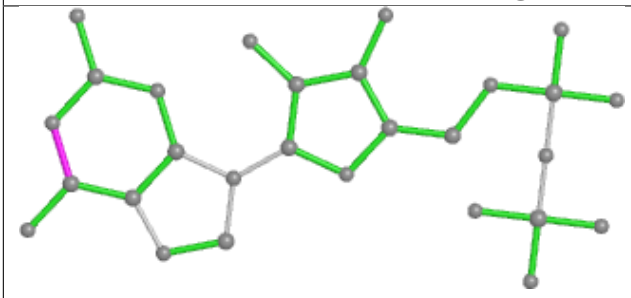


Rings

Ligand GDP C8 502	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GTP P9 501	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GDP V4 501



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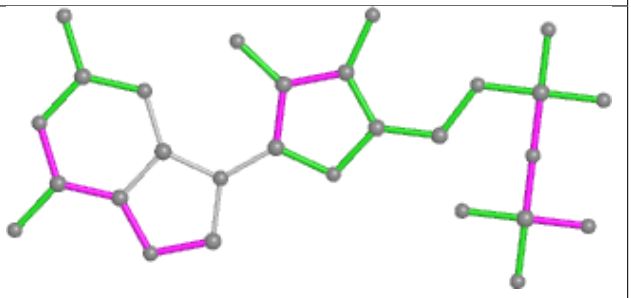

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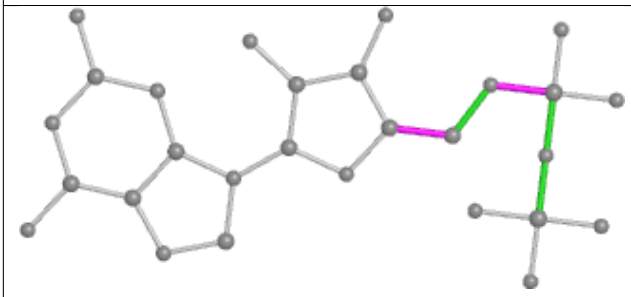

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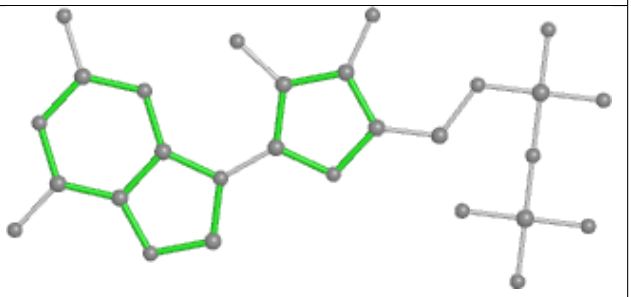
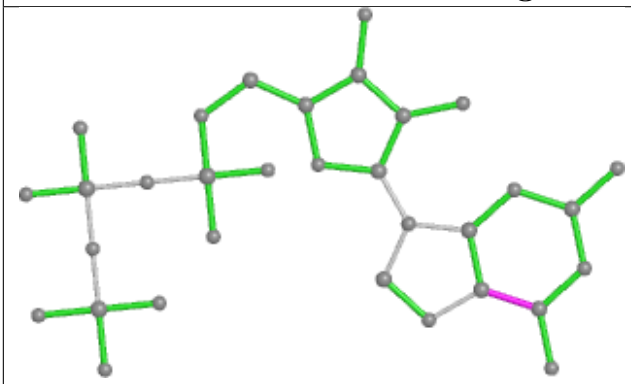


Rings

Ligand GTP S0 501



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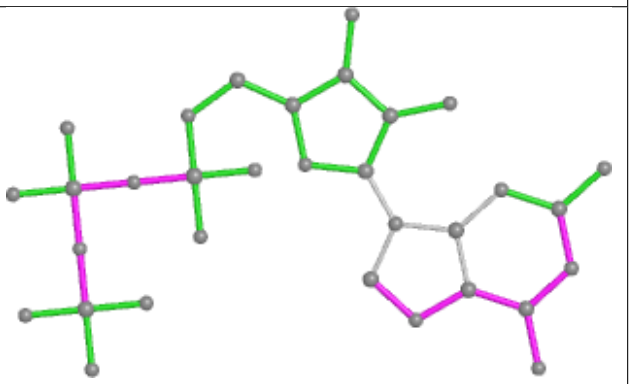

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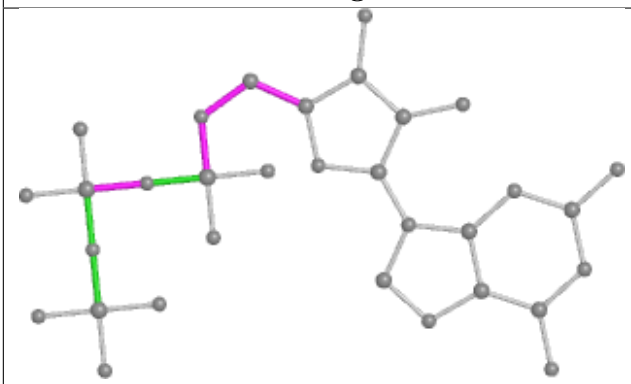

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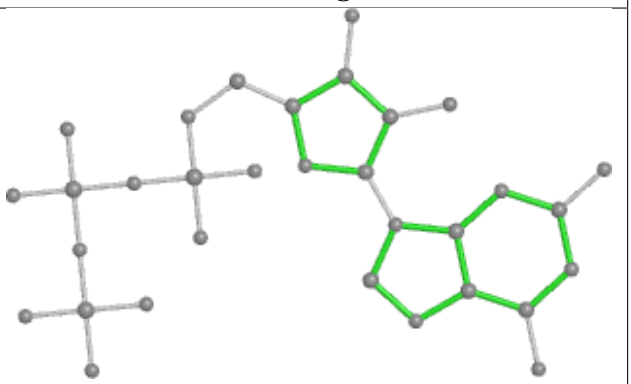
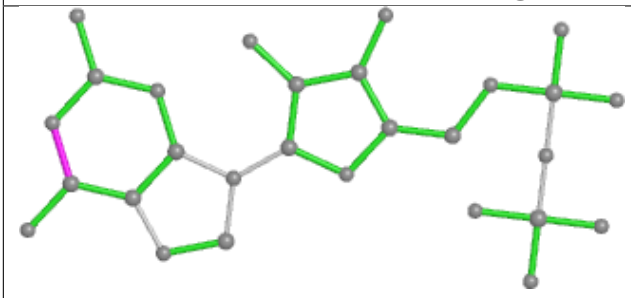


Rings

Ligand GDP U8 501



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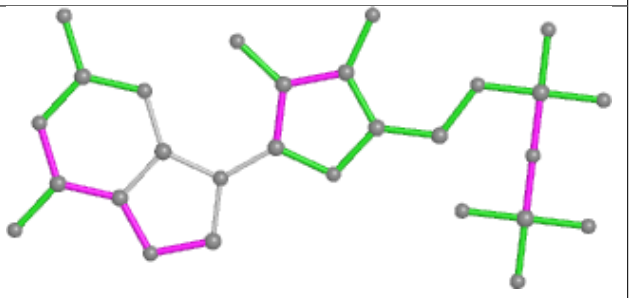

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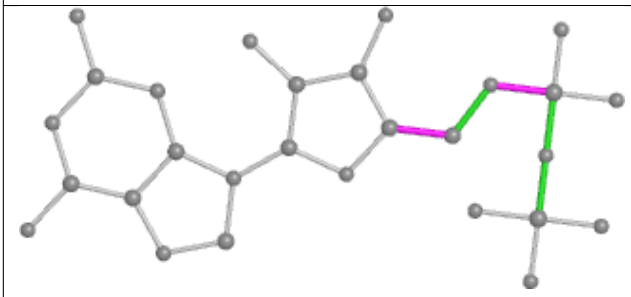

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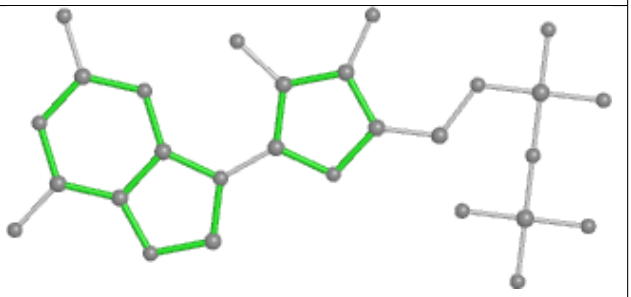
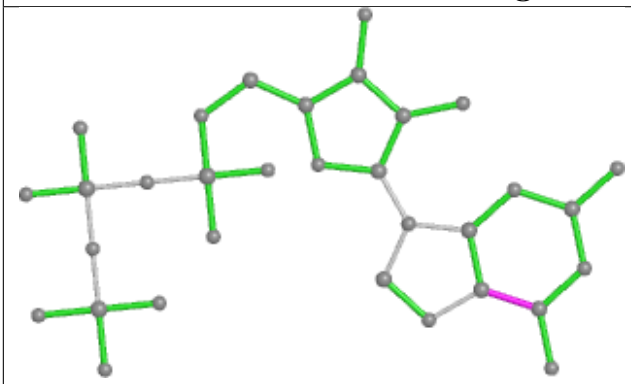


Rings

Ligand GTP P8 501



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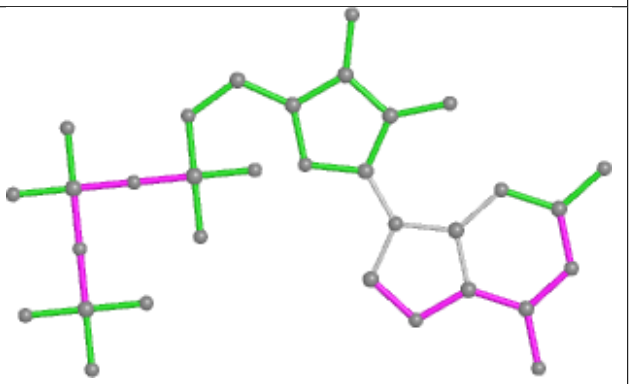

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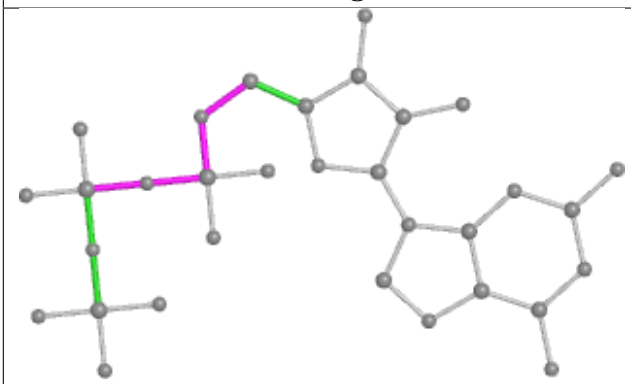

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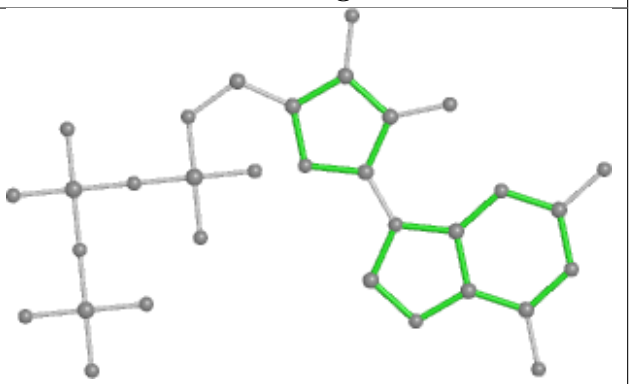
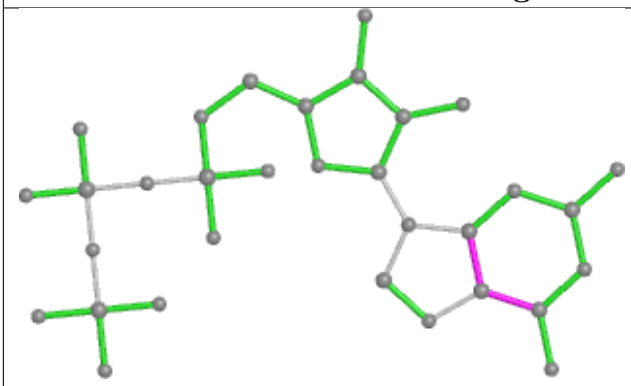


Rings

Ligand GTP D5 501



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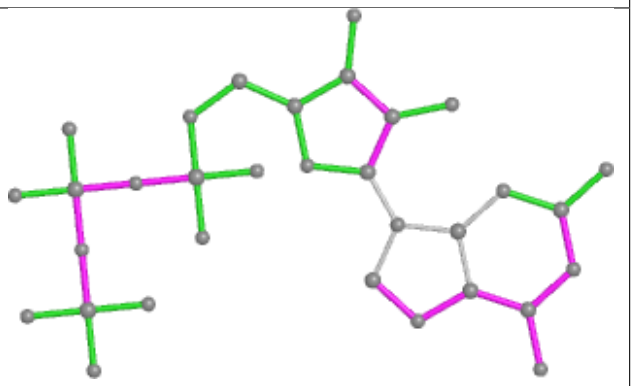

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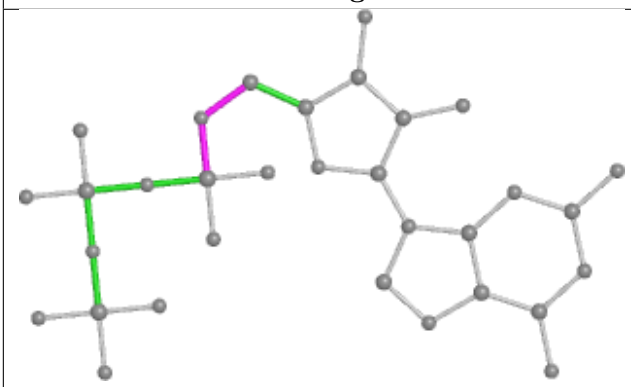

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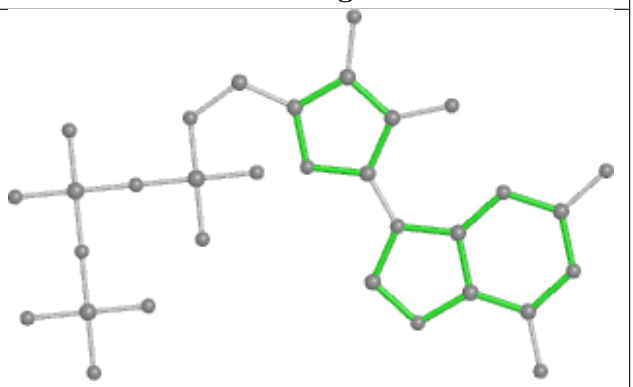
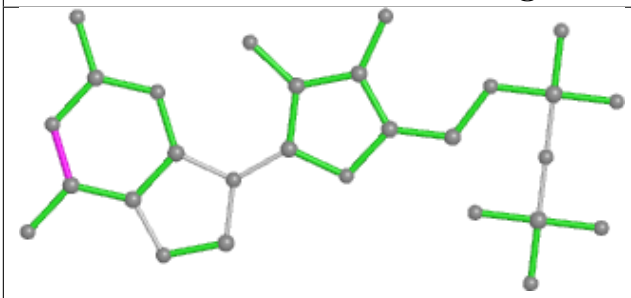


Rings

Ligand GDP 0I 502



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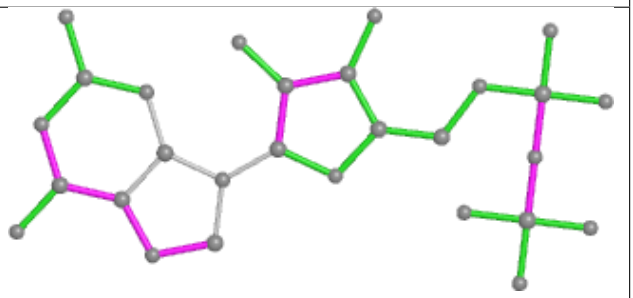

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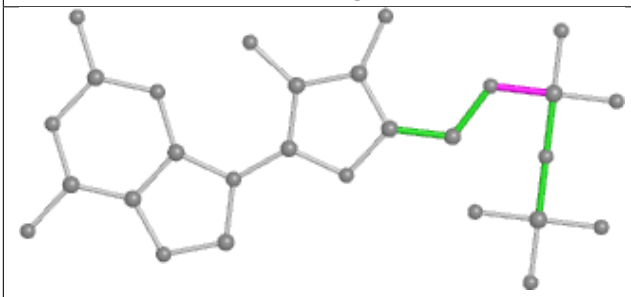

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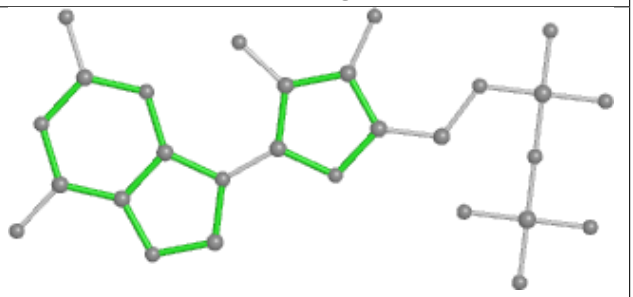
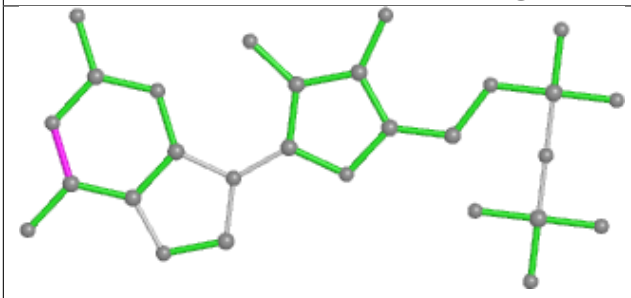
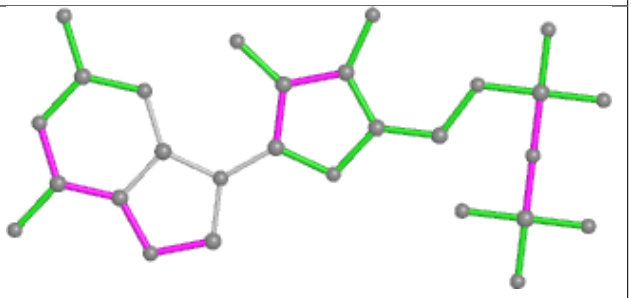
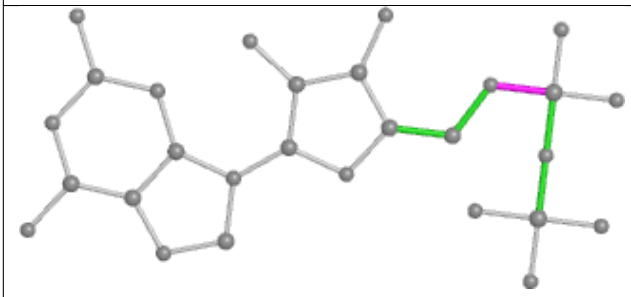
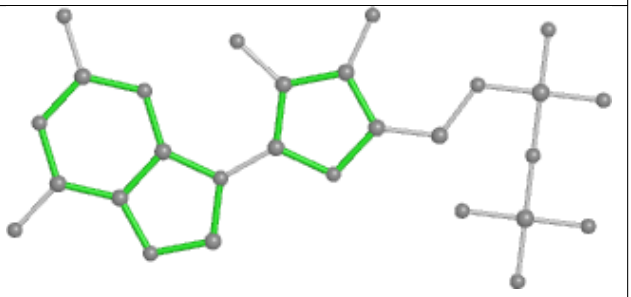
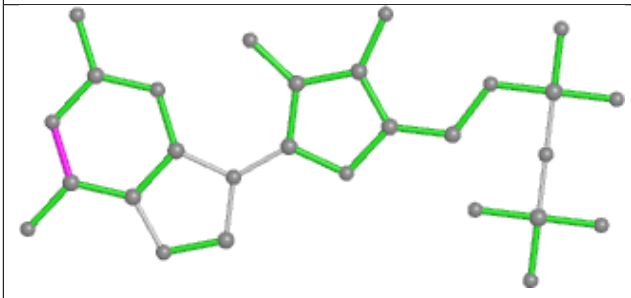
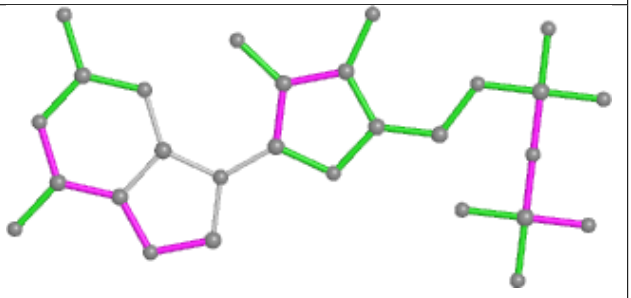
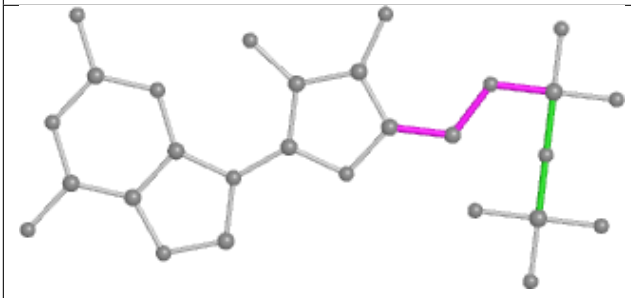
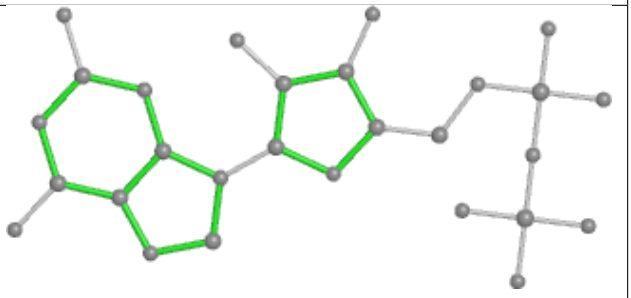
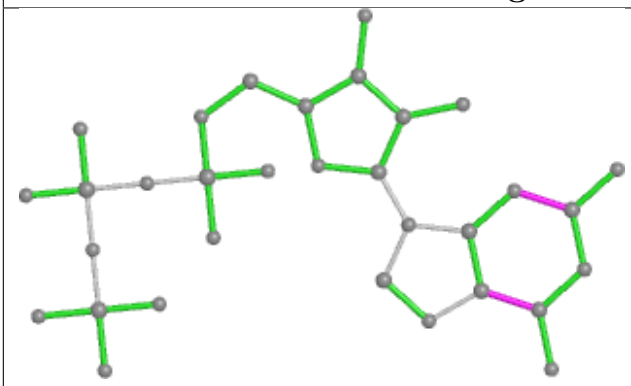


Rings

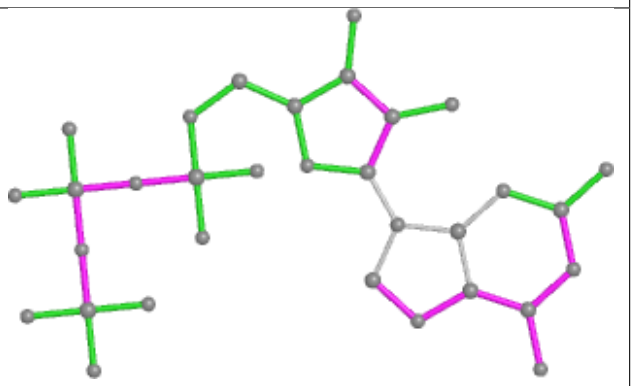
Ligand GDP 2C 502	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GDP W4 502	
 Bond lengths	 Bond angles
 Torsions	 Rings

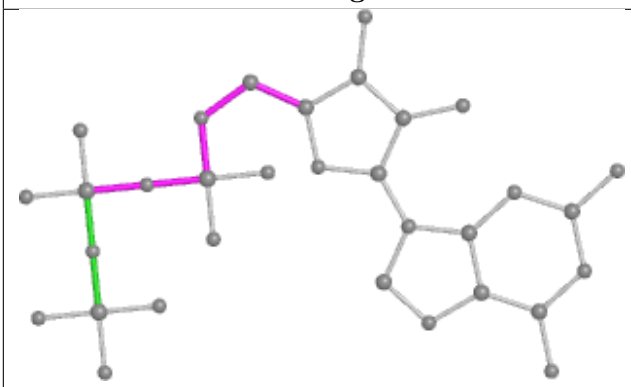
Ligand GTP 1W 501



Bond lengths



Bond angles



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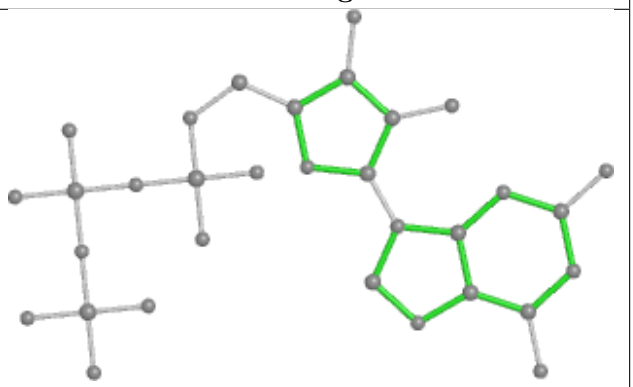
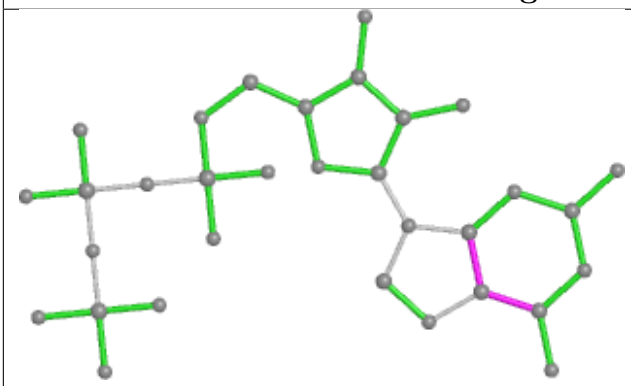


Rings

Ligand GTP 3I 501



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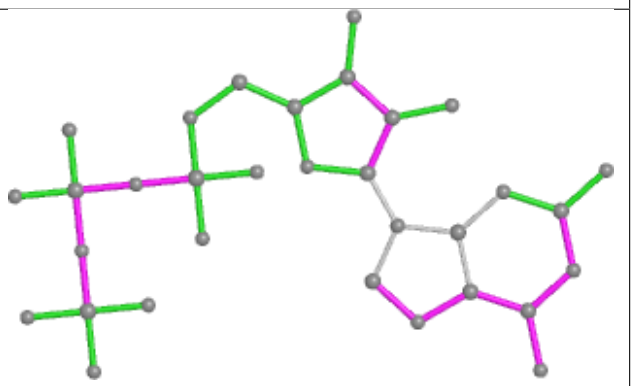
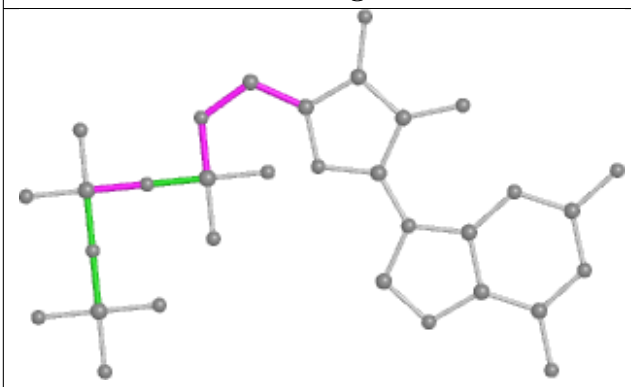


Bond angles



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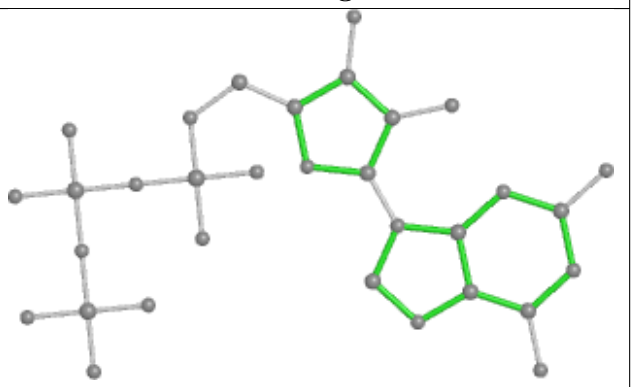
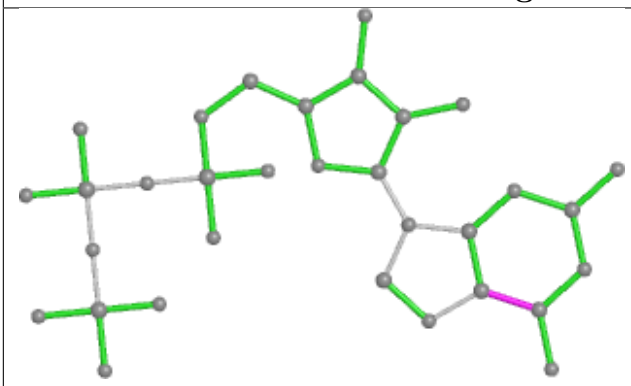
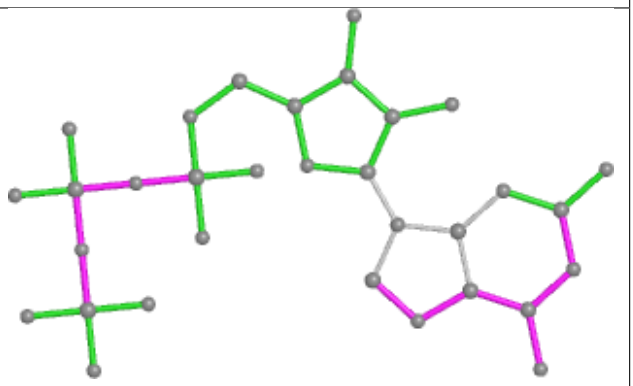


Rings

Ligand GTP Z6 501



Bond lengths



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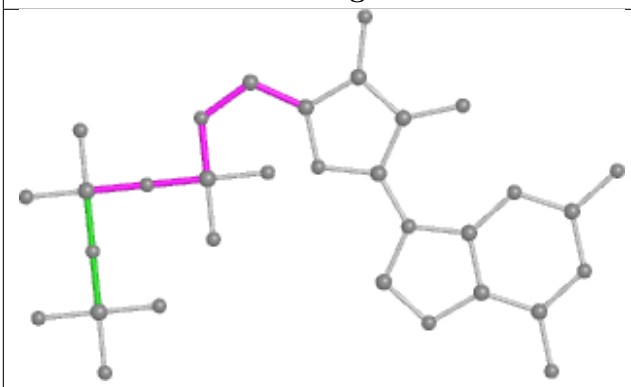
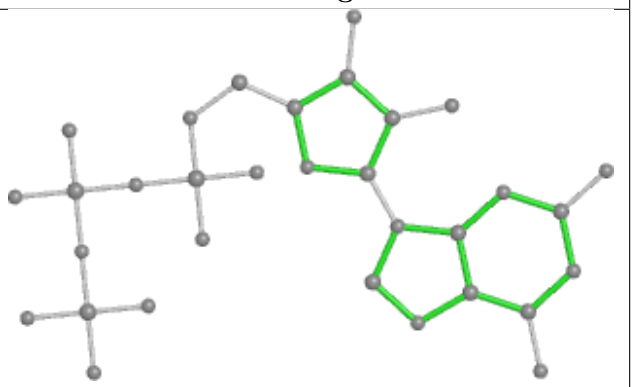
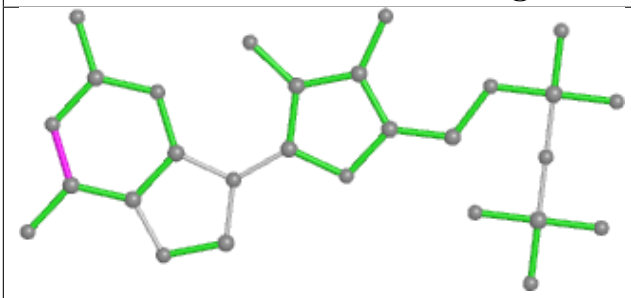


Torsions



Rings

Ligand GDP 0G 501



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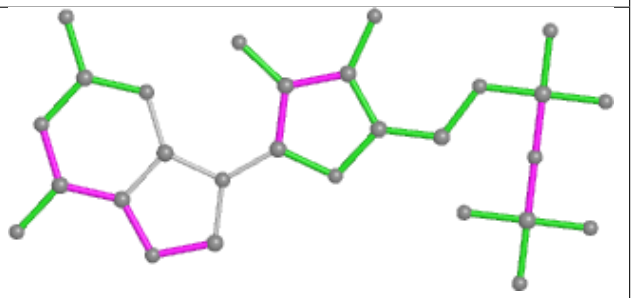

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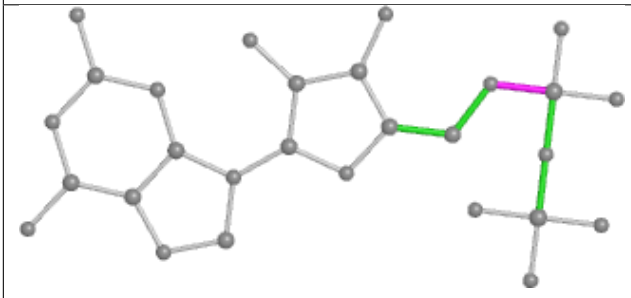

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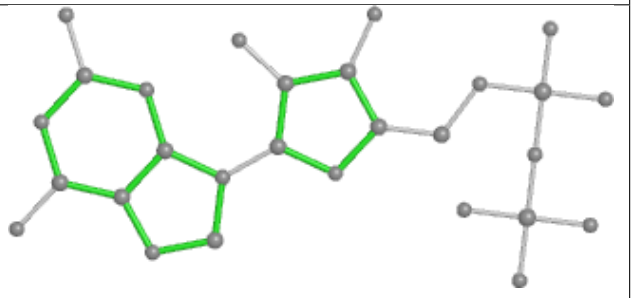
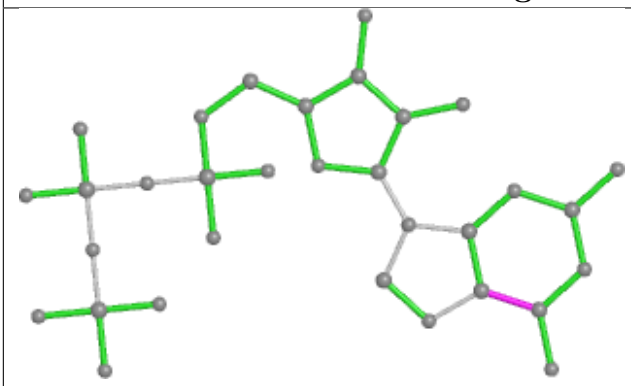


Rings

Ligand GTP T8 501



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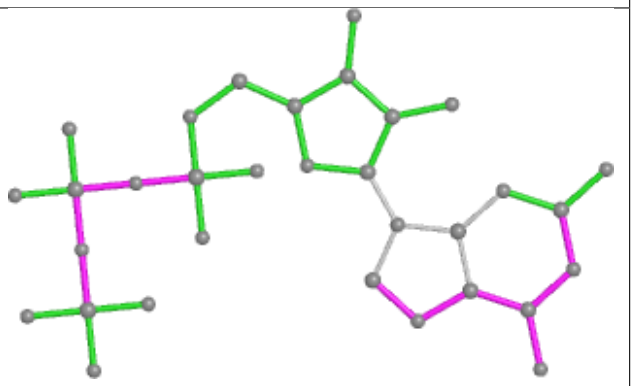

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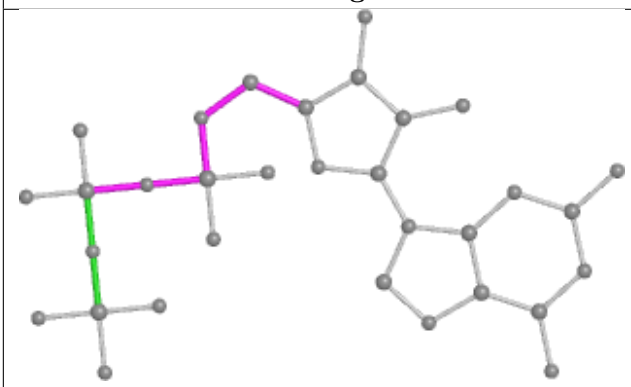

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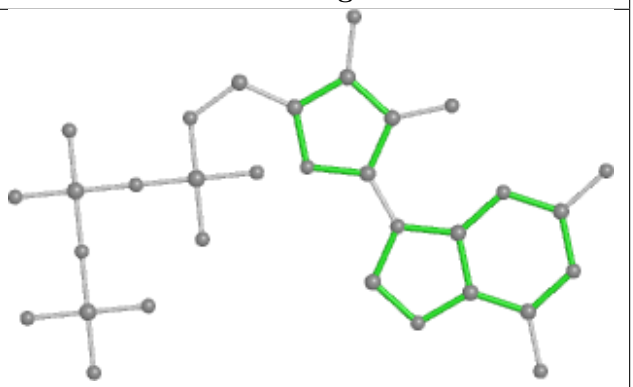
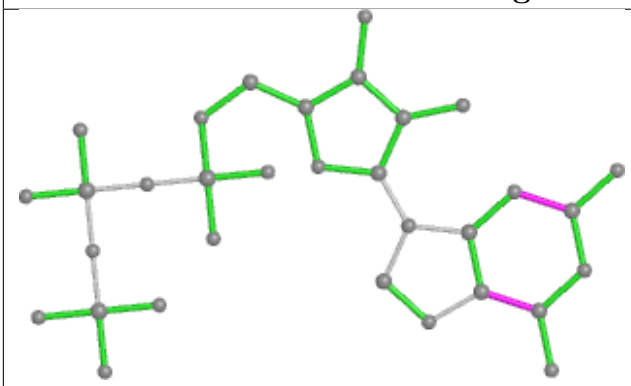


Rings

Ligand GTP U2 501



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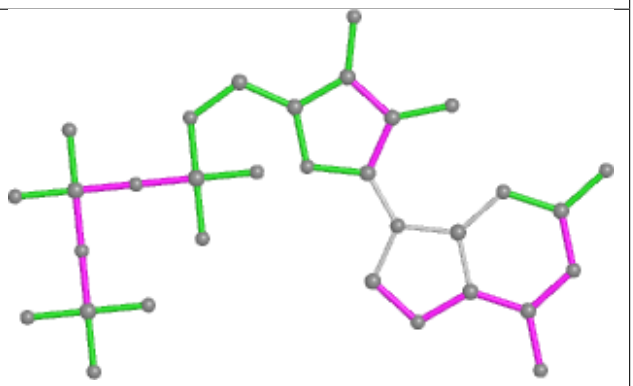

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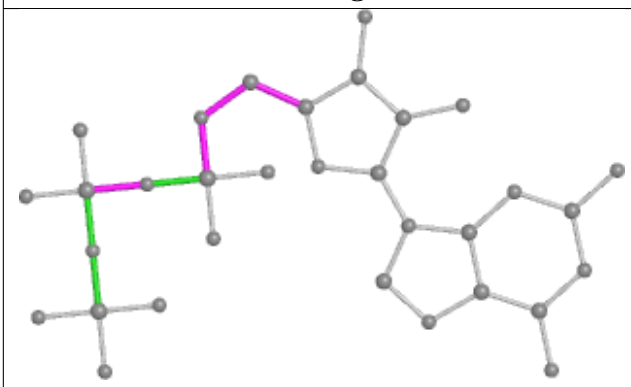

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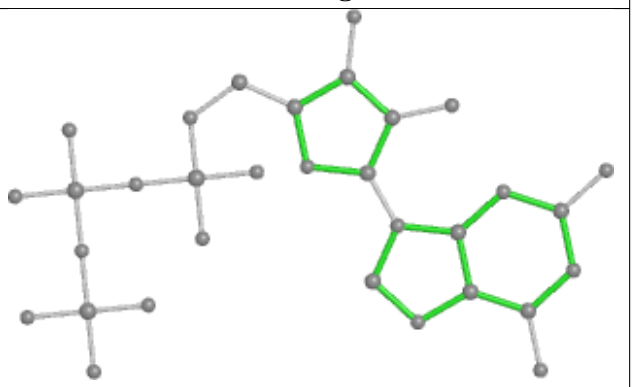
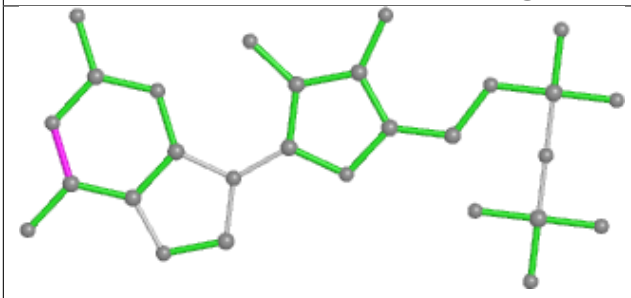


Rings

Ligand GDP 3I 502



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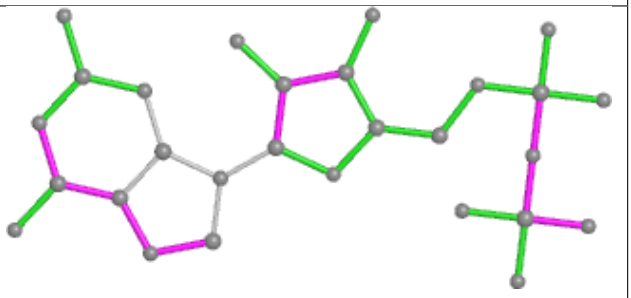

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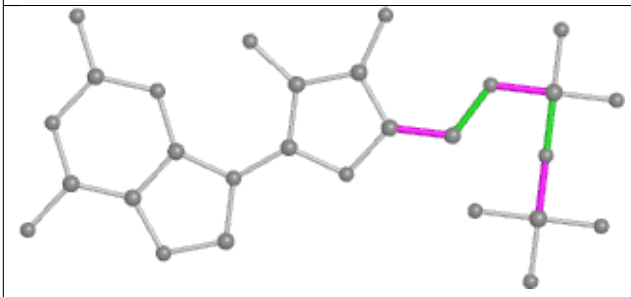

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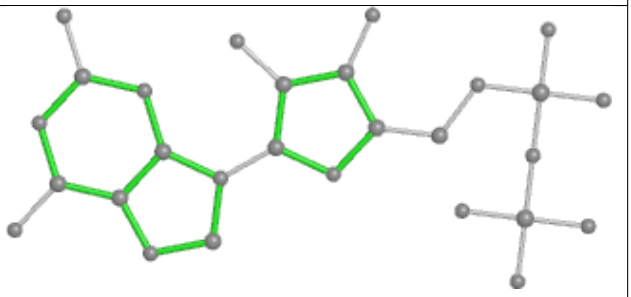
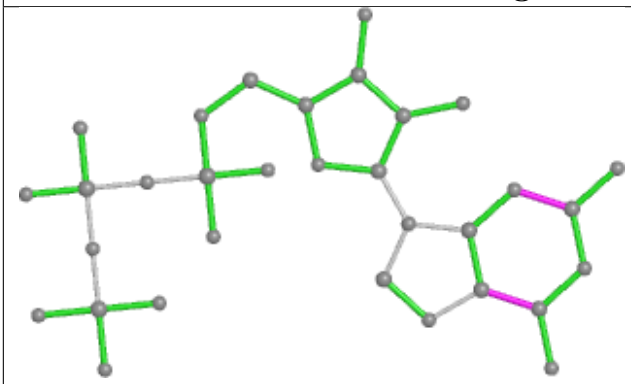


Rings

Ligand GTP U9 501



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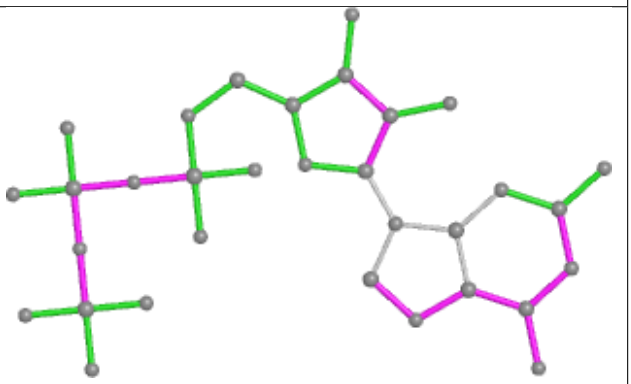

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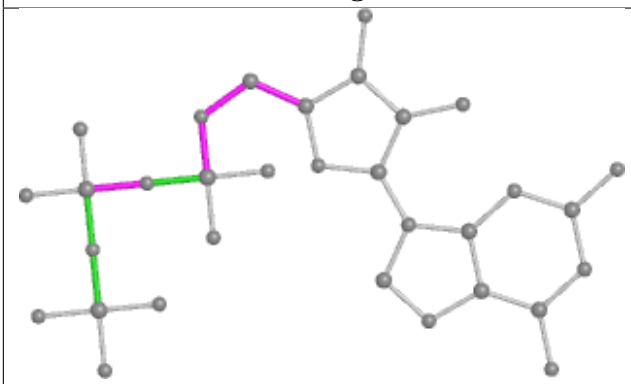

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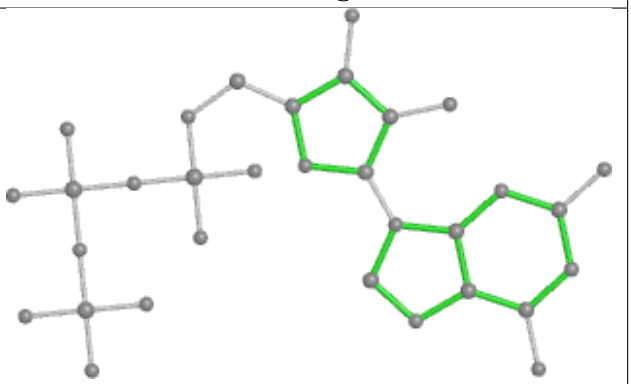

Rings

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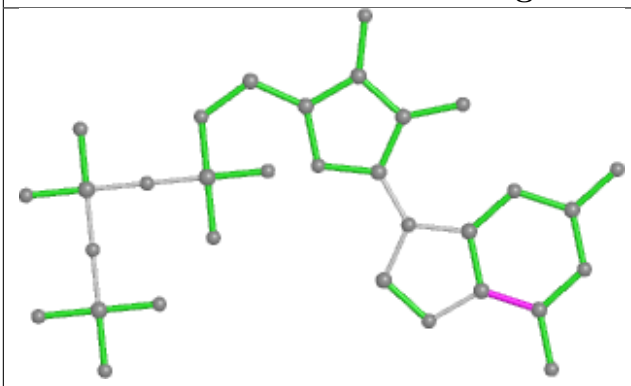

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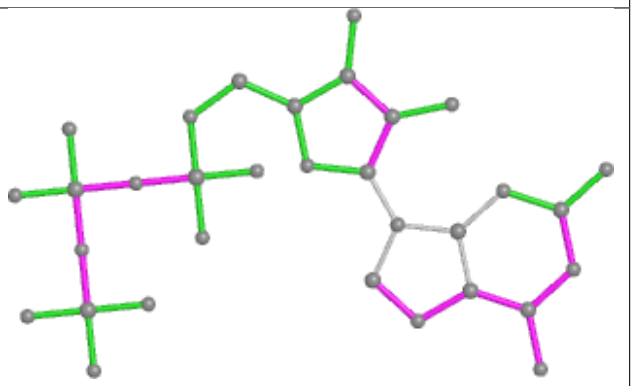

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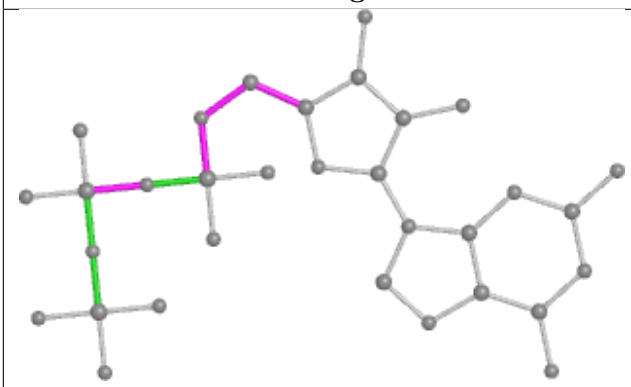

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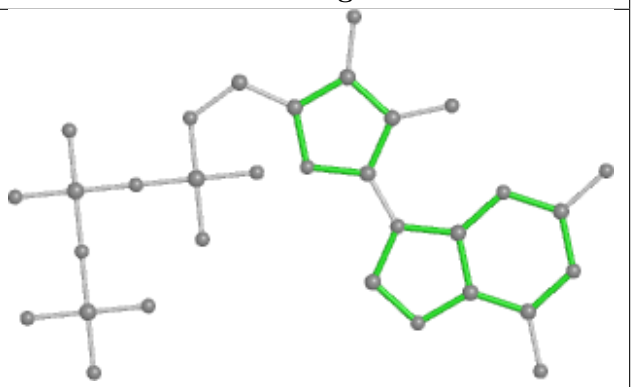

Rings

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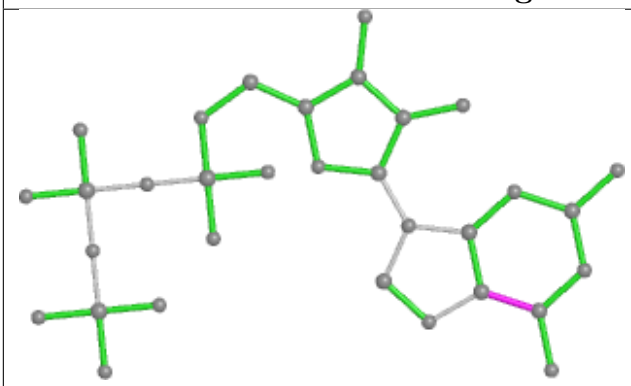

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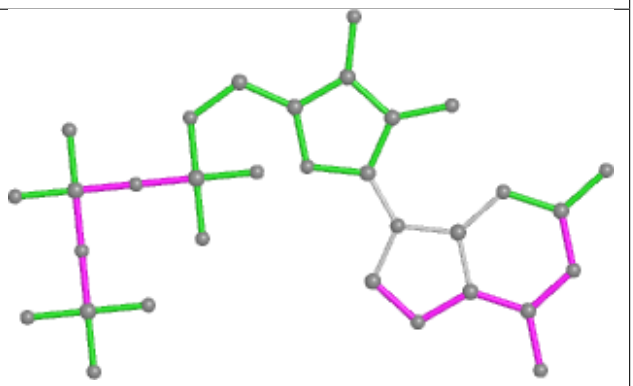

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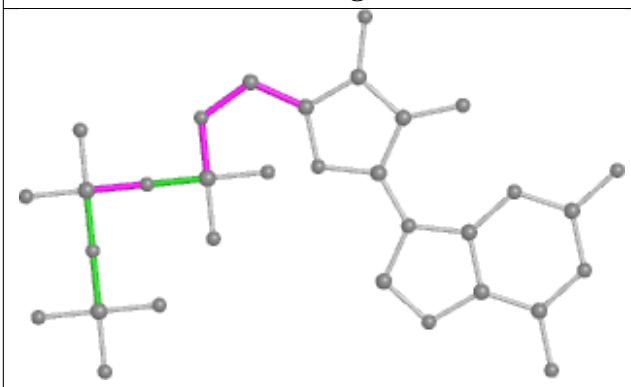

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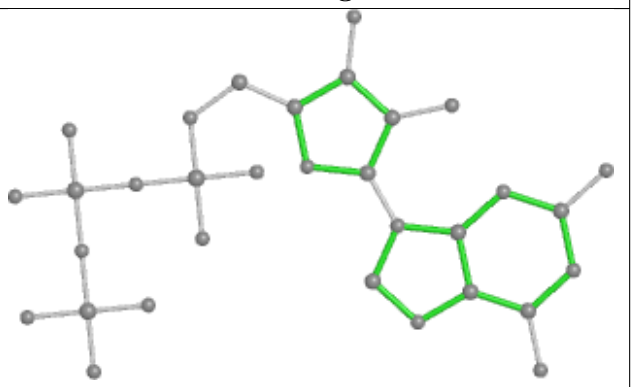

Rings

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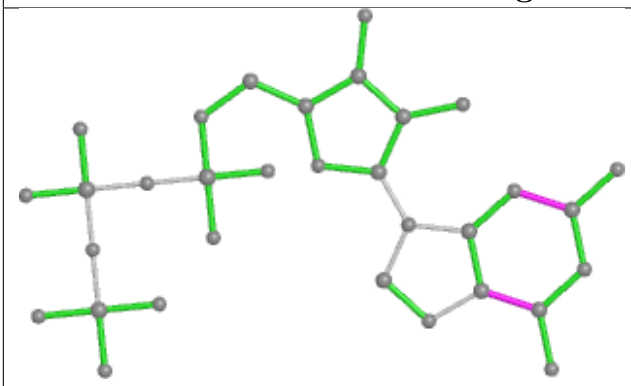

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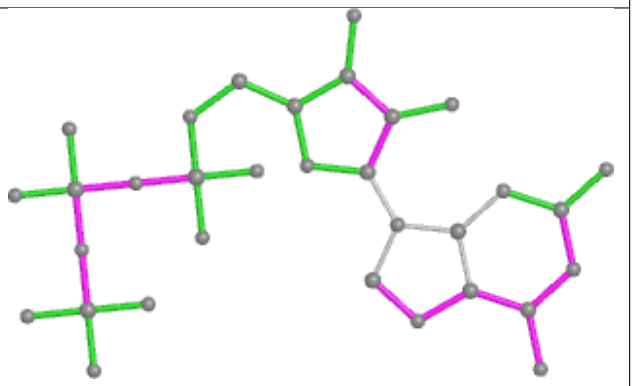

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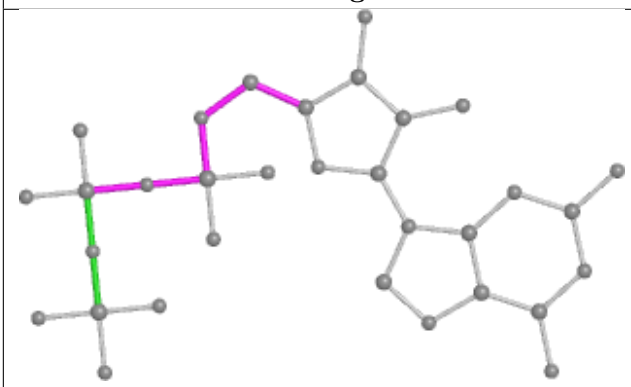

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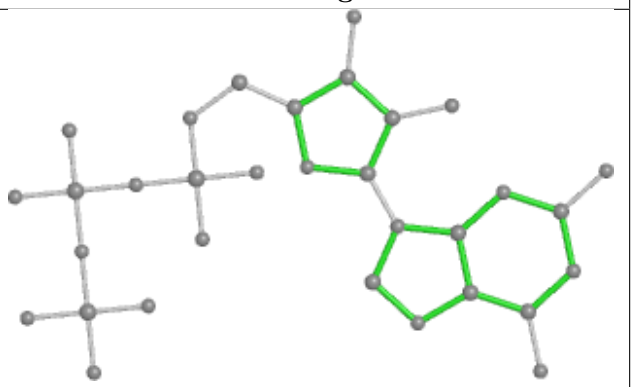

Rings

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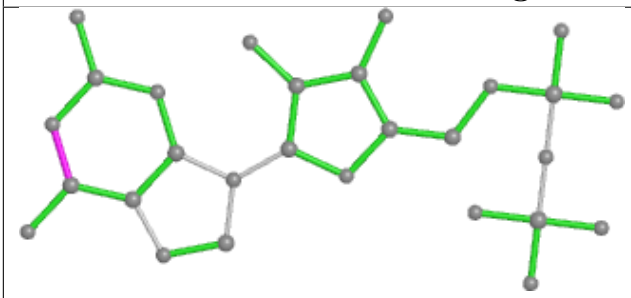

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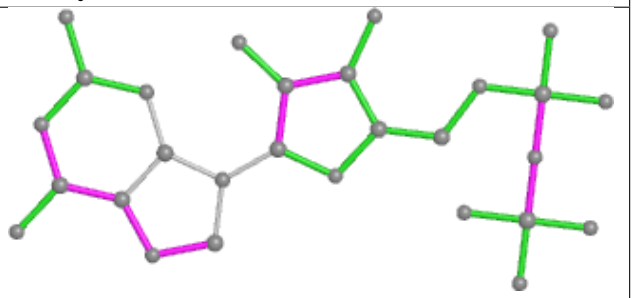

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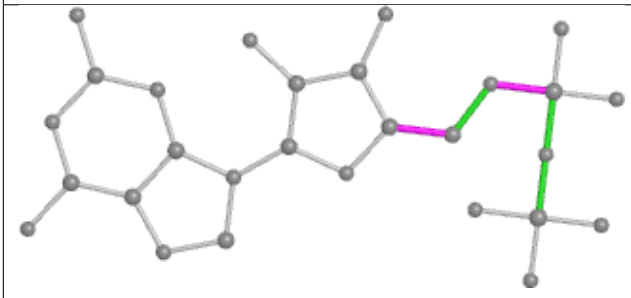

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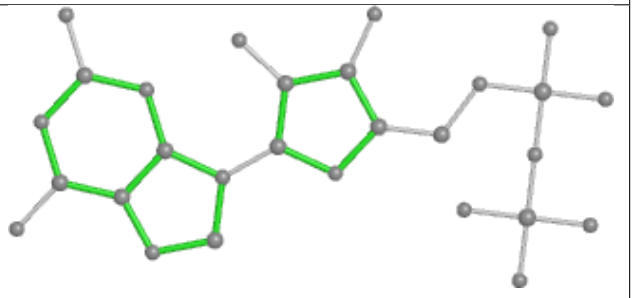
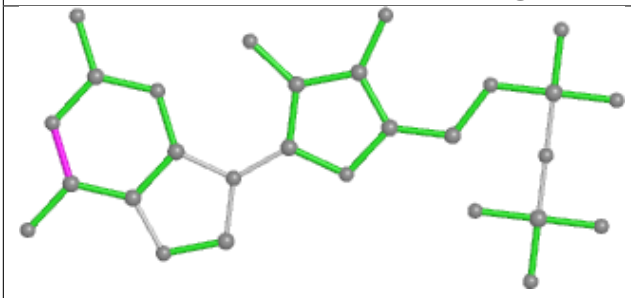
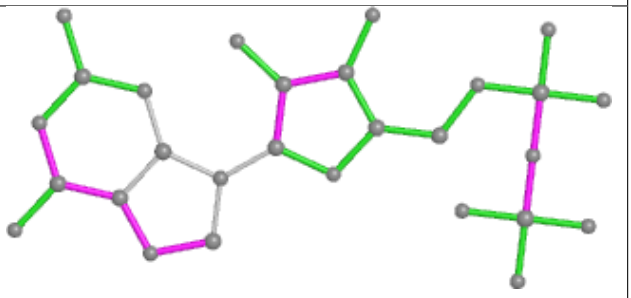
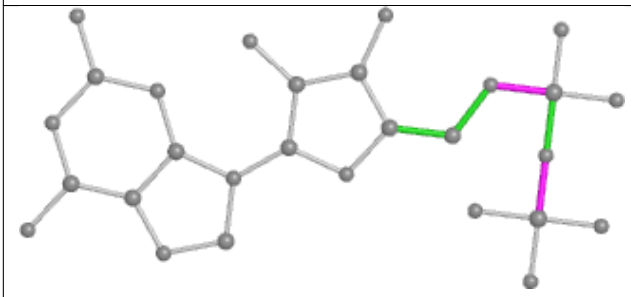
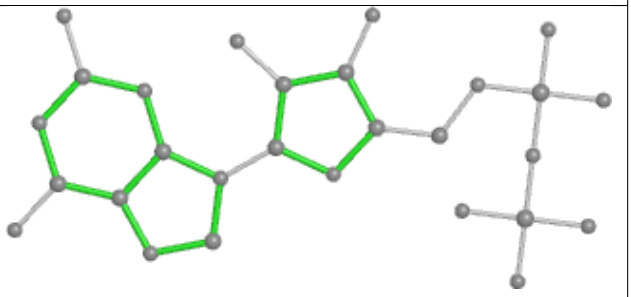
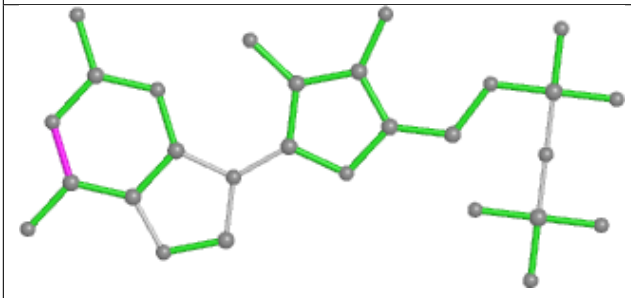
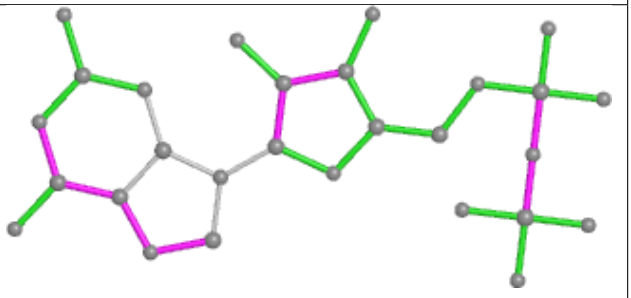


Rings

Ligand GDP U2 502	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand GDP 0E 501	
	
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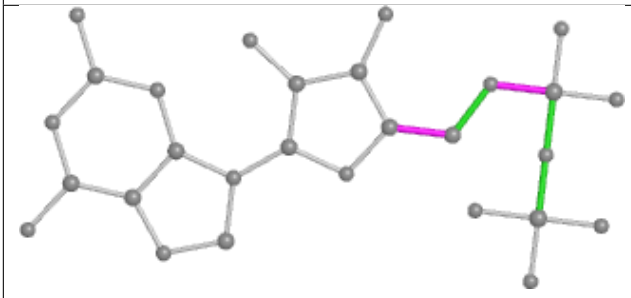
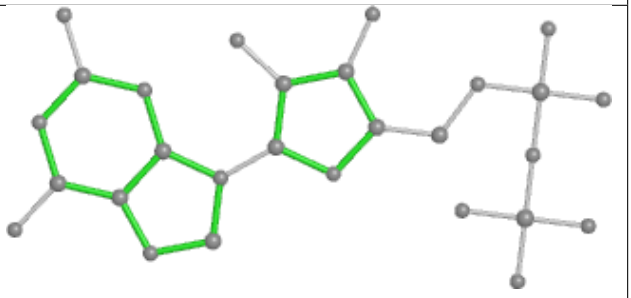
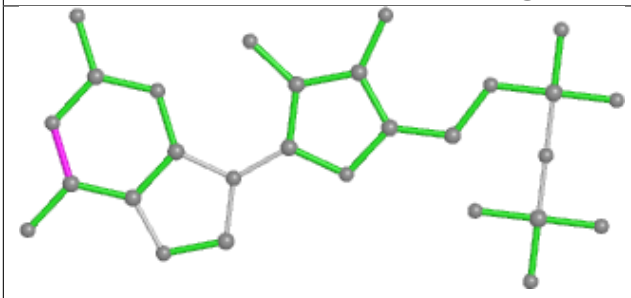
	
Torsions	Rings

Ligand GDP I8 502



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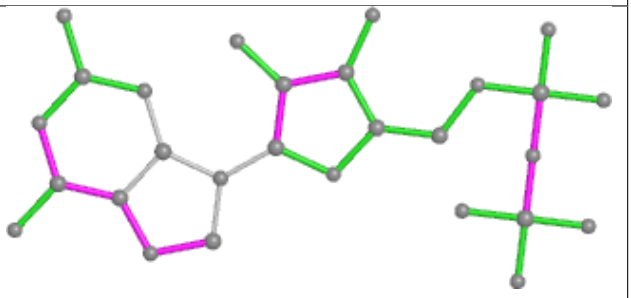

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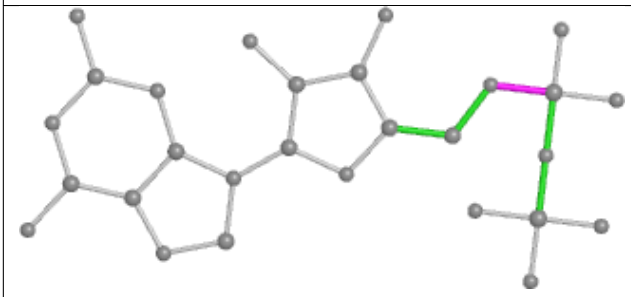

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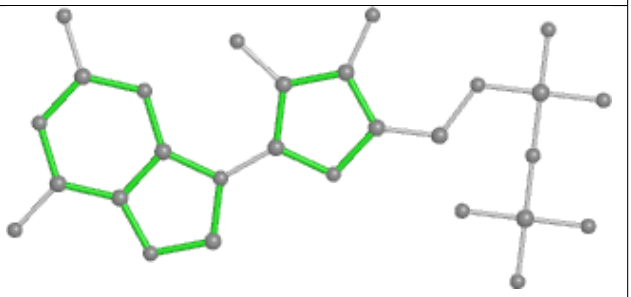
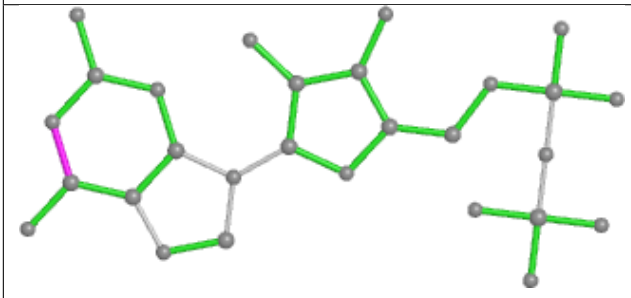


Rings

Ligand GDP F6 501



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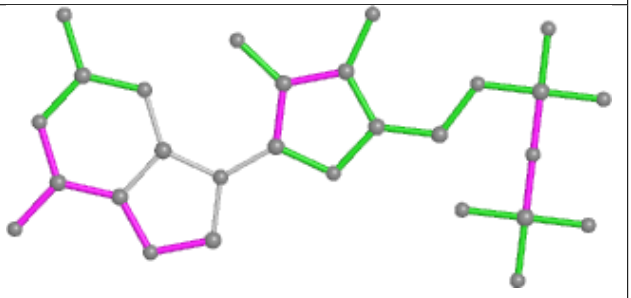

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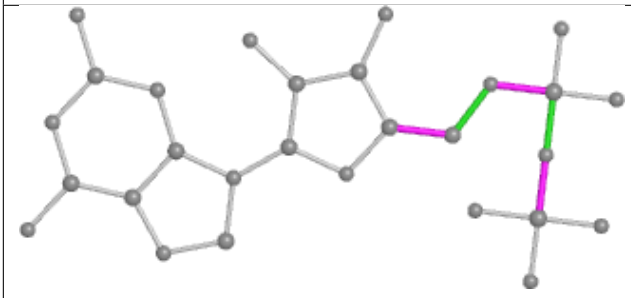

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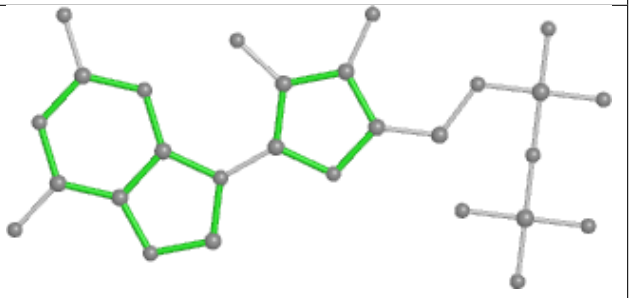
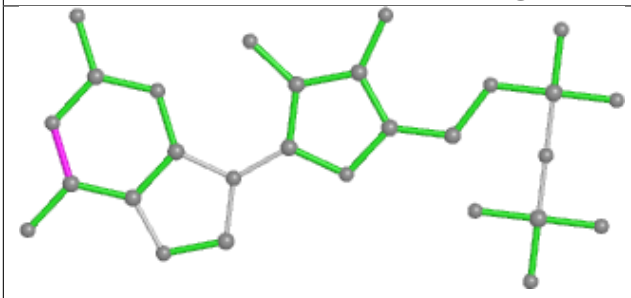


Rings

Ligand GDP V6 501



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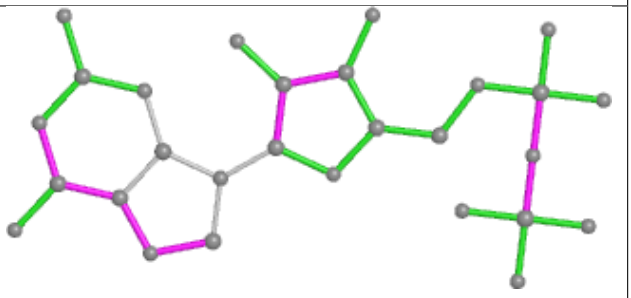

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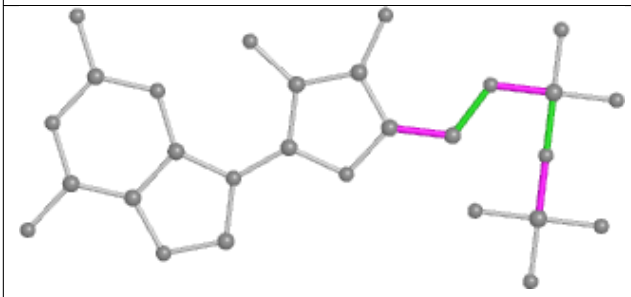
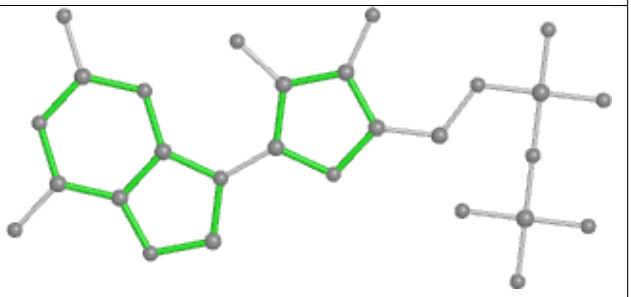
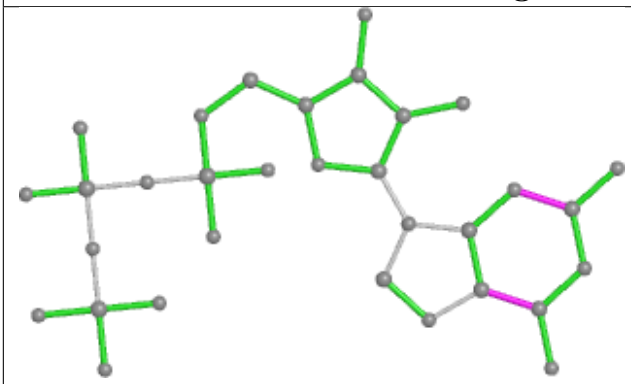


Torsions



Rings

Ligand GTP 0A 501



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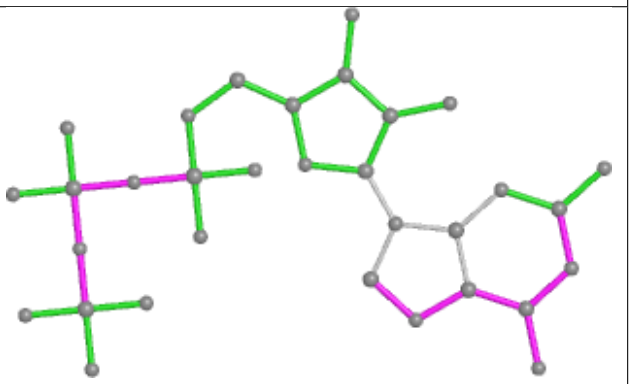
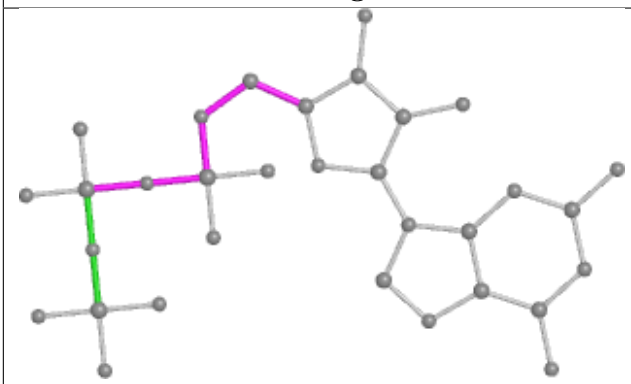


Bond angles



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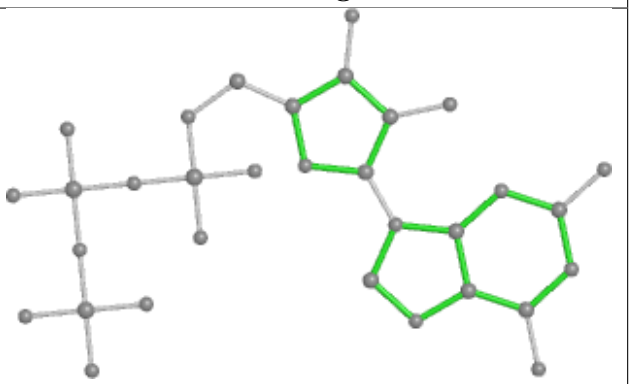
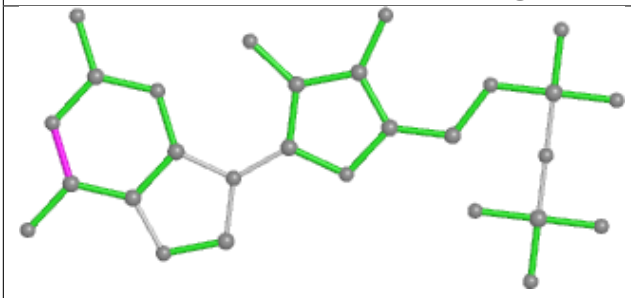


Rings

Ligand GDP H2 503



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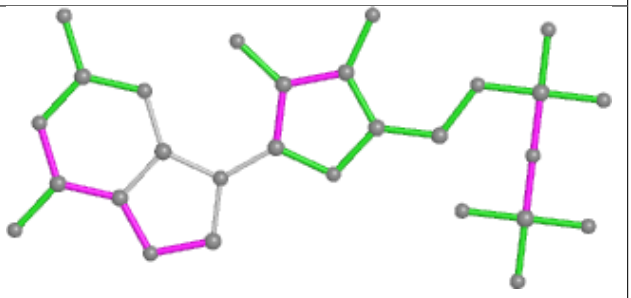

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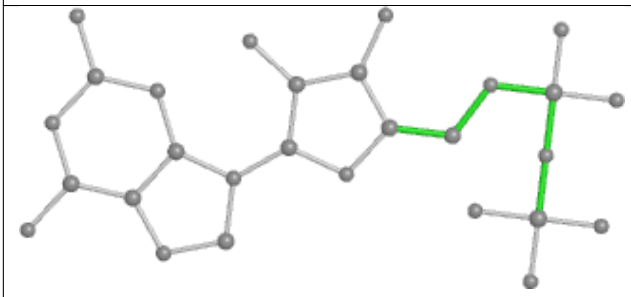

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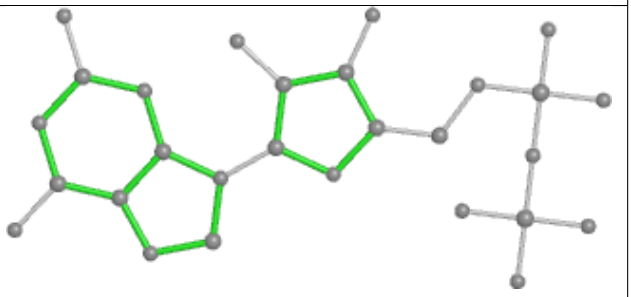
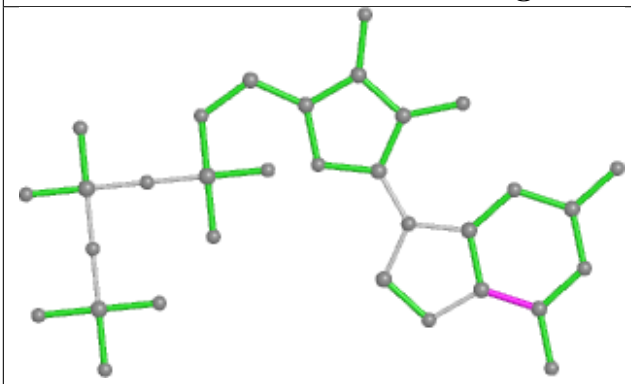


Rings

Ligand GTP E8 501



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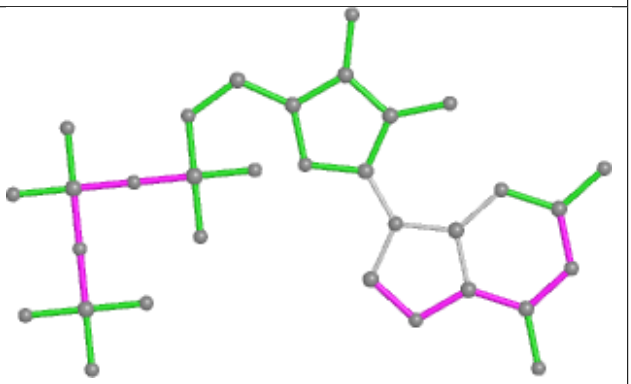

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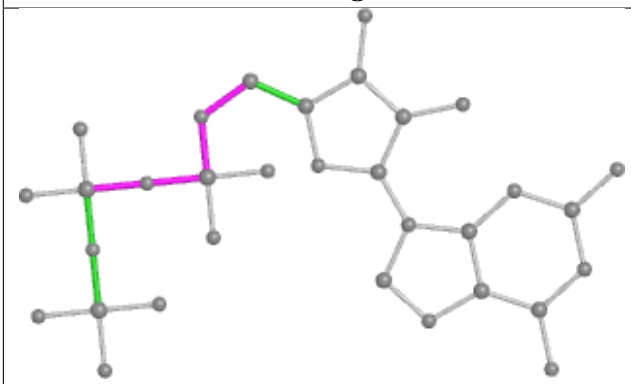

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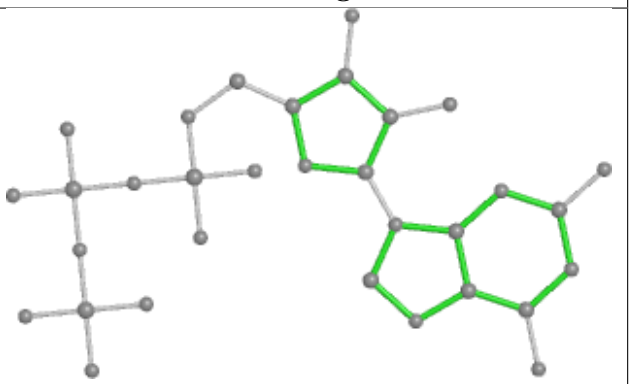
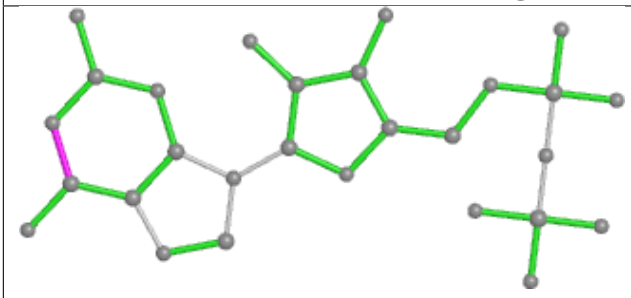


Rings

Ligand GDP Y8 501



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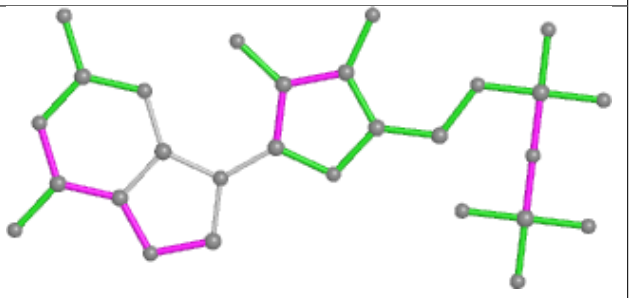

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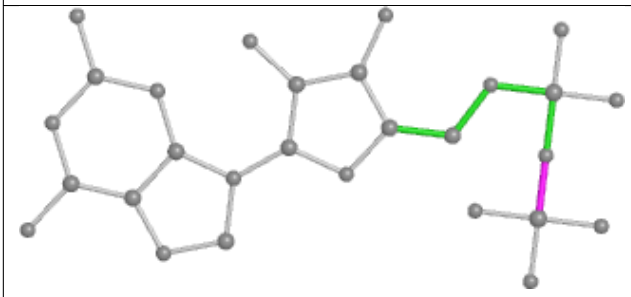

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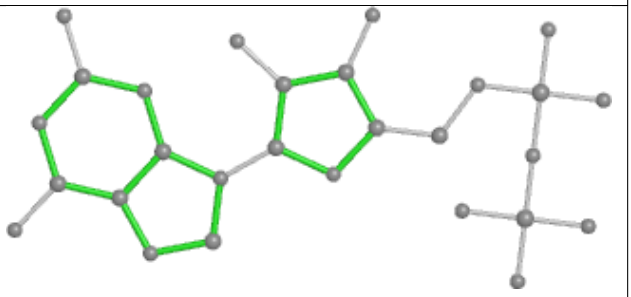
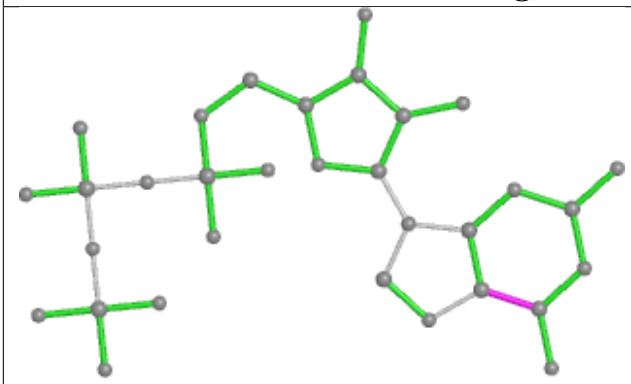


Rings

Ligand GTP 0Q 501



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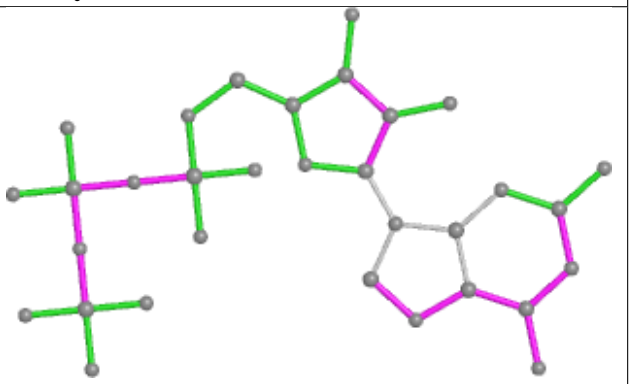

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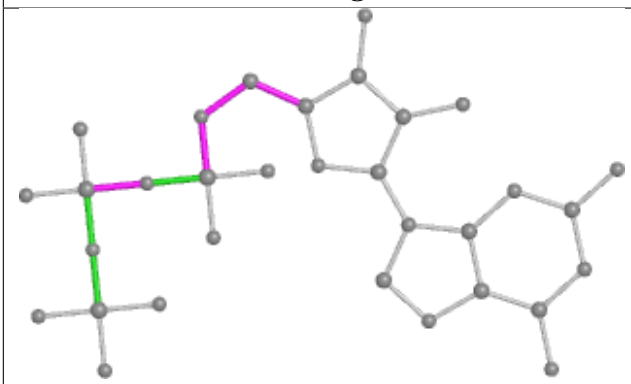

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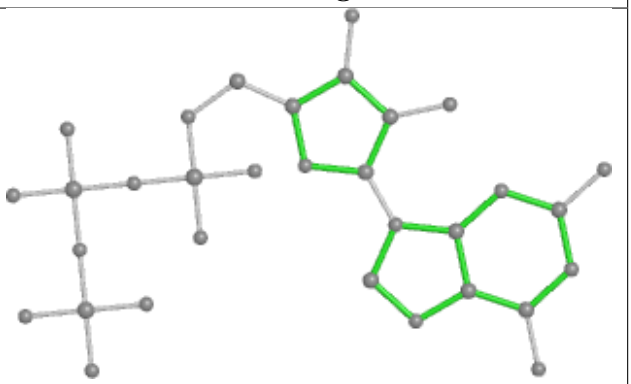
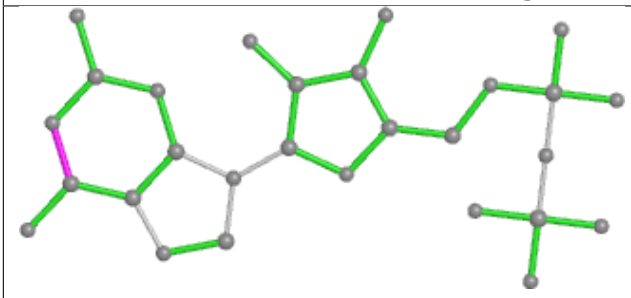


Rings

Ligand GDP I4 502



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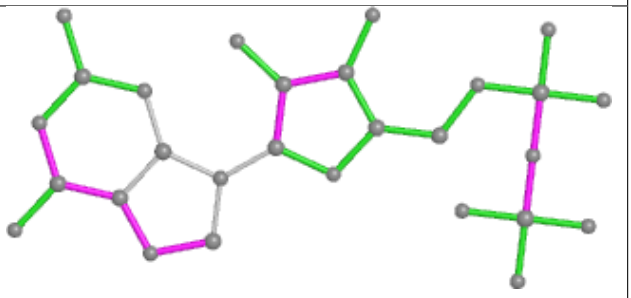

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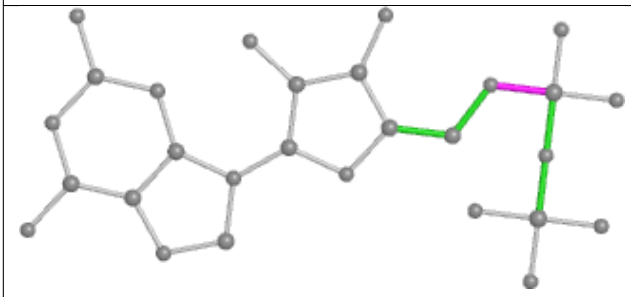

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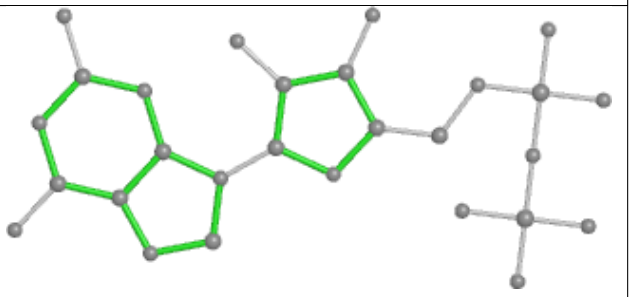
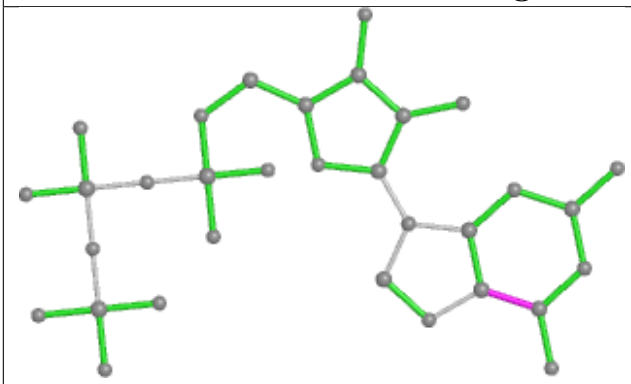


Rings

Ligand GTP A2 501



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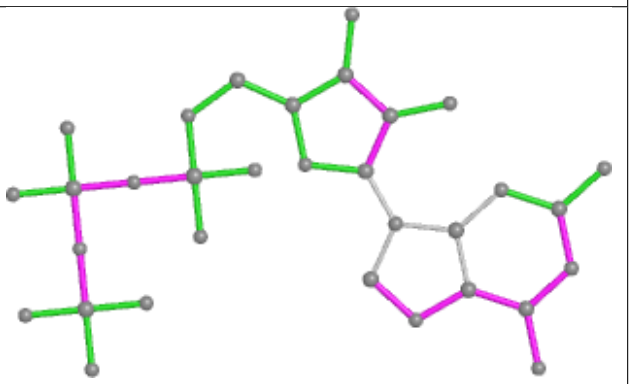

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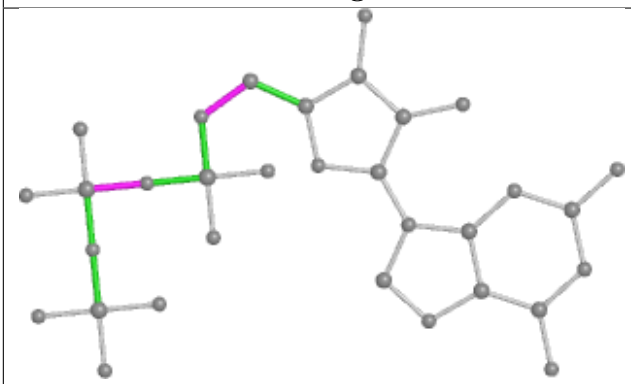

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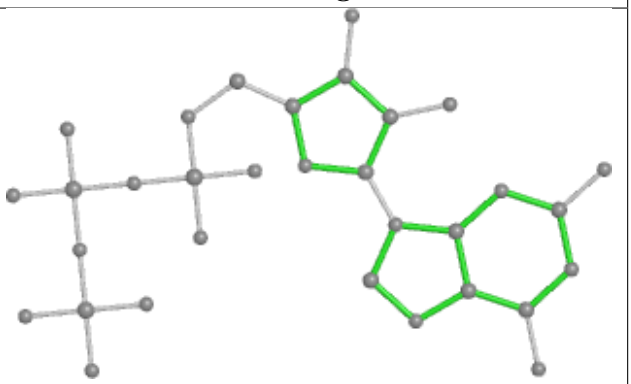
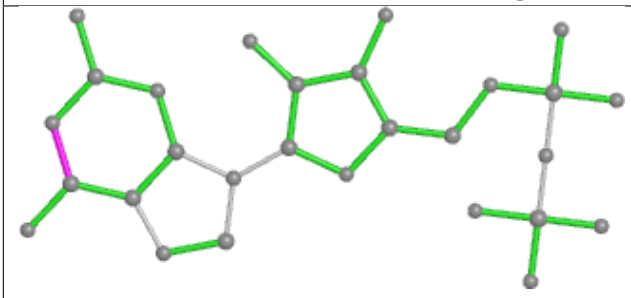
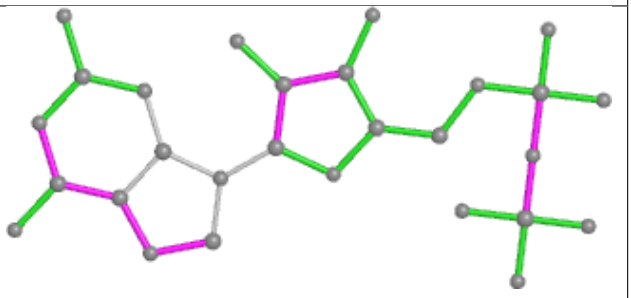
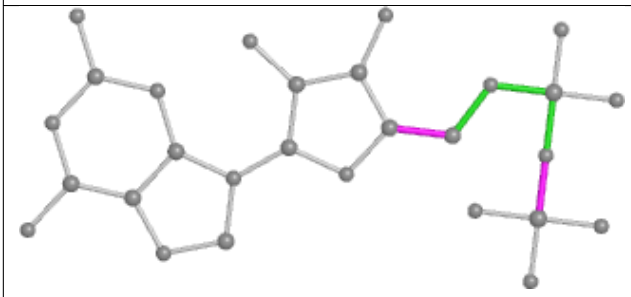
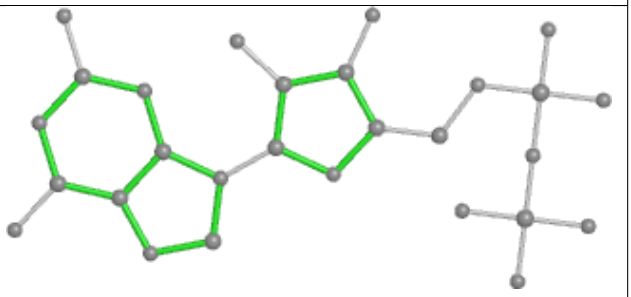
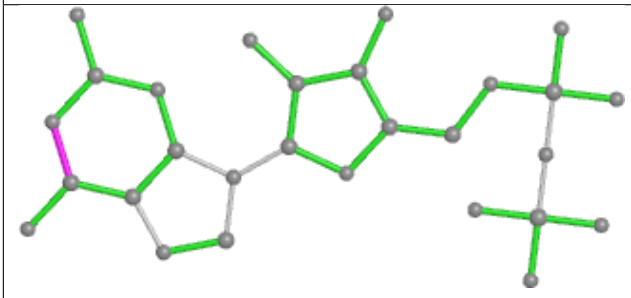
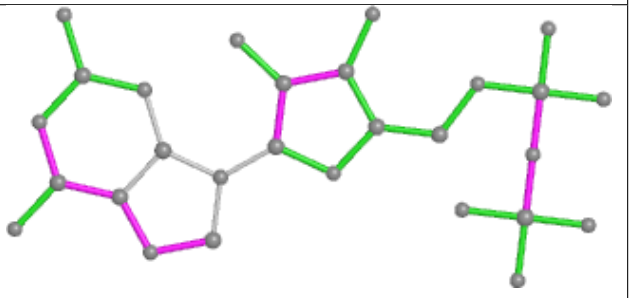
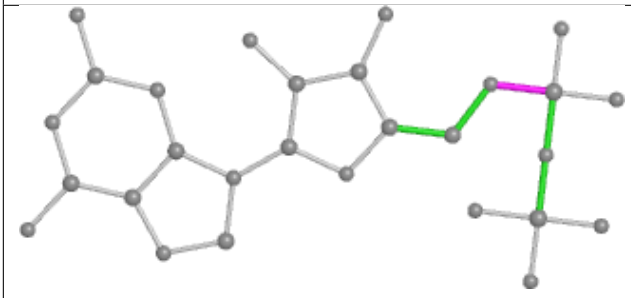
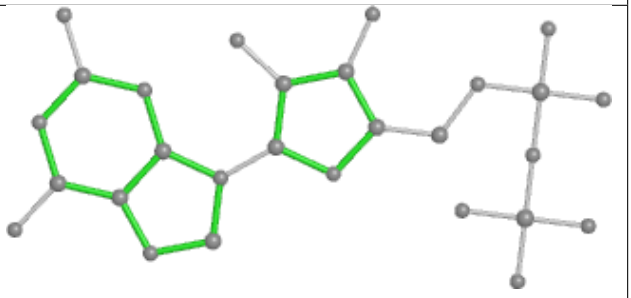
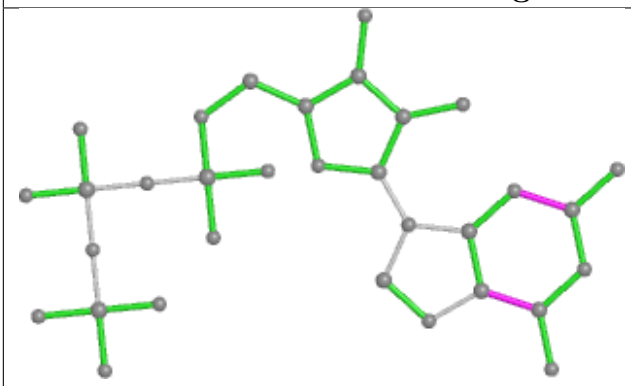


Rings

Ligand GDP 3K 503	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GDP O8 503	
 Bond lengths	 Bond angles
 Torsions	 Rings

Ligand GTP 1G 501



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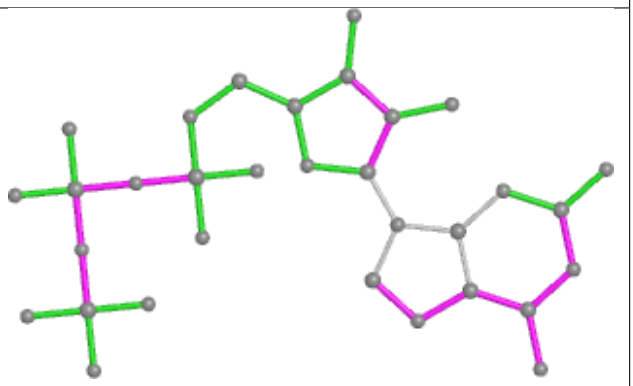

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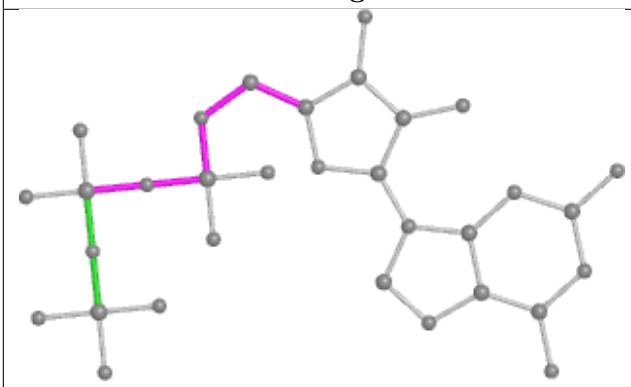

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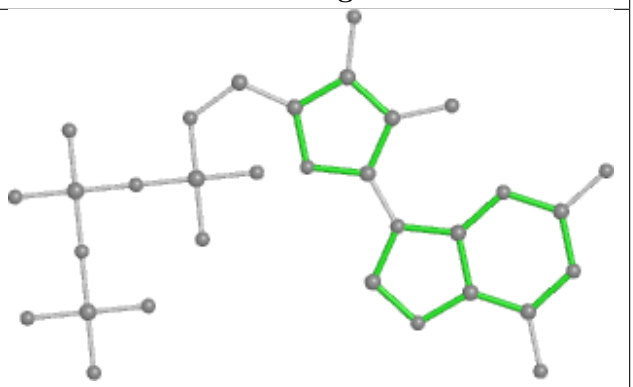
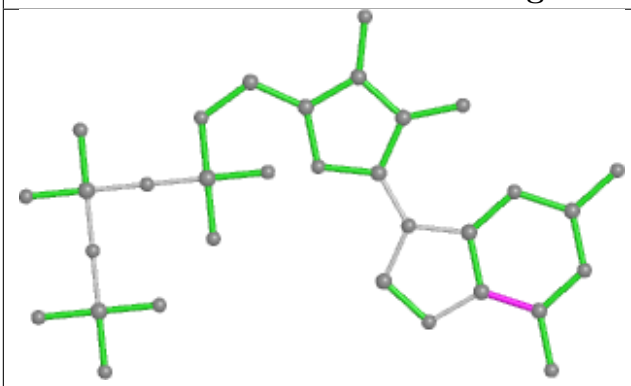


Rings

Ligand GTP 3 501



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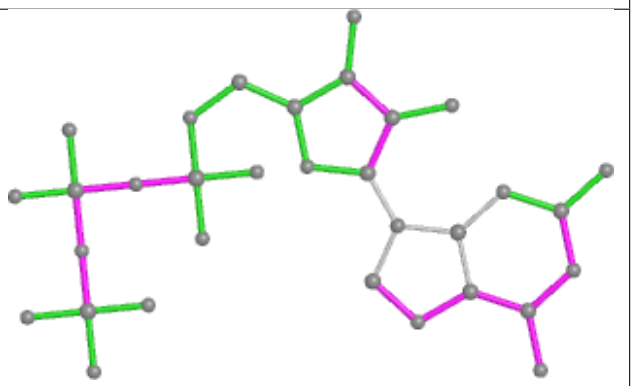

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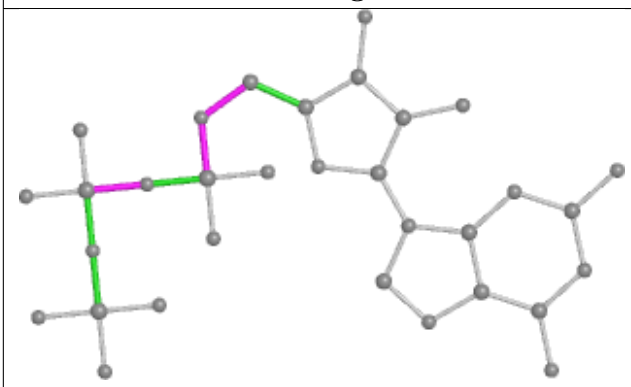

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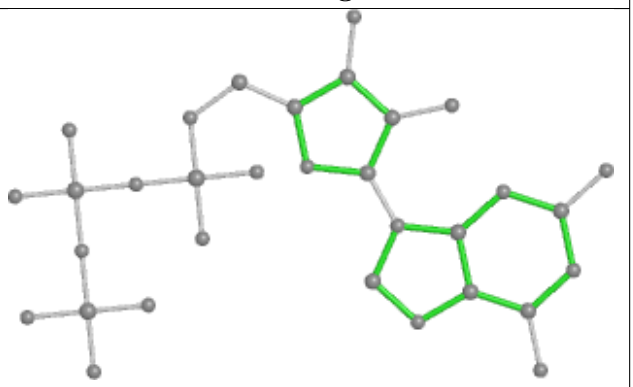
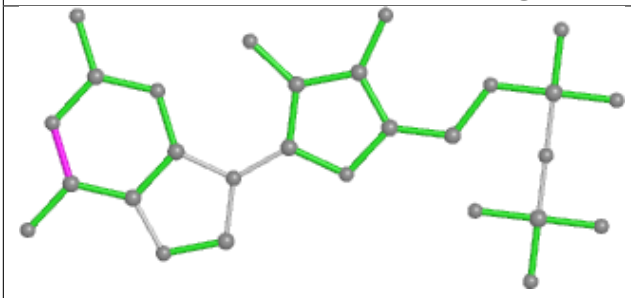
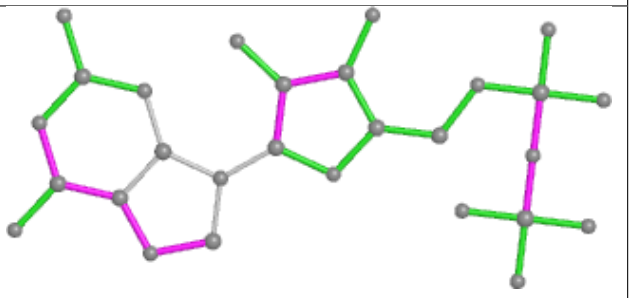
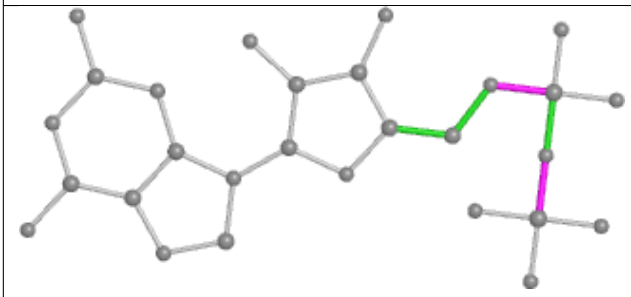
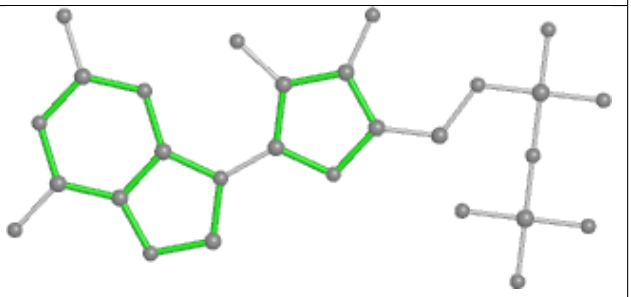
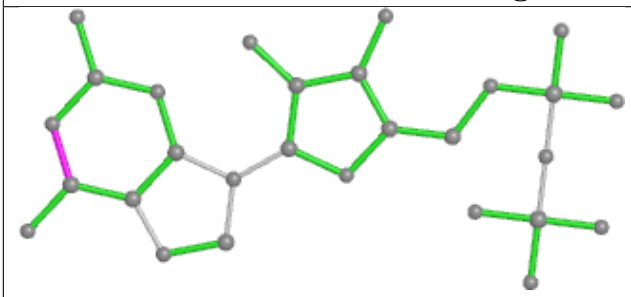
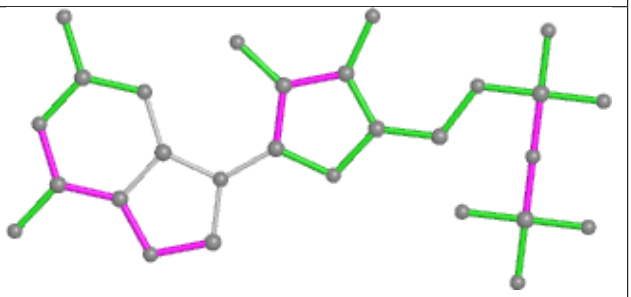
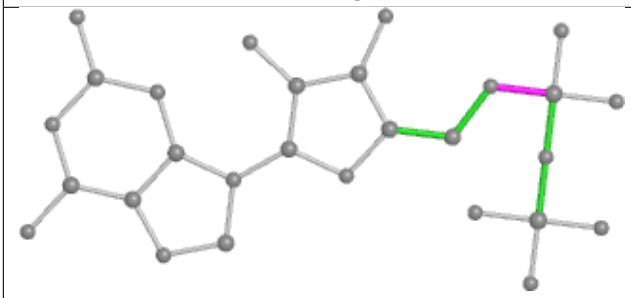
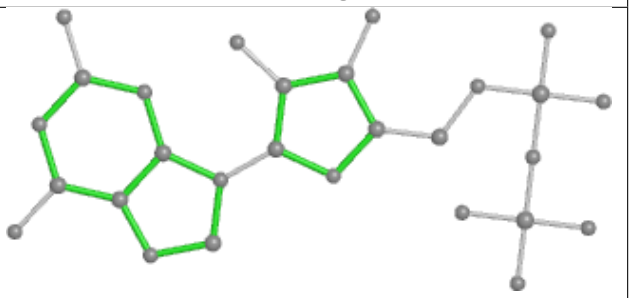
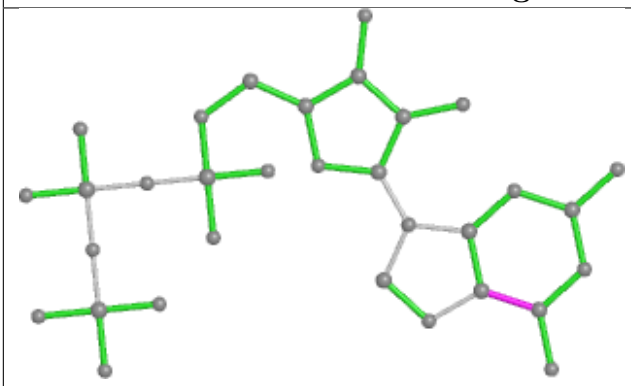


Rings

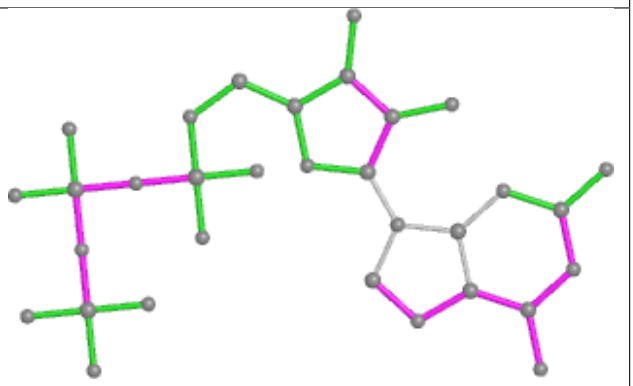
Ligand GDP S8 502	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand GDP 0Y 502	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand GTP N6 501



Bond lengths



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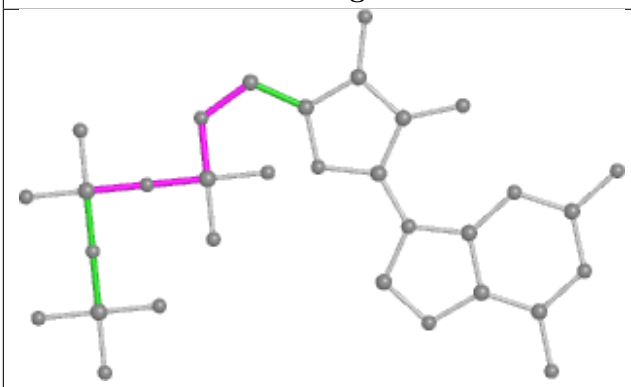
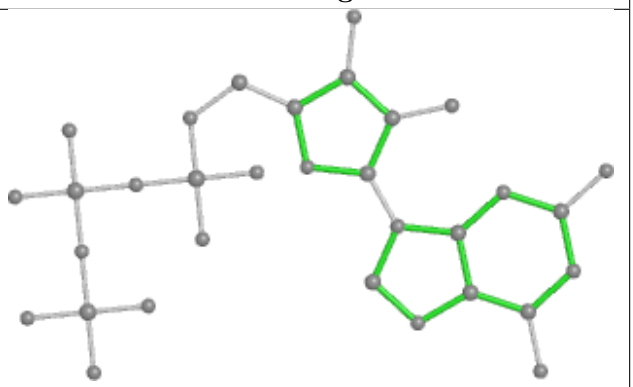
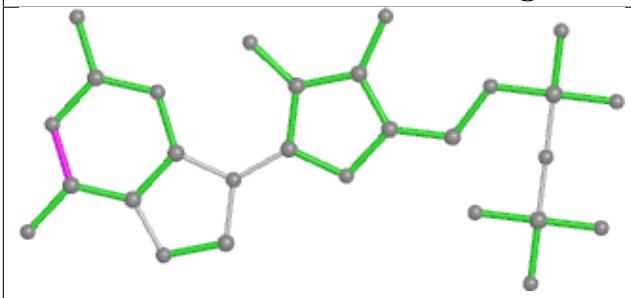


Torsions

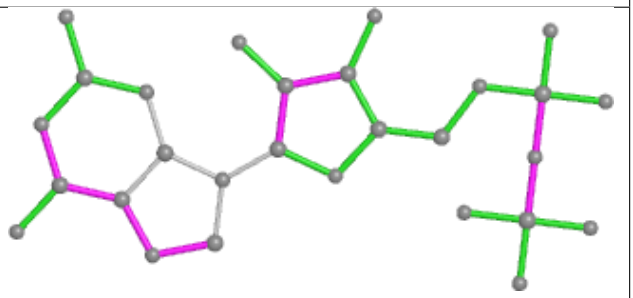


Rings

Ligand GDP I0 502



Bond lengths



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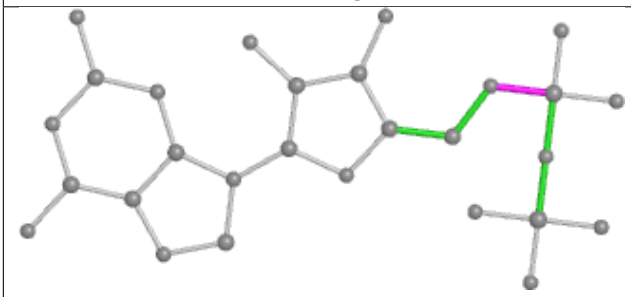
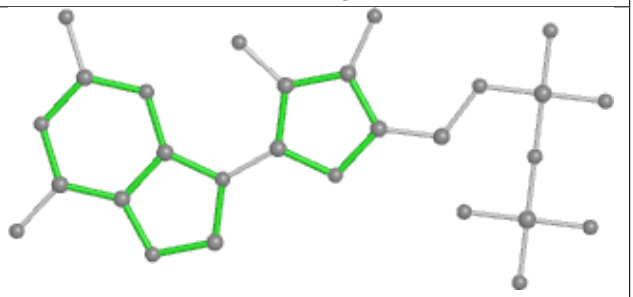
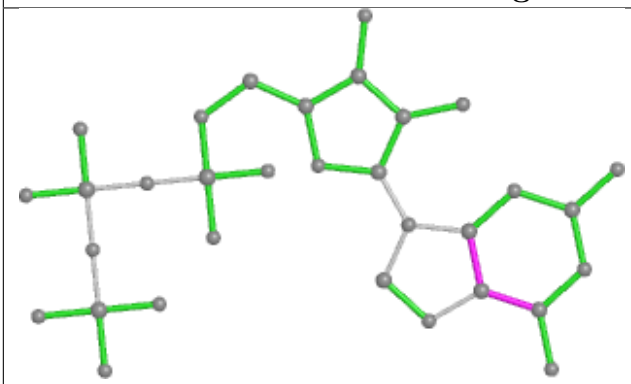


Torsions



Rings

Ligand GTP N1 501



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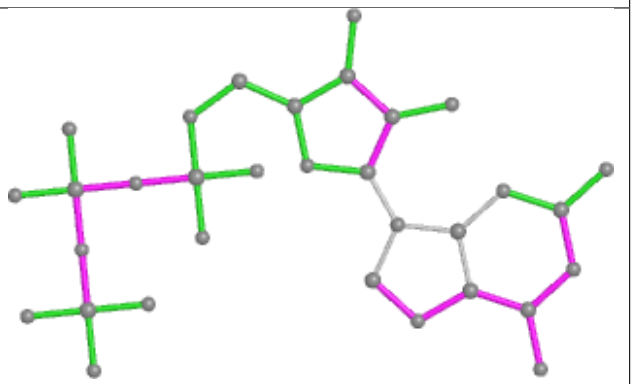

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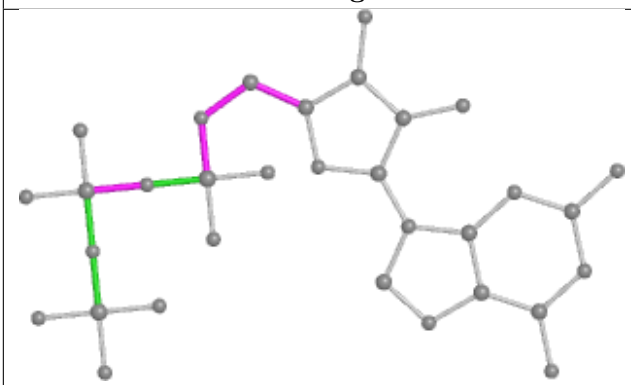

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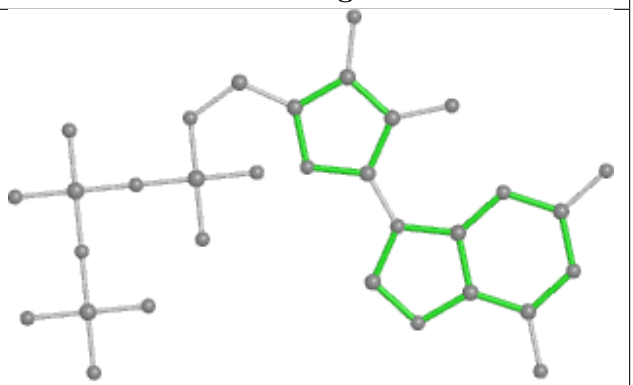
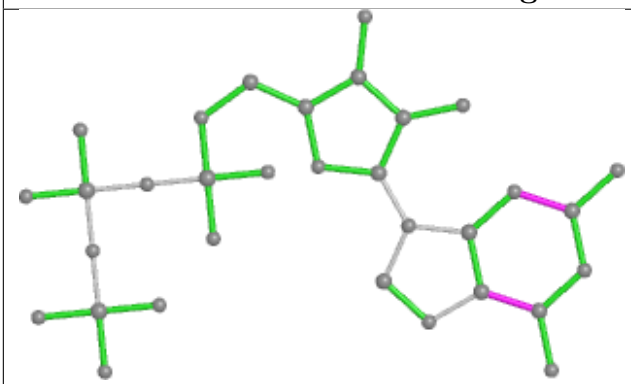


Rings

Ligand GTP I8 501



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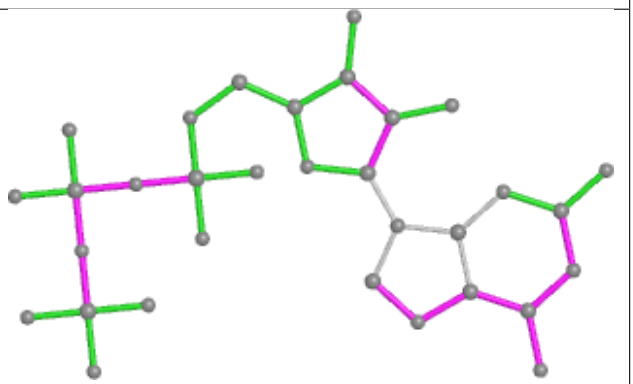

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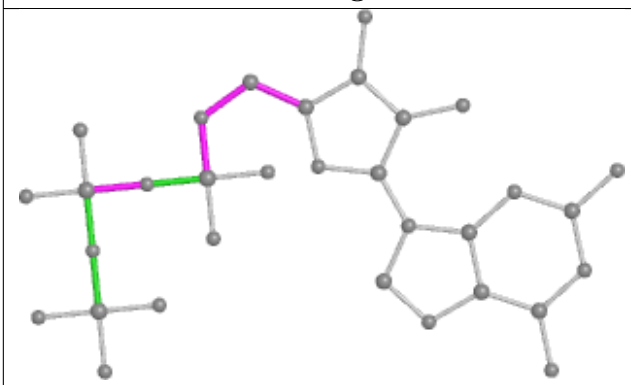

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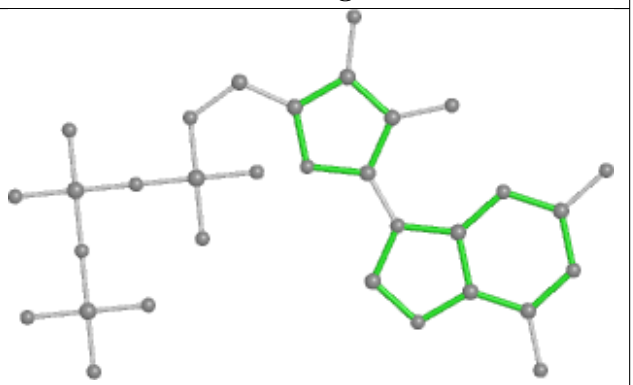
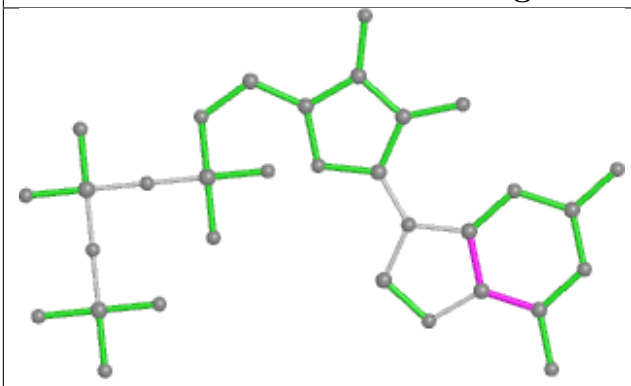


Rings

Ligand GTP C8 501



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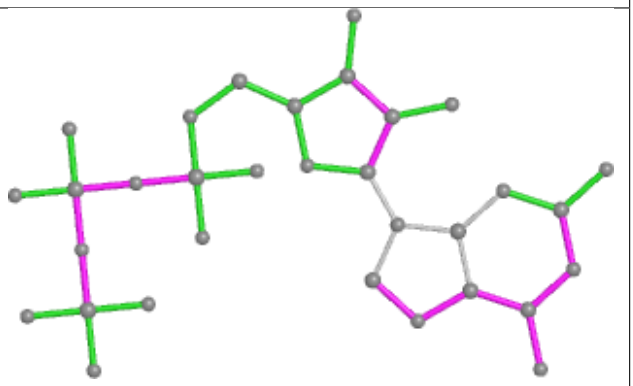

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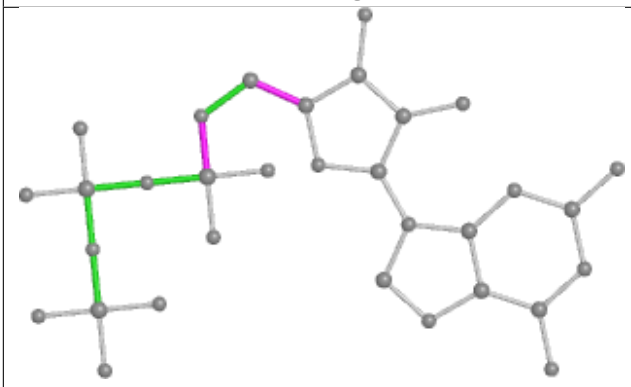

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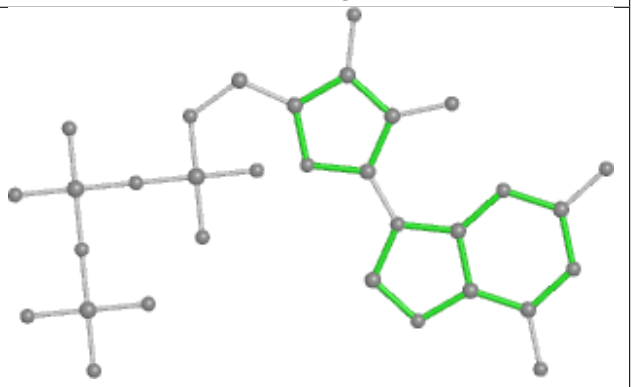
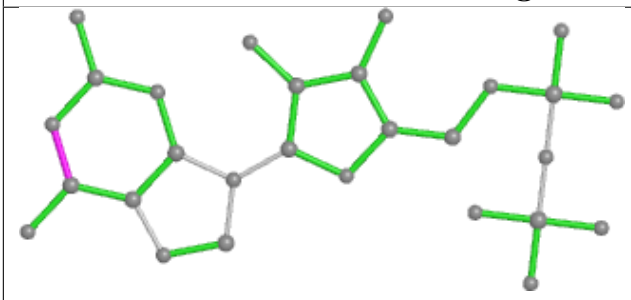


Rings

Ligand GDP 0S 502



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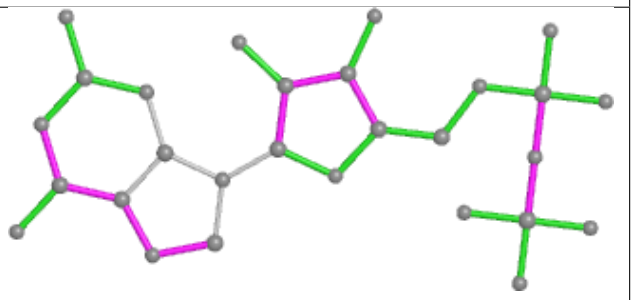

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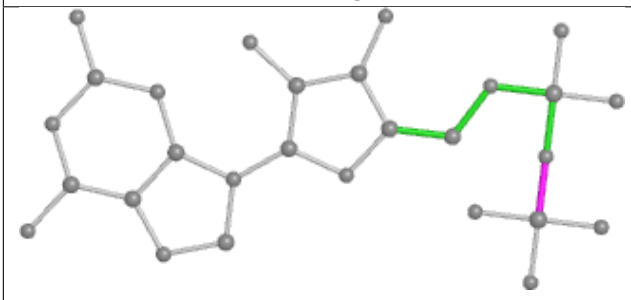

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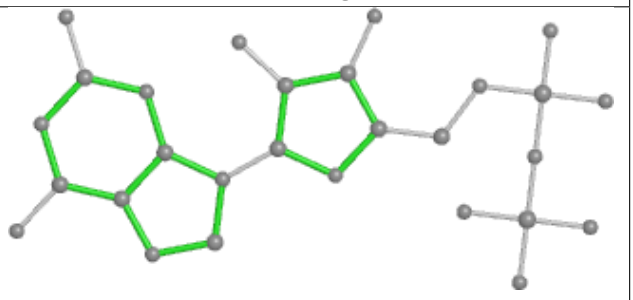
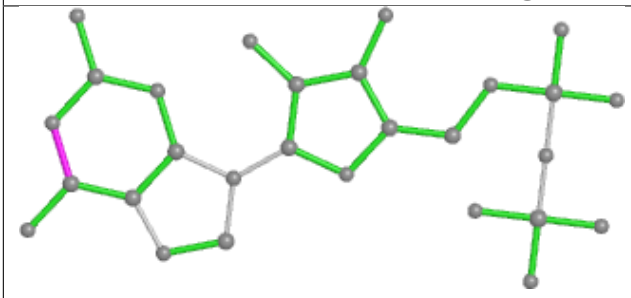


Rings

Ligand GDP 2I 502



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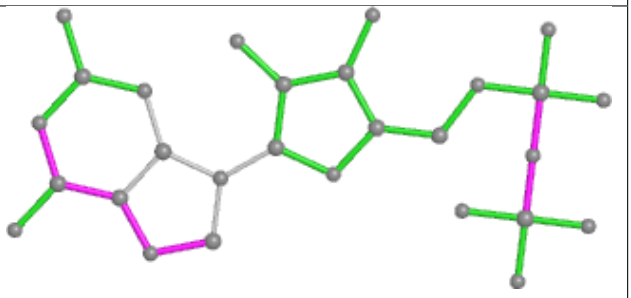

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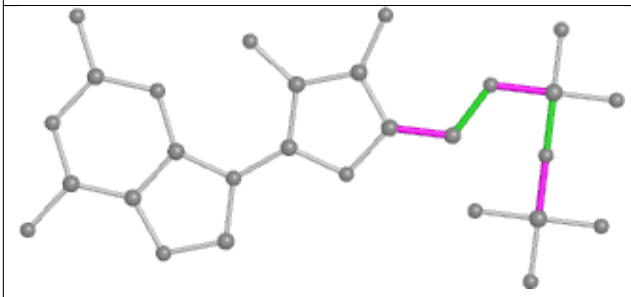

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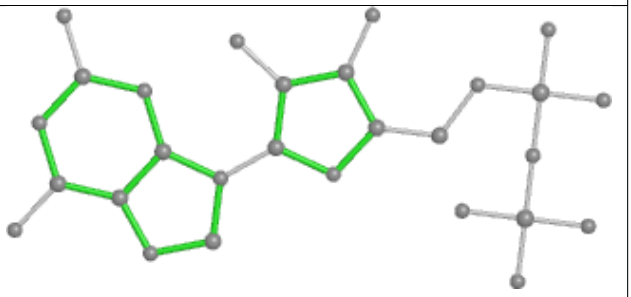

Rings

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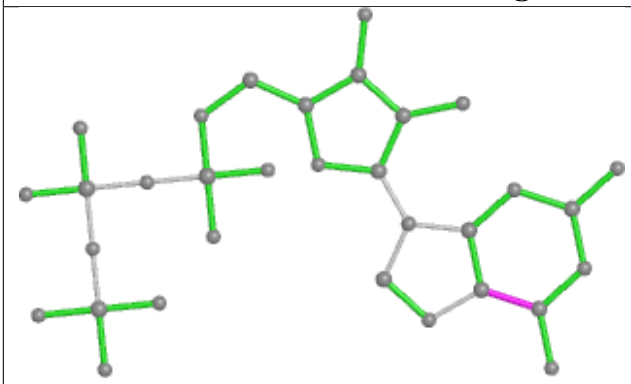

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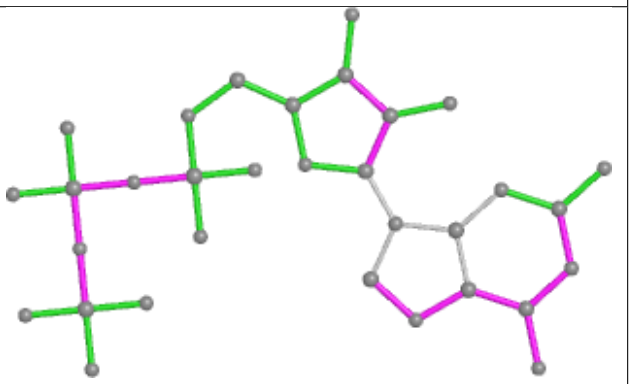

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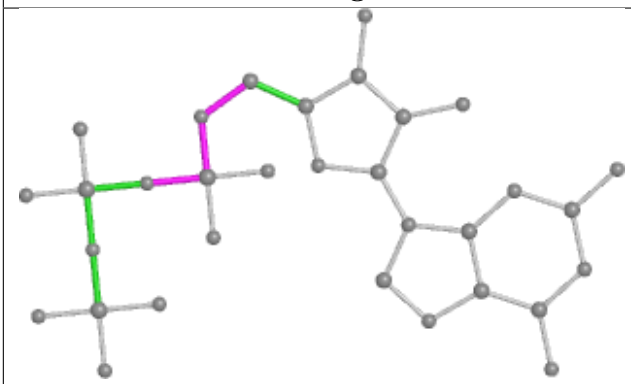

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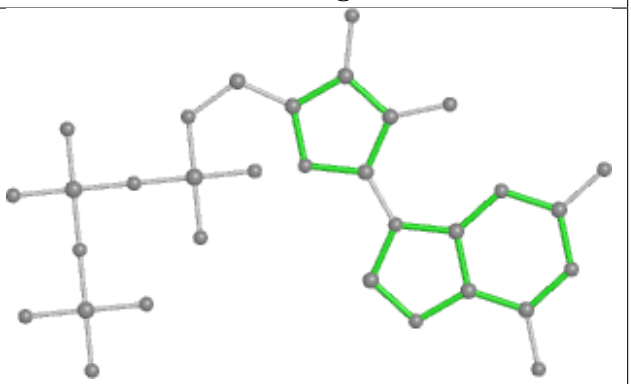

Rings

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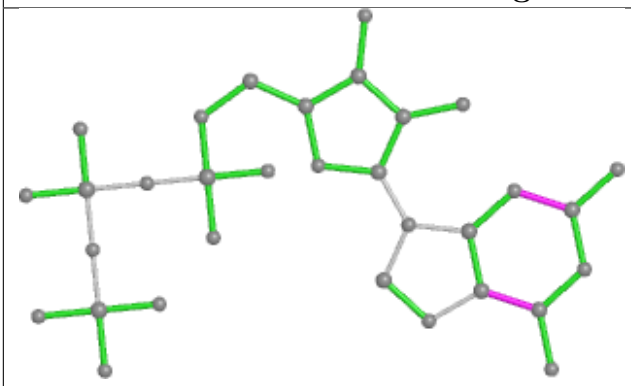

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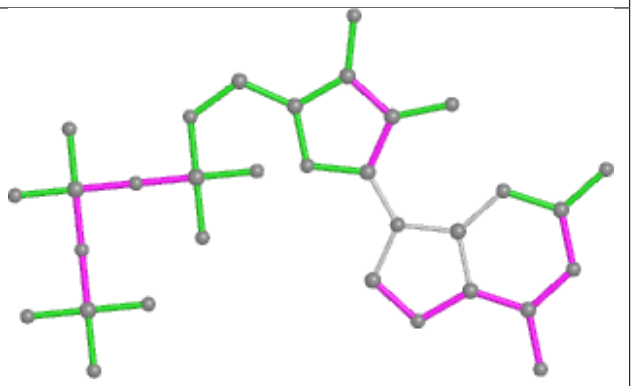

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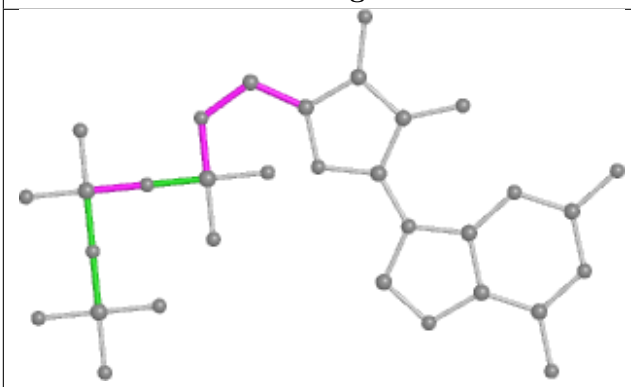

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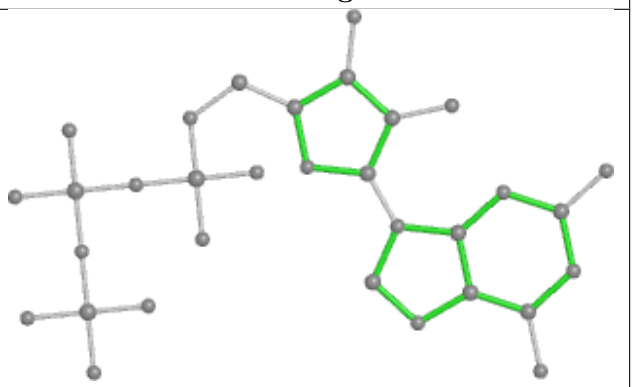
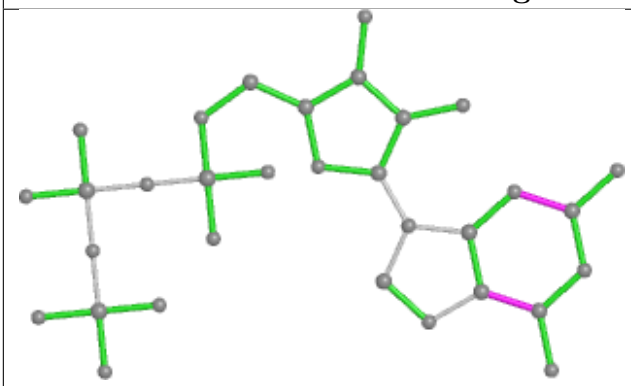


Rings

Ligand GTP U4 501



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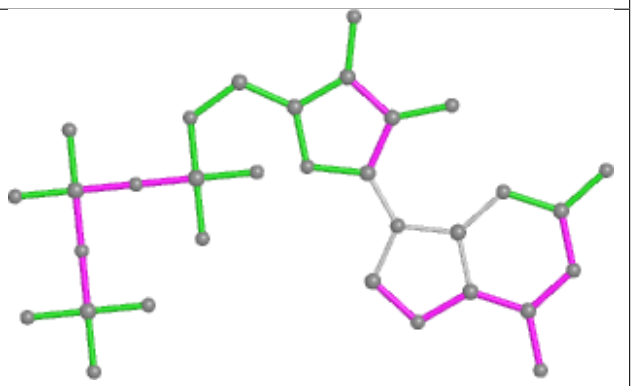

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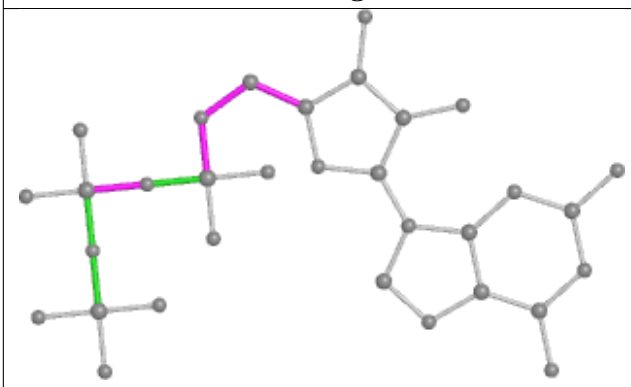

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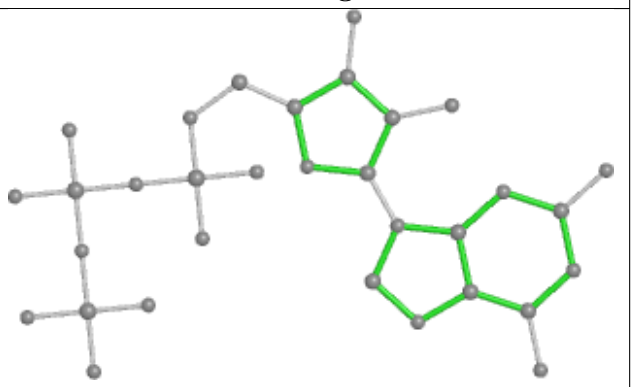
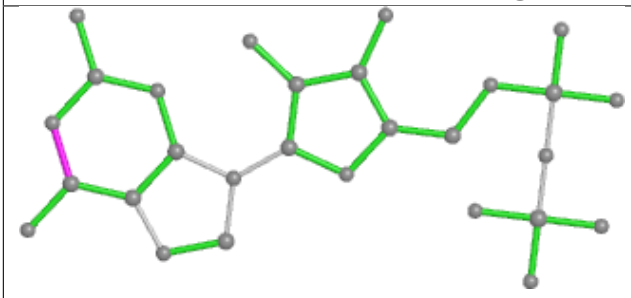


Rings

Ligand GDP G6 501



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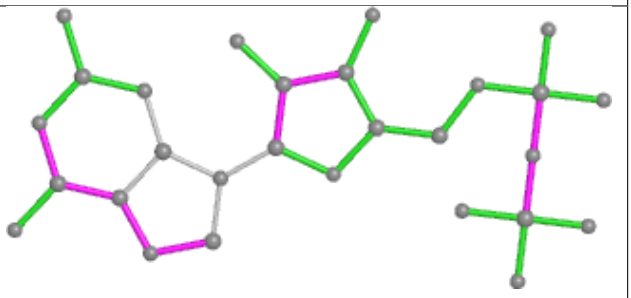

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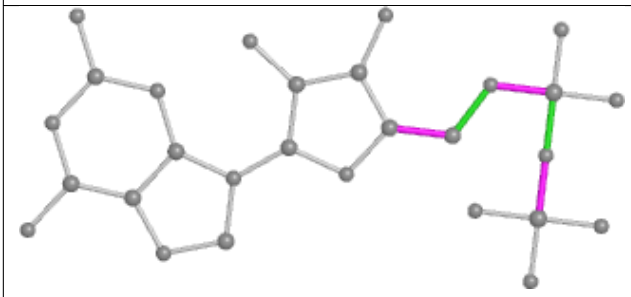

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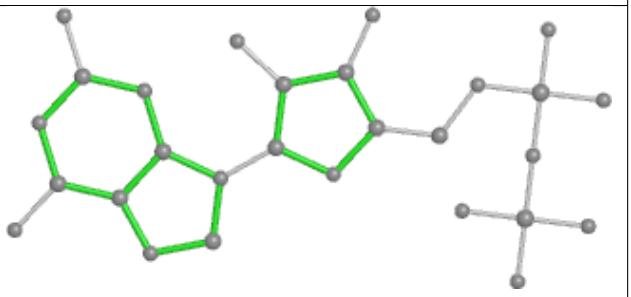
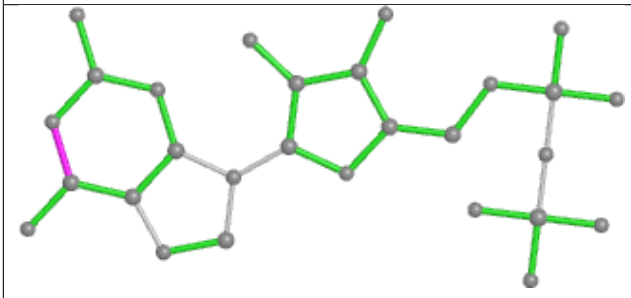


Rings

Ligand GDP 2Y 502



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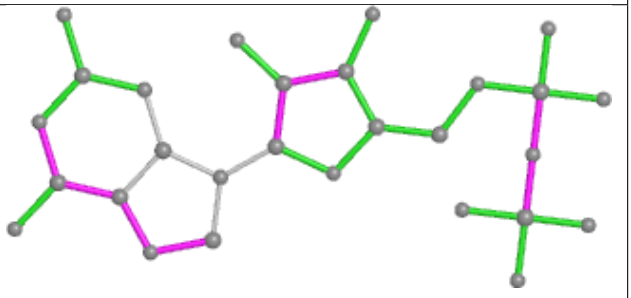

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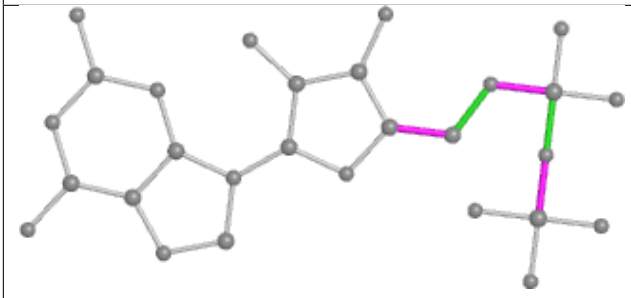

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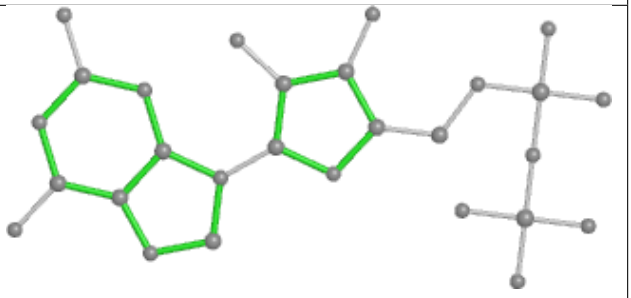
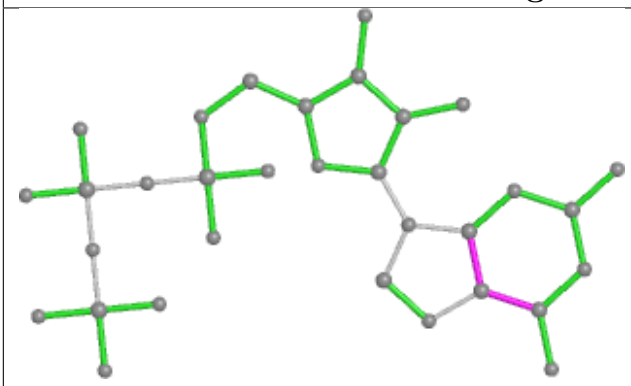


Rings

Ligand GTP 4 501



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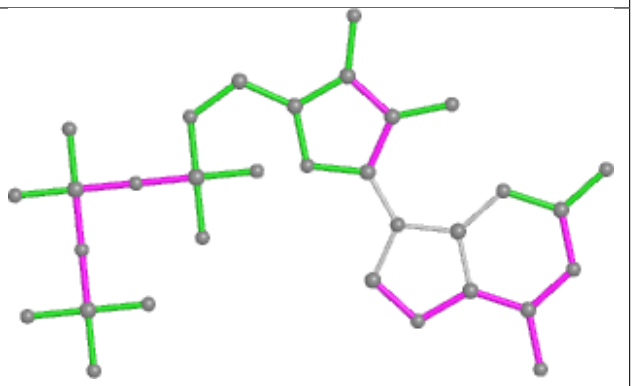

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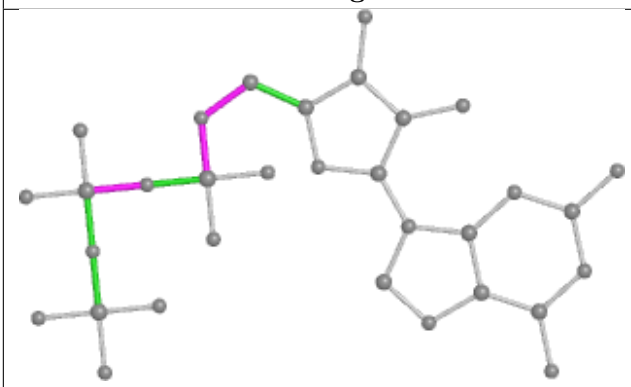

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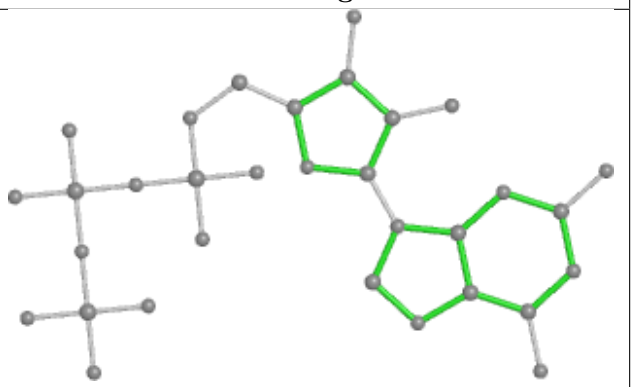
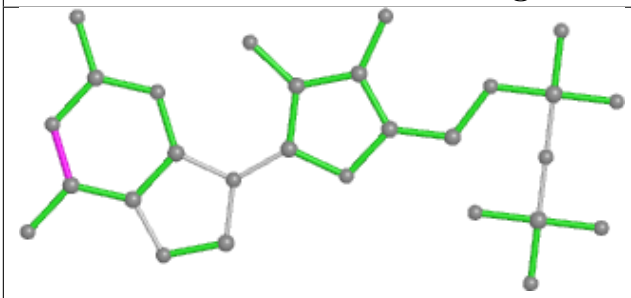


Rings

Ligand GDP Y6 502



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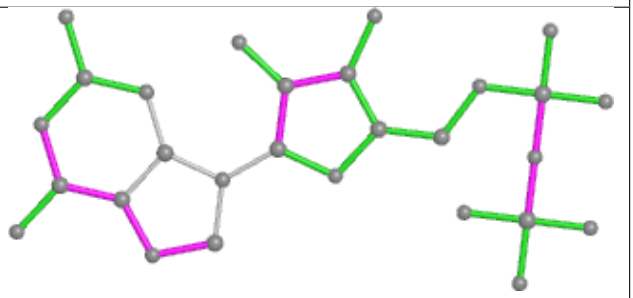

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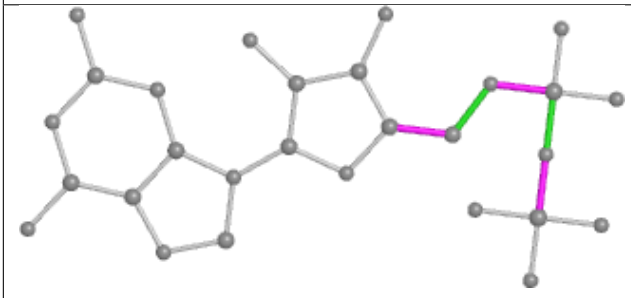

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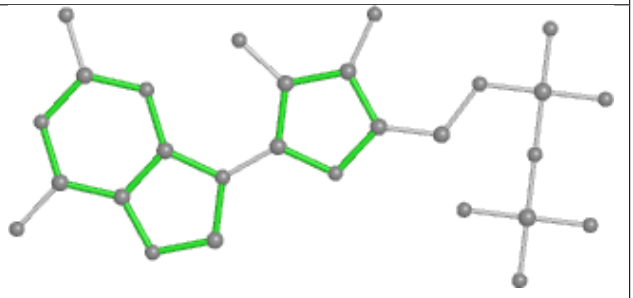
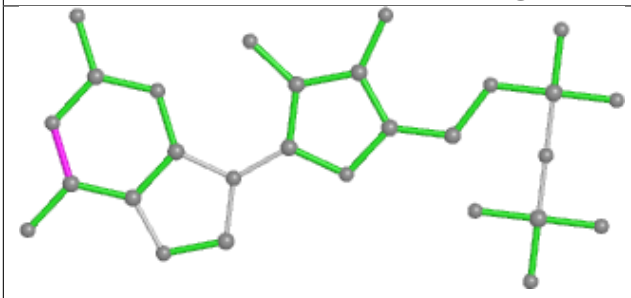


Rings

Ligand GDP X4 502



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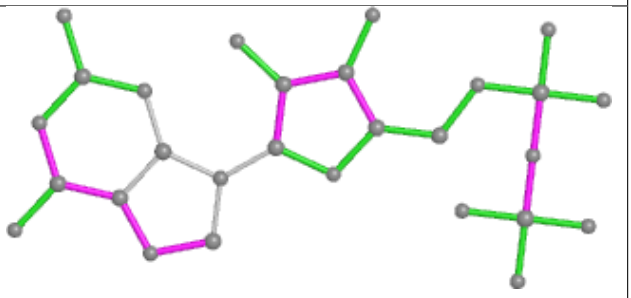

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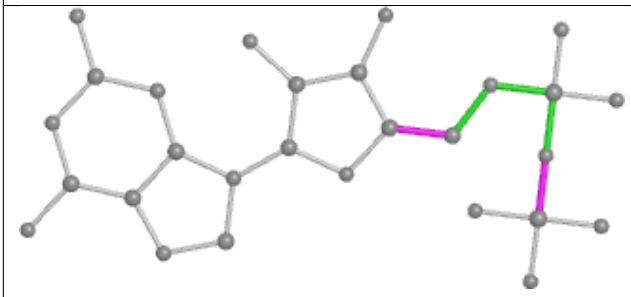

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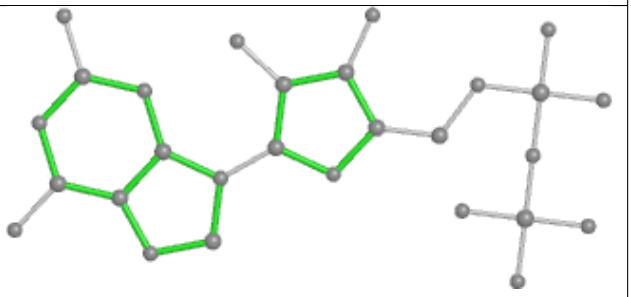
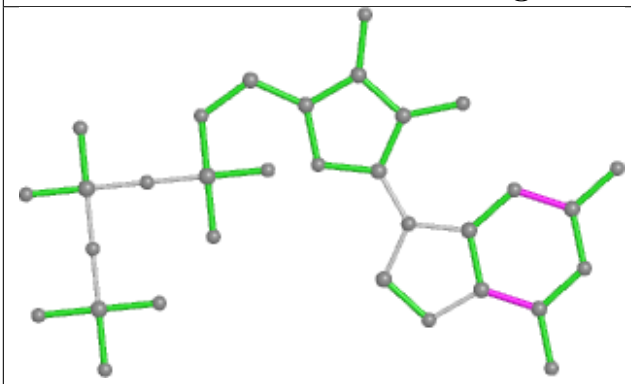


Rings

Ligand GTP 2N 501



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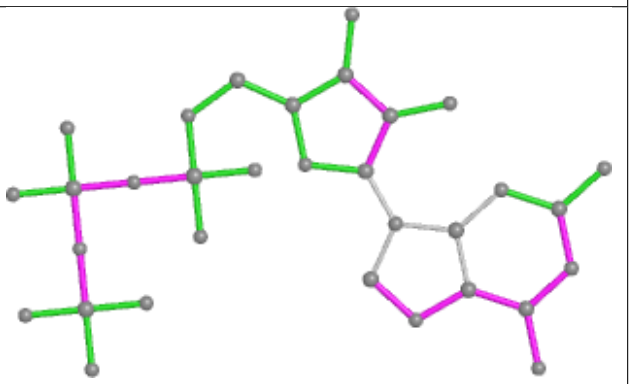
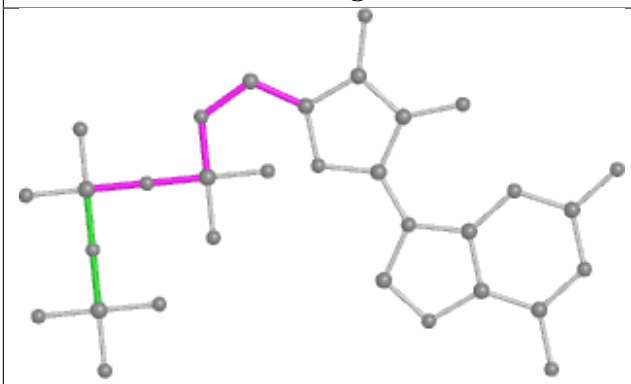
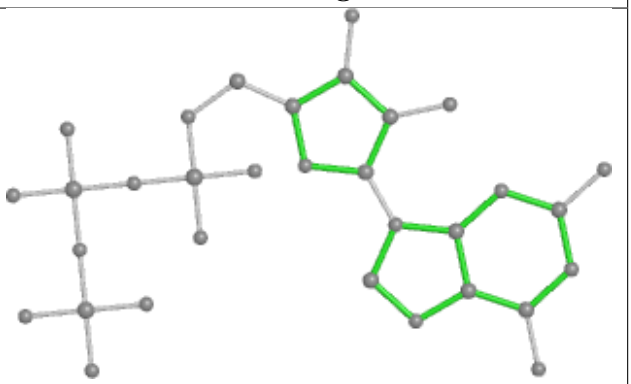


Bond angles

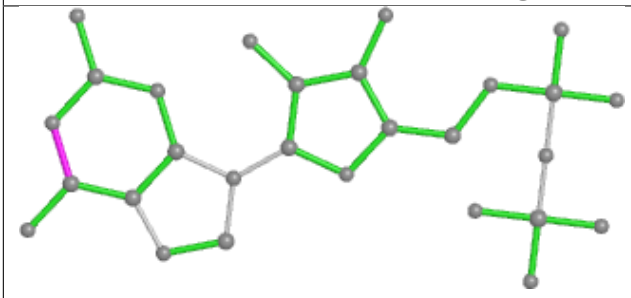


Torsions

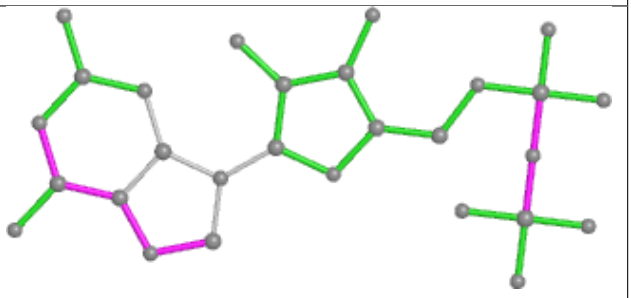


Rings

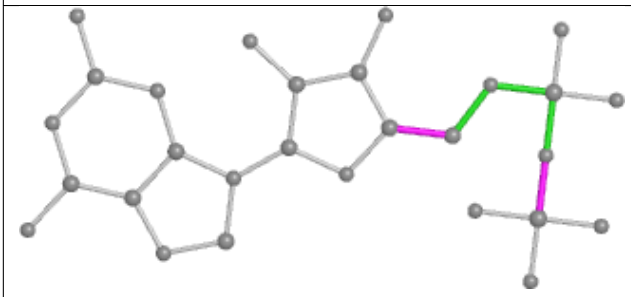
Ligand GDP Z0 502



Bond lengths



Bond angles



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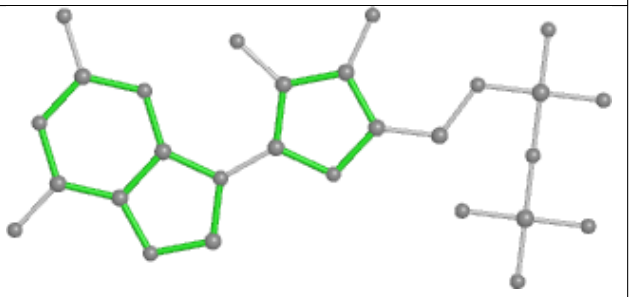
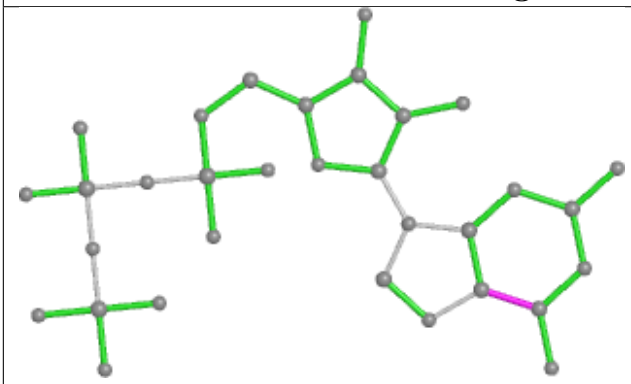
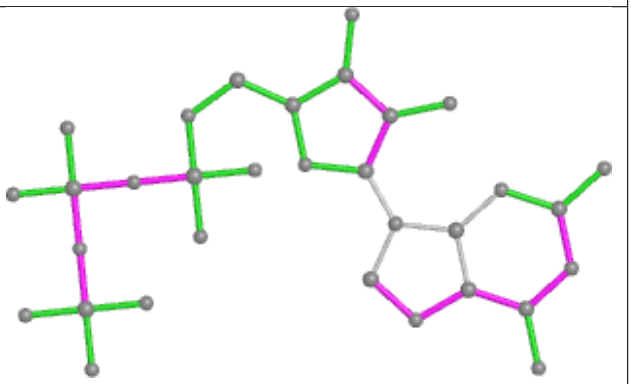


Rings

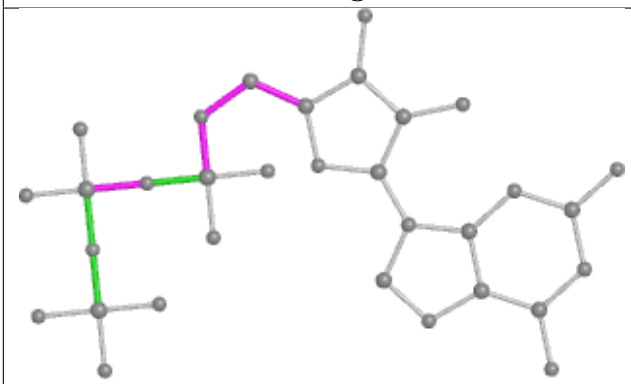
Ligand GTP Y0 501



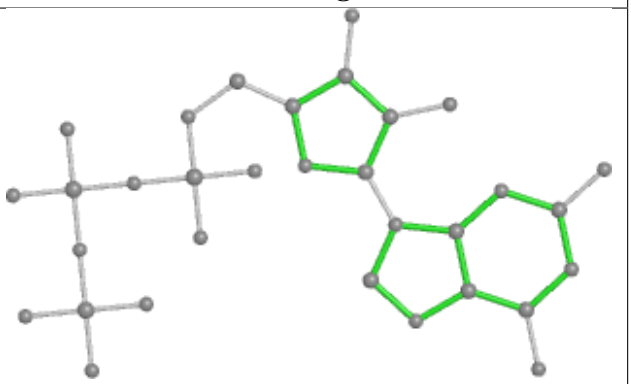
Bond lengths



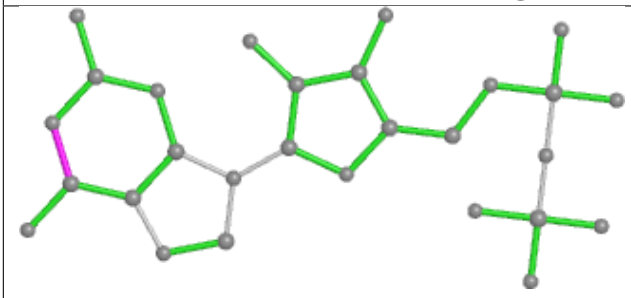
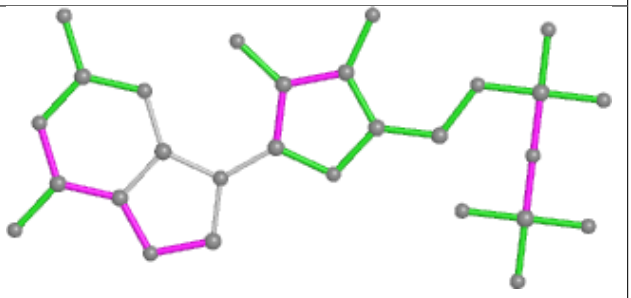
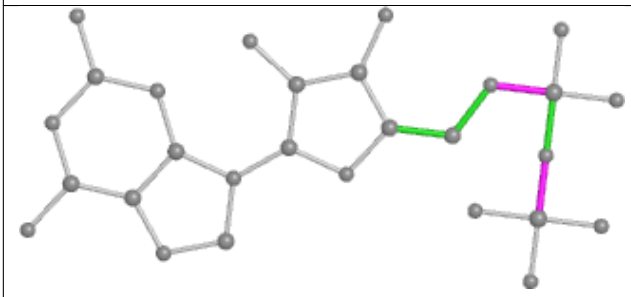
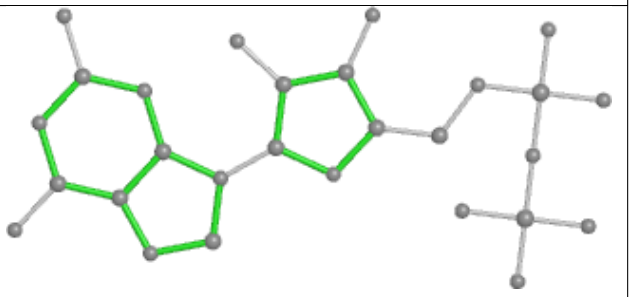
Bond angles

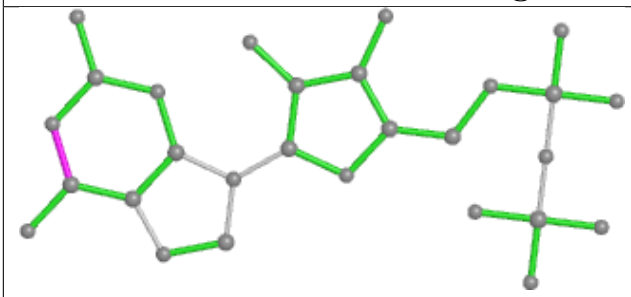
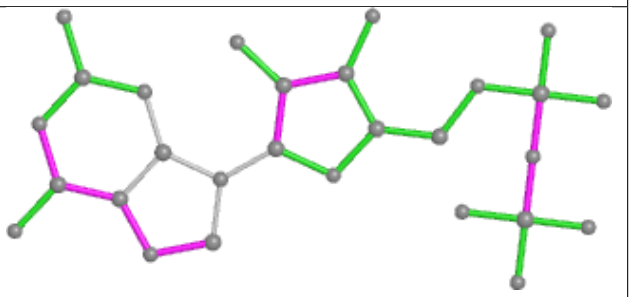
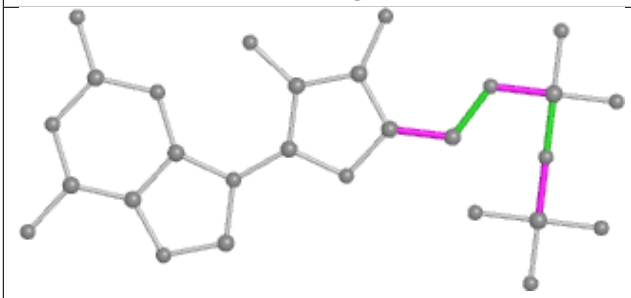
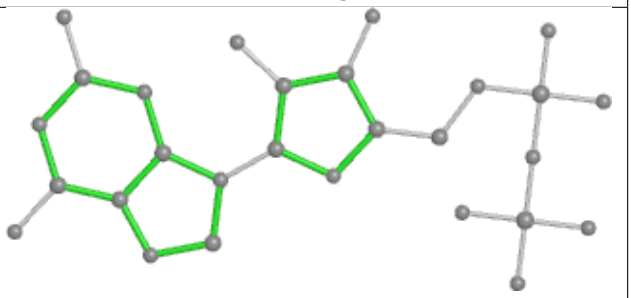


Torsions

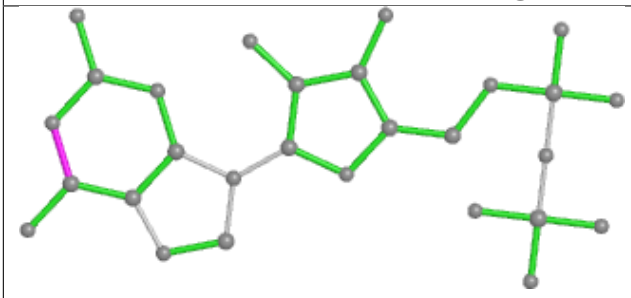


Rings

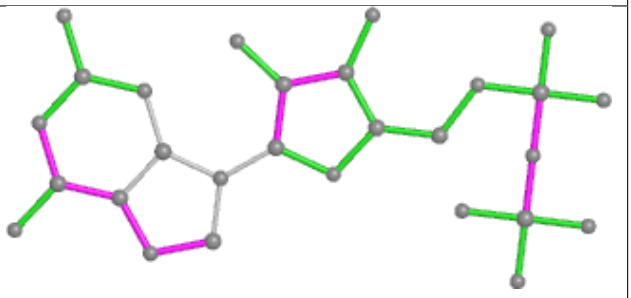
Ligand GDP R0 502	
	
Bond lengths	Bond angles
	
Torsions	Rings

Ligand GDP A1 502	
	
Bond lengths	Bond angles
	
Torsions	Rings

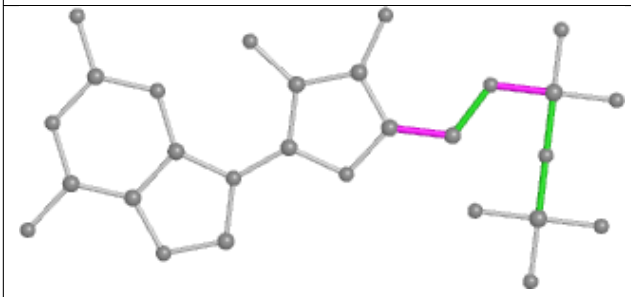
Ligand GDP 1U 501



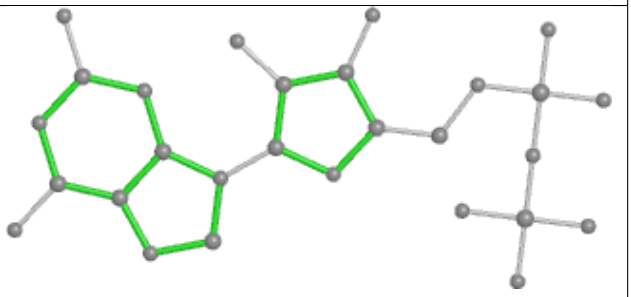
Bond lengths



Bond angles

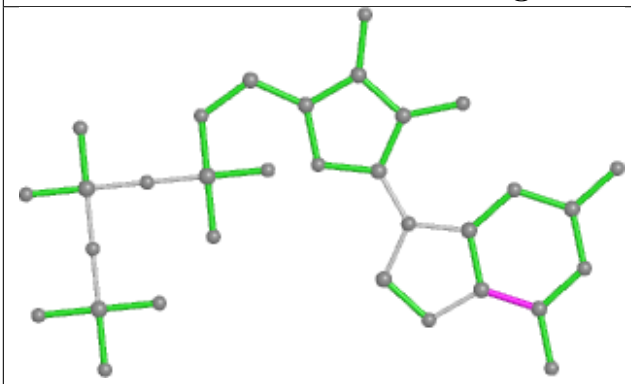


Torsions



Rings

Ligand GTP G7 501



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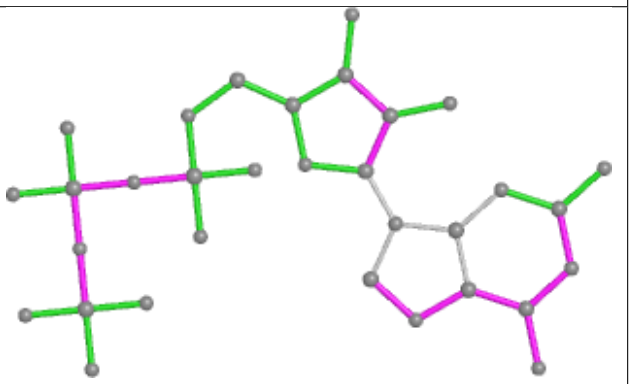
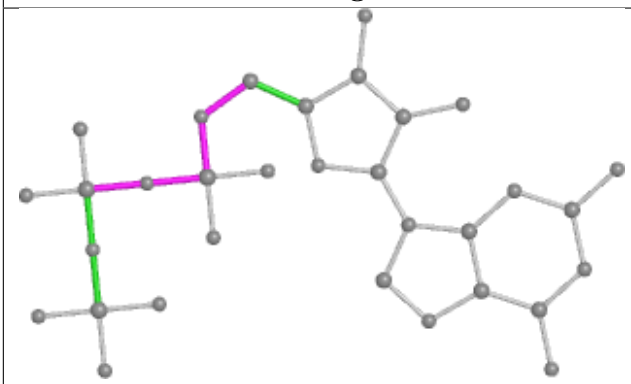


Bond angles



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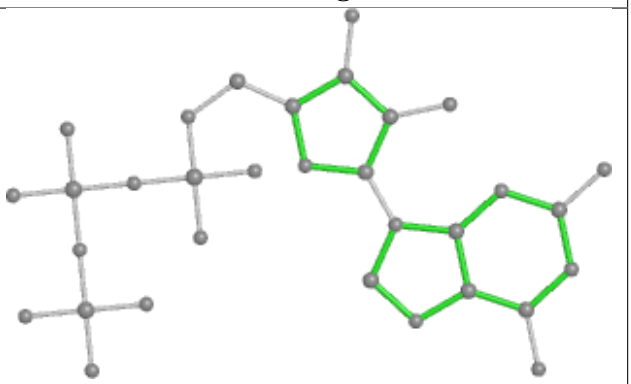
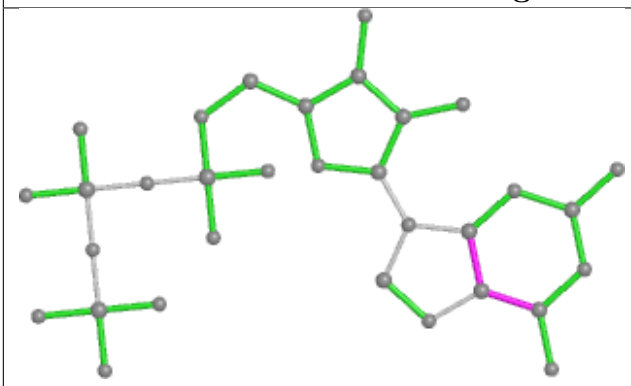


Rings

Ligand GTP D1 501



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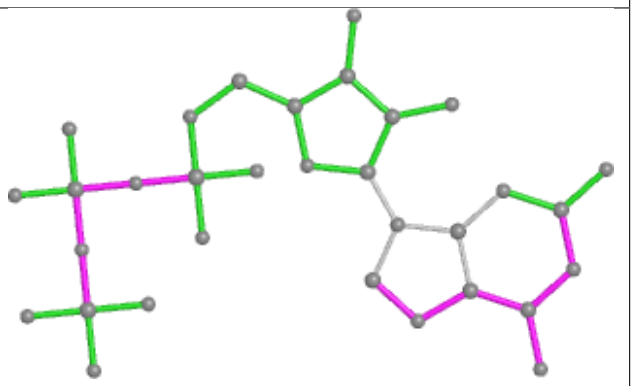
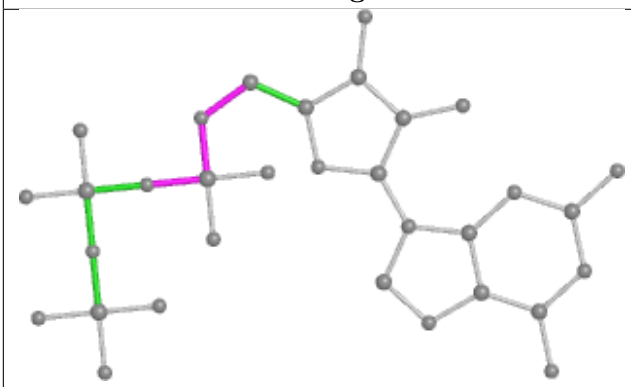


Bond angles



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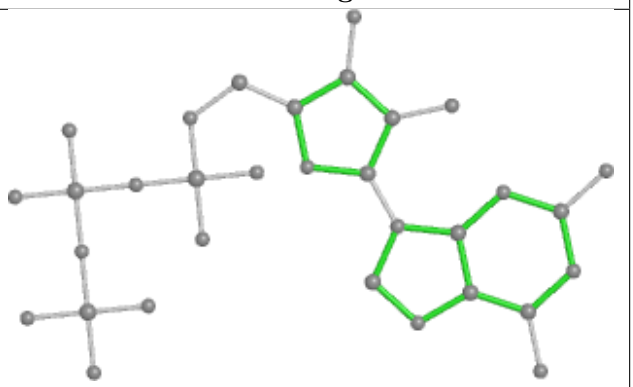
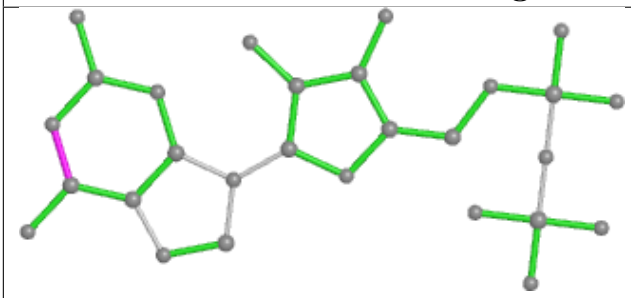


Rings

Ligand GDP K8 501



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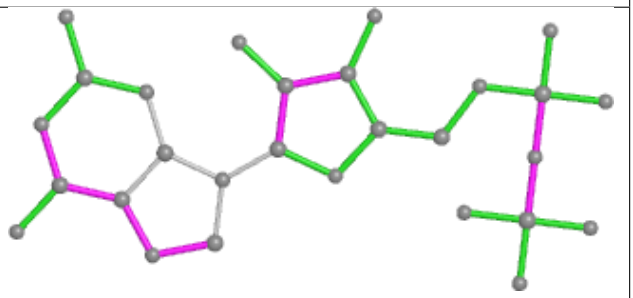
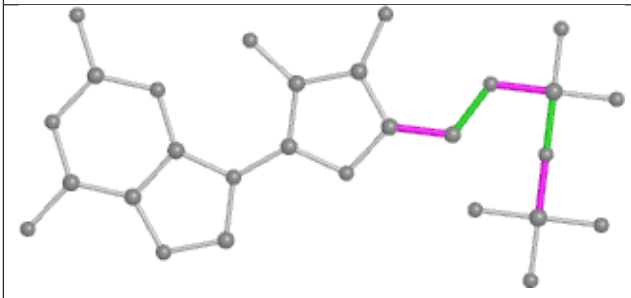


Bond angles



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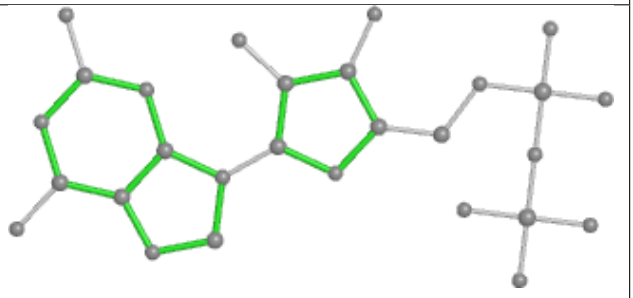
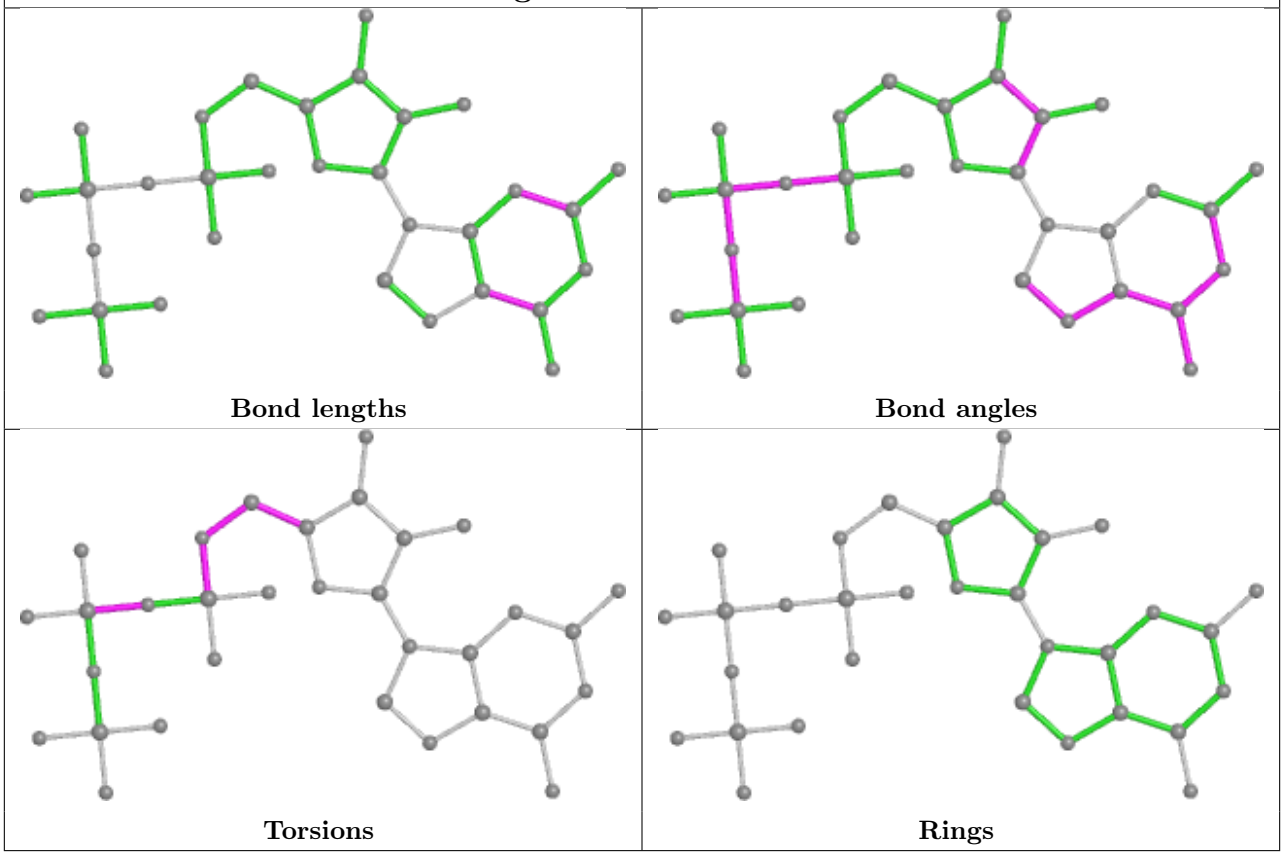


Rings

Ligand GTP V8 501



5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 Map visualisation

This section contains visualisations of the EMDB entry EMD-20631. These allow visual inspection of the internal detail of the map and identification of artifacts.

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

6.1 Orthogonal projections

This section was not generated.

6.2 Central slices

This section was not generated.

6.3 Largest variance slices

This section was not generated.

6.4 Orthogonal surface views

This section was not generated.

6.5 Mask visualisation

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

7 Map analysis

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

7.1 Map-value distribution

This section was not generated.

7.2 Volume estimate versus contour level

This section was not generated.

7.3 Rotationally averaged power spectrum

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

8 Fourier-Shell correlation

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

9 Map-model fit

This section was not generated.