



# wwPDB X-ray Structure Validation Summary Report ⓘ

Sep 1, 2025 – 10:40 AM JST

PDB ID : 9JGF / pdb\_00009jgf  
Title : Crystal structure of Human Serum Albumin (HSA) complexed with Ebselen  
Authors : Maji, S.; Shukla, M.; Yadav, V.K.; Bhattacharyya, S.  
Deposited on : 2024-09-06  
Resolution : 2.20 Å(reported)

This is a wwPDB X-ray Structure Validation Summary Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity : 4-5-2 with Phenix2.0rc1  
Mogul : 1.8.5 (274361), CSD as541be (2020)  
Xtriage (Phenix) : 2.0rc1  
EDS : 3.0  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
CCP4 : 9.0.006 (Gargrove)  
Density-Fitness : 1.0.12  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.45.1

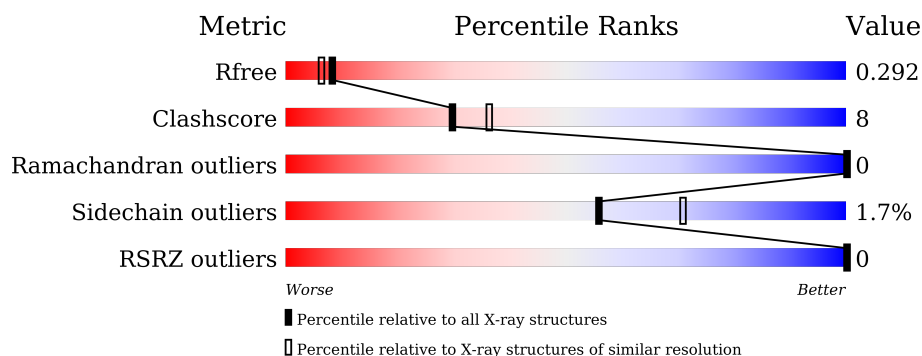
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 2.20 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)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	164625	5791 (2.20-2.20)
Clashscore	180529	6634 (2.20-2.20)
Ramachandran outliers	177936	6560 (2.20-2.20)
Sidechain outliers	177891	6561 (2.20-2.20)
RSRZ outliers	164620	5791 (2.20-2.20)

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

Mol	Chain	Length	Quality of chain
1	A	609	<div> <div style="width: 81%; background-color: green;"></div> <div style="width: 14%; background-color: yellow;"></div> <div style="width: 5%; background-color: grey;"></div> <div>81% 14% .</div> </div>
1	B	609	<div> <div style="width: 74%; background-color: green;"></div> <div style="width: 21%; background-color: yellow;"></div> <div style="width: 5%; background-color: grey;"></div> <div>74% 21% . .</div> </div>

## 2 Entry composition [i](#)

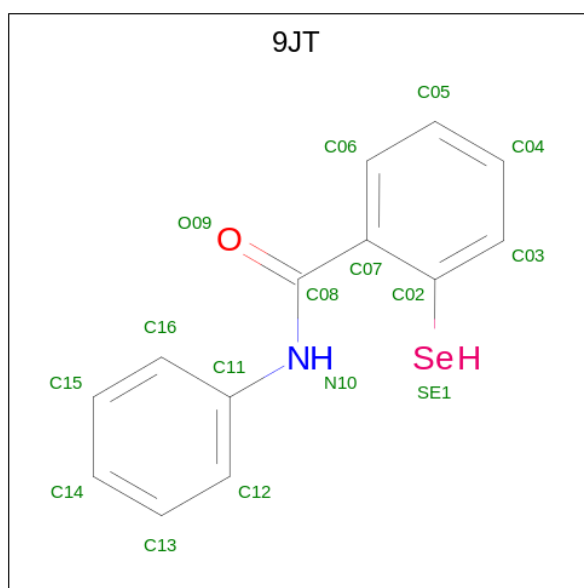
There are 5 unique types of molecules in this entry. The entry contains 10077 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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 Albumin.

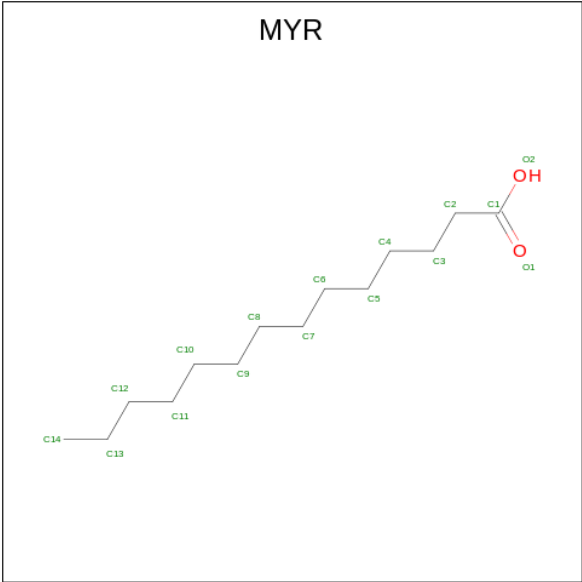
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	582	Total	C	N	O	S	0	0	0
			4630	2923	783	883	41			
1	B	582	Total	C	N	O	S	0	1	0
			4636	2928	784	883	41			

- Molecule 2 is N-phenyl-2-selanylbenzamide (CCD ID: 9JT) (formula: C<sub>13</sub>H<sub>11</sub>NOSe) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
2	A	1	Total	C	N	O	Se	0	0
			16	13	1	1	1		
2	B	1	Total	C	N	O	Se	0	0
			16	13	1	1	1		

- Molecule 3 is MYRISTIC ACID (CCD ID: MYR) (formula: C<sub>14</sub>H<sub>28</sub>O<sub>2</sub>) (labeled as "Ligand of Interest" by depositor).



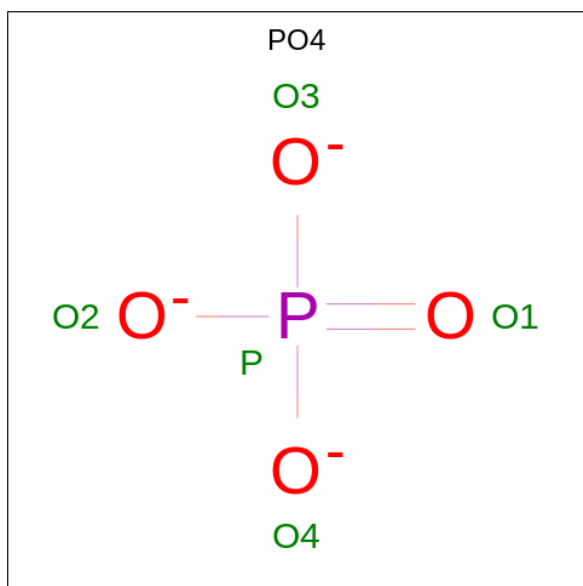
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	A	1	Total	C	O	0	0
			16	14	2		
3	A	1	Total	C	O	0	0
			16	14	2		
3	A	1	Total	C	O	0	0
			16	14	2		
3	A	1	Total	C	O	0	0
			16	14	2		
3	A	1	Total	C	O	0	0
			16	14	2		
3	A	1	Total	C	O	0	0
			16	14	2		
3	A	1	Total	C	O	0	0
			16	14	2		
3	B	1	Total	C	O	0	0
			16	14	2		
3	B	1	Total	C	O	0	0
			16	14	2		
3	B	1	Total	C	O	0	0
			16	14	2		

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Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
3	B	1	Total	C	O	0	0
			16	14	2		
3	B	1	Total	C	O	0	0
			16	14	2		
3	B	1	Total	C	O	0	0
			16	14	2		
3	B	1	Total	C	O	0	0
			16	14	2		
3	B	1	Total	C	O	0	0
			16	14	2		
3	B	1	Total	C	O	0	0
			16	14	2		
3	B	1	Total	C	O	0	0
			16	14	2		

- Molecule 4 is PHOSPHATE ION (CCD ID: PO4) (formula: O<sub>4</sub>P).



Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
4	B	1	Total	O	P	0	0
			5	4	1		
4	B	1	Total	O	P	0	0
			5	4	1		

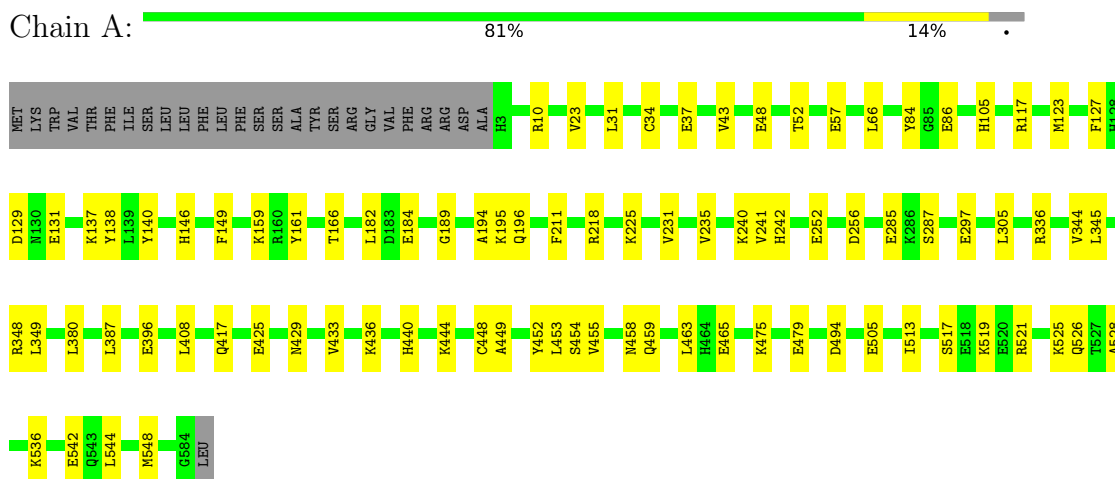
- Molecule 5 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
5	A	213	Total 213	O 213	0	0
5	B	204	Total 204	O 204	0	0

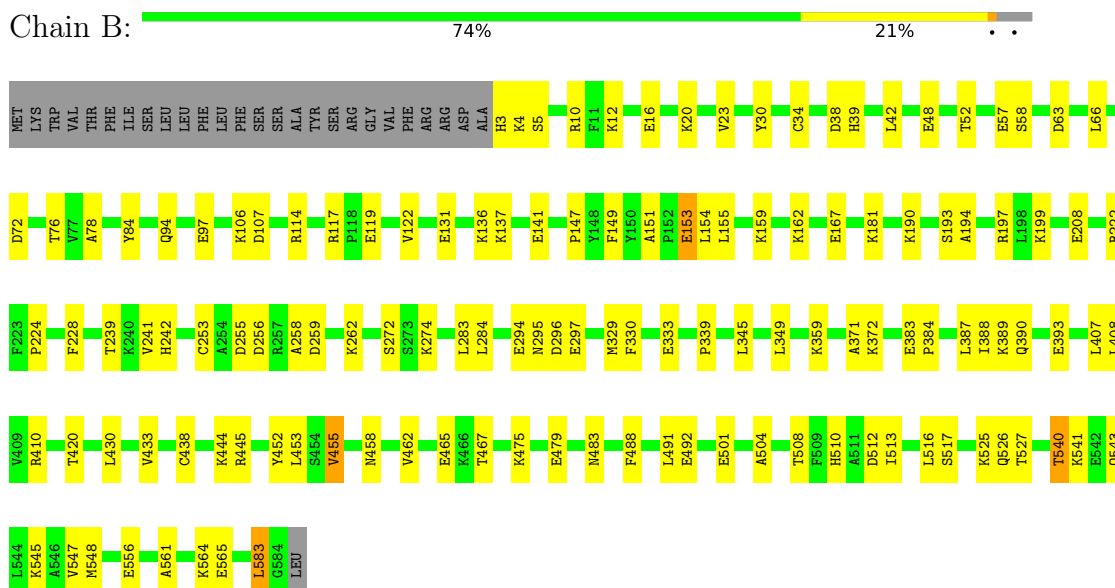
### 3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ( $RSRZ > 2$ ). 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: Albumin



#### • Molecule 1: Albumin



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	38.28Å 93.00Å 95.06Å 74.67° 89.82° 79.94°	Depositor
Resolution (Å)	31.58 – 2.20 31.58 – 2.20	Depositor EDS
% Data completeness (in resolution range)	93.8 (31.58-2.20) 85.0 (31.58-2.20)	Depositor EDS
$R_{merge}$	0.03	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	17.34 (at 2.20Å)	Xtriage
Refinement program	PHENIX 1.20.1_4487	Depositor
R, $R_{free}$	0.220 , 0.272 0.239 , 0.292	Depositor DCC
$R_{free}$ test set	2945 reflections (4.66%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	21.1	Xtriage
Anisotropy	0.278	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.34 , 16.6	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.45$ , $\langle L^2 \rangle = 0.27$	Xtriage
Estimated twinning fraction	0.170 for h,h-k,-l	Xtriage
$F_o, F_c$ correlation	0.93	EDS
Total number of atoms	10077	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	23.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 5.35% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical values of  $\langle |L| \rangle$ ,  $\langle L^2 \rangle$  for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.



## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: PO4, MYR, 9JT

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	A	0.18	1/4720 (0.0%)	0.58	5/6366 (0.1%)
1	B	0.20	1/4729 (0.0%)	0.45	3/6377 (0.0%)
All	All	0.19	2/9449 (0.0%)	0.52	8/12743 (0.1%)

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	465	GLU	CG-CD	6.82	1.69	1.52
1	B	94	GLN	CD-OE1	5.40	1.33	1.23

The worst 5 of 8 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	465	GLU	CG-CD-OE1	22.08	169.18	118.40
1	A	465	GLU	CG-CD-OE2	-16.80	79.76	118.40
1	A	465	GLU	OE1-CD-OE2	-13.55	90.38	122.90
1	A	465	GLU	CB-CG-CD	-12.22	91.82	112.60
1	A	465	GLU	CA-CB-CG	11.30	136.70	114.10

There are no chirality outliers.

There are no planarity outliers.

### 5.2 Too-close contacts ⓘ

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	A	4630	0	4551	58	0
1	B	4636	0	4564	90	0
2	A	16	0	0	1	0
2	B	16	0	0	2	0
3	A	160	0	270	14	0
3	B	192	0	324	29	0
4	B	10	0	0	1	0
5	A	213	0	0	7	0
5	B	204	0	0	12	1
All	All	10077	0	9709	163	1

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 8.

The worst 5 of 163 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:B:540:THR:HG22	1:B:543:GLN:H	1.48	0.78
1:A:380:LEU:HD23	3:A:610:MYR:H42	1.66	0.77
1:A:138:TYR:HB3	3:A:611:MYR:H21	1.68	0.76
1:B:117:ARG:HB2	3:B:614:MYR:H143	1.71	0.72
1:B:241:VAL:HG22	1:B:256:ASP:HB3	1.72	0.71

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:B:845:HOH:O	5:B:859:HOH:O[1_455]	2.19	0.01

## 5.3 Torsion angles

### 5.3.1 Protein backbone

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	580/609 (95%)	574 (99%)	6 (1%)	0	100	100
1	B	581/609 (95%)	576 (99%)	5 (1%)	0	100	100
All	All	1161/1218 (95%)	1150 (99%)	11 (1%)	0	100	100

There are no Ramachandran outliers to report.

### 5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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	A	509/533 (96%)	502 (99%)	7 (1%)	62	77
1	B	510/533 (96%)	500 (98%)	10 (2%)	50	65
All	All	1019/1066 (96%)	1002 (98%)	17 (2%)	56	71

5 of 17 residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	517	SER
1	B	583	LEU
1	B	97	GLU
1	B	153	GLU
1	B	242	HIS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. 5 of 16 such sidechains are listed below:

Mol	Chain	Res	Type
1	B	391	ASN
1	B	386	ASN
1	A	503	ASN
1	B	288	HIS
1	A	458	ASN

### 5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

## 5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

## 5.6 Ligand geometry ⓘ

26 ligands are modelled in this entry.

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
2	9JT	B	601	1	17,17,17	1.76	3 (17%)	21,22,22	1.75	3 (14%)
3	MYR	B	615	-	15,15,15	0.53	0	15,15,15	1.01	1 (6%)
3	MYR	B	604	-	15,15,15	0.53	0	15,15,15	0.98	1 (6%)
3	MYR	B	612	-	15,15,15	0.54	0	15,15,15	1.02	2 (13%)
3	MYR	B	610	-	15,15,15	0.54	0	15,15,15	0.95	1 (6%)
3	MYR	A	602	-	15,15,15	0.53	0	15,15,15	1.07	2 (13%)
3	MYR	A	603	-	15,15,15	0.53	0	15,15,15	1.01	0
3	MYR	A	606	-	15,15,15	0.54	0	15,15,15	0.98	1 (6%)
3	MYR	A	609	-	15,15,15	0.53	0	15,15,15	0.95	0
3	MYR	B	611	-	15,15,15	0.54	0	15,15,15	0.91	0
3	MYR	B	613	-	15,15,15	0.53	0	15,15,15	0.94	1 (6%)
4	PO4	B	603	-	4,4,4	0.93	0	6,6,6	0.43	0
3	MYR	A	605	-	15,15,15	0.53	0	15,15,15	1.03	2 (13%)
3	MYR	A	607	-	15,15,15	0.54	0	15,15,15	0.99	1 (6%)
3	MYR	A	610	-	15,15,15	0.53	0	15,15,15	0.91	1 (6%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
3	MYR	B	608	-	15,15,15	0.54	0	15,15,15	1.03	1 (6%)
3	MYR	B	606	-	15,15,15	0.51	0	15,15,15	1.08	0
3	MYR	A	608	-	15,15,15	0.53	0	15,15,15	1.13	2 (13%)
3	MYR	A	611	-	15,15,15	0.53	0	15,15,15	1.03	1 (6%)
2	9JT	A	601	1	17,17,17	1.82	4 (23%)	21,22,22	1.63	3 (14%)
3	MYR	A	604	-	15,15,15	0.53	0	15,15,15	0.99	1 (6%)
4	PO4	B	602	-	4,4,4	0.96	0	6,6,6	0.44	0
3	MYR	B	605	-	15,15,15	0.53	0	15,15,15	1.07	2 (13%)
3	MYR	B	607	-	15,15,15	0.55	0	15,15,15	0.96	0
3	MYR	B	609	-	15,15,15	0.53	0	15,15,15	1.00	1 (6%)
3	MYR	B	614	-	15,15,15	0.54	0	15,15,15	0.94	0

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
2	9JT	B	601	1	-	2/8/8/8	0/2/2/2
3	MYR	B	615	-	-	7/13/13/13	-
3	MYR	B	604	-	-	5/13/13/13	-
3	MYR	B	612	-	-	8/13/13/13	-
3	MYR	B	610	-	-	8/13/13/13	-
3	MYR	A	602	-	-	5/13/13/13	-
3	MYR	A	603	-	-	6/13/13/13	-
3	MYR	A	606	-	-	4/13/13/13	-
3	MYR	A	609	-	-	6/13/13/13	-
3	MYR	B	611	-	-	7/13/13/13	-
3	MYR	B	613	-	-	8/13/13/13	-
3	MYR	A	605	-	-	8/13/13/13	-
3	MYR	A	607	-	-	3/13/13/13	-
3	MYR	A	610	-	-	8/13/13/13	-
3	MYR	B	608	-	-	1/13/13/13	-
3	MYR	B	606	-	-	8/13/13/13	-
3	MYR	A	608	-	-	2/13/13/13	-
3	MYR	A	611	-	-	3/13/13/13	-
2	9JT	A	601	1	-	3/8/8/8	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
3	MYR	A	604	-	-	8/13/13/13	-
3	MYR	B	605	-	-	4/13/13/13	-
3	MYR	B	607	-	-	9/13/13/13	-
3	MYR	B	609	-	-	7/13/13/13	-
3	MYR	B	614	-	-	6/13/13/13	-

The worst 5 of 7 bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	A	601	9JT	SE1-C02	5.35	1.95	1.89
2	B	601	9JT	SE1-C02	4.89	1.95	1.89
2	B	601	9JT	C08-N10	3.87	1.46	1.35
2	A	601	9JT	C08-N10	3.85	1.46	1.35
2	B	601	9JT	O09-C08	-2.18	1.18	1.23

The worst 5 of 27 bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	601	9JT	C07-C08-N10	6.11	127.73	116.06
2	A	601	9JT	C02-C07-C08	4.88	124.78	120.26
2	B	601	9JT	O09-C08-N10	-3.66	115.36	123.71
2	A	601	9JT	SE1-C02-C03	-3.37	116.06	119.47
2	A	601	9JT	C07-C08-N10	3.16	122.09	116.06

There are no chirality outliers.

5 of 136 torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
2	A	601	9JT	C02-C07-C08-O09
2	A	601	9JT	C02-C07-C08-N10
2	B	601	9JT	C07-C08-N10-C11
2	B	601	9JT	O09-C08-N10-C11
3	B	613	MYR	C11-C10-C9-C8

There are no ring outliers.

21 monomers are involved in 47 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	B	601	9JT	2	0
3	B	615	MYR	4	0

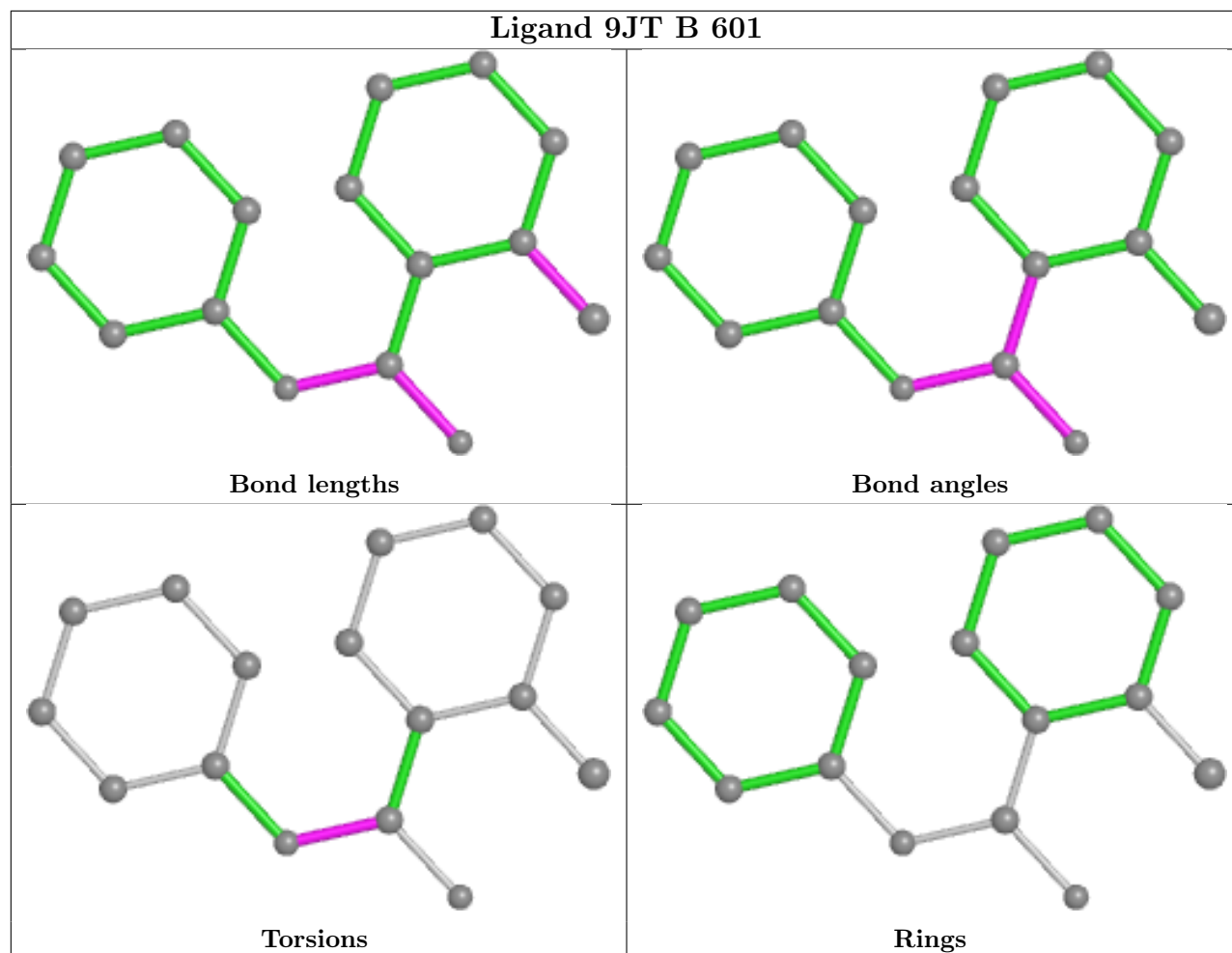
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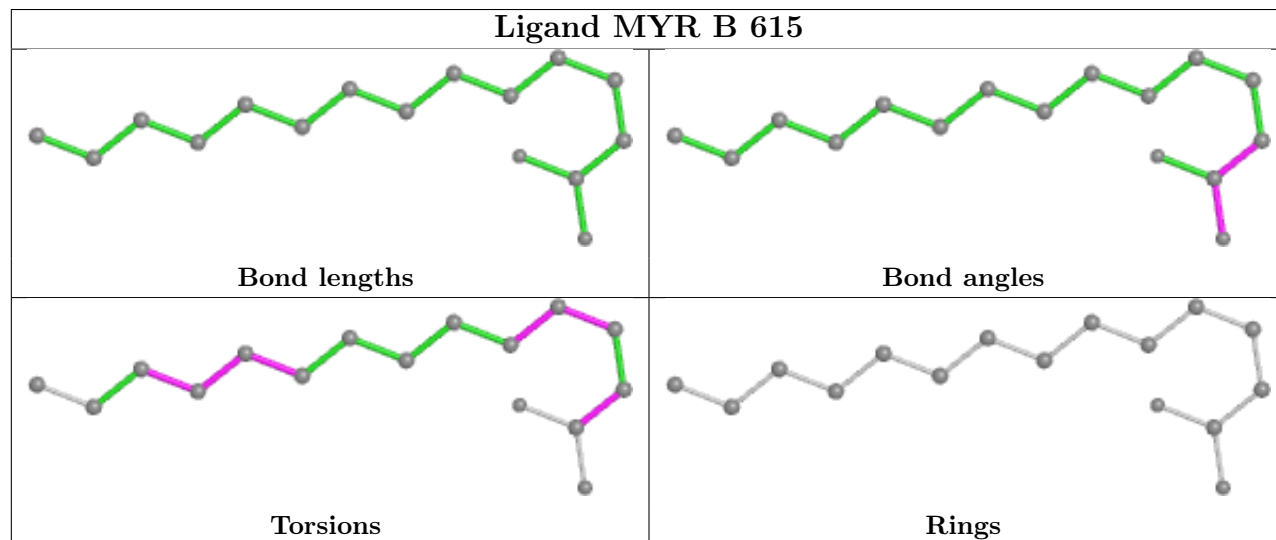
Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	B	612	MYR	1	0
3	B	610	MYR	3	0
3	A	603	MYR	1	0
3	A	606	MYR	1	0
3	B	611	MYR	1	0
3	B	613	MYR	4	0
3	A	605	MYR	2	0
3	A	610	MYR	3	0
3	B	608	MYR	3	0
3	B	606	MYR	3	0
3	A	608	MYR	2	0
3	A	611	MYR	4	0
2	A	601	9JT	1	0
3	A	604	MYR	2	0
4	B	602	PO4	1	0
3	B	605	MYR	1	0
3	B	607	MYR	3	0
3	B	609	MYR	1	0
3	B	614	MYR	7	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 than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

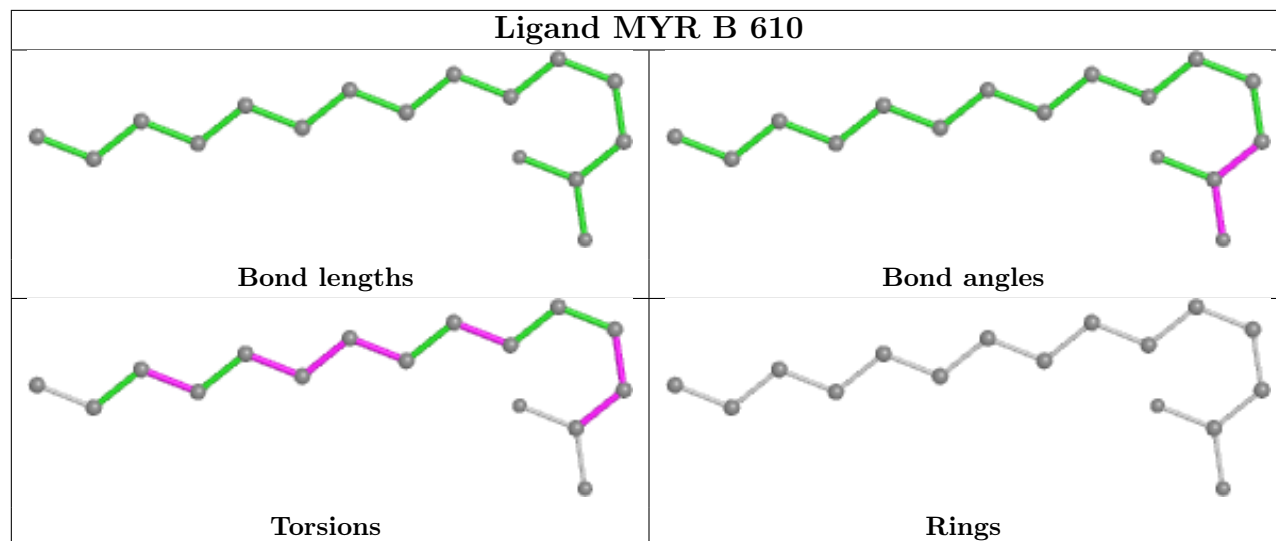
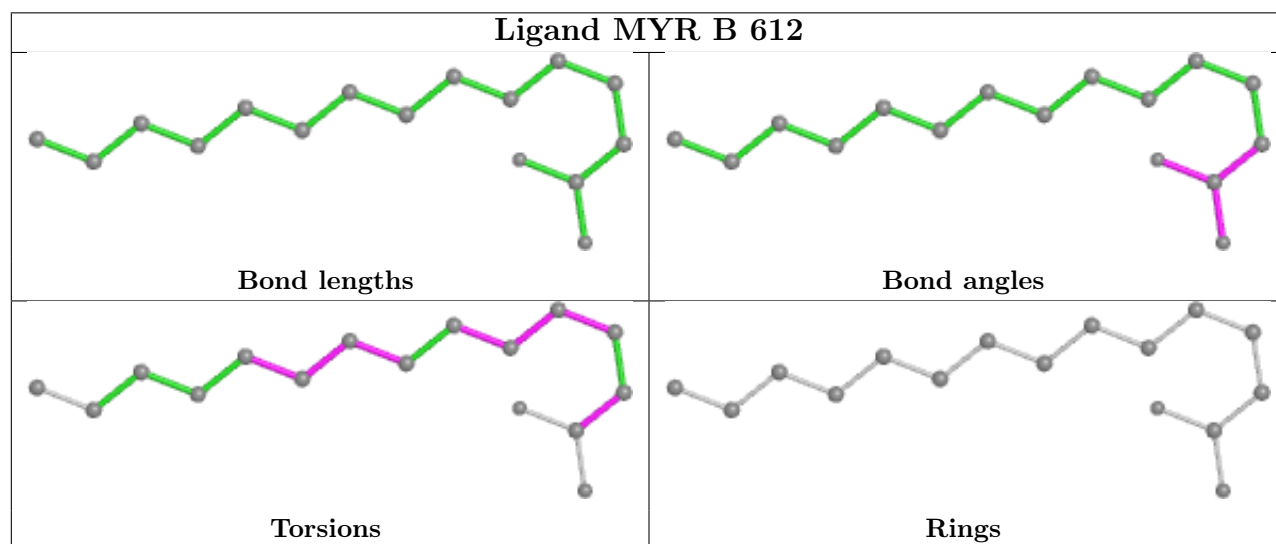
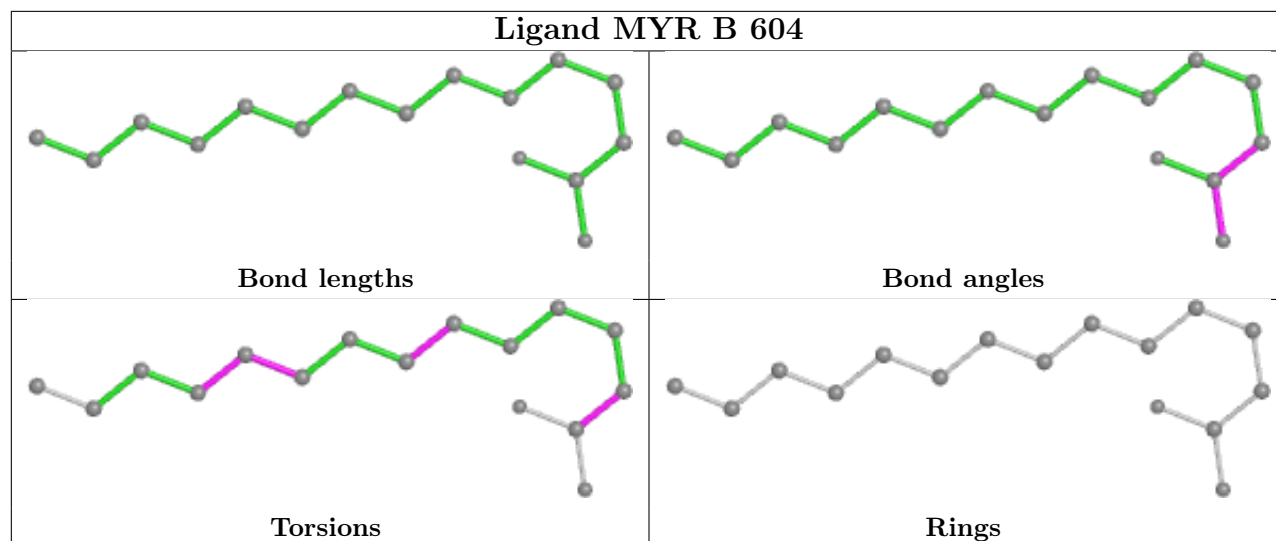
## Ligand 9JT B 601

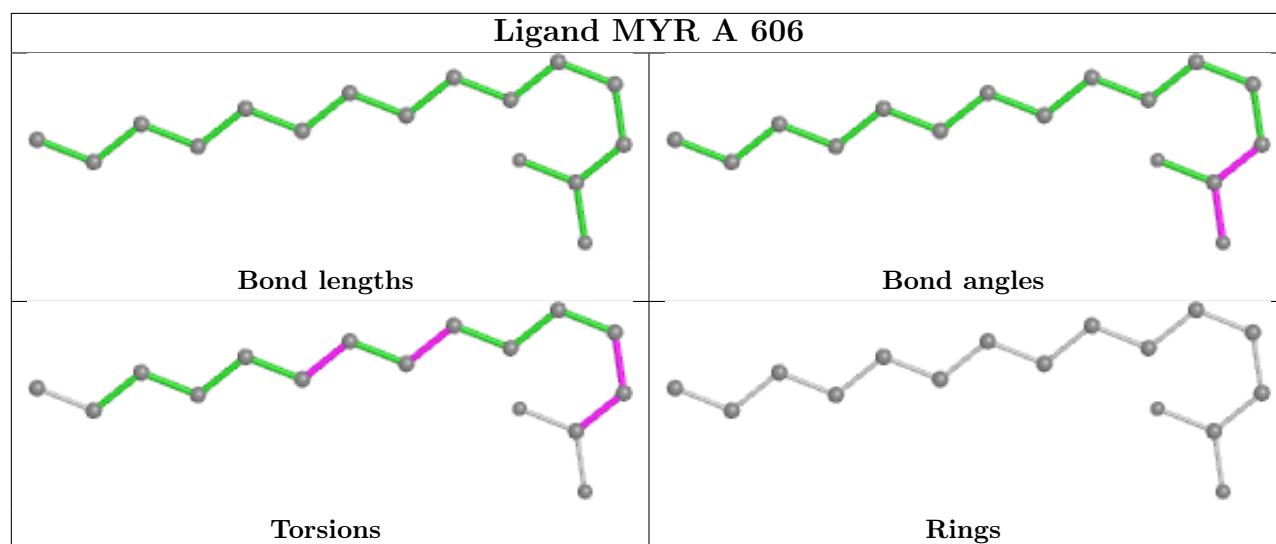
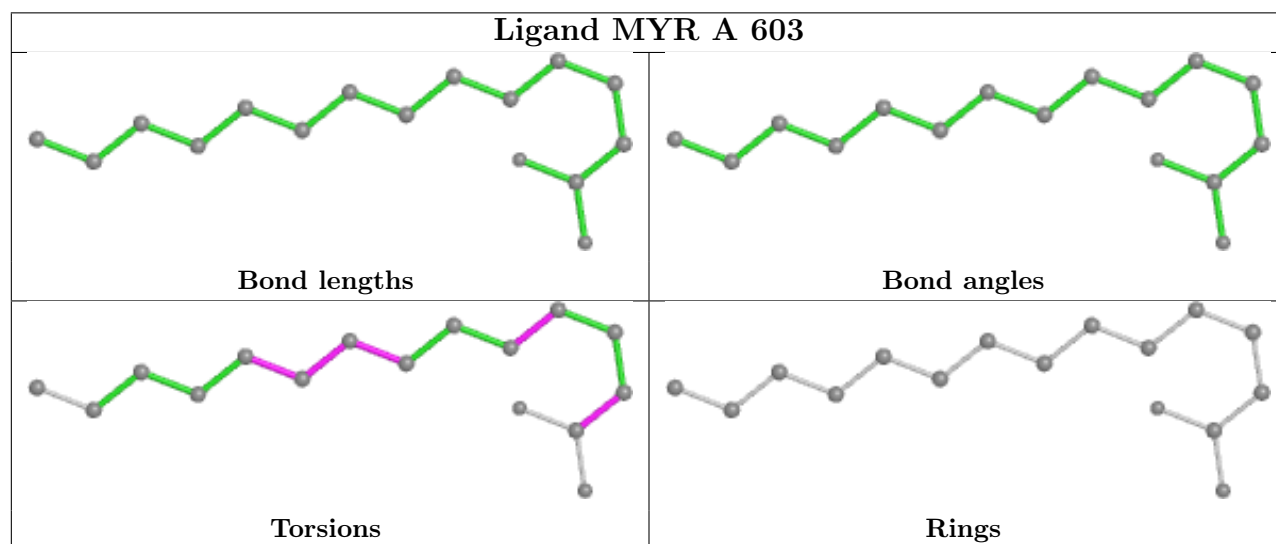
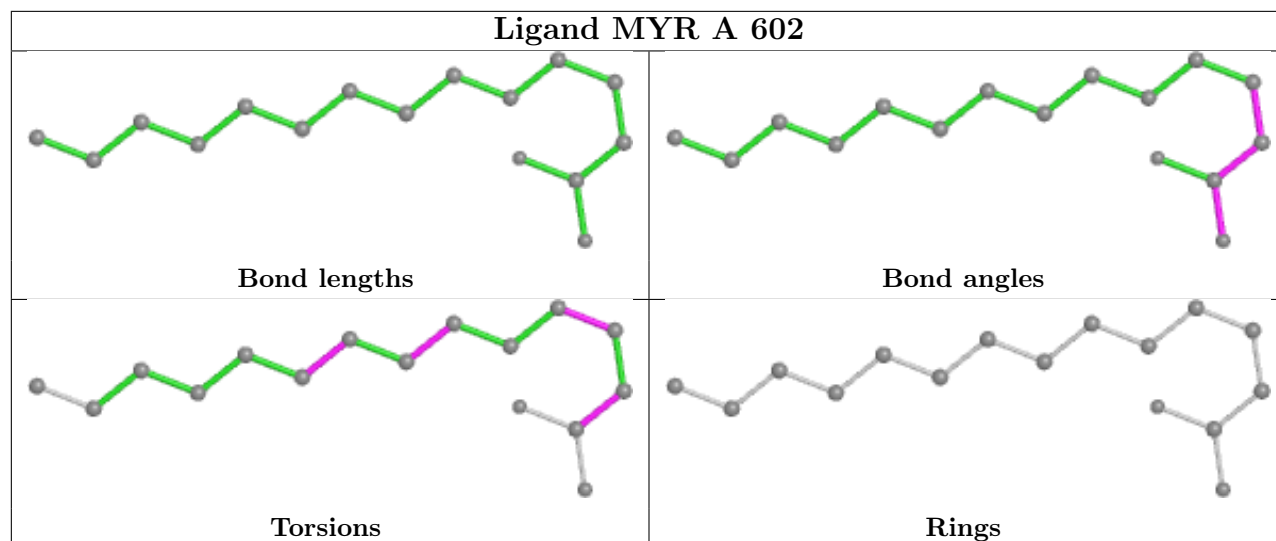


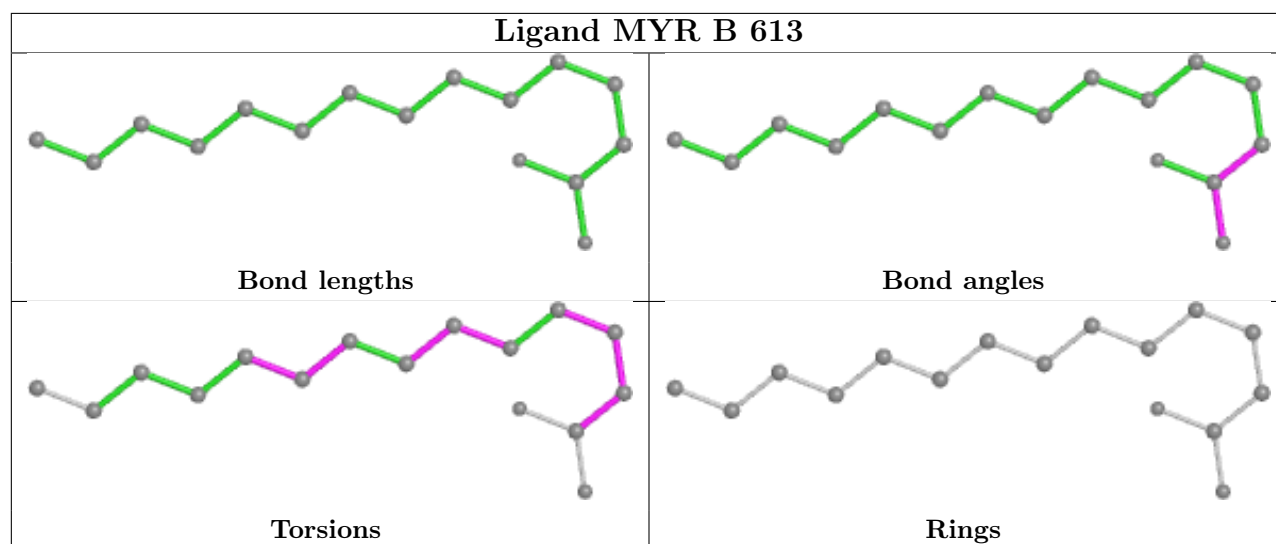
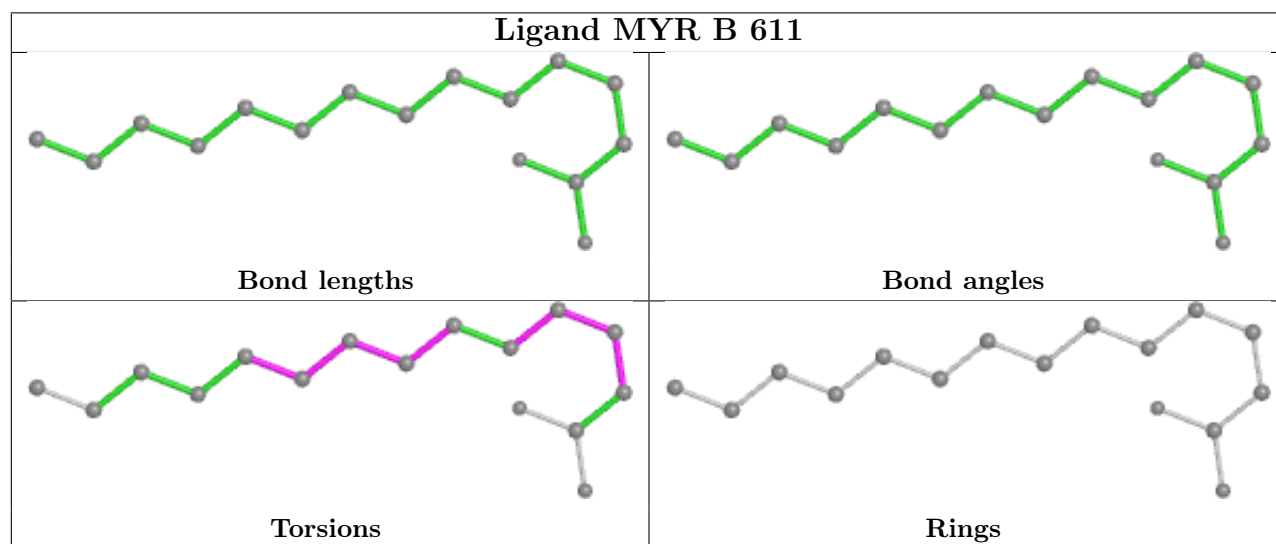
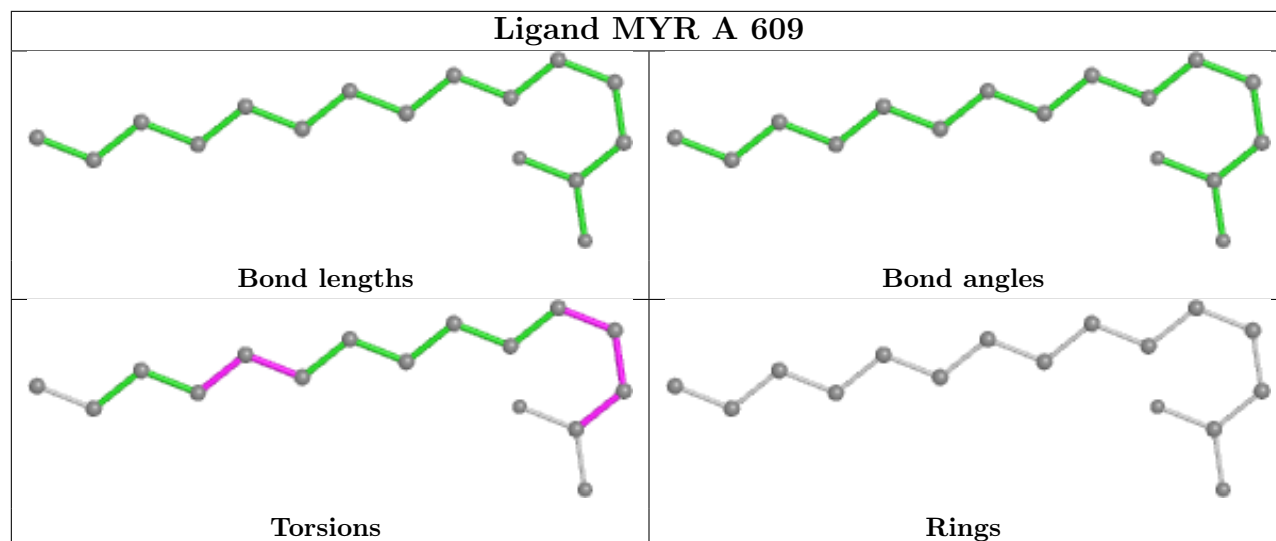
## Ligand MYR B 615

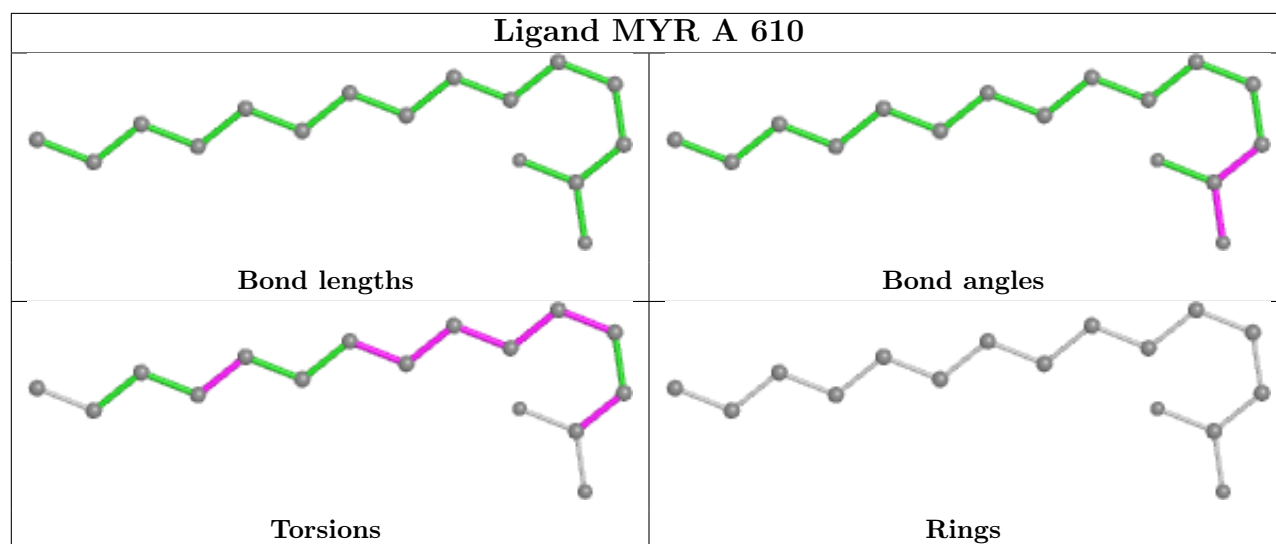
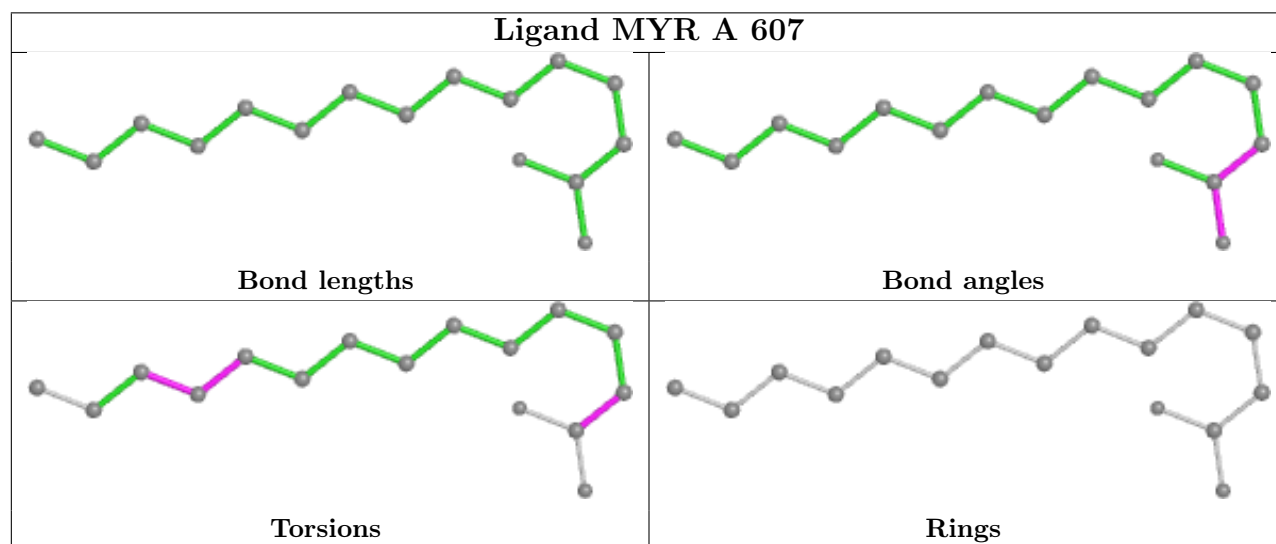
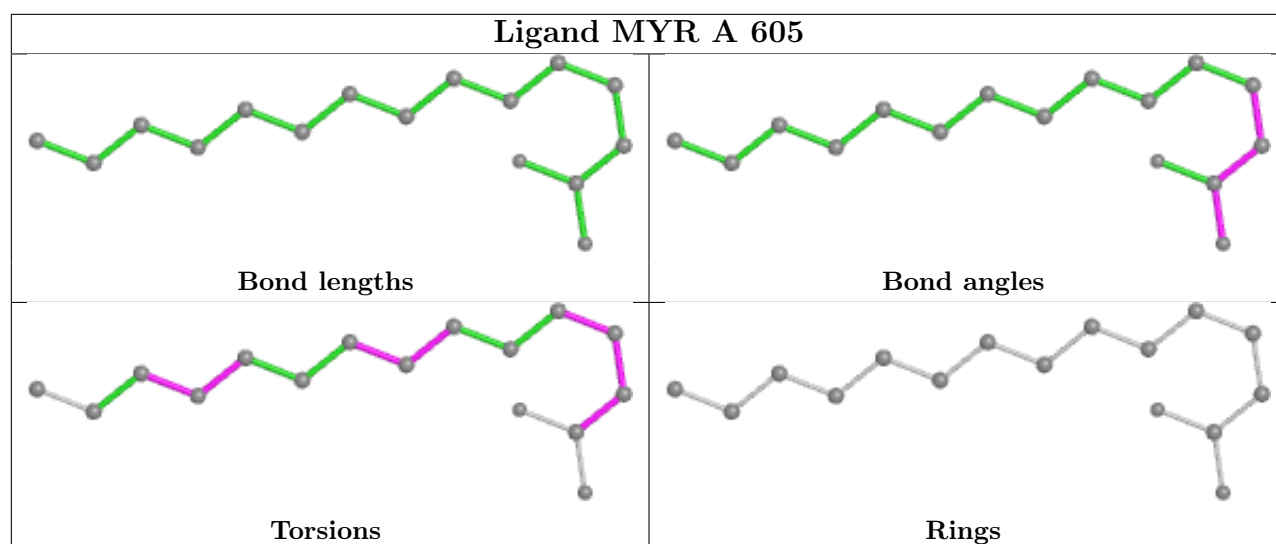


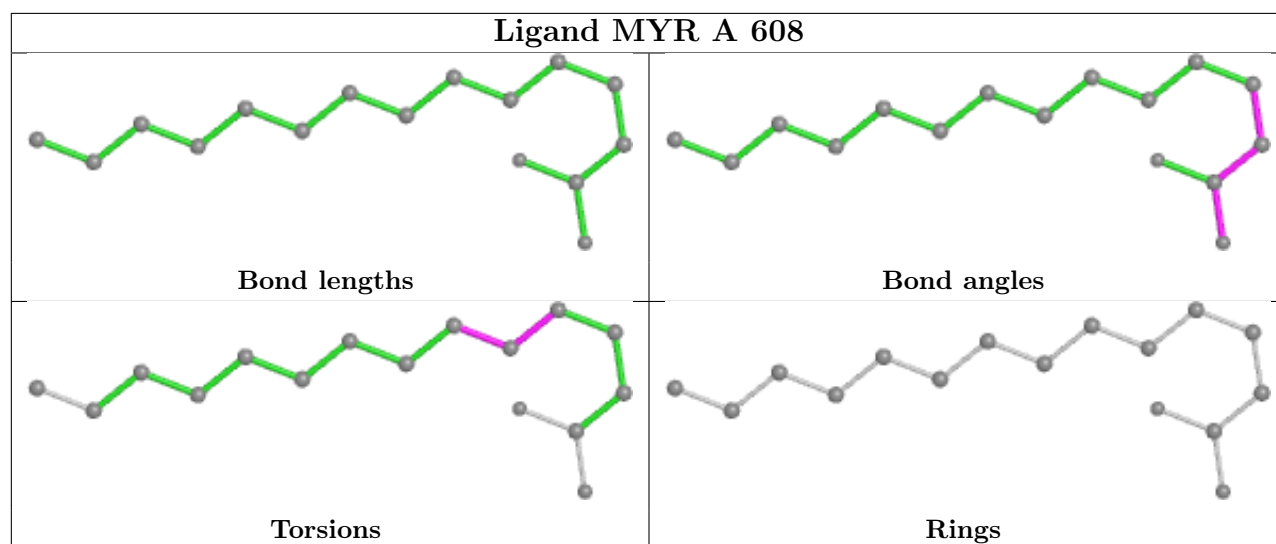
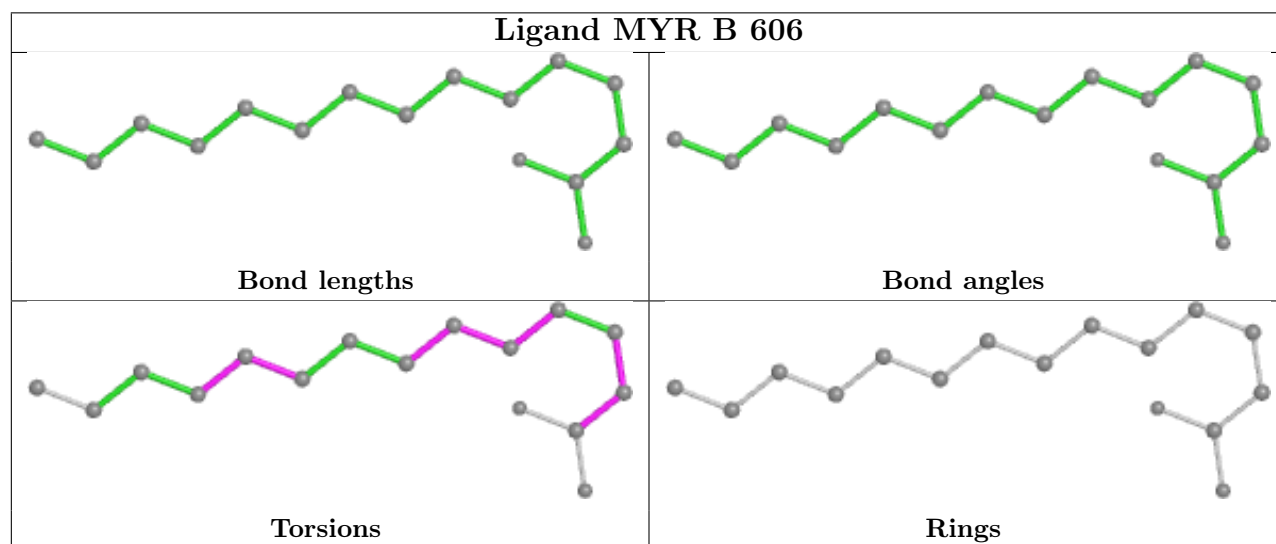
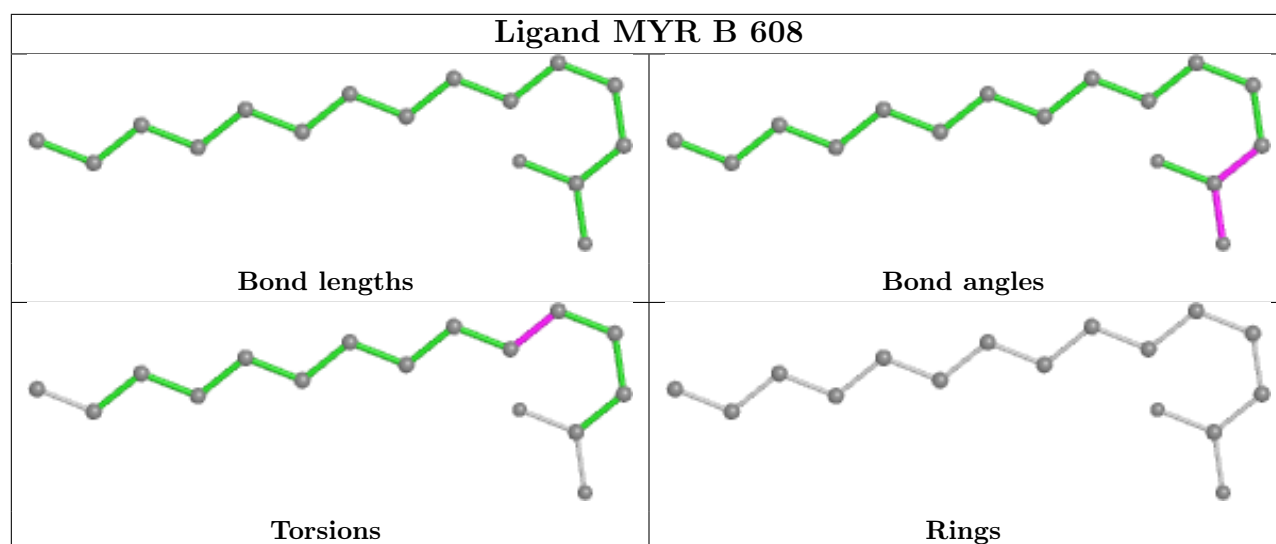


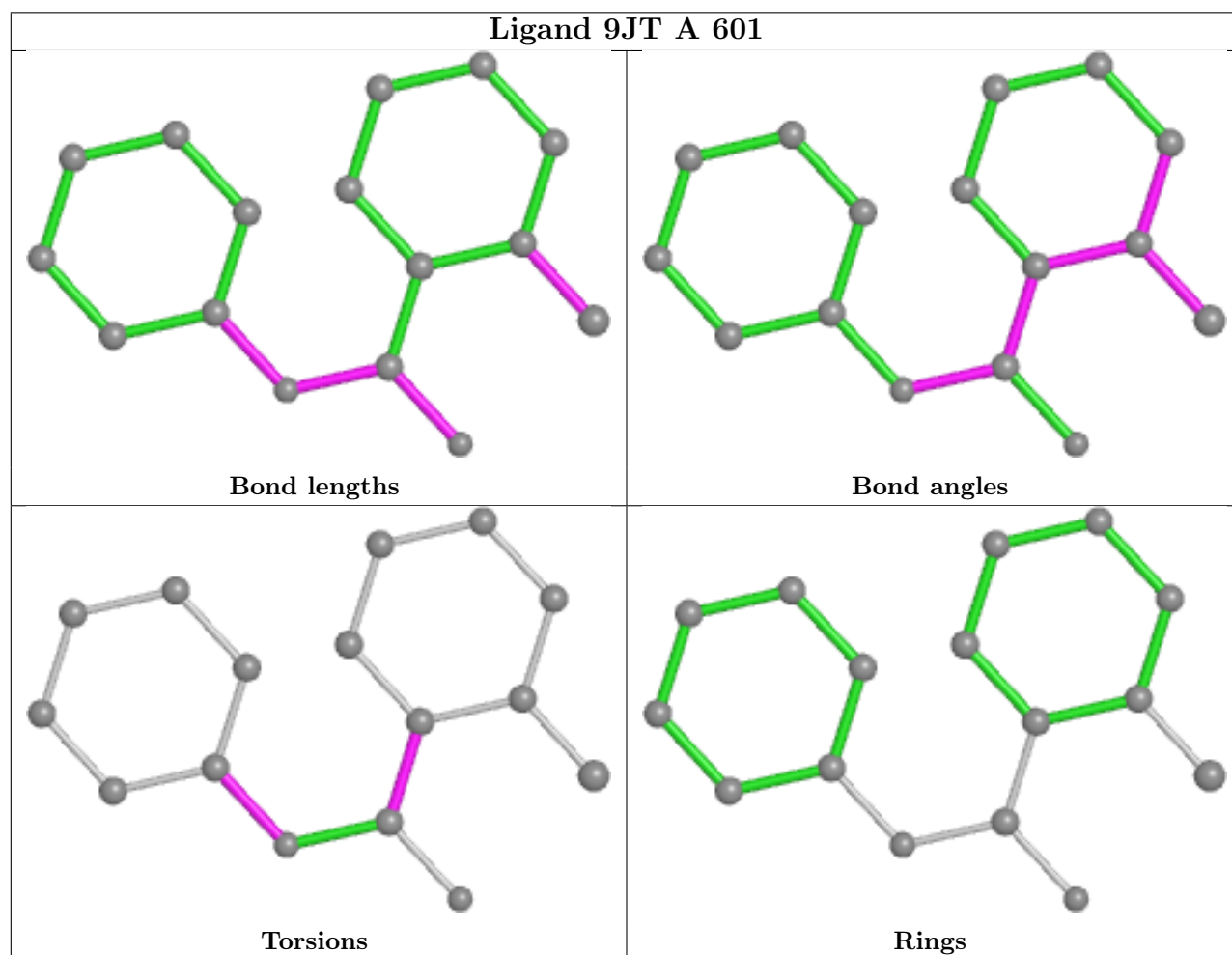
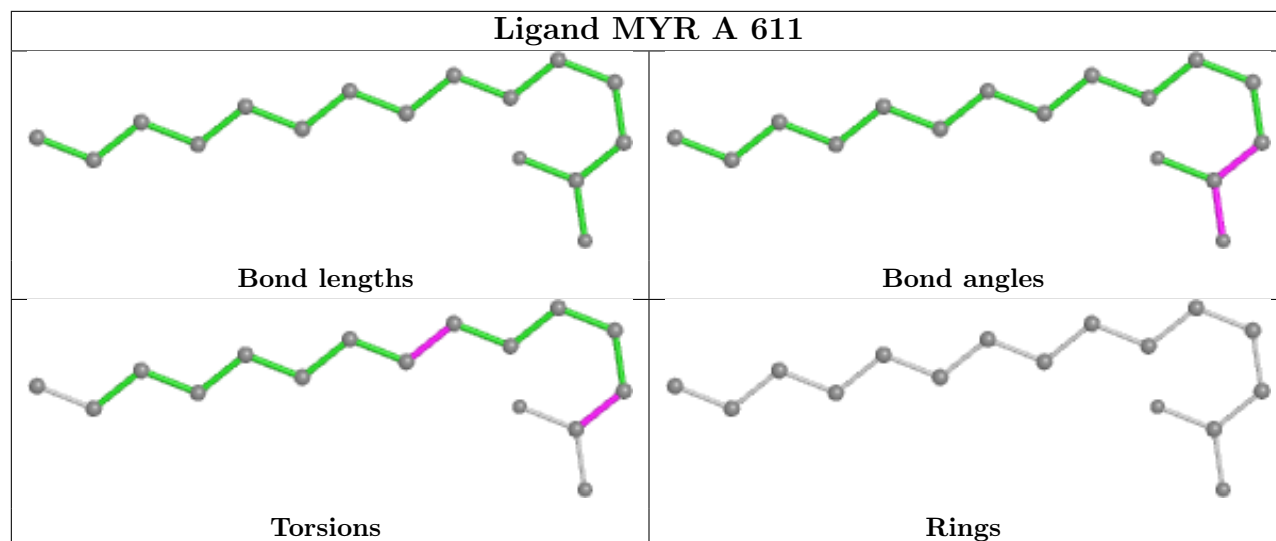


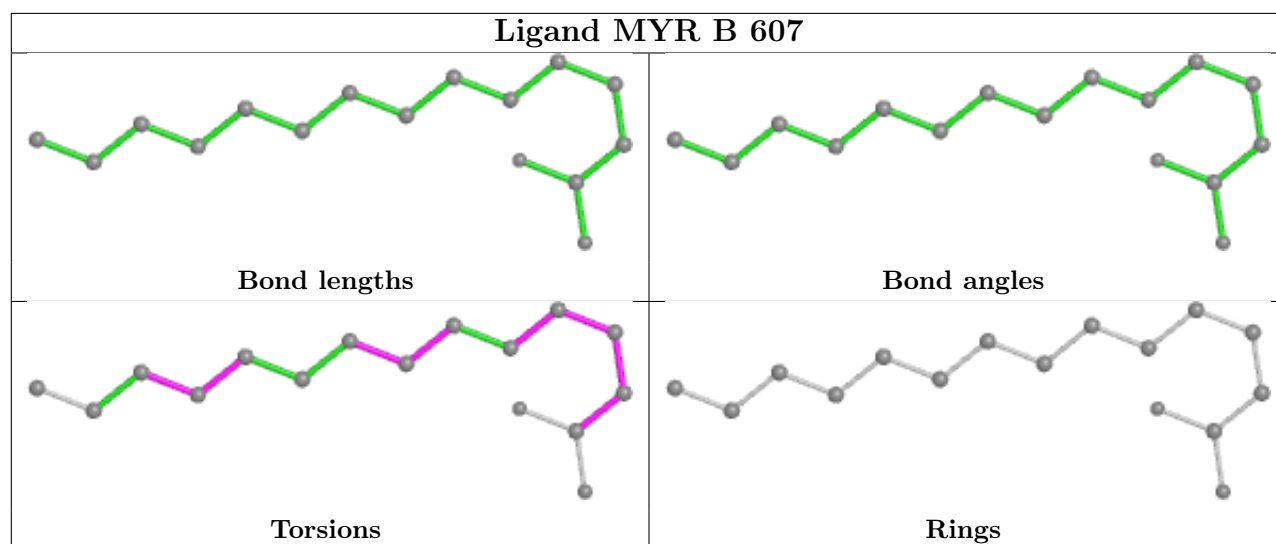
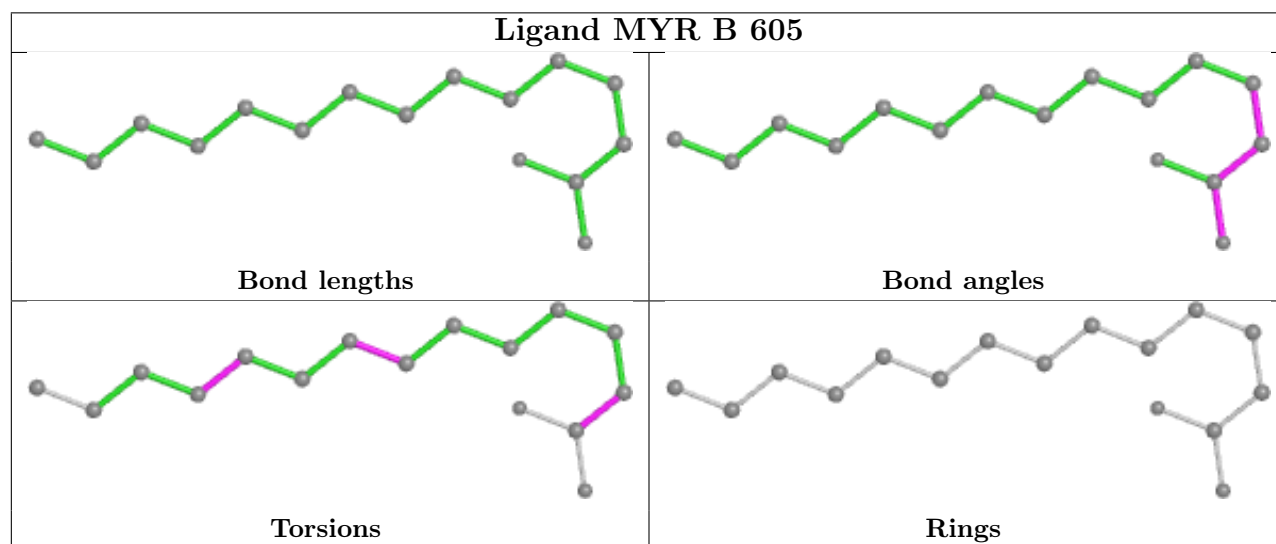
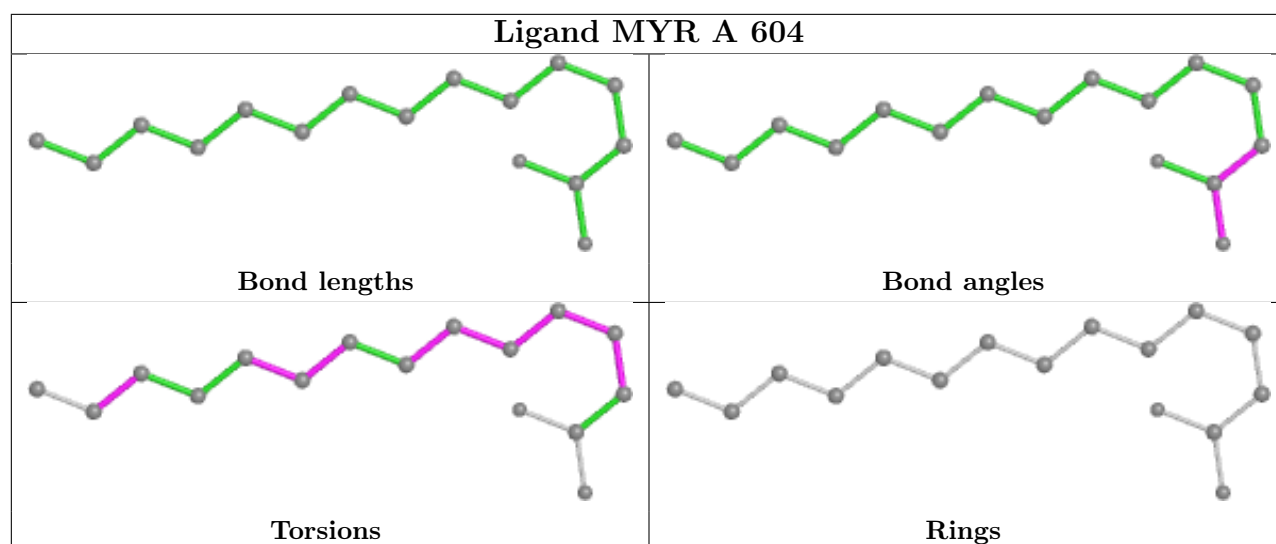


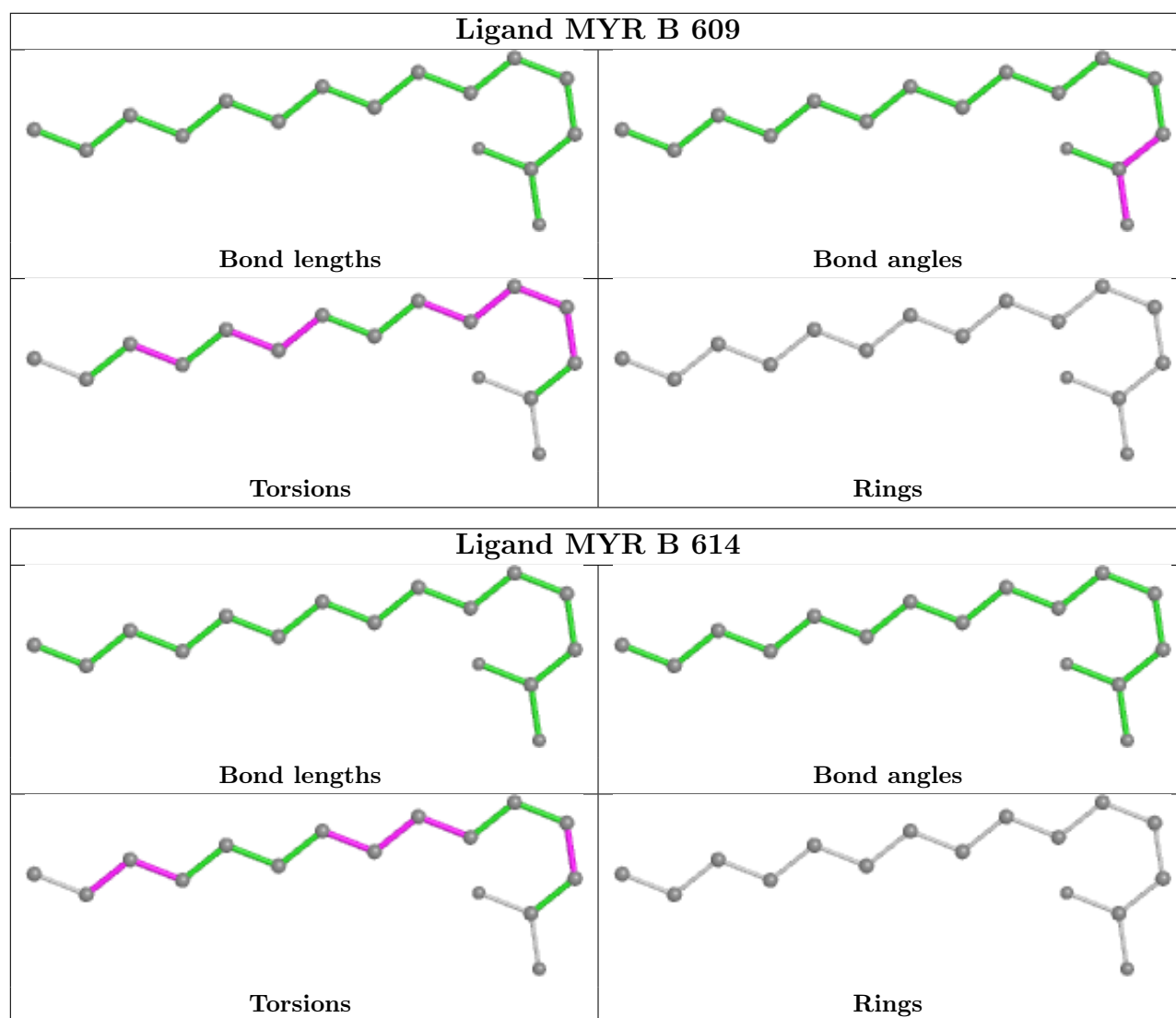












## 5.7 Other polymers [i](#)

There are no such residues in this entry.

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

There are no chain breaks in this entry.



## 6 Fit of model and data [i](#)

### 6.1 Protein, DNA and RNA chains [i](#)

In the following table, the column labelled ‘#RSRZ > 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95<sup>th</sup> percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q < 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
1	A	582/609 (95%)	-1.37	0 100 100	9, 22, 42, 55	0
1	B	582/609 (95%)	-1.36	0 100 100	10, 22, 42, 58	1 (0%)
All	All	1164/1218 (95%)	-1.37	0 100 100	9, 22, 42, 58	1 (0%)

There are no RSRZ outliers to report.

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

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

### 6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

### 6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled ‘Q < 0.9’ lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å <sup>2</sup> )	Q<0.9
3	MYR	B	615	16/16	0.95	0.09	24,38,46,49	0
3	MYR	B	611	16/16	0.97	0.06	21,37,40,45	0
3	MYR	B	612	16/16	0.97	0.07	20,32,38,44	0
3	MYR	B	614	16/16	0.97	0.06	23,25,32,32	0
3	MYR	A	608	16/16	0.97	0.06	18,30,37,44	0
3	MYR	A	609	16/16	0.98	0.06	27,35,42,44	0
3	MYR	A	610	16/16	0.98	0.06	11,27,46,52	0

*Continued on next page...*

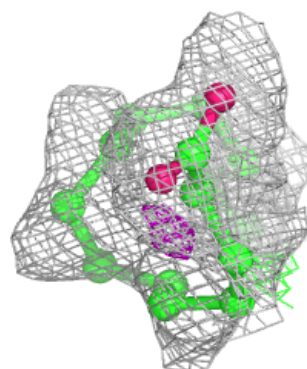
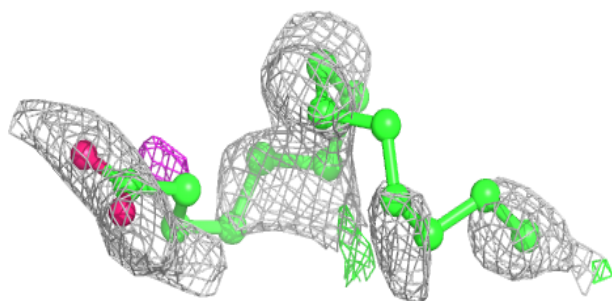
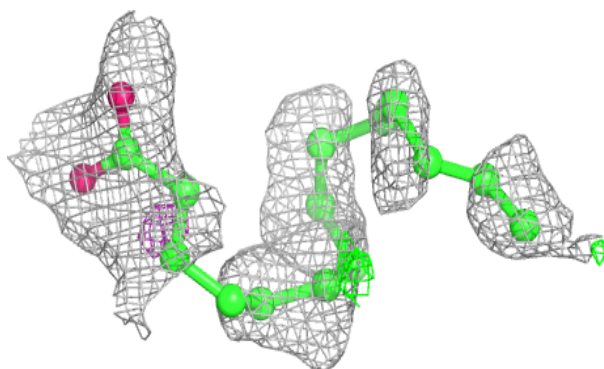
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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
3	MYR	A	611	16/16	0.98	0.06	22,26,38,45	0
3	MYR	B	606	16/16	0.98	0.05	15,17,23,27	0
3	MYR	B	608	16/16	0.98	0.06	23,30,41,41	0
2	9JT	B	601	16/16	0.98	0.07	30,49,65,115	0
3	MYR	A	603	16/16	0.98	0.05	13,17,30,35	0
3	MYR	B	613	16/16	0.98	0.07	17,25,35,40	0
3	MYR	A	606	16/16	0.98	0.05	19,26,32,33	0
2	9JT	A	601	16/16	0.98	0.06	34,51,58,92	0
4	PO4	B	603	5/5	0.98	0.07	20,26,34,37	0
3	MYR	A	605	16/16	0.99	0.04	10,15,22,22	0
3	MYR	B	609	16/16	0.99	0.04	14,22,25,31	0
3	MYR	B	610	16/16	0.99	0.04	13,19,25,27	0
3	MYR	A	602	16/16	0.99	0.04	6,8,19,30	0
3	MYR	A	607	16/16	0.99	0.04	11,17,30,35	0
3	MYR	B	604	16/16	0.99	0.03	6,9,17,19	0
3	MYR	B	605	16/16	0.99	0.04	13,19,36,39	0
3	MYR	A	604	16/16	0.99	0.04	14,17,26,27	0
4	PO4	B	602	5/5	0.99	0.05	20,20,31,49	0
3	MYR	B	607	16/16	0.99	0.04	9,15,21,26	0

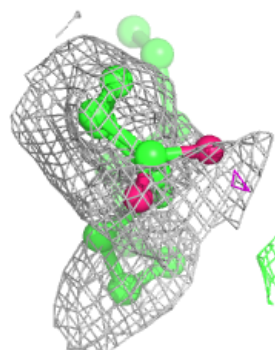
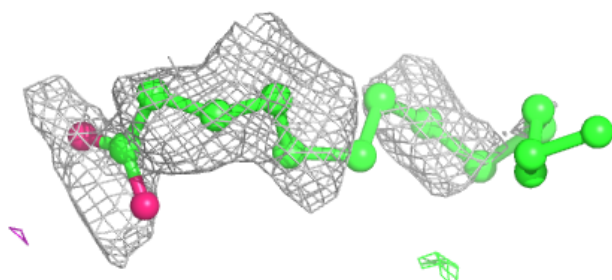
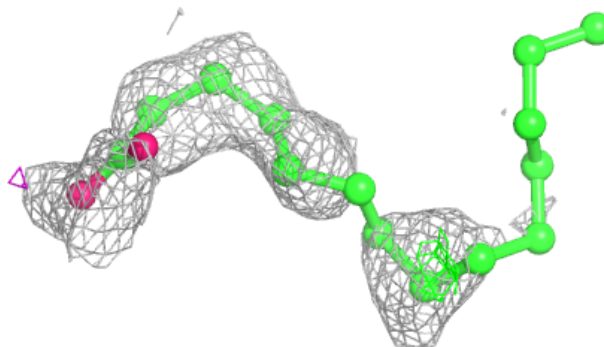
The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.

**Electron density around MYR B 615:**

$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

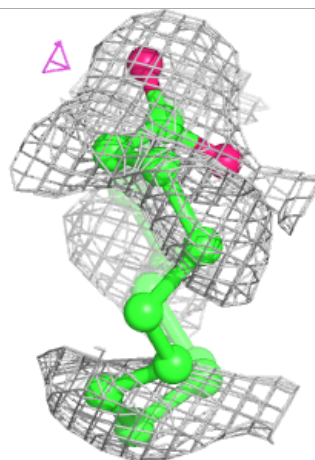
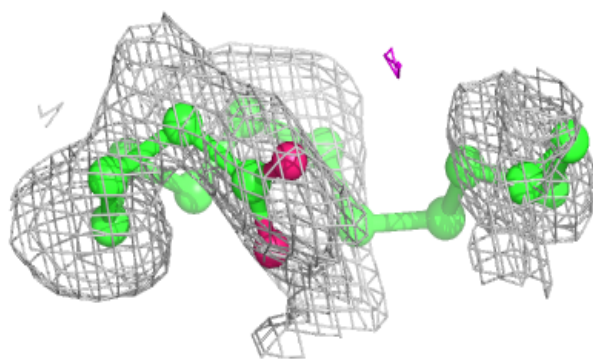
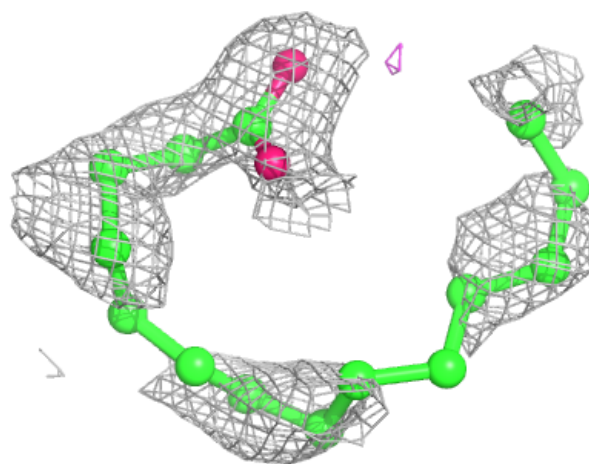
**Electron density around MYR B 611:**

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and green (positive)



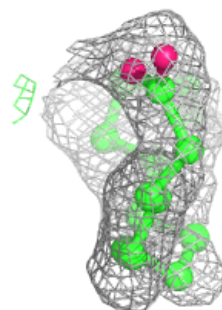
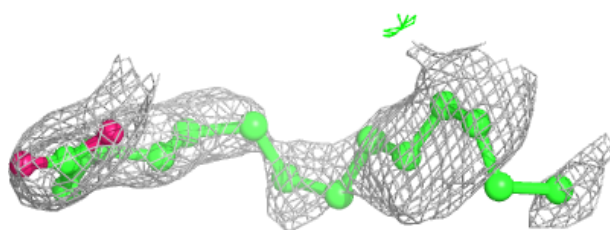
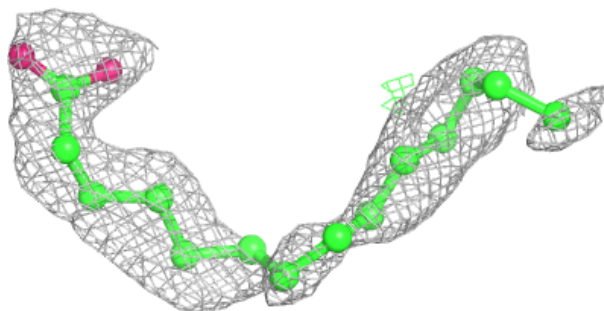
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 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

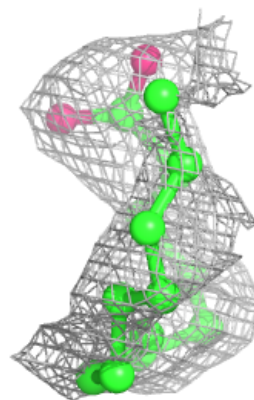
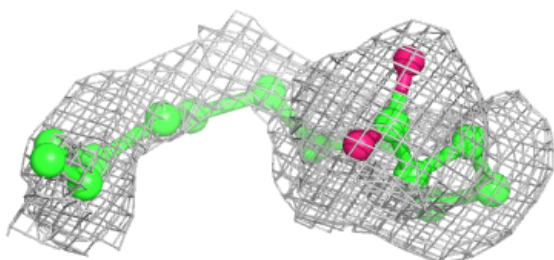
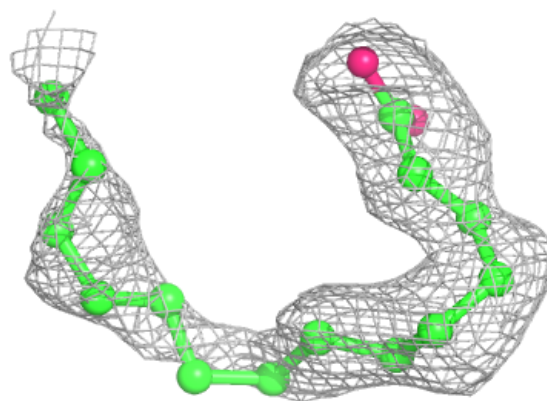


**Electron density around MYR B 614:**

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and green (positive)

**Electron density around MYR A 608:**

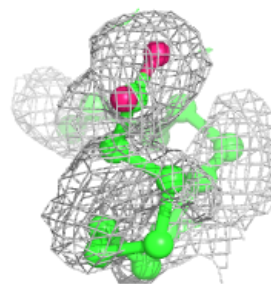
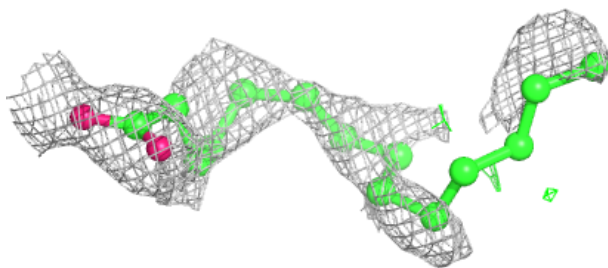
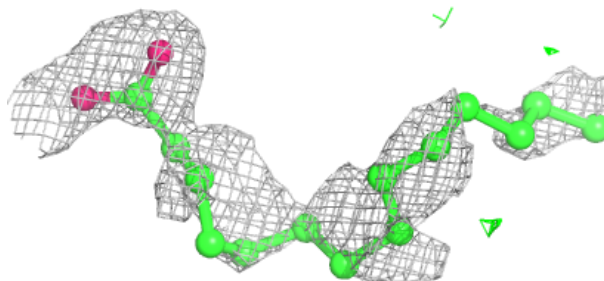
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and green (positive)



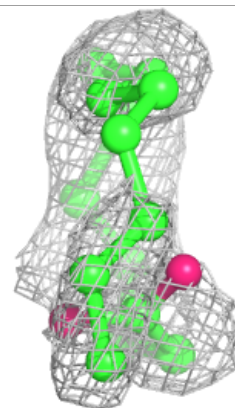
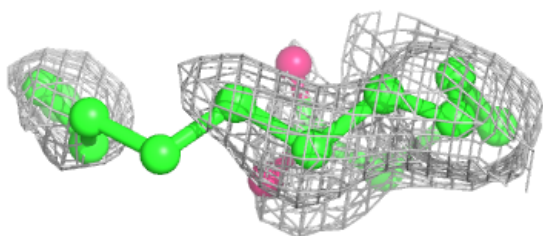
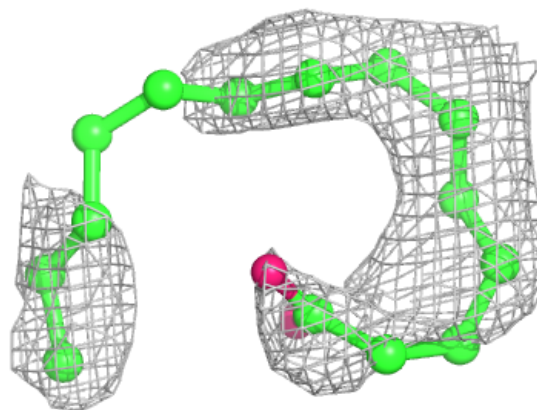


**Electron density around MYR A 609:**

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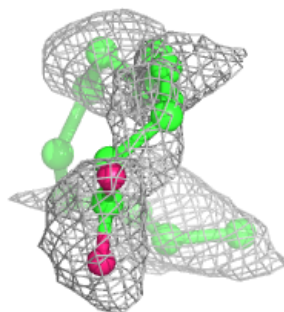
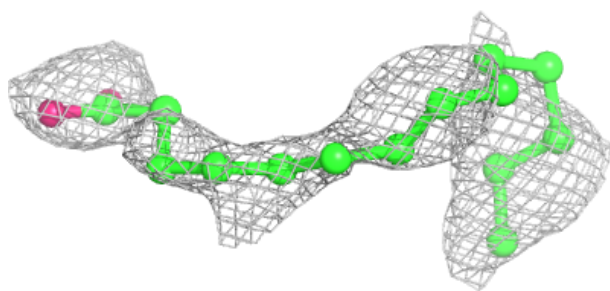
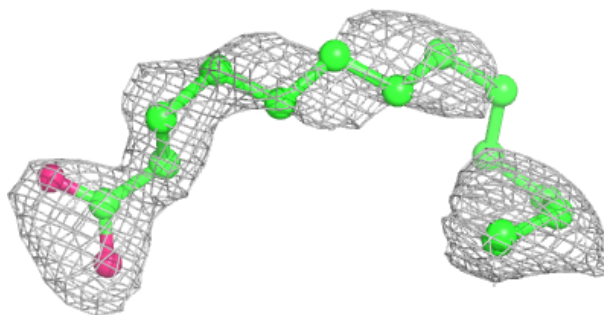
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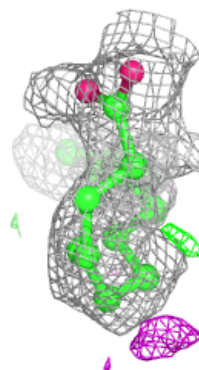
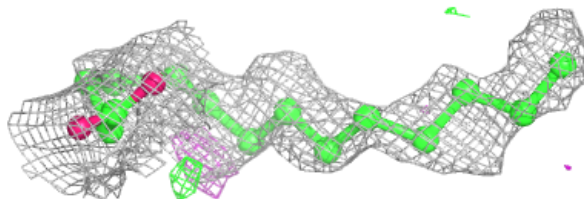
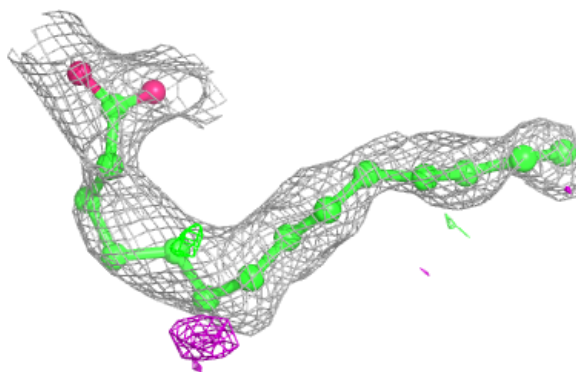


**Electron density around MYR A 611:**

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and green (positive)

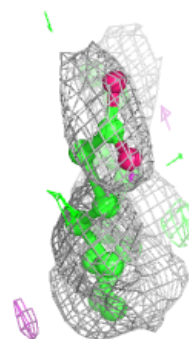
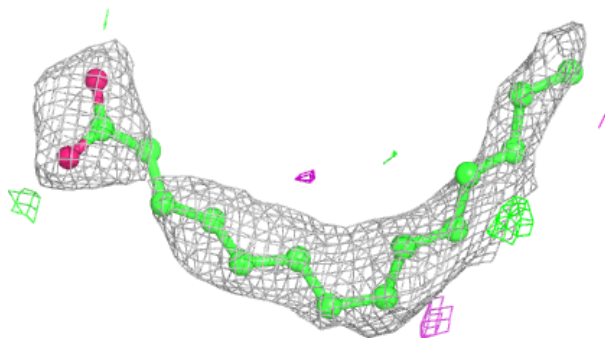
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and green (positive)

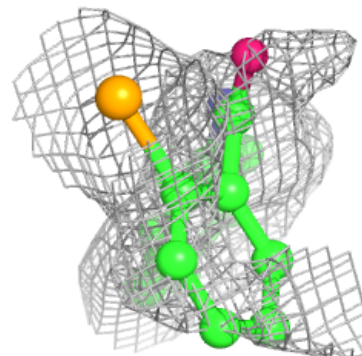
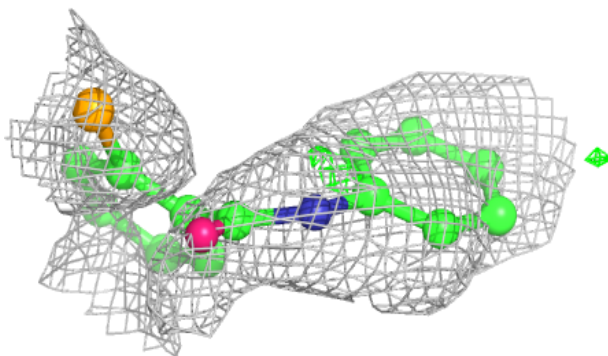
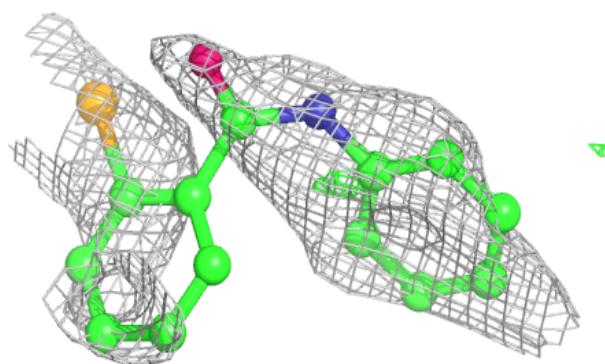


**Electron density around MYR B 608:**

$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

**Electron density around 9JT B 601:**

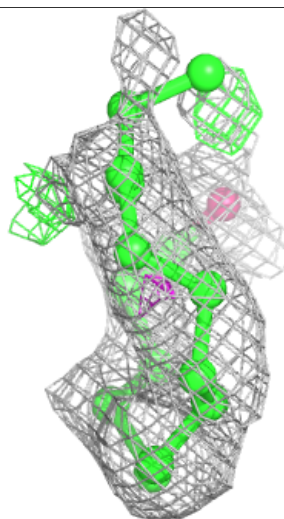
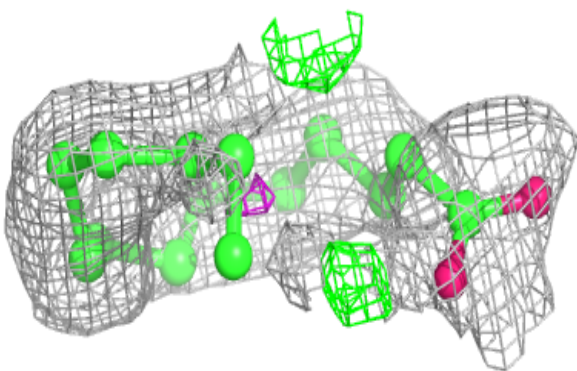
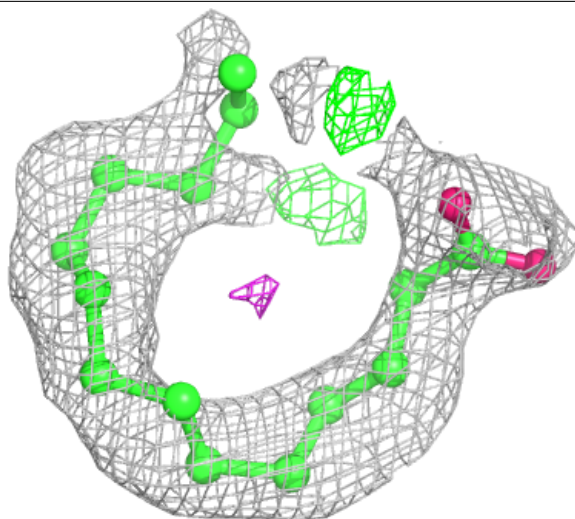
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and green (positive)





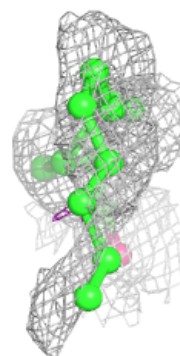
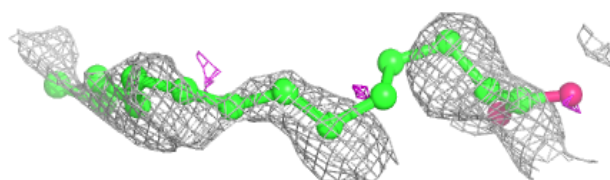
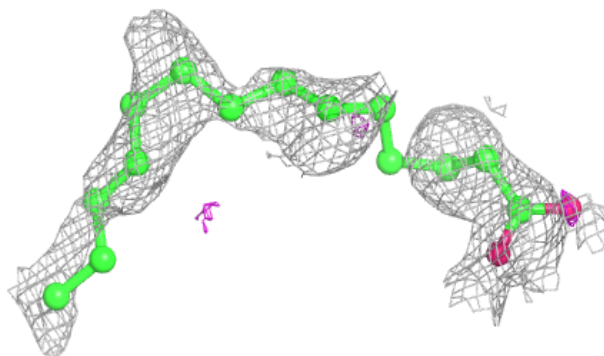
**Electron density around MYR A 603:**

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and green (positive)

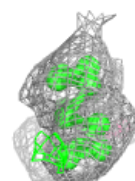
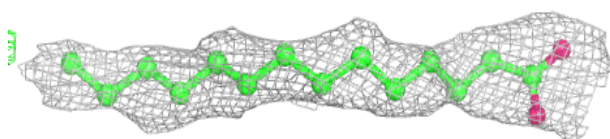
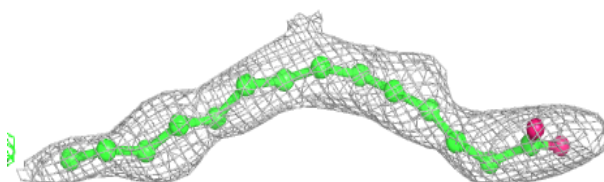


**Electron density around MYR B 613:**

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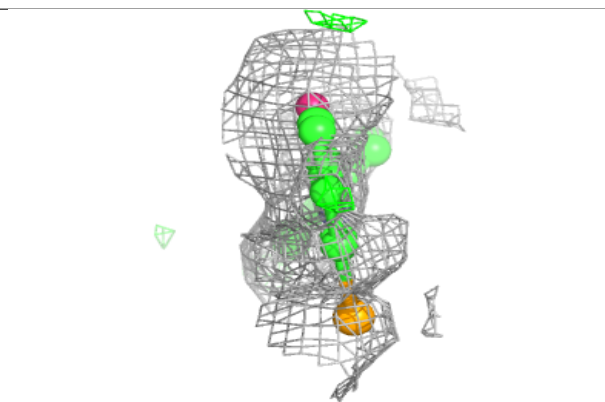
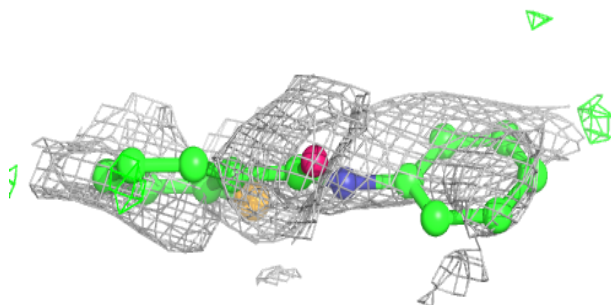
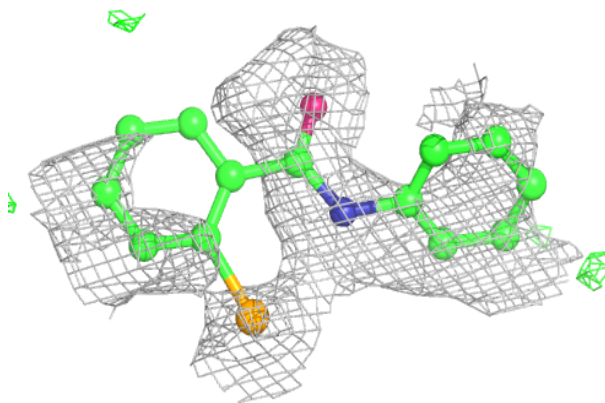
**Electron density around MYR A 606:**

$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

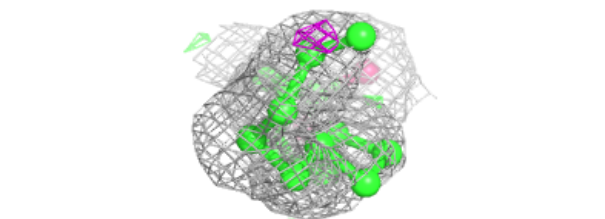
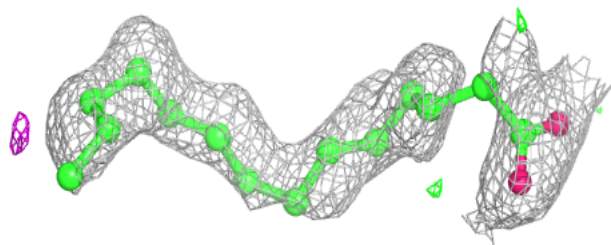
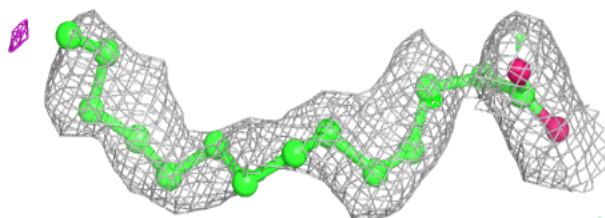


**Electron density around 9JT A 601:**

$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

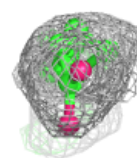
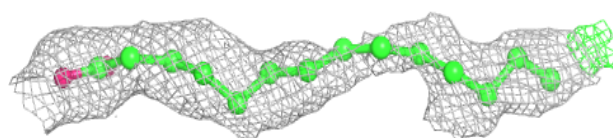
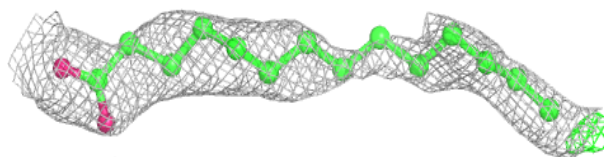
**Electron density around MYR A 605:**

$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

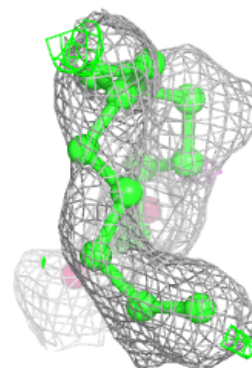
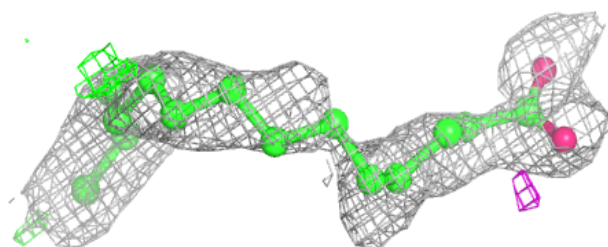
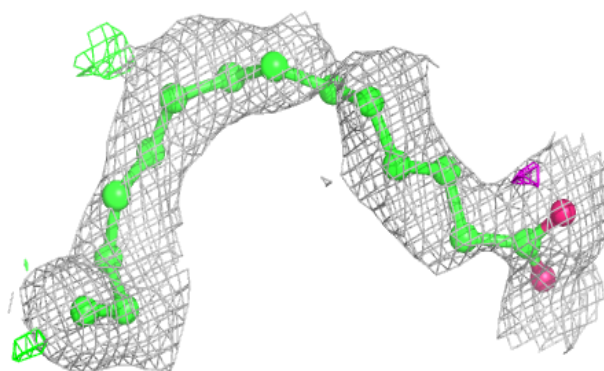


**Electron density around MYR B 609:**

$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

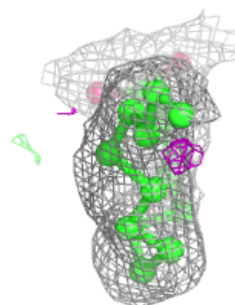
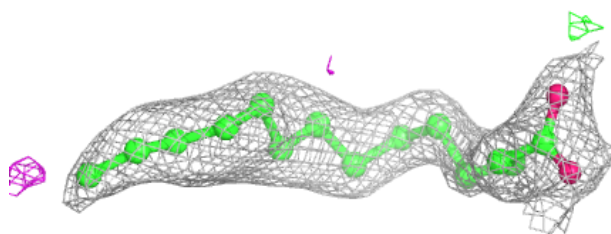
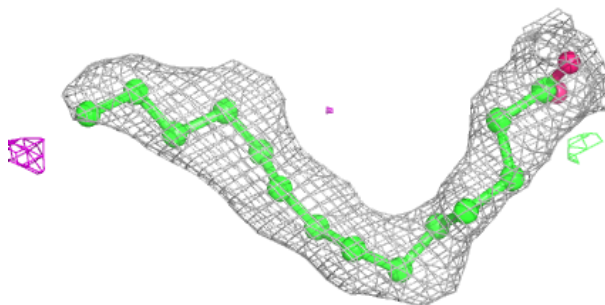
**Electron density around MYR B 610:**

$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

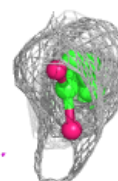
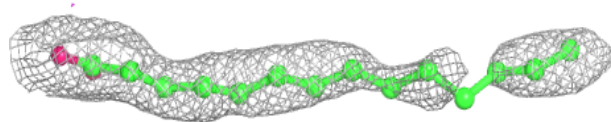
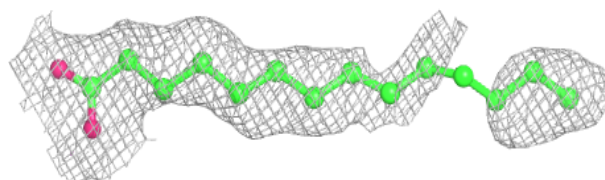


**Electron density around MYR A 602:**

$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

**Electron density around MYR A 607:**

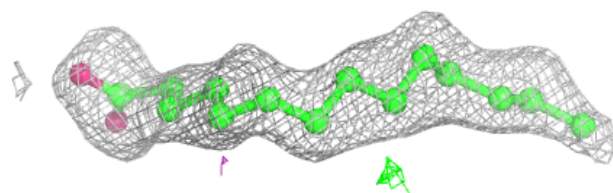
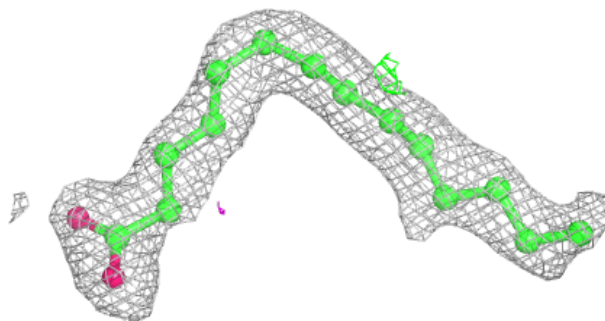
$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





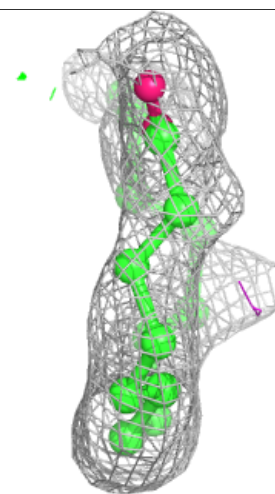
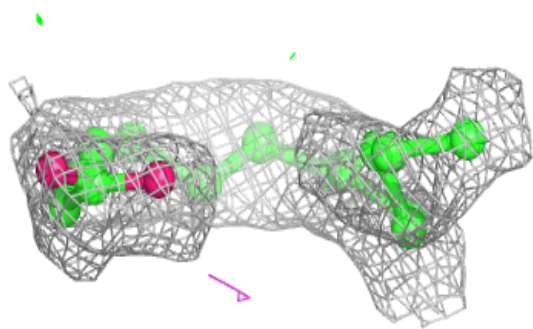
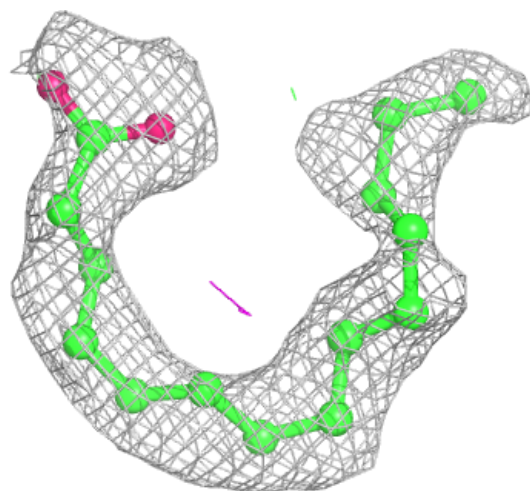
**Electron density around MYR B 604:**

$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)



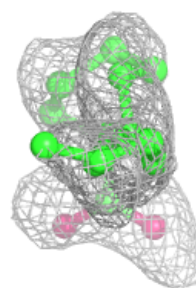
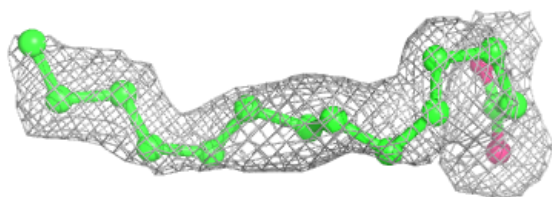
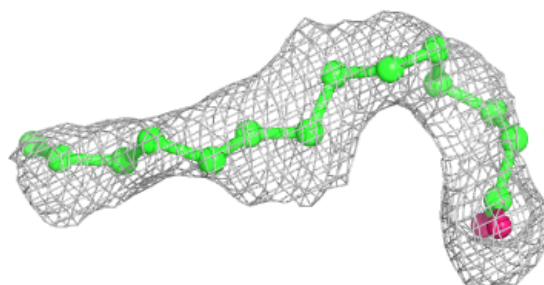
**Electron density around MYR B 605:**

$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

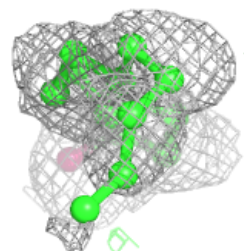
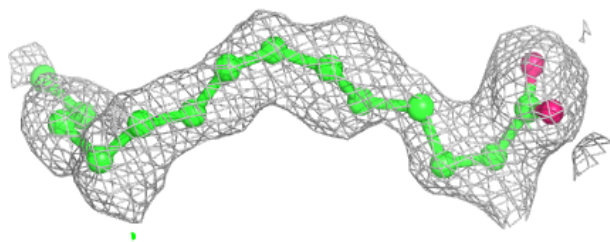
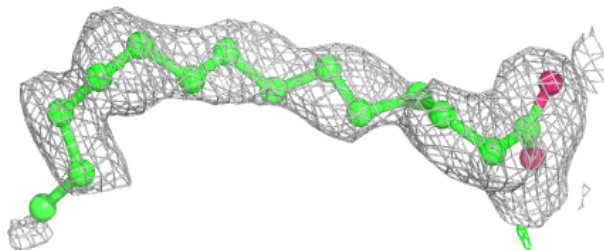


**Electron density around MYR A 604:**

$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)

**Electron density around MYR B 607:**

$2mF_o-DF_c$  (at 0.7 rmsd) in gray  
 $mF_o-DF_c$  (at 3 rmsd) in purple (negative)  
and green (positive)





## 6.5 Other polymers [i](#)

There are no such residues in this entry.