



Full wwPDB EM Validation Report ⓘ

Apr 5, 2026 – 07:15 PM UTC

PDB ID : 9RCW / pdb_00009rcw
EMDB ID : EMD-53924
Title : Primed-state RyR1 in 0.01% POPC micelles, in complex with a nanobody and FKBP12
Authors : Li, C.; Efremov, R.G.
Deposited on : 2025-05-30
Resolution : 3.30 Å(reported)

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

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

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev132
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

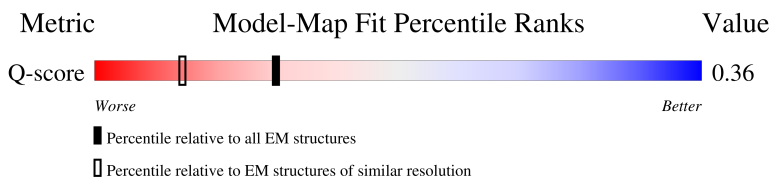
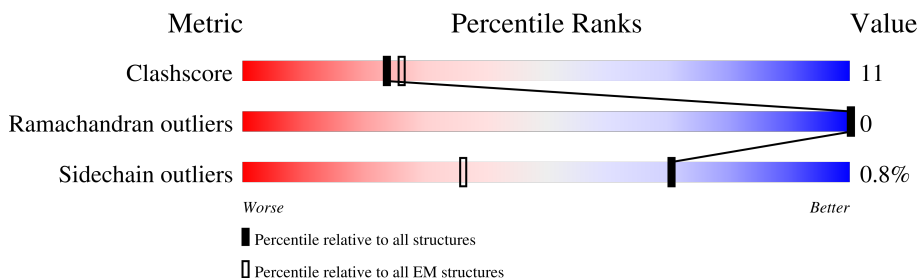
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.30 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)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	15087 (2.80 - 3.80)

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

Mol	Chain	Length	Quality of chain
1	B	126	15% 55% 42% ..
1	D	126	13% 56% 41% ..
1	H	126	15% 56% 41% ..
1	K	126	14% 60% 38% ..

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Mol	Chain	Length	Quality of chain
2	E	107	64% 68% 31%
2	F	107	65% 69% 30%
2	I	107	64% 65% 34%
2	L	107	63% 64% 35%
3	A	5027	64% 22% 14%
3	C	5027	64% 22% 14%
3	G	5027	64% 22% 14%
3	J	5027	64% 22% 14%

2 Entry composition

There are 8 unique types of molecules in this entry. The entry contains 144632 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 Nanobody 9657.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	H	126	Total	C	N	O	S	0	0
			967	597	170	195	5		
1	K	126	Total	C	N	O	S	0	0
			967	597	170	195	5		
1	D	126	Total	C	N	O	S	0	0
			967	597	170	195	5		
1	B	126	Total	C	N	O	S	0	0
			967	597	170	195	5		

- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1B.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	I	107	Total	C	N	O	S	0	0
			818	516	144	154	4		
2	L	107	Total	C	N	O	S	0	0
			818	516	144	154	4		
2	E	107	Total	C	N	O	S	0	0
			818	516	144	154	4		
2	F	107	Total	C	N	O	S	0	0
			818	516	144	154	4		

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
I	100	ASP	GLY	conflict	UNP Q8HYX6
L	100	ASP	GLY	conflict	UNP Q8HYX6
E	100	ASP	GLY	conflict	UNP Q8HYX6
F	100	ASP	GLY	conflict	UNP Q8HYX6

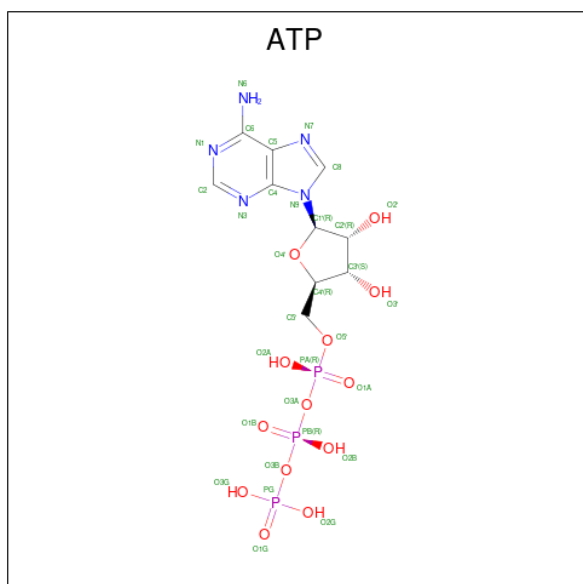
- Molecule 3 is a protein called Ryanodine receptor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	G	4318	Total	C	N	O	S	0	0
			34131	21738	5887	6282	224		
3	J	4318	Total	C	N	O	S	0	0
			34131	21738	5887	6282	224		
3	C	4318	Total	C	N	O	S	0	0
			34131	21738	5887	6282	224		
3	A	4318	Total	C	N	O	S	0	0
			34131	21738	5887	6282	224		

- Molecule 4 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
4	G	1	Total	Zn	0
			1	1	
4	J	1	Total	Zn	0
			1	1	
4	C	1	Total	Zn	0
			1	1	
4	A	1	Total	Zn	0
			1	1	

- Molecule 5 is ADENOSINE-5'-TRIPHOSPHATE (CCD ID: ATP) (formula: C₁₀H₁₆N₅O₁₃P₃) (labeled as "Ligand of Interest" by depositor).



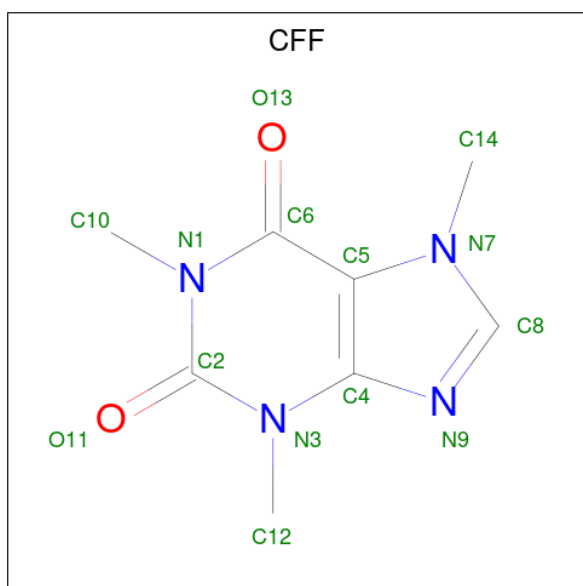
Mol	Chain	Residues	Atoms					AltConf
5	G	1	Total	C	N	O	P	0
			31	10	5	13	3	

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Mol	Chain	Residues	Atoms					AltConf
5	J	1	Total	C	N	O	P	0
			31	10	5	13	3	
5	C	1	Total	C	N	O	P	0
			31	10	5	13	3	
5	A	1	Total	C	N	O	P	0
			31	10	5	13	3	

- Molecule 6 is CAFFEINE (CCD ID: CFF) (formula: $C_8H_{10}N_4O_2$) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				AltConf
6	G	1	Total	C	N	O	0
			14	8	4	2	
6	J	1	Total	C	N	O	0
			14	8	4	2	
6	C	1	Total	C	N	O	0
			14	8	4	2	
6	A	1	Total	C	N	O	0
			14	8	4	2	

- Molecule 7 is CALCIUM ION (CCD ID: CA) (formula: Ca) (labeled as "Ligand of Interest" by depositor).

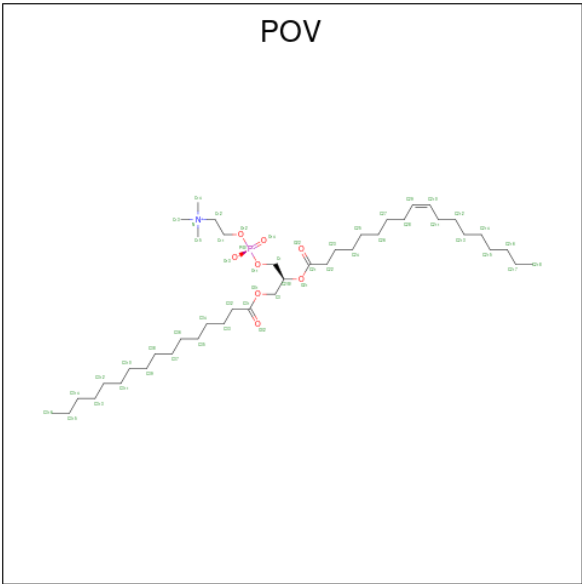
Mol	Chain	Residues	Atoms		AltConf
7	G	1	Total	Ca	0
			1	1	

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Mol	Chain	Residues	Atoms		AltConf
7	J	1	Total	Ca	0
			1	1	
7	C	1	Total	Ca	0
			1	1	
7	A	1	Total	Ca	0
			1	1	

- Molecule 8 is (2S)-3-(hexadecanoyloxy)-2-[(9Z)-octadec-9-enoyloxy]propyl 2-(trimethylammonio)ethyl phosphate (CCD ID: POV) (formula: C₄₂H₈₂NO₈P) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms					AltConf
8	G	1	Total 34	C 24	N 1	O 8	P 1	0
8	G	1	Total 36	C 26	N 1	O 8	P 1	0
8	G	1	Total 45	C 35	N 1	O 8	P 1	0
8	G	1	Total C 13 13					0
8	G	1	Total 38	C 28	N 1	O 8	P 1	0
8	G	1	Total 29	C 19	N 1	O 8	P 1	0
8	J	1	Total 45	C 35	N 1	O 8	P 1	0

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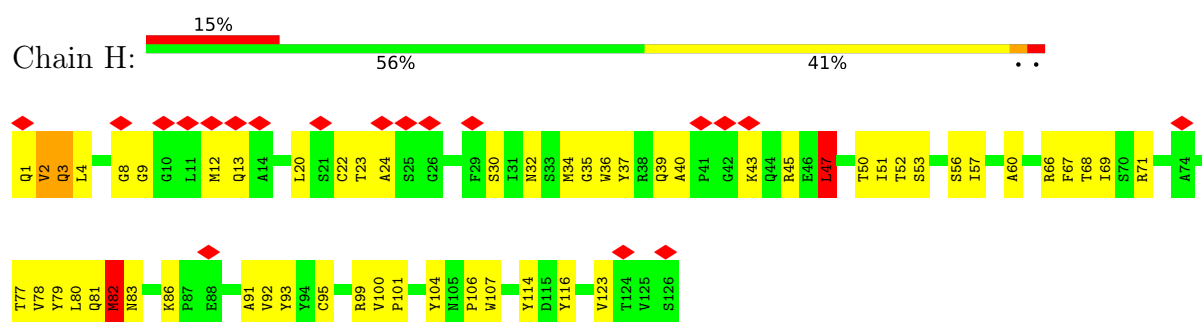
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Mol	Chain	Residues	Atoms					AltConf
8	J	1	Total	C	N	O	P	0
			34	24	1	8	1	
8	J	1	Total	C	N	O	P	0
			36	26	1	8	1	
8	J	1	Total	C	N	O	P	0
			45	35	1	8	1	
8	J	1	Total	C	N	O	P	0
			38	28	1	8	1	
8	J	1	Total	C	N	O	P	0
			29	19	1	8	1	
8	C	1	Total	C	N	O	P	0
			34	24	1	8	1	
8	C	1	Total	C	N	O	P	0
			36	26	1	8	1	
8	C	1	Total	C				0
			13	13				
8	C	1	Total	C	N	O	P	0
			38	28	1	8	1	
8	C	1	Total	C	N	O	P	0
			29	19	1	8	1	
8	C	1	Total	C				0
			13	13				
8	A	1	Total	C	N	O	P	0
			34	24	1	8	1	
8	A	1	Total	C	N	O	P	0
			36	26	1	8	1	
8	A	1	Total	C	N	O	P	0
			45	35	1	8	1	
8	A	1	Total	C				0
			13	13				
8	A	1	Total	C	N	O	P	0
			38	28	1	8	1	
8	A	1	Total	C	N	O	P	0
			29	19	1	8	1	

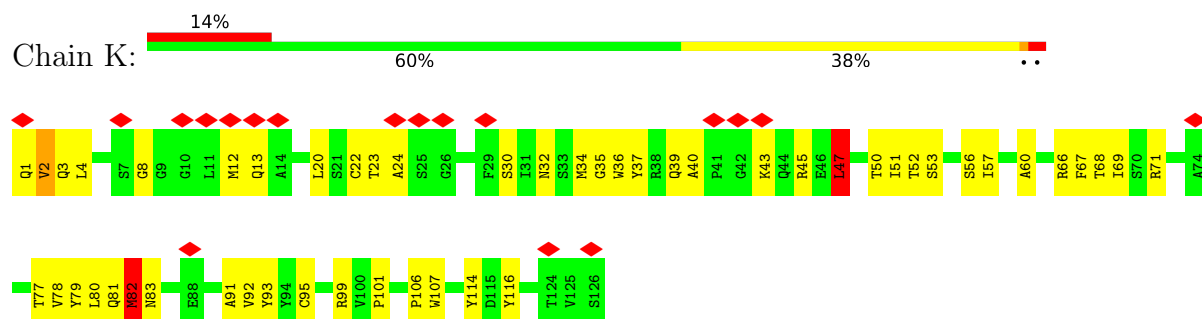
3 Residue-property plots [i](#)

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 and atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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.

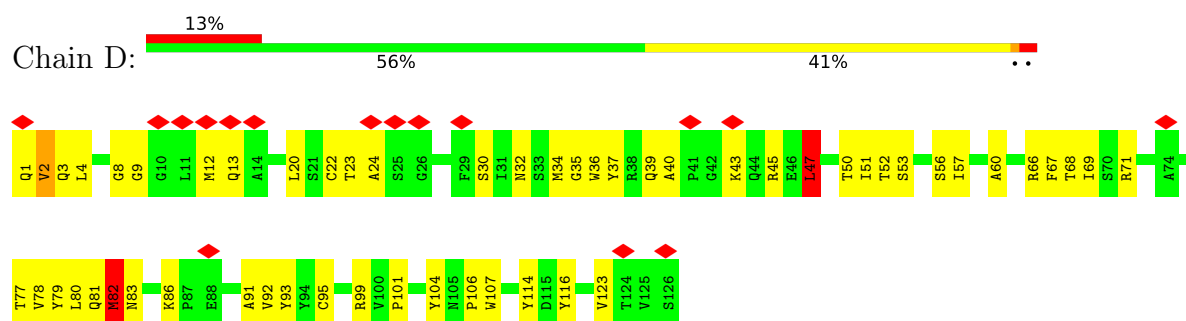
• Molecule 1: Nanobody 9657



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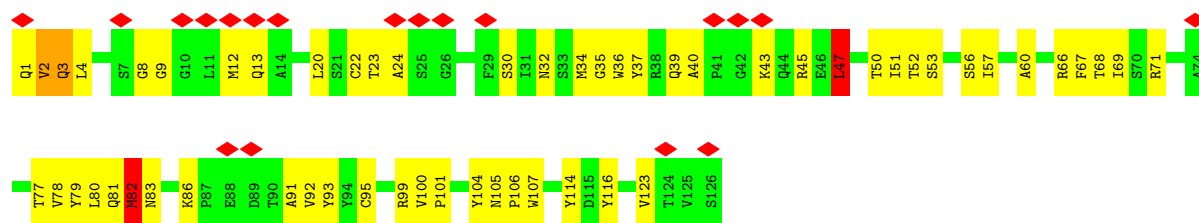


• Molecule 1: Nanobody 9657

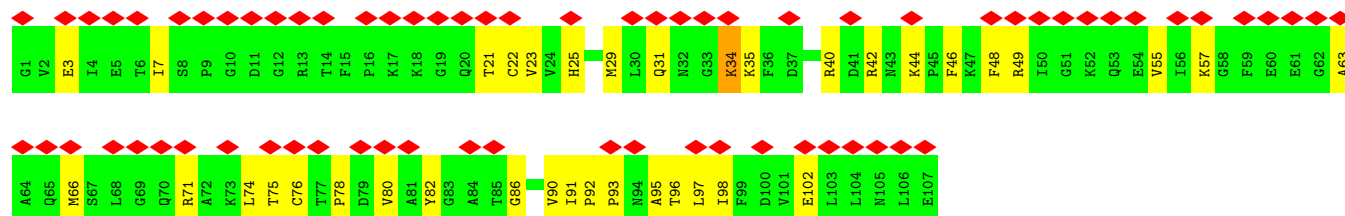


• Molecule 1: Nanobody 9657

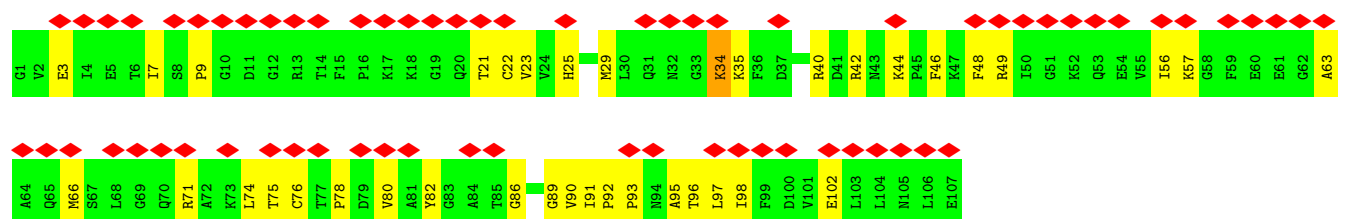




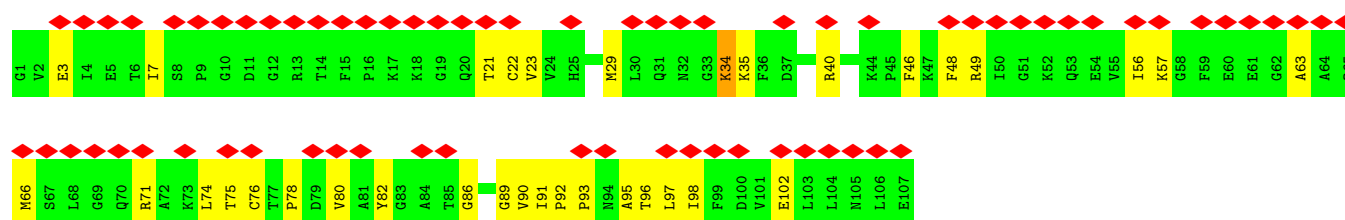
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



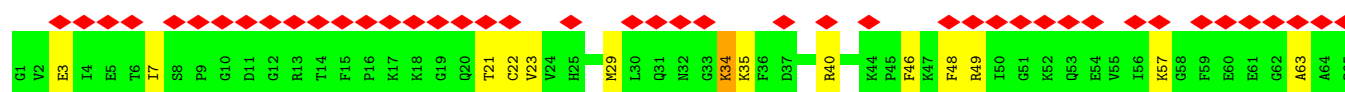
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B

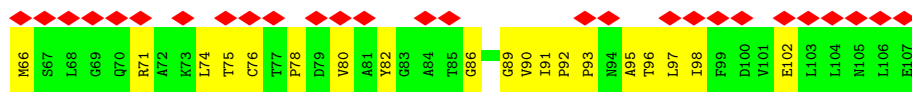


• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B



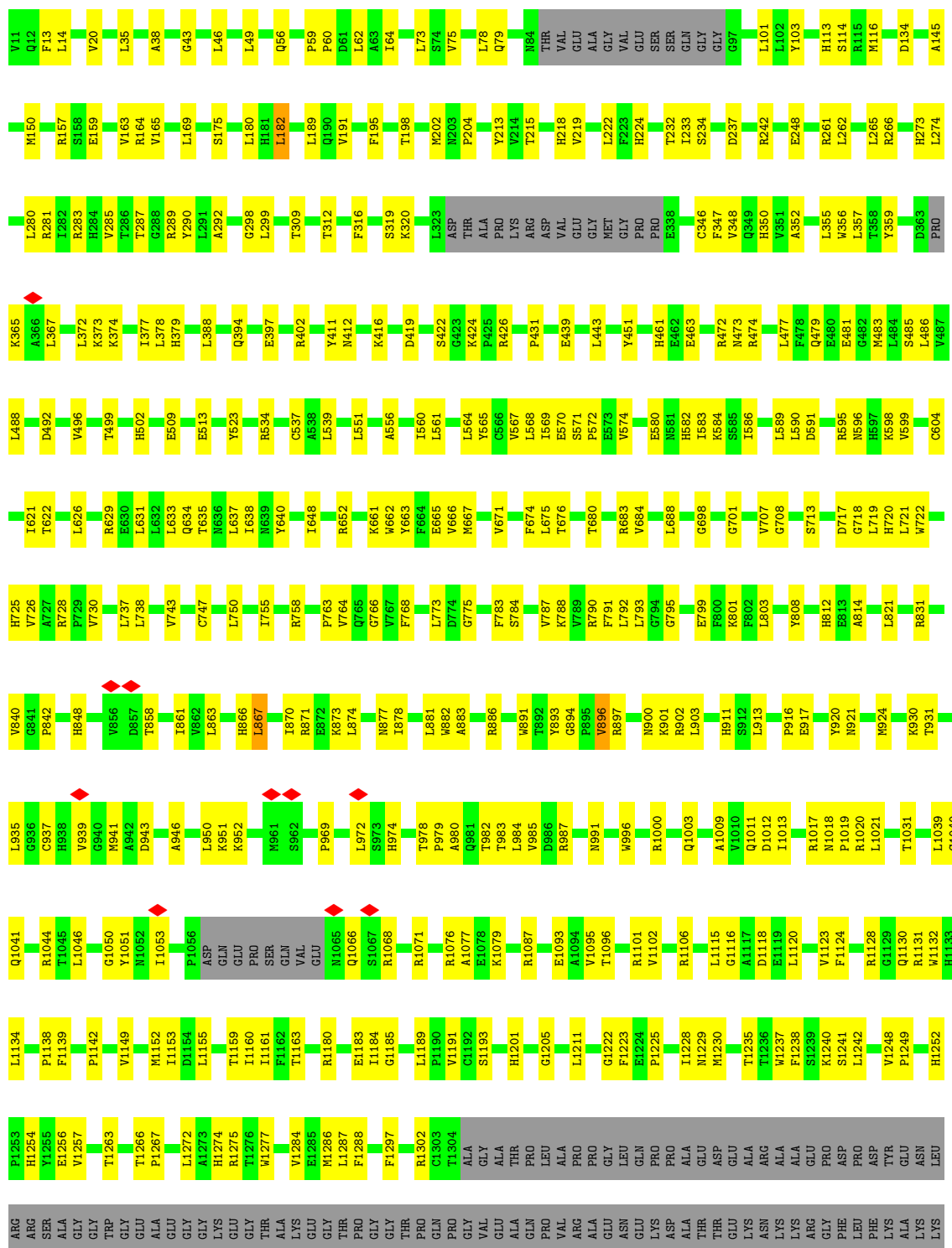
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1B





• Molecule 3: Ryanodine receptor 1

Chain G: 64% 22% 14%





THR	VAL	ARG	PRO	D4063	M3836	PHE	E3548	I3464	Q3343	A3257	VAL	E3035	ASP	H2874
GLY	GLY	ARG	GLY	A4076	L3842	ARG	V3549	L3470	V3346	E3265	GLY	K3036	MEI	Q2877
LEU	LEU	GLY	GLY	D4079	V3859	MET	E3550	T3471	L3381	M3266	Q3127	E3037	GLU	L2946
ALA	ALA	GLY	GLY	D4083	V3862	GLY	E3551	A3472	E3382	L3270	T3130	I3039	ASP	L2947
GLY	GLY	GLY	GLY	G4086	D3862	GLY	E3552	D3473	A3383	L3274	V3134	S3041	ASP	H2883
PRO	PRO	GLY	GLY	L4087	T3864	GLY	E3553	S3474	E3384	P3275	L3140	L3042	ASP	L2948
THR	THR	GLY	GLY	K4091	V3865	GLY	E3554	K3475	E3387	M3276	L3143	V3050	ASP	L2949
ALA	ALA	GLY	GLY	K4095	V3867	GLY	E3555	SER	A3388	C3278	F3144	R3053	ASP	L2951
GLY	GLY	GLY	GLY	M4122	D3869	GLY	E3556	LYS	E3389	G3279	F3157	V3054	ASP	L2952
GLY	GLY	GLY	GLY	P4135	N3870	GLY	E3557	ALA	E3390	Y3280	L3158	R3060	ASP	L2955
GLY	GLY	GLY	GLY	I4139	K3873	GLY	E3558	ASP	E3391	L3281	L3162	D3060	ASP	L2956
GLY	GLY	GLY	GLY	I4146	L3884	GLY	E3559	GLY	E3392	L3284	Q3162	R3063	ASP	L2957
GLY	GLY	GLY	GLY	R4159	L3891	GLY	E3560	GLY	E3393	W3285	Y3166	L2984	ASP	L2958
GLY	GLY	GLY	GLY	S4169	N3896	GLY	E3561	GLY	E3394	W3286	L3169	L2989	ASP	L2959
GLY	GLY	GLY	GLY	I4170	F3899	GLY	E3562	GLY	E3395	R3287	C3170	R3067	ASP	L2960
GLY	GLY	GLY	GLY	G4179	L3916	GLY	E3563	GLY	E3396	G3288	S3171	L3068	ASP	L2961
GLY	GLY	GLY	GLY	R4180	T3966	GLY	E3564	GLY	E3397	P3289	L3175	I3070	ASP	L2962
GLY	GLY	GLY	GLY	I4181	L3969	GLY	E3565	GLY	E3398	E3290	N3180	R3069	ASP	L2963
GLY	GLY	GLY	GLY	I4197	Q3970	GLY	E3566	GLY	E3399	A3291	L3187	L3071	ASP	L2966
GLY	GLY	GLY	GLY	E4206	L3980	GLY	E3567	GLY	E3400	L3295	A3195	I2969	ASP	L2967
GLY	GLY	GLY	GLY	M4207	V3989	GLY	E3568	GLY	E3401	L3296	R3196	R3089	ASP	L2968
GLY	GLY	GLY	GLY	P4208	V3990	GLY	E3569	GLY	E3402	P3297	L3197	A3090	ASP	L2969
GLY	GLY	GLY	GLY	K4211	M4000	GLY	E3570	GLY	E3403	A3298	L3206	R3093	ASP	L2970
GLY	GLY	GLY	GLY	F4219	K4014	GLY	E3571	GLY	E3404	A3299	E3207	D3102	ASP	L2971
GLY	GLY	GLY	GLY	D4220	L4017	GLY	E3572	GLY	E3405	A3300	K3222	I3103	ASP	L2972
GLY	GLY	GLY	GLY	E4224	M4023	GLY	E3573	GLY	E3406	L3305	S3223	Q2983	ASP	L2973
GLY	GLY	GLY	GLY	V4235	N4034	GLY	E3574	GLY	E3407	L3306	P3224	E3104	ASP	L2974
GLY	GLY	GLY	GLY	C4238	A4041	GLY	E3575	GLY	E3408	L3307	R3225	K3105	ASP	L2975
GLY	GLY	GLY	GLY	T4241	M4044	GLY	E3576	GLY	E3409	L3308	E3226	M3106	ASP	L2976
GLY	GLY	GLY	GLY	M4245	V4049	GLY	E3577	GLY	E3410	L3309	R3227	V3107	ASP	L2977
GLY	GLY	GLY	GLY	A4248	E4050	GLY	E3578	GLY	E3411	L3310	A3228	R3111	ASP	L2978
GLY	GLY	GLY	GLY	T4251	L4058	GLY	E3579	GLY	E3412	L3311	I3229	LEU	ASP	L2979
GLY	GLY	GLY	GLY	S4252	K4059	GLY	E3580	GLY	E3413	L3312	L3232	GLY	ASP	L2980
GLY	GLY	GLY	GLY	E4253	L4060	GLY	E3581	GLY	E3414	L3313	P3233	LYS	ASP	L2981
GLY	GLY	GLY	GLY		F4061	GLY	E3582	GLY	E3415	L3314	V3236	LYS	ASP	L2982
GLY	GLY	GLY	GLY		F4062	GLY	E3583	GLY	E3416	L3315	M3239	ALA	ASP	L2983
GLY	GLY	GLY	GLY			GLY	E3584	GLY	E3417	L3316	P3244	THR	ASP	L2984
GLY	GLY	GLY	GLY			GLY	E3585	GLY	E3418	L3317	V3245	GLN	ASP	L2985
GLY	GLY	GLY	GLY			GLY	E3586	GLY	E3419	L3318	R3248	LYS	ASP	L2986
GLY	GLY	GLY	GLY			GLY	E3587	GLY	E3420	L3319		GLY	ASP	L2987
GLY	GLY	GLY	GLY			GLY	E3588	GLY	E3421	L3320		GLY	ASP	L2988
GLY	GLY	GLY	GLY			GLY	E3589	GLY	E3422	L3321		GLY	ASP	L2989
GLY	GLY	GLY	GLY			GLY	E3590	GLY	E3423	L3322		GLY	ASP	L2990
GLY	GLY	GLY	GLY			GLY	E3591	GLY	E3424	L3323		GLY	ASP	L2991
GLY	GLY	GLY	GLY			GLY	E3592	GLY	E3425	L3324		GLY	ASP	L2992
GLY	GLY	GLY	GLY			GLY	E3593	GLY	E3426	L3325		GLY	ASP	L2993
GLY	GLY	GLY	GLY			GLY	E3594	GLY	E3427	L3326		GLY	ASP	L2994
GLY	GLY	GLY	GLY			GLY	E3595	GLY	E3428	L3327		GLY	ASP	L2995
GLY	GLY	GLY	GLY			GLY	E3596	GLY	E3429	L3328		GLY	ASP	L2996
GLY	GLY	GLY	GLY			GLY	E3597	GLY	E3430	L3329		GLY	ASP	L2997
GLY	GLY	GLY	GLY			GLY	E3598	GLY	E3431	L3330		GLY	ASP	L2998
GLY	GLY	GLY	GLY			GLY	E3599	GLY	E3432	L3331		GLY	ASP	L2999
GLY	GLY	GLY	GLY			GLY	E3600	GLY	E3433	L3332		GLY	ASP	L3000
GLY	GLY	GLY	GLY			GLY	E3601	GLY	E3434	L3333		GLY	ASP	L3001
GLY	GLY	GLY	GLY			GLY	E3602	GLY	E3435	L3334		GLY	ASP	L3002
GLY	GLY	GLY	GLY			GLY	E3603	GLY	E3436	L3335		GLY	ASP	L3003
GLY	GLY	GLY	GLY			GLY	E3604	GLY	E3437	L3336		GLY	ASP	L3004
GLY	GLY	GLY	GLY			GLY	E3605	GLY	E3438	L3337		GLY	ASP	L3005
GLY	GLY	GLY	GLY			GLY	E3606	GLY	E3439	L3338		GLY	ASP	L3006
GLY	GLY	GLY	GLY			GLY	E3607	GLY	E3440	L3339		GLY	ASP	L3007
GLY	GLY	GLY	GLY			GLY	E3608	GLY	E3441	L3340		GLY	ASP	L3008
GLY	GLY	GLY	GLY			GLY	E3609	GLY	E3442	L3341		GLY	ASP	L3009
GLY	GLY	GLY	GLY			GLY	E3610	GLY	E3443	L3342		GLY	ASP	L3010
GLY	GLY	GLY	GLY			GLY	E3611	GLY	E3444	L3343		GLY	ASP	L3011
GLY	GLY	GLY	GLY			GLY	E3612	GLY	E3445	L3344		GLY	ASP	L3012
GLY	GLY	GLY	GLY			GLY	E3613	GLY	E3446	L3345		GLY	ASP	L3013
GLY	GLY	GLY	GLY			GLY	E3614	GLY	E3447	L3346		GLY	ASP	L3014
GLY	GLY	GLY	GLY			GLY	E3615	GLY	E3448	L3347		GLY	ASP	L3015
GLY	GLY	GLY	GLY			GLY	E3616	GLY	E3449	L3348		GLY	ASP	L3016
GLY	GLY	GLY	GLY			GLY	E3617	GLY	E3450	L3349		GLY	ASP	L3017
GLY	GLY	GLY	GLY			GLY	E3618	GLY	E3451	L3350		GLY	ASP	L3018
GLY	GLY	GLY	GLY			GLY	E3619	GLY	E3452	L3351		GLY	ASP	L3019
GLY	GLY	GLY	GLY			GLY	E3620	GLY	E3453	L3352		GLY	ASP	L3020
GLY	GLY	GLY	GLY			GLY	E3621	GLY	E3454	L3353		GLY	ASP	L3021
GLY	GLY	GLY	GLY			GLY	E3622	GLY	E3455	L3354		GLY	ASP	L3022
GLY	GLY	GLY	GLY			GLY	E3623	GLY	E3456	L3355		GLY	ASP	L3023
GLY	GLY	GLY	GLY			GLY	E3624	GLY	E3457	L3356		GLY	ASP	L3024
GLY	GLY	GLY	GLY			GLY	E3625	GLY	E3458	L3357		GLY	ASP	L3025
GLY	GLY	GLY	GLY			GLY	E3626	GLY	E3459	L3358		GLY	ASP	L3026
GLY	GLY	GLY	GLY			GLY	E3627	GLY	E3460	L3359		GLY	ASP	L3027
GLY	GLY	GLY	GLY			GLY	E3628	GLY	E3461	L3360		GLY	ASP	L3028
GLY	GLY	GLY	GLY			GLY	E3629	GLY	E3462	L3361		GLY	ASP	L3029
GLY	GLY	GLY	GLY			GLY	E3630	GLY	E3463	L3362		GLY	ASP	L3030
GLY	GLY	GLY	GLY			GLY	E3631	GLY	E3464	L3363		GLY	ASP	L3031
GLY	GLY	GLY	GLY			GLY	E3632	GLY	E3465	L3364		GLY	ASP	L3032
GLY	GLY	GLY	GLY			GLY	E3633	GLY	E3466	L3365		GLY	ASP	L3033
GLY	GLY	GLY	GLY			GLY	E3634	GLY	E3467	L3366		GLY	ASP	L3034
GLY	GLY	GLY	GLY			GLY	E3635	GLY	E3468	L3367		GLY	ASP	L3035
GLY	GLY	GLY	GLY			GLY	E3636	GLY	E3469	L3368		GLY	ASP	L3036
GLY	GLY	GLY	GLY			GLY	E3637	GLY	E3470	L3369		GLY	ASP	L3037
GLY	GLY	GLY	GLY			GLY	E3638	GLY	E3471	L3370		GLY	ASP	L3038
GLY	GLY	GLY	GLY			GLY	E3639	GLY	E3472	L3371		GLY	ASP	L3039
GLY	GLY	GLY	GLY			GLY	E3640	GLY	E3473	L3372		GLY	ASP	L3040
GLY	GLY	GLY	GLY			GLY	E3641	GLY	E3474	L3373		GLY	ASP	L3041
GLY	GLY	GLY	GLY			GLY	E3642	GLY	E3475	L3374		GLY	ASP	L3042
GLY	GLY	GLY	GLY			GLY	E3643	GLY	E3476	L3375		GLY	ASP	L3043
GLY	GLY	GLY	GLY			GLY	E3644	GLY	E3477	L3376		GLY	ASP	L3044
GLY	GLY	GLY	GLY			GLY	E3645	GLY	E3478	L3377		GLY	ASP	L3045
GLY	GLY	GLY	GLY			GLY	E3646	GLY	E3479	L3378		GLY	ASP	L3046
GLY	GLY	GLY	GLY			GLY	E3647	GLY	E3480	L3379		GLY	ASP	L3047
GLY	GLY	GLY	GLY			GLY	E3648	GLY	E3481	L3380		GLY	ASP	L3048
GLY	GLY	GLY	GLY			GLY	E3649	GLY	E3482	L3381		GLY	ASP	L3049
GLY	GLY	GLY	GLY			GLY	E3650	GLY	E3483	L3382		GLY	ASP	L3050
GLY	GLY	GLY	GLY			GLY	E3651	GLY	E3484	L3383		GLY	ASP	L3051
GLY	GLY	GLY	GLY			GLY	E3652	GLY	E3485	L3384		GLY	ASP	L3052
GLY	GLY	GLY	GLY			GLY	E3653	GLY	E3486	L3385		GLY	ASP	L3053
GLY	GLY	GLY	GLY			GLY	E3654	GLY	E3487	L3386	</			

R2454	V2354	K2227	W2120	D2037	I1745	Q1614	GLN	PRO	GLY	L1272	M1152	Y1051
L2457	I2358	M2228	L2123	Q2045	T1746	R1619	GLY	ALA	ALA	A1273	I1153	H1052
D2465	C2363	C2233	Q2127	LEU	L1747	A1620	I1509	PRO	PRO	D1274	D1154	I1053
L2466	C2363	F2235	Q2128	GLY	P1779	G1621	C1518	ALA	ALA	R1275	L1155	
V2467	P2366	Y2238	P2146	GLU	F1782	R1623	L1522	LEU	LEU	T1276	T1159	P1056
G2468	A2367	S2147	S2147	GLU	L1786	W1626	L1522	ARG	ARG	W1277	I1160	ASP
L2469	L2368	I2242	S2148	GLU	P1787	Q1629	T1528	LEU	LEU	E1285	I1161	GLN
I2470	R2369	S2148	V2149	PRO	ALA	Q1629	F1529	PRO	PRO	M1286	F1162	PRO
S2471	G2370	GLU	T2152	GLU	ALA	D1632	T1539	HIS	HIS	L1287	T1163	SER
L2472	E2371	GLU	W2153	GLU	GLY	D1632	A1531	VAL	VAL	F1288	R1180	GLN
I2476	L2376	R2248	W2153	GLU	GLY	M1636	S1536	VAL	VAL	L1293	E1183	GLU
D2482	L2377	L2258	C2158	THR	GLY	L1639	S1536	PRO	PRO	P1294	I1184	H1065
G2483	E2381	L2159	L2159	SER	ALA	H1640	N1545	ASP	ASP	P1294	G1185	Q1066
V2495	R2385	S2261	T2162	SER	E1793	P1641	N1545	ASP	ASP	F1297	L1189	S1067
P2496	R2385	L2265	W2170	ARG	P1800	P1642	L1548	R1421	D1422	R1302	P1190	R1068
D2497	G2266	M2267	W2170	LEU	P1803	L1651	F1549	D1422	D1422	C1303	V1191	R1071
H2498	M2267	E2175	E2175	ARG	A1806	E1652	F1553	Y1434	Y1435	T1304	R1076	R1076
K2499	S2270	W2178	W2178	LEU	K1810	L1653	V1554	Y1435	Y1435	ALA	A1077	A1077
A2500	T2271	T2179	T2179	LEU	M1814	Q1660	V1561	Y1449	Y1449	ALA	K1079	K1079
S2501	P2272	T2179	T2179	GLU	L1815	H1663	I1562	Y1450	Y1450	THR	R1087	R1087
M2502	D2273	T2182	T2182	VAL	L1815	H1663	I1562	G1451	G1451	PRO	E1093	E1093
V2503	D2274	T2185	T2185	ARG	H1825	C1674	E1565	W1452	W1452	ALA	E1094	E1094
L2504	V2275	W2186	W2186	LEU	A1826	A1675	L1566	W1453	W1453	ARG	G1222	G1222
F2505	W2280	W2186	W2186	VAL	D1827	L1676	K1567	T1454	T1454	ALA	F1223	F1223
L2506	W2280	W2186	W2186	VAL	D1828	L1676	K1568	P1455	P1455	GLY	E1294	E1294
D2507	E2292	W2189	W2189	LYS	V1845	H1683	Q1569	D1456	D1456	LEU	P1225	P1225
R2508	L2295	V2190	V2190	LYS	V1845	A1684	K1570	M1462	M1462	GLN	R1101	R1101
I2512	P2296	W2192	W2192	GLY	F1854	Q1693	N1571	M1476	M1476	LYS	V1102	V1102
E2513	L2296	Q2193	Q2193	LYS	G1855	L1698	I1572	G1477	G1477	ASP	R1106	R1106
N2514	L2302	H2194	H2194	PRO	E1857	L1698	M1573	M1476	M1476	THR	L1115	L1115
F2517	S2309	L2201	L2201	GLU	D1857	H1702	P1574	G1477	G1477	THR	G1116	G1116
L2518	C2310	W2202	W2202	GLU	V1859	L1703	L1578	M1476	M1476	LYS	F1238	F1238
L2519	W2202	W2202	W2202	LEU	K1860	P1704	L1581	Q1480	Q1480	ASN	A1117	A1117
L2522	L2313	W2207	W2207	PRO	Q1861	L1707	L1581	Q1480	Q1480	LYS	D1118	D1118
F2526	L2418	W2208	W2208	ALA	M1865	L1707	R1584	Y1483	Y1483	ARG	L1120	L1120
L2527	G2419	E2209	E2209	GLU	F1871	H1718	K1585	L1487	L1487	GLY	V1123	V1123
M2530	H2420	W2211	W2211	GLU	E1874	H1719	P1589	M1491	M1491	ASP	F1124	F1124
A2532	W2423	G2322	G2322	Q2095	GLU	R1725	Q1591	C1492	C1492	LEU	R1128	R1128
L2536	L2430	Y2331	Y2331	Q2095	GLU	E1733	C1591	Y1493	Y1493	LYS	G1129	G1129
F2541	D2431	F2340	F2340	V2098	GLU	Y1734	L1595	M1494	M1494	ALA	Q1130	Q1130
N2551	A2437	E2348	E2348	V2102	GLU	I1735	L1600	W1496	W1496	LYS	R1131	R1131
R2552	W2440	W2349	W2349	F2012	GLU	V1736	L1600	W1496	W1496	LEU	W1132	W1132
Y2553	A2350	A2350	A2350	S2113	GLU	L1738	V1603	D1499	D1499	ALA	E1256	E1256
L2554	N2351	N2351	N2351	L2031	GLU	T1739	V1603	F1500	F1500	ARG	V1257	V1257
C2555	V2352	V2352	V2352	L2116	GLU	T1739	M1609	G1504	G1504	MET	P1138	P1138
	L2443	L2443	L2443	T2223	GLU	T1742	L1613	P1503	P1503	ALA	T1283	T1283
					GLU			G1504	G1504	GLY	T1266	T1266
								GLN	GLN	TRP	P1267	P1267

V2558	L2559	T2563	H2574	R2575	A2576	M2582	V2586	G2592	L2595	L2599	I2706	A2709	L2710	P2711	C2606	L2607	C2611	K2722	A2723	E2724	K2725	L2626	V2627	V2630	F2636	M2639	P2640	L2641	K2642	L2643	L2644	T2645	Y2648	E2649	Y2655	C2656	G2660	W2661	W2662	W2663	F2664	T2667	D2752	S2753	F2754	I2755	E2764	K2765	W2766									
K2677	L2678	F2679	K2689	K2690	Y2691	Y2696	R2697	M2698	A2699	M2700	P2701	I2706	A2709	L2710	P2711	C2606	L2607	C2611	K2722	A2723	E2724	K2725	L2626	V2627	V2630	F2636	M2639	P2640	L2641	K2642	L2643	L2644	T2645	Y2648	E2649	Y2655	C2656	G2660	W2661	W2662	W2663	F2664	T2667	D2752	S2753	F2754	I2755	E2764	K2765	W2766								
A2767	F2768	D2769	K2770	I2771	Q2772	N2773	N2774	W2775	A2776	Y2777	G2778	E2779	N2780	V2781	D2782	E2783	E2784	L2785	K2786	H2787	H2788	P2789	M2790	L2791	K2792	P2793	Y2794	K2795	T2796	E2799	K2800	D2801	K2802	E2803	I2804	Y2805	T2742	L2743	N2744	V2745	I2746	I2747	E2748	E2749	L2813	K2814	I2817	A2818	W2819	E2820	W2821	T2822	I2823	K2824	K2825	A2826	R2827	E2828
G2829	E2830	GLU	GLU	ARG	THR	GLU	LYS	LYS	THR	ARG	LYS	ILE	SER	GLN	THR	ALA	GLN	TVR	ASP	PRO	ARG	GLY	Y2855	M2856	P2857	Q2858	P2859	P2860	D2861	L2862	S2863	Q2864	V2865	T2866	L2867	S2868	R2869	E2870	L2871	M2874	Q2877	L2878	H2883	W2886	G2887	R2888	K2889	K2891	Q2892	E2893	L2894							
E2895	A2896	K2897	G2898	G2899	Q2900	T2901	H2902	P2903	L2904	V2905	D2909	T2912	E2915	K2916	A2917	R2918	D2919	R2920	E2921	Q2924	E2925	L2926	L2927	K2928	L2930	Q2931	M2932	N2933	G2934	Y2935	A2936	V2937	T2938	R2939	GLY	LEU	LYS	ASP	MET	L2946	D2947	T2948	I2951	E2952	F2955	A2956	F2957	G2958	F2959	L2960								
Q2961	Q2962	L2963	W2966	T2969	T2970	S2971	E2972	L2973	L2974	H2975	H2976	E2977	E2978	V2981	R2985	P2990	H2991	E2992	Q2993	E2994	L2995	K2996	I3001	F3010	C3014	S3019	T3020	P3021	A3022	H3030	N3033	K3034	E3035	K3036	E3037	M3038	I3039	T3040	S3041	L3042	F3043	L3049	V3050	R3053	V3054													
D3060	V3064	V3065	N3066	C3067	L3068	H3069	L3070	L3071	D3076	V3080	K3081	K3082	V3088	K3089	A3090	R3093	F3096	D3102	E3103	K3105	H3106	V3107	R3111	LEU	GLY	LYS	VAL	SER	GLN	ALA	ARG	THR	GLN	VAL	LYS	GLY	VAL	GLY	Q3127	T3130	V3134	L3140	L3143	F3144	H3150													
I3157	L3158	V3161	Q3162	Y3166	L3169	C3170	S3171	L3175	N3180	V3183	R3187	A3195	R3196	L3197	L3206	E3207	K3222	S3223	P3224	R3225	E3226	R3227	A3228	I3229	L3232	V3236	M3239	P3244	V3245	R3248	A3257	E3265	M3266	I3270	L3274	P3275	M3276	L3277	C3278																			
S3279	Y3280	L3281	W3284	W3285	E3286	R3287	G3288	P3289	E3290	A3291	A3295	L3296	P3297	A3298	G3299	A3300	T3305	T3308	H3311	L3312	L3315	I3319	L3320	R3321	I3322	L3323	L3324	N3325	L3326	L3327	G3328	I3329	D3330	E3331	K3336	F3341	A3342	Q3343	V3346	V3373	L3381	E3382	A3383	K3384	A3387	E3388												
E3389	Q3390	E3391	V3394	R3395	D3396	F3397	F3398	S3399	V3400	L3401	C3402	R3403	D3404	L3405	Y3406	Y3409	P3410	L3411	L3412	L3413	R3414	Y3415	R3420	P3427	E3433	M3437	G3438	G3439	E3440	T3441	F3442	I3443	Y3444	N3450	R3453	E3454	F3458	V3459	I3464	L3470	T3471	A3472	D3473	S3474	K3475	SER	LYS											
MET	ALA	LYS	ALA	GLY	ASP	ALA	GLN	SER	GLY	GLY	SER	ASP	GLN	GLU	THR	LYS	LYS	LYS	ARG	ARG	ASP	ASP	TYR	S3504	V3505	Q3506	L3509	T3510	V3511	A3512	L3514	L3515	M3517	L3518	L3533	M3534	L3535	R3539	T3545	D3546	E3547	E3548	V3549	R3550	E3551	F3552	L3553	L3554	N3555	N3556	S3556							
V3563	P3567	S3568	L3569	R3570	G3581	E3584	E3590	R3591	I3592	V3593	R3594	R3595	V3596	Q3597	E3598	V3602	H3605	L3606	P3612	TYR	LYS	SER	L3509	L3510	V3511	A3512	L3514	L3515	M3517	L3518	L3533	M3534	L3535	R3539	T3545	D3546	E3547	E3548	V3549	R3550	E3551	F3552	L3553	L3554	N3555	N3556	S3556											
E3682	Q3683	E3684	E3685	E3686	E3687	E3688	E3689	V3690	R3707	E3718	M3723	G3739	ASN	GLY	GLU	ALA	GLU	E3747	E3748	S3768	H3771	E3777	L3780	M3793	L3800	L3804	V3812	M3816	Y3819	M3836	V3859	D3862	G3863	T3864	V3865	N3867	Q3869																					





P3275	L3143	F2957	K2891	E2824	E2764	T2563	D2465	L2358	L2123
R3276	F3144	G2958	Q2892	K2825	K2765	H2574	L2466	L2357	Q2127
C3277	C3278	F2959	E2893	A2826	K2766	R2575	V2467	C2363	R2234
S3279	H3150	Q2961	L2894	R2827	A2767	A2576	G2468	F2235	Y2128
Y3280	L3157	Q2962	E2895	E2828	F2768	K2582	I2469	Y2238	P2146
L3281	L3158	L2963	A2896	G2829	K2770	L2583	I2470	K2367	S2147
W3284	V3161	W2966	K2897	E2830	K2771	V2586	S2471	L2368	S2148
W3285	Q3162	L2969	G2898	GLU	I2772	Y2591	L2472	R2369	V2149
E3286	L3067	G2970	G2899	GLU	K2773	Y2696	I2476	E2371	T2152
R3287	H3069	Q2971	G2900	THR	N2774	R2697	L2376	R2248	M2153
G3288	I3070	E2972	T2901	GLU	N2775	M2698	L2377	L2258	C2158
P3289	L3169	E2973	H2902	LYS	K2776	A2699	P2496	S2261	L2162
E3290	C3170	L2974	P2903	LYS	S2776	M2700	V2495	L2265	T2162
A3291	D3076	A2975	L2904	LYS	Q2777	I2603	P2496	L2266	M2170
A3295	V3080	H2976	L2905	THR	Q2778	C2806	D2497	R2385	E2175
L3296	M3081	L2977	L2906	ARG	E2779	L2607	H2498	T2386	T2270
P3297	K3082	E2978	D2909	LYS	E2780	I2706	K2499	R2392	T2271
A3298	V3088	V2981	T2912	ILE	V2781	A2709	S2501	GLY	T2272
P3299	K3089	R2985	E2915	SER	D2782	L2710	M2502	VAL	T2179
G3299	A3090	P2989	K2916	THR	E2783	C2611	V2503	ARG	L2182
A3300	R3093	H2991	E2917	ALA	E2784	I2614	L2504	ASP	L2185
T3305	F3096	E2992	A2917	THR	L2786	M2618	F2505	ARG	M2186
T3308	Q2993	Q2994	R2918	TTR	T2787	L2626	D2507	ASP	I2281
H3311	D3102	E2994	D2919	PRO	H2788	V2627	R2508	ARG	K2189
E3207	I3103	L2995	R2920	ARG	P2789	Y2630	I2512	ARG	V2190
L3312	E3104	K2996	E2921	GLU	K2790	F2636	E2513	GLU	F2191
L3315	K3105	I3001	Y2855	GLY	L2791	Y2639	M2514	HIS	Y2192
L3316	M3106	F3010	N2856	GLN	R2792	M2639	L2517	GLY	Q2193
I3319	V3107	G3014	P2857	THR	P2793	P2640	L2518	GLU	H2194
L3320	LEU	L3020	Q2858	VAL	Y2794	L2641	L2519	GLU	L2201
R3321	GLY	L2926	P2859	ASP	K2795	K2642	L2522	PRO	G2202
I3322	LYS	L2927	P2860	ALA	K2796	L2643	F2526	GLU	M2203
L3323	VAL	K2928	P2861	GLY	T2796	T2645	L2527	GLU	V2207
V3324	SER	P2929	D2861	N2794	E2799	Y2648	M2530	L2313	M2208
N3325	GLN	L2930	L2862	F2795	K2800	E2649	R2531	Y2318	E2209
L3326	ALA	Q2931	S2863	D2736	K2801	Y2653	A2532	G2322	V2210
L3327	THR	M2932	G2864	P2739	K2802	K2653	L2536	Y2331	V2212
G3328	ARG	G2934	V2865	E2741	E2803	Y2654	L2541	F2340	L2215
I3329	GLN	Y2935	T2866	T2742	I2804	C2655	R2551	M2440	G2216
D3330	VAL	A2936	L2867	L2743	R2805	Y2655	R2552	E2348	GLY
V3244	LYS	V2937	S2868	R2744	W2807	C2656	Y2553	N2349	THR
R3248	GLY	T2938	R2869	N2744	P2808	L2657	L2554	A2350	GLU
A3257	VAL	R2939	E2870	V2745	T2809	M2663	C2555	N2351	T2223
A3342	GLY	GLY	L2871	I2746	K2810	G2660	V2558	V2352	K2227
E3265	T3130	LYS	M2874	I2747	E2811	I2661	L2559	V2353	M2228
K3266	V3134	ASP	Q2877	I2748	S2812	A2662			
T3270	L3140	MET	L2878	P2748	K2814	F2664			
L3274		GLU	H2883	E2749	A2815				
		L2946	M2816	K2750	K2751				
		D2947	I2817	D2752	D2752				
		T2948	A2818	F2754	F2755				
		I2951	E2820						
		E2952	W2888						
		F2955	R2887						
		A2956	G2887						









[illegible]

4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	39983	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	JEOL CRYO ARM 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	60	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	3.787	Depositor
Minimum map value	-1.672	Depositor
Average map value	0.007	Depositor
Map value standard deviation	0.113	Depositor
Recommended contour level	0.3	Depositor
Map size (Å)	488.544, 488.544, 488.544	wwPDB
Map dimensions	336, 336, 336	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.454, 1.454, 1.454	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: CA, POV, ZN, CFF, ATP

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	B	0.23	0/987	0.64	3/1340 (0.2%)
1	D	0.23	0/987	0.64	3/1340 (0.2%)
1	H	0.23	0/987	0.64	3/1340 (0.2%)
1	K	0.23	0/987	0.64	3/1340 (0.2%)
2	E	0.28	0/834	0.60	1/1123 (0.1%)
2	F	0.28	0/834	0.60	1/1123 (0.1%)
2	I	0.28	0/834	0.60	1/1123 (0.1%)
2	L	0.28	0/834	0.60	1/1123 (0.1%)
3	A	0.21	0/34899	0.42	2/47302 (0.0%)
3	C	0.21	0/34899	0.42	2/47302 (0.0%)
3	G	0.21	0/34899	0.42	2/47302 (0.0%)
3	J	0.21	0/34899	0.42	1/47302 (0.0%)
All	All	0.21	0/146880	0.44	23/199060 (0.0%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
1	B	0	1
1	D	0	1
1	H	0	1
1	K	0	1
All	All	0	4

There are no bond length outliers.

All (23) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	K	3	GLN	CA-CB-CG	8.84	131.78	114.10
1	B	3	GLN	CA-CB-CG	8.84	131.78	114.10
1	H	3	GLN	CA-CB-CG	8.84	131.77	114.10
1	D	3	GLN	CA-CB-CG	8.82	131.74	114.10
1	D	82	MET	CB-CG-SD	7.20	134.29	112.70
1	B	82	MET	CB-CG-SD	7.20	134.30	112.70
1	K	82	MET	CB-CG-SD	7.20	134.29	112.70
1	H	82	MET	CB-CG-SD	7.20	134.29	112.70
1	H	47	LEU	CA-CB-CG	6.95	140.63	116.30
1	D	47	LEU	CA-CB-CG	6.95	140.62	116.30
1	K	47	LEU	CA-CB-CG	6.93	140.57	116.30
1	B	47	LEU	CA-CB-CG	6.92	140.53	116.30
2	L	34	LYS	CD-CE-NZ	-6.58	90.86	111.90
2	I	34	LYS	CD-CE-NZ	-6.57	90.87	111.90
2	F	34	LYS	CD-CE-NZ	-6.57	90.87	111.90
2	E	34	LYS	CD-CE-NZ	-6.56	90.90	111.90
3	J	1503	PRO	N-CA-CB	6.01	110.17	103.44
3	A	1503	PRO	N-CA-CB	6.00	110.16	103.44
3	G	1503	PRO	N-CA-CB	5.98	110.14	103.44
3	C	1503	PRO	N-CA-CB	5.97	110.13	103.44
3	G	463	GLU	CA-CB-CG	5.01	124.12	114.10
3	C	463	GLU	CA-CB-CG	5.01	124.12	114.10
3	A	463	GLU	CA-CB-CG	5.01	124.11	114.10

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	B	2	VAL	Peptide
1	D	2	VAL	Peptide
1	H	2	VAL	Peptide
1	K	2	VAL	Peptide

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	B	967	0	916	43	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	D	967	0	916	40	0
1	H	967	0	916	42	0
1	K	967	0	916	37	0
2	E	818	0	824	23	0
2	F	818	0	824	22	0
2	I	818	0	824	31	0
2	L	818	0	824	31	0
3	A	34131	0	33507	732	0
3	C	34131	0	33507	726	0
3	G	34131	0	33507	740	0
3	J	34131	0	33507	732	0
4	A	1	0	0	0	0
4	C	1	0	0	0	0
4	G	1	0	0	0	0
4	J	1	0	0	0	0
5	A	31	0	12	0	0
5	C	31	0	12	0	0
5	G	31	0	12	0	0
5	J	31	0	12	0	0
6	A	14	0	10	0	0
6	C	14	0	10	0	0
6	G	14	0	10	0	0
6	J	14	0	10	0	0
7	A	1	0	0	0	0
7	C	1	0	0	0	0
7	G	1	0	0	0	0
7	J	1	0	0	0	0
8	A	195	0	256	6	0
8	C	163	0	214	6	0
8	G	195	0	256	6	0
8	J	227	0	298	7	0
All	All	144632	0	142100	3131	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 11.

All (3131) 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)
3:J:2806:ARG:HE	3:J:2810:LYS:HE2	1.44	0.83
3:A:2806:ARG:HE	3:A:2810:LYS:HE2	1.44	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:2592:GLY:HA2	3:C:2595:LEU:HD12	1.62	0.82
3:J:2592:GLY:HA2	3:J:2595:LEU:HD12	1.62	0.81
3:A:2592:GLY:HA2	3:A:2595:LEU:HD12	1.62	0.81
3:C:2806:ARG:HE	3:C:2810:LYS:HE2	1.44	0.81
3:J:4238:CYS:HA	3:J:4989:MET:HE1	1.62	0.81
3:C:4238:CYS:HA	3:C:4989:MET:HE1	1.61	0.80
3:G:4238:CYS:HA	3:G:4989:MET:HE1	1.61	0.80
3:G:2806:ARG:HE	3:G:2810:LYS:HE2	1.44	0.80
3:A:4238:CYS:HA	3:A:4989:MET:HE1	1.62	0.80
3:G:2592:GLY:HA2	3:G:2595:LEU:HD12	1.62	0.79
3:A:2823:ILE:HG13	3:A:2937:VAL:HB	1.64	0.79
3:C:972:LEU:HB2	3:C:1044:ARG:HD2	1.65	0.78
3:J:2823:ILE:HG13	3:J:2937:VAL:HB	1.64	0.78
3:A:972:LEU:HB2	3:A:1044:ARG:HD2	1.66	0.78
3:G:2823:ILE:HG13	3:G:2937:VAL:HB	1.64	0.78
3:C:2823:ILE:HG13	3:C:2937:VAL:HB	1.64	0.77
3:J:972:LEU:HB2	3:J:1044:ARG:HD2	1.65	0.77
2:F:91:ILE:HD12	2:F:92:PRO:HD2	1.68	0.77
2:L:91:ILE:HD12	2:L:92:PRO:HD2	1.67	0.76
3:G:972:LEU:HB2	3:G:1044:ARG:HD2	1.66	0.76
2:I:91:ILE:HD12	2:I:92:PRO:HD2	1.68	0.76
2:E:91:ILE:HD12	2:E:92:PRO:HD2	1.67	0.76
3:C:2960:LEU:HB3	3:C:3038:MET:HE1	1.69	0.74
2:F:82:TYR:HB2	2:F:86:GLY:HA2	1.70	0.74
2:I:82:TYR:HB2	2:I:86:GLY:HA2	1.70	0.74
1:H:106:PRO:HB3	3:G:882:TRP:HB2	1.68	0.74
3:A:2960:LEU:HB3	3:A:3038:MET:HE1	1.69	0.73
2:L:82:TYR:HB2	2:L:86:GLY:HA2	1.70	0.73
2:E:90:VAL:HG23	2:E:91:ILE:HG22	1.70	0.73
2:I:35:LYS:H	2:I:35:LYS:HD2	1.54	0.73
3:J:2960:LEU:HB3	3:J:3038:MET:HE1	1.69	0.72
3:C:1435:TYR:HB3	3:C:1575:LEU:HD12	1.71	0.72
2:E:82:TYR:HB2	2:E:86:GLY:HA2	1.70	0.72
2:L:90:VAL:HG23	2:L:91:ILE:HG22	1.70	0.72
2:F:35:LYS:H	2:F:35:LYS:HD2	1.54	0.72
2:F:90:VAL:HG23	2:F:91:ILE:HG22	1.70	0.72
3:G:1561:VAL:HG12	3:G:1562:ILE:HG13	1.72	0.72
3:A:1435:TYR:HB3	3:A:1575:LEU:HD12	1.71	0.72
3:J:950:LEU:HD22	3:J:969:PRO:HB2	1.72	0.72
3:C:1087:ARG:HH21	3:C:1222:GLY:HA3	1.55	0.72
3:G:2960:LEU:HB3	3:G:3038:MET:HE1	1.69	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:K:106:PRO:HB3	3:J:882:TRP:HB2	1.70	0.72
3:J:1435:TYR:HB3	3:J:1575:LEU:HD12	1.71	0.72
3:A:1087:ARG:HH21	3:A:1222:GLY:HA3	1.55	0.72
2:E:35:LYS:H	2:E:35:LYS:HD2	1.54	0.71
3:C:950:LEU:HD22	3:C:969:PRO:HB2	1.72	0.71
2:L:35:LYS:H	2:L:35:LYS:HD2	1.54	0.71
3:A:2971:GLN:HB2	3:A:3049:LEU:HD22	1.72	0.71
3:G:1087:ARG:HH21	3:G:1222:GLY:HA3	1.55	0.71
3:J:1561:VAL:HG12	3:J:1562:ILE:HG13	1.72	0.71
2:I:90:VAL:HG23	2:I:91:ILE:HG22	1.70	0.71
3:G:633:LEU:HB3	3:G:1639:LEU:HD11	1.73	0.71
3:G:1435:TYR:HB3	3:G:1575:LEU:HD12	1.71	0.71
3:G:2971:GLN:HB2	3:G:3049:LEU:HD22	1.72	0.71
3:A:1561:VAL:HG12	3:A:1562:ILE:HG13	1.72	0.71
3:A:633:LEU:HB3	3:A:1639:LEU:HD11	1.73	0.71
3:A:950:LEU:HD22	3:A:969:PRO:HB2	1.72	0.70
3:C:1561:VAL:HG12	3:C:1562:ILE:HG13	1.72	0.70
3:G:950:LEU:HD22	3:G:969:PRO:HB2	1.72	0.70
3:J:666:VAL:HG21	3:J:684:VAL:HG21	1.74	0.70
3:C:1256:GLU:HB2	3:C:1275:ARG:HE	1.57	0.70
3:J:1256:GLU:HB2	3:J:1275:ARG:HE	1.57	0.70
1:B:106:PRO:HB3	3:A:882:TRP:HB2	1.73	0.70
3:C:666:VAL:HG21	3:C:684:VAL:HG21	1.74	0.70
3:J:1087:ARG:HH21	3:J:1222:GLY:HA3	1.55	0.70
3:J:2971:GLN:HB2	3:J:3049:LEU:HD22	1.72	0.70
3:G:1256:GLU:HB2	3:G:1275:ARG:HE	1.57	0.70
3:G:666:VAL:HG21	3:G:684:VAL:HG21	1.74	0.69
1:D:71:ARG:HB2	1:D:78:VAL:HG23	1.74	0.69
3:C:2971:GLN:HB2	3:C:3049:LEU:HD22	1.72	0.69
3:A:1256:GLU:HB2	3:A:1275:ARG:HE	1.57	0.69
3:J:2627:VAL:HG22	3:J:2678:LEU:HD12	1.74	0.69
3:C:633:LEU:HB3	3:C:1639:LEU:HD11	1.73	0.69
3:J:633:LEU:HB3	3:J:1639:LEU:HD11	1.73	0.69
3:G:2641:LEU:HD23	3:G:2698:MET:HG2	1.75	0.69
3:A:666:VAL:HG21	3:A:684:VAL:HG21	1.74	0.69
3:A:2627:VAL:HG22	3:A:2678:LEU:HD12	1.74	0.69
3:G:1241:SER:HA	3:G:1603:VAL:HG12	1.75	0.69
1:D:106:PRO:HB3	3:C:882:TRP:HB2	1.73	0.69
3:J:1297:PHE:HB2	3:J:1545:ASN:H	1.59	0.68
3:J:4044:MET:HE1	3:J:4146:LEU:HD11	1.74	0.68
3:C:4044:MET:HE1	3:C:4146:LEU:HD11	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:71:ARG:HB2	1:B:78:VAL:HG23	1.74	0.68
3:A:1241:SER:HA	3:A:1603:VAL:HG12	1.75	0.68
3:G:2248:ARG:HG2	3:G:3868:ARG:HE	1.59	0.68
3:C:2627:VAL:HG22	3:C:2678:LEU:HD12	1.74	0.68
3:A:2248:ARG:HG2	3:A:3868:ARG:HE	1.59	0.68
1:K:71:ARG:HB2	1:K:78:VAL:HG23	1.74	0.68
2:I:7:ILE:HB	2:I:71:ARG:HG3	1.76	0.68
3:G:896:VAL:HB	3:G:903:LEU:HD13	1.76	0.68
3:A:1297:PHE:HB2	3:A:1545:ASN:H	1.59	0.68
3:A:2641:LEU:HD23	3:A:2698:MET:HG2	1.75	0.68
3:A:2782:ASP:HB3	3:A:2785:LEU:HB2	1.76	0.68
3:G:2782:ASP:HB3	3:G:2785:LEU:HB2	1.76	0.68
3:G:4044:MET:HE1	3:G:4146:LEU:HD11	1.74	0.68
3:J:2248:ARG:HG2	3:J:3868:ARG:HE	1.59	0.68
3:C:1477:GLY:HA3	3:C:1483:VAL:HA	1.76	0.68
3:C:2248:ARG:HG2	3:C:3868:ARG:HE	1.59	0.68
3:A:764:VAL:HG13	3:A:766:GLY:H	1.59	0.68
3:J:2641:LEU:HD23	3:J:2698:MET:HG2	1.75	0.68
3:C:2782:ASP:HB3	3:C:2785:LEU:HB2	1.76	0.68
1:H:71:ARG:HB2	1:H:78:VAL:HG23	1.74	0.68
3:G:2627:VAL:HG22	3:G:2678:LEU:HD12	1.74	0.68
3:J:1241:SER:HA	3:J:1603:VAL:HG12	1.75	0.68
3:J:1477:GLY:HA3	3:J:1483:VAL:HA	1.76	0.68
3:J:2782:ASP:HB3	3:J:2785:LEU:HB2	1.76	0.68
3:A:1477:GLY:HA3	3:A:1483:VAL:HA	1.76	0.68
3:G:1477:GLY:HA3	3:G:1483:VAL:HA	1.76	0.67
3:C:499:THR:HG23	3:C:502:HIS:H	1.59	0.67
3:C:1297:PHE:HB2	3:C:1545:ASN:H	1.59	0.67
3:A:499:THR:HG23	3:A:502:HIS:H	1.59	0.67
3:G:499:THR:HG23	3:G:502:HIS:H	1.59	0.67
3:G:764:VAL:HG13	3:G:766:GLY:H	1.59	0.67
3:G:1297:PHE:HB2	3:G:1545:ASN:H	1.58	0.67
3:C:2641:LEU:HD23	3:C:2698:MET:HG2	1.75	0.67
1:K:53:SER:HB2	3:J:916:PRO:HB3	1.76	0.67
3:G:2366:PRO:HA	3:G:2369:ARG:HH12	1.60	0.67
3:J:348:VAL:HG13	3:J:357:LEU:HD13	1.77	0.67
3:J:499:THR:HG23	3:J:502:HIS:H	1.59	0.67
2:E:63:ALA:HA	2:E:66:MET:HE2	1.76	0.67
3:C:896:VAL:HB	3:C:903:LEU:HD13	1.76	0.67
2:L:7:ILE:HB	2:L:71:ARG:HG3	1.76	0.67
2:F:7:ILE:HB	2:F:71:ARG:HG3	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:896:VAL:HB	3:A:903:LEU:HD13	1.76	0.67
2:E:7:ILE:HB	2:E:71:ARG:HG3	1.76	0.67
3:A:4044:MET:HE1	3:A:4146:LEU:HD11	1.74	0.67
3:C:1241:SER:HA	3:C:1603:VAL:HG12	1.75	0.66
3:A:2930:LEU:HA	3:A:2935:TYR:HD2	1.61	0.66
2:I:63:ALA:HA	2:I:66:MET:HE2	1.76	0.66
3:G:1249:PRO:HG2	3:G:1252:HIS:HB2	1.78	0.66
3:J:896:VAL:HB	3:J:903:LEU:HD13	1.76	0.66
3:G:1238:PHE:HD2	3:G:1608:MET:HG2	1.61	0.66
3:J:1249:PRO:HG2	3:J:1252:HIS:HB2	1.78	0.66
3:A:1249:PRO:HG2	3:A:1252:HIS:HB2	1.78	0.66
3:C:764:VAL:HG13	3:C:766:GLY:H	1.59	0.66
3:C:2930:LEU:HA	3:C:2935:TYR:HD2	1.61	0.66
3:A:2366:PRO:HA	3:A:2369:ARG:HH12	1.60	0.66
3:C:348:VAL:HG13	3:C:357:LEU:HD13	1.77	0.66
3:C:1238:PHE:HD2	3:C:1608:MET:HG2	1.61	0.66
3:A:1238:PHE:HD2	3:A:1608:MET:HG2	1.61	0.66
3:G:4878:ASP:HB3	3:G:4881:THR:HG22	1.78	0.66
3:J:1238:PHE:HD2	3:J:1608:MET:HG2	1.61	0.66
3:J:4878:ASP:HB3	3:J:4881:THR:HG22	1.78	0.66
2:L:63:ALA:HA	2:L:66:MET:HE2	1.76	0.66
3:C:4878:ASP:HB3	3:C:4881:THR:HG22	1.78	0.66
3:J:2366:PRO:HA	3:J:2369:ARG:HH12	1.60	0.66
2:F:63:ALA:HA	2:F:66:MET:HE2	1.76	0.66
3:G:793:LEU:HD22	3:G:821:LEU:HD21	1.78	0.66
3:A:4878:ASP:HB3	3:A:4881:THR:HG22	1.78	0.66
3:G:3718:GLU:HA	3:G:3793:MET:HE3	1.78	0.65
3:J:764:VAL:HG13	3:J:766:GLY:H	1.59	0.65
3:C:1249:PRO:HG2	3:C:1252:HIS:HB2	1.78	0.65
3:J:793:LEU:HD22	3:J:821:LEU:HD21	1.78	0.65
3:J:3718:GLU:HA	3:J:3793:MET:HE3	1.78	0.65
3:A:2981:VAL:HA	3:A:2985:ARG:HA	1.78	0.65
3:G:348:VAL:HG13	3:G:357:LEU:HD13	1.77	0.65
3:C:3718:GLU:HA	3:C:3793:MET:HE3	1.78	0.65
3:G:2930:LEU:HA	3:G:2935:TYR:HD2	1.61	0.65
3:G:2969:ILE:HG22	3:G:2973:PHE:HE2	1.62	0.65
3:J:629:ARG:HB3	3:J:634:GLN:NE2	2.12	0.65
3:C:2366:PRO:HA	3:C:2369:ARG:HH12	1.60	0.65
3:C:3286:GLU:HA	3:C:3291:ALA:HB3	1.77	0.65
3:A:348:VAL:HG13	3:A:357:LEU:HD13	1.77	0.65
3:G:629:ARG:HB3	3:G:634:GLN:NE2	2.12	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:2930:LEU:HA	3:J:2935:TYR:HD2	1.61	0.65
3:A:3286:GLU:HA	3:A:3291:ALA:HB3	1.78	0.65
3:A:3718:GLU:HA	3:A:3793:MET:HE3	1.79	0.65
3:J:2981:VAL:HA	3:J:2985:ARG:HA	1.78	0.64
3:J:3286:GLU:HA	3:J:3291:ALA:HB3	1.78	0.64
3:J:3563:VAL:HG12	3:J:3570:ARG:HD3	1.80	0.64
3:C:2981:VAL:HA	3:C:2985:ARG:HA	1.78	0.64
3:J:1118:ASP:HB3	3:J:1120:LEU:HD12	1.80	0.64
3:C:629:ARG:HB3	3:C:634:GLN:NE2	2.12	0.64
3:J:2233:CYS:HB3	3:J:2270:SER:HB3	1.80	0.64
3:G:2233:CYS:HB3	3:G:2270:SER:HB3	1.80	0.64
3:A:265:LEU:HD13	3:A:281:ARG:HE	1.62	0.64
3:A:2969:ILE:HG22	3:A:2973:PHE:HE2	1.62	0.64
3:G:3563:VAL:HG12	3:G:3570:ARG:HD3	1.80	0.64
3:C:3563:VAL:HG12	3:C:3570:ARG:HD3	1.80	0.64
3:G:3286:GLU:HA	3:G:3291:ALA:HB3	1.77	0.64
3:C:2969:ILE:HG22	3:C:2973:PHE:HE2	1.62	0.64
3:A:629:ARG:HB3	3:A:634:GLN:NE2	2.12	0.64
3:J:2969:ILE:HG22	3:J:2973:PHE:HE2	1.62	0.63
3:A:793:LEU:HD22	3:A:821:LEU:HD21	1.78	0.63
3:G:2981:VAL:HA	3:G:2985:ARG:HA	1.78	0.63
3:C:2679:PHE:HB2	3:C:2706:ILE:HG21	1.81	0.63
3:G:265:LEU:HD13	3:G:281:ARG:HE	1.63	0.63
3:G:1118:ASP:HB3	3:G:1120:LEU:HD12	1.80	0.63
3:G:4087:LEU:HD12	3:G:4122:MET:HB3	1.80	0.63
3:J:2679:PHE:HB2	3:J:2706:ILE:HG21	1.81	0.63
3:C:38:ALA:HB1	3:C:64:ILE:HG13	1.81	0.63
3:A:3563:VAL:HG12	3:A:3570:ARG:HD3	1.80	0.63
3:J:38:ALA:HB1	3:J:64:ILE:HG13	1.81	0.63
3:C:793:LEU:HD22	3:C:821:LEU:HD21	1.78	0.63
3:C:2747:ILE:HG21	3:C:2814:LYS:HE3	1.81	0.63
3:A:2679:PHE:HB2	3:A:2706:ILE:HG21	1.81	0.63
3:C:4087:LEU:HD12	3:C:4122:MET:HB3	1.80	0.63
3:A:38:ALA:HB1	3:A:64:ILE:HG13	1.81	0.63
3:J:4087:LEU:HD12	3:J:4122:MET:HB3	1.80	0.63
3:C:265:LEU:HD13	3:C:281:ARG:HE	1.62	0.63
3:J:891:TRP:HA	3:J:902:ARG:HG3	1.80	0.63
3:A:2233:CYS:HB3	3:A:2270:SER:HB3	1.80	0.63
3:A:1118:ASP:HB3	3:A:1120:LEU:HD12	1.80	0.62
3:J:2747:ILE:HG21	3:J:2814:LYS:HE3	1.81	0.62
3:C:1118:ASP:HB3	3:C:1120:LEU:HD12	1.79	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:2233:CYS:HB3	3:C:2270:SER:HB3	1.80	0.62
3:G:2679:PHE:HB2	3:G:2706:ILE:HG21	1.81	0.62
3:G:262:LEU:HD13	3:G:274:LEU:HD12	1.82	0.62
3:J:2215:LEU:HD22	3:J:2265:LEU:HD23	1.80	0.62
3:C:891:TRP:HA	3:C:902:ARG:HG3	1.80	0.62
3:J:2190:VAL:HA	3:J:2193:GLN:HG2	1.81	0.62
3:A:2215:LEU:HD22	3:A:2265:LEU:HD23	1.80	0.62
3:G:38:ALA:HB1	3:G:64:ILE:HG13	1.81	0.62
3:G:2215:LEU:HD22	3:G:2265:LEU:HD23	1.80	0.62
3:J:262:LEU:HD13	3:J:274:LEU:HD12	1.82	0.62
3:G:1093:GLU:HB3	3:G:1201:HIS:HB3	1.81	0.62
3:A:4087:LEU:HD12	3:A:4122:MET:HB3	1.80	0.62
3:C:262:LEU:HD13	3:C:274:LEU:HD12	1.82	0.62
3:C:2190:VAL:HA	3:C:2193:GLN:HG2	1.81	0.62
3:A:671:VAL:HG12	3:A:787:VAL:HG23	1.82	0.62
3:G:671:VAL:HG12	3:G:787:VAL:HG23	1.82	0.62
3:G:2696:TYR:HB3	3:G:3001:ILE:HD11	1.82	0.62
3:G:2747:ILE:HG21	3:G:2814:LYS:HE3	1.81	0.62
3:J:671:VAL:HG12	3:J:787:VAL:HG23	1.82	0.62
3:G:2190:VAL:HA	3:G:2193:GLN:HG2	1.81	0.61
3:C:2696:TYR:HB3	3:C:3001:ILE:HD11	1.82	0.61
3:A:891:TRP:HA	3:A:902:ARG:HG3	1.80	0.61
3:C:2215:LEU:HD22	3:C:2265:LEU:HD23	1.80	0.61
3:A:262:LEU:HD13	3:A:274:LEU:HD12	1.81	0.61
3:A:1093:GLU:HB3	3:A:1201:HIS:HB3	1.81	0.61
3:A:2696:TYR:HB3	3:A:3001:ILE:HD11	1.82	0.61
3:A:2747:ILE:HG21	3:A:2814:LYS:HE3	1.81	0.61
3:A:2781:VAL:HG12	3:A:2789:PRO:HB2	1.83	0.61
3:A:3081:MET:HB3	3:A:3089:LYS:HE3	1.82	0.61
1:H:51:ILE:HD13	1:H:69:ILE:HG23	1.82	0.61
3:A:2190:VAL:HA	3:A:2193:GLN:HG2	1.81	0.61
3:J:265:LEU:HD13	3:J:281:ARG:HE	1.63	0.61
3:J:1093:GLU:HB3	3:J:1201:HIS:HB3	1.81	0.61
3:C:2781:VAL:HG12	3:C:2789:PRO:HB2	1.83	0.61
3:C:3081:MET:HB3	3:C:3089:LYS:HE3	1.83	0.61
3:G:891:TRP:HA	3:G:902:ARG:HG3	1.80	0.61
3:G:3081:MET:HB3	3:G:3089:LYS:HE3	1.83	0.61
3:J:2696:TYR:HB3	3:J:3001:ILE:HD11	1.82	0.61
3:J:2781:VAL:HG12	3:J:2789:PRO:HB2	1.83	0.61
3:C:1093:GLU:HB3	3:C:1201:HIS:HB3	1.81	0.61
3:G:2358:ILE:HG13	3:A:195:PHE:CE2	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:2781:VAL:HG12	3:G:2789:PRO:HB2	1.83	0.61
3:J:1115:LEU:HB3	3:J:1123:VAL:HG11	1.83	0.61
3:C:671:VAL:HG12	3:C:787:VAL:HG23	1.82	0.61
3:J:485:SER:HA	3:J:488:LEU:HD12	1.82	0.61
3:C:485:SER:HA	3:C:488:LEU:HD12	1.82	0.61
1:B:67:PHE:HB3	1:B:80:LEU:HD11	1.82	0.61
3:A:1115:LEU:HB3	3:A:1123:VAL:HG11	1.83	0.61
3:J:3270:ILE:HA	3:J:3274:LEU:HD12	1.83	0.61
1:D:67:PHE:HB3	1:D:80:LEU:HD11	1.82	0.61
1:K:51:ILE:HD13	1:K:69:ILE:HG23	1.82	0.61
3:G:2551:ASN:HD21	3:G:2595:LEU:HD23	1.66	0.60
3:J:3081:MET:HB3	3:J:3089:LYS:HE3	1.83	0.60
3:C:3043:PHE:HE2	3:C:3143:LEU:HD21	1.65	0.60
3:C:3270:ILE:HA	3:C:3274:LEU:HD12	1.83	0.60
3:J:858:THR:HG21	3:J:931:THR:HG22	1.83	0.60
1:H:67:PHE:HB3	1:H:80:LEU:HD11	1.82	0.60
3:J:3043:PHE:HE2	3:J:3143:LEU:HD21	1.65	0.60
3:A:485:SER:HA	3:A:488:LEU:HD12	1.82	0.60
3:A:2740:VAL:HG21	3:A:2819:TRP:HE1	1.67	0.60
3:A:2764:GLU:HB3	3:A:2857:PRO:HD3	1.83	0.60
3:G:485:SER:HA	3:G:488:LEU:HD12	1.82	0.60
3:G:3270:ILE:HA	3:G:3274:LEU:HD12	1.83	0.60
3:G:4680:LYS:HB3	3:G:4686:LEU:HD22	1.84	0.60
1:D:53:SER:HB2	3:C:916:PRO:HB3	1.82	0.60
3:C:2551:ASN:HD21	3:C:2595:LEU:HD23	1.66	0.60
3:C:4680:LYS:HB3	3:C:4686:LEU:HD22	1.84	0.60
1:B:51:ILE:HD13	1:B:69:ILE:HG23	1.82	0.60
3:A:4241:THR:O	3:A:4245:MET:HG3	2.02	0.60
3:G:2740:VAL:HG21	3:G:2819:TRP:HE1	1.66	0.60
3:G:3043:PHE:HE2	3:G:3143:LEU:HD21	1.65	0.60
1:K:67:PHE:HB3	1:K:80:LEU:HD11	1.82	0.60
3:C:195:PHE:CE2	3:A:2358:ILE:HG13	2.37	0.60
3:G:2764:GLU:HB3	3:G:2857:PRO:HD3	1.83	0.60
3:G:195:PHE:CE2	3:J:2358:ILE:HG13	2.37	0.60
3:J:2740:VAL:HG21	3:J:2819:TRP:HE1	1.66	0.60
3:A:2551:ASN:HD21	3:A:2595:LEU:HD23	1.66	0.60
3:A:4680:LYS:HB3	3:A:4686:LEU:HD22	1.84	0.60
3:J:4680:LYS:HB3	3:J:4686:LEU:HD22	1.84	0.60
1:B:53:SER:HB2	3:A:916:PRO:HB3	1.84	0.60
3:A:3043:PHE:HE2	3:A:3143:LEU:HD21	1.65	0.60
3:G:1115:LEU:HB3	3:G:1123:VAL:HG11	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:4241:THR:O	3:C:4245:MET:HG3	2.02	0.59
3:J:195:PHE:CE2	3:C:2358:ILE:HG13	2.37	0.59
1:D:51:ILE:HD13	1:D:69:ILE:HG23	1.82	0.59
3:C:640:TYR:HB3	3:C:1613:LEU:HD11	1.84	0.59
3:C:858:THR:HG21	3:C:931:THR:HG22	1.83	0.59
3:G:640:TYR:HB3	3:G:1613:LEU:HD11	1.85	0.59
3:J:2951:ILE:HG21	3:J:3034:LYS:HD2	1.85	0.59
3:C:683:ARG:HG2	3:C:717:ASP:HB3	1.84	0.59
3:A:2656:CYS:HA	3:A:2711:PRO:HG3	1.85	0.59
3:A:3034:LYS:O	3:A:3038:MET:HG3	2.03	0.59
3:G:2951:ILE:HG21	3:G:3034:LYS:HD2	1.84	0.59
1:B:35:GLY:HA2	1:B:50:THR:HA	1.84	0.59
3:A:683:ARG:HG2	3:A:717:ASP:HB3	1.84	0.59
3:A:2951:ILE:HG21	3:A:3034:LYS:HD2	1.84	0.59
3:J:2551:ASN:HD21	3:J:2595:LEU:HD23	1.66	0.59
3:A:3270:ILE:HA	3:A:3274:LEU:HD12	1.83	0.59
3:J:683:ARG:HG2	3:J:717:ASP:HB3	1.84	0.59
3:C:2740:VAL:HG21	3:C:2819:TRP:HE1	1.66	0.59
3:A:858:THR:HG21	3:A:931:THR:HG22	1.83	0.59
3:G:858:THR:HG21	3:G:931:THR:HG22	1.83	0.59
3:G:4241:THR:O	3:G:4245:MET:HG3	2.02	0.59
3:J:1698:LEU:HD23	3:J:1814:MET:HE1	1.85	0.59
3:J:2656:CYS:HA	3:J:2711:PRO:HG3	1.85	0.59
3:J:2764:GLU:HB3	3:J:2857:PRO:HD3	1.83	0.59
3:A:640:TYR:HB3	3:A:1613:LEU:HD11	1.85	0.59
3:J:640:TYR:HB3	3:J:1613:LEU:HD11	1.85	0.59
3:C:870:ILE:HA	3:C:873:LYS:HE2	1.85	0.59
3:C:1115:LEU:HB3	3:C:1123:VAL:HG11	1.83	0.59
3:C:2764:GLU:HB3	3:C:2857:PRO:HD3	1.83	0.59
3:A:4811:ALA:HB2	8:A:5106:POV:H39A	1.85	0.59
3:A:2639:MET:HE2	3:A:2642:LYS:HE2	1.85	0.59
1:H:35:GLY:HA2	1:H:50:THR:HA	1.84	0.58
3:J:101:LEU:HB3	3:J:150:MET:HE1	1.85	0.58
3:G:2639:MET:HE2	3:G:2642:LYS:HE2	1.85	0.58
3:J:4241:THR:O	3:J:4245:MET:HG3	2.02	0.58
3:C:2973:PHE:CD1	3:C:2995:ILE:HG12	2.38	0.58
1:D:35:GLY:HA2	1:D:50:THR:HA	1.84	0.58
3:G:720:HIS:HB3	3:G:728:ARG:H	1.69	0.58
3:G:1698:LEU:HD23	3:G:1814:MET:HE1	1.85	0.58
1:K:35:GLY:HA2	1:K:50:THR:HA	1.84	0.58
3:J:590:LEU:HB3	3:J:631:LEU:HD13	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:1698:LEU:HD23	3:C:1814:MET:HE1	1.85	0.58
3:A:1274:HIS:HB3	3:A:1277:TRP:HB2	1.84	0.58
3:G:101:LEU:HB3	3:G:150:MET:HE1	1.85	0.58
3:J:1274:HIS:HB3	3:J:1277:TRP:HB2	1.84	0.58
3:J:1573:MET:HE3	3:J:1574:PRO:HD2	1.85	0.58
3:J:2973:PHE:CD1	3:J:2995:ILE:HG12	2.38	0.58
3:J:3066:ASN:HA	3:J:3069:HIS:HD1	1.69	0.58
3:J:3236:VAL:HA	3:J:3239:MET:HG3	1.86	0.58
3:C:101:LEU:HB3	3:C:150:MET:HE1	1.85	0.58
3:C:2951:ILE:HG21	3:C:3034:LYS:HD2	1.85	0.58
3:C:3034:LYS:O	3:C:3038:MET:HG3	2.03	0.58
3:C:3236:VAL:HA	3:C:3239:MET:HG3	1.86	0.58
3:A:720:HIS:HB3	3:A:728:ARG:H	1.69	0.58
3:G:1020:ARG:HH21	3:G:1031:THR:HG23	1.69	0.58
3:G:3034:LYS:O	3:G:3038:MET:HG3	2.02	0.58
3:A:101:LEU:HB3	3:A:150:MET:HE1	1.85	0.58
3:A:1020:ARG:HH21	3:A:1031:THR:HG23	1.69	0.58
3:G:2656:CYS:HA	3:G:2711:PRO:HG3	1.85	0.58
3:G:2973:PHE:CD1	3:G:2995:ILE:HG12	2.38	0.58
3:J:3020:THR:HG22	3:J:3022:ALA:H	1.69	0.58
3:C:2874:MET:HE1	3:C:2937:VAL:HG21	1.86	0.58
3:A:2377:LEU:HG	3:A:2465:ASP:HA	1.85	0.58
3:A:3020:THR:HG22	3:A:3022:ALA:H	1.69	0.58
3:G:1274:HIS:HB3	3:G:1277:TRP:HB2	1.84	0.58
3:G:3033:ASN:HA	3:G:3036:LYS:HD2	1.86	0.58
3:G:3236:VAL:HA	3:G:3239:MET:HG3	1.86	0.58
3:G:4811:ALA:HB2	8:G:5106:POV:H39A	1.84	0.58
3:J:870:ILE:HA	3:J:873:LYS:HE2	1.85	0.58
3:C:1274:HIS:HB3	3:C:1277:TRP:HB2	1.84	0.58
3:A:1041:GLN:HA	3:A:1044:ARG:HE	1.69	0.58
3:G:233:ILE:HG13	3:G:234:SER:N	2.19	0.58
3:G:3020:THR:HG22	3:G:3022:ALA:H	1.69	0.58
3:J:720:HIS:HB3	3:J:728:ARG:H	1.69	0.58
3:J:3034:LYS:O	3:J:3038:MET:HG3	2.03	0.58
3:J:3563:VAL:HA	3:J:3569:LEU:HD11	1.86	0.58
3:C:590:LEU:HB3	3:C:631:LEU:HD13	1.85	0.58
3:C:2368:LEU:HD21	3:C:2376:LEU:HD13	1.86	0.58
3:C:3066:ASN:HA	3:C:3069:HIS:HD1	1.69	0.58
3:A:2431:ASP:HB2	3:A:2501:SER:HB2	1.85	0.58
3:A:2973:PHE:CD1	3:A:2995:ILE:HG12	2.38	0.58
3:C:1020:ARG:HH21	3:C:1031:THR:HG23	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:3533:ILE:HG12	3:C:3596:VAL:HG23	1.86	0.58
3:A:590:LEU:HB3	3:A:631:LEU:HD13	1.85	0.58
3:J:622:THR:HG23	3:J:626:LEU:HD22	1.86	0.57
3:J:2310:CYS:HB3	3:J:2313:LEU:HB2	1.86	0.57
3:J:2380:ILE:HD12	3:J:2469:ILE:HG23	1.86	0.57
3:J:3427:PRO:HD2	3:J:3581:GLY:HA3	1.86	0.57
3:J:4811:ALA:HB2	8:J:5107:POV:H39A	1.85	0.57
3:C:720:HIS:HB3	3:C:728:ARG:H	1.69	0.57
3:C:1573:MET:HE3	3:C:1574:PRO:HD2	1.85	0.57
3:C:2380:ILE:HD12	3:C:2469:ILE:HG23	1.86	0.57
3:C:2788:HIS:HB3	3:C:2791:LEU:HD22	1.86	0.57
3:G:1041:GLN:HA	3:G:1044:ARG:HE	1.69	0.57
3:G:2788:HIS:HB3	3:G:2791:LEU:HD22	1.86	0.57
3:G:3533:ILE:HG12	3:G:3596:VAL:HG23	1.86	0.57
3:J:2368:LEU:HD21	3:J:2376:LEU:HD13	1.86	0.57
3:J:2431:ASP:HB2	3:J:2501:SER:HB2	1.86	0.57
3:J:2788:HIS:HB3	3:J:2791:LEU:HD22	1.86	0.57
3:C:1041:GLN:HA	3:C:1044:ARG:HE	1.69	0.57
3:C:1453:VAL:HG23	3:C:1549:PHE:HB2	1.87	0.57
3:A:49:LEU:HD11	3:A:191:VAL:HB	1.86	0.57
3:A:870:ILE:HA	3:A:873:LYS:HE2	1.85	0.57
3:A:1698:LEU:HD23	3:A:1814:MET:HE1	1.85	0.57
3:G:870:ILE:HA	3:G:873:LYS:HE2	1.85	0.57
3:G:2380:ILE:HD12	3:G:2469:ILE:HG23	1.86	0.57
3:G:3427:PRO:HD2	3:G:3581:GLY:HA3	1.87	0.57
3:J:1020:ARG:HH21	3:J:1031:THR:HG23	1.69	0.57
3:J:3090:ALA:HA	3:J:3093:ARG:HD2	1.87	0.57
2:E:89:GLY:HA3	3:C:1684:ALA:HB1	1.85	0.57
3:A:2380:ILE:HD12	3:A:2469:ILE:HG23	1.86	0.57
3:A:3066:ASN:HA	3:A:3069:HIS:HD1	1.69	0.57
2:I:78:PRO:HD3	2:I:96:THR:HG22	1.87	0.57
3:G:683:ARG:HG2	3:G:717:ASP:HB3	1.84	0.57
3:G:3384:LYS:H	3:G:3387:ALA:HB3	1.68	0.57
2:L:78:PRO:HD3	2:L:96:THR:HG22	1.87	0.57
2:L:86:GLY:H	2:L:93:PRO:HA	1.70	0.57
3:J:265:LEU:H	3:J:280:LEU:HA	1.69	0.57
3:J:3384:LYS:H	3:J:3387:ALA:HB3	1.68	0.57
3:C:1927:LEU:HD23	3:C:1939:MET:HE3	1.86	0.57
3:C:2377:LEU:HG	3:C:2465:ASP:HA	1.85	0.57
3:A:1927:LEU:HD23	3:A:1939:MET:HE3	1.86	0.57
3:A:2368:LEU:HD21	3:A:2376:LEU:HD13	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:2788:HIS:HB3	3:A:2791:LEU:HD22	1.86	0.57
3:A:3236:VAL:HA	3:A:3239:MET:HG3	1.86	0.57
3:A:3563:VAL:HA	3:A:3569:LEU:HD11	1.86	0.57
2:I:86:GLY:H	2:I:93:PRO:HA	1.70	0.57
3:G:2310:CYS:HB3	3:G:2313:LEU:HB2	1.86	0.57
2:E:78:PRO:HD3	2:E:96:THR:HG22	1.87	0.57
3:C:2639:MET:HE2	3:C:2642:LYS:HE2	1.85	0.57
3:A:2874:MET:HE1	3:A:2937:VAL:HG21	1.86	0.57
3:A:3033:ASN:HA	3:A:3036:LYS:HD2	1.86	0.57
3:G:590:LEU:HB3	3:G:631:LEU:HD13	1.85	0.57
3:G:622:THR:HG23	3:G:626:LEU:HD22	1.86	0.57
3:G:1453:VAL:HG23	3:G:1549:PHE:HB2	1.87	0.57
3:G:2368:LEU:HD21	3:G:2376:LEU:HD13	1.86	0.57
3:G:3066:ASN:HA	3:G:3069:HIS:HD1	1.69	0.57
3:J:233:ILE:HG13	3:J:234:SER:N	2.19	0.57
3:J:2874:MET:HE1	3:J:2937:VAL:HG21	1.86	0.57
3:C:49:LEU:HD11	3:C:191:VAL:HB	1.86	0.57
3:C:569:ILE:HG23	3:C:570:GLU:HG2	1.87	0.57
3:C:2656:CYS:HA	3:C:2711:PRO:HG3	1.85	0.57
3:C:3384:LYS:H	3:C:3387:ALA:HB3	1.68	0.57
2:F:78:PRO:HD3	2:F:96:THR:HG22	1.87	0.57
3:G:2377:LEU:HG	3:G:2465:ASP:HA	1.85	0.57
3:J:569:ILE:HG23	3:J:570:GLU:HG2	1.87	0.57
3:J:4909:TYR:HE1	8:J:5101:POV:H22	1.69	0.57
3:C:2431:ASP:HB2	3:C:2501:SER:HB2	1.85	0.57
3:C:3020:THR:HG22	3:C:3022:ALA:H	1.69	0.57
3:C:3427:PRO:HD2	3:C:3581:GLY:HA3	1.86	0.57
3:A:1453:VAL:HG23	3:A:1549:PHE:HB2	1.86	0.57
3:A:1573:MET:HE3	3:A:1574:PRO:HD2	1.85	0.57
3:G:1573:MET:HE3	3:G:1574:PRO:HD2	1.85	0.57
3:J:1041:GLN:HA	3:J:1044:ARG:HE	1.69	0.57
3:J:3033:ASN:HA	3:J:3036:LYS:HD2	1.86	0.57
3:J:3593:VAL:HG23	3:J:3594:ARG:HE	1.69	0.57
3:C:622:THR:HG23	3:C:626:LEU:HD22	1.86	0.57
3:C:3593:VAL:HG23	3:C:3594:ARG:HE	1.69	0.57
3:A:1302:ARG:HD3	3:A:1302:ARG:H	1.70	0.57
3:G:265:LEU:H	3:G:280:LEU:HA	1.69	0.57
3:G:3567:PRO:HG2	3:A:1825:HIS:HB2	1.86	0.57
3:J:1051:TYR:HB3	3:J:1053:ILE:HG22	1.87	0.57
3:A:265:LEU:H	3:A:280:LEU:HA	1.69	0.57
3:A:1452:TRP:HB2	3:A:1493:TYR:HB2	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:2431:ASP:HB2	3:G:2501:SER:HB2	1.85	0.57
3:J:49:LEU:HD11	3:J:191:VAL:HB	1.86	0.57
3:J:2639:MET:HE2	3:J:2642:LYS:HE2	1.85	0.57
3:C:2777:TYR:HE2	3:C:2793:PRO:HD3	1.70	0.57
3:G:569:ILE:HG23	3:G:570:GLU:HG2	1.87	0.56
3:G:1302:ARG:H	3:G:1302:ARG:HD3	1.70	0.56
3:G:1452:TRP:HB2	3:G:1493:TYR:HB2	1.87	0.56
3:G:2116:LEU:O	3:G:2120:MET:HG2	2.05	0.56
3:G:3563:VAL:HA	3:G:3569:LEU:HD11	1.86	0.56
3:J:2377:LEU:HG	3:J:2465:ASP:HA	1.85	0.56
3:C:233:ILE:HG13	3:C:234:SER:N	2.19	0.56
3:C:567:VAL:HG12	3:C:574:VAL:HG21	1.87	0.56
3:A:3384:LYS:H	3:A:3387:ALA:HB3	1.68	0.56
3:G:2874:MET:HE1	3:G:2937:VAL:HG21	1.86	0.56
3:J:1452:TRP:HB2	3:J:1493:TYR:HB2	1.87	0.56
3:J:1453:VAL:HG23	3:J:1549:PHE:HB2	1.86	0.56
3:C:1452:TRP:HB2	3:C:1493:TYR:HB2	1.87	0.56
3:A:2777:TYR:HE2	3:A:2793:PRO:HD3	1.70	0.56
3:A:2976:HIS:CE1	3:A:2990:PRO:HD3	2.40	0.56
3:A:3427:PRO:HD2	3:A:3581:GLY:HA3	1.87	0.56
3:G:1927:LEU:HD23	3:G:1939:MET:HE3	1.86	0.56
3:G:3090:ALA:HA	3:G:3093:ARG:HD2	1.86	0.56
3:J:114:SER:HB3	3:J:116:MET:HG3	1.87	0.56
3:J:1302:ARG:H	3:J:1302:ARG:HD3	1.70	0.56
3:J:1745:ILE:H	3:J:1745:ILE:HD12	1.71	0.56
3:J:1825:HIS:HB2	3:C:3567:PRO:HG2	1.86	0.56
3:J:3533:ILE:HG12	3:J:3596:VAL:HG23	1.86	0.56
3:C:2310:CYS:HB3	3:C:2313:LEU:HB2	1.86	0.56
3:C:3284:TRP:CD1	3:C:3305:THR:HG1	2.24	0.56
3:C:3563:VAL:HA	3:C:3569:LEU:HD11	1.86	0.56
3:A:622:THR:HG23	3:A:626:LEU:HD22	1.86	0.56
3:A:3090:ALA:HA	3:A:3093:ARG:HD2	1.86	0.56
3:G:114:SER:HB3	3:G:116:MET:HG3	1.87	0.56
3:J:2116:LEU:O	3:J:2120:MET:HG2	2.05	0.56
3:J:801:LYS:HD2	3:J:1623:ARG:HH22	1.71	0.56
3:J:2976:HIS:CE1	3:J:2990:PRO:HD3	2.40	0.56
3:C:265:LEU:H	3:C:280:LEU:HA	1.69	0.56
3:C:3033:ASN:HA	3:C:3036:LYS:HD2	1.86	0.56
3:C:4811:ALA:HB2	8:C:5106:POV:H39A	1.86	0.56
2:F:86:GLY:H	2:F:93:PRO:HA	1.70	0.56
3:A:2302:LEU:HD12	3:A:2363:CYS:HB3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:1051:TYR:HB3	3:G:1053:ILE:HG22	1.87	0.56
3:G:1825:HIS:HB2	3:J:3567:PRO:HG2	1.87	0.56
3:J:2777:TYR:HE2	3:J:2793:PRO:HD3	1.70	0.56
2:E:86:GLY:H	2:E:93:PRO:HA	1.70	0.56
3:A:1745:ILE:H	3:A:1745:ILE:HD12	1.71	0.56
3:G:49:LEU:HD11	3:G:191:VAL:HB	1.86	0.56
3:C:20:VAL:HG21	3:C:202:MET:HG2	1.87	0.56
3:C:2976:HIS:CE1	3:C:2990:PRO:HD3	2.40	0.56
3:A:2310:CYS:HB3	3:A:2313:LEU:HB2	1.86	0.56
3:G:801:LYS:HD2	3:G:1623:ARG:HH22	1.71	0.56
3:J:1927:LEU:HD23	3:J:1939:MET:HE3	1.86	0.56
3:A:567:VAL:HG12	3:A:574:VAL:HG21	1.87	0.56
3:G:3406:TYR:HD1	3:G:3509:LEU:HB2	1.71	0.56
3:J:3226:GLU:HA	3:J:3229:ILE:HG12	1.88	0.56
3:J:3284:TRP:CD1	3:J:3305:THR:HG1	2.23	0.56
3:C:1745:ILE:H	3:C:1745:ILE:HD12	1.71	0.56
3:C:3090:ALA:HA	3:C:3093:ARG:HD2	1.86	0.56
3:C:3406:TYR:HD1	3:C:3509:LEU:HB2	1.71	0.56
3:G:298:GLY:HA3	3:G:377:ILE:HA	1.88	0.56
3:G:2302:LEU:HD12	3:G:2363:CYS:HB3	1.88	0.56
3:G:3593:VAL:HG23	3:G:3594:ARG:HE	1.69	0.56
1:D:24:ALA:HB2	1:D:34:MET:HE1	1.88	0.56
3:C:1051:TYR:HB3	3:C:1053:ILE:HG22	1.87	0.56
3:C:2116:LEU:O	3:C:2120:MET:HG2	2.05	0.56
3:C:2871:LEU:HG	3:C:2927:LEU:HD21	1.88	0.56
2:F:71:ARG:HB3	2:F:102:GLU:HB3	1.88	0.56
3:A:1051:TYR:HB3	3:A:1053:ILE:HG22	1.87	0.56
3:A:3533:ILE:HG12	3:A:3596:VAL:HG23	1.86	0.56
3:G:233:ILE:HG13	3:G:234:SER:H	1.71	0.55
3:G:567:VAL:HG12	3:G:574:VAL:HG21	1.87	0.55
1:K:24:ALA:HB2	1:K:34:MET:HE1	1.88	0.55
3:J:20:VAL:HG21	3:J:202:MET:HG2	1.87	0.55
3:J:35:LEU:HD13	3:J:182:LEU:HD21	1.88	0.55
3:J:567:VAL:HG12	3:J:574:VAL:HG21	1.87	0.55
2:E:71:ARG:HB3	2:E:102:GLU:HB3	1.88	0.55
3:C:1825:HIS:HB2	3:A:3567:PRO:HG2	1.87	0.55
3:C:2186:MET:HE1	3:C:2235:PHE:HA	1.88	0.55
3:A:20:VAL:HG21	3:A:202:MET:HG2	1.87	0.55
3:A:233:ILE:HG13	3:A:234:SER:N	2.19	0.55
3:A:569:ILE:HG23	3:A:570:GLU:HG2	1.87	0.55
3:G:2777:TYR:HE2	3:G:2793:PRO:HD3	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:233:ILE:HG13	3:J:234:SER:H	1.72	0.55
3:J:556:ALA:O	3:J:560:ILE:HD12	2.06	0.55
3:J:3859:VAL:HG22	3:J:3864:THR:HA	1.89	0.55
3:C:2302:LEU:HD12	3:C:2363:CYS:HB3	1.88	0.55
3:A:801:LYS:HD2	3:A:1623:ARG:HH22	1.71	0.55
3:A:3406:TYR:HD1	3:A:3509:LEU:HB2	1.71	0.55
3:A:3593:VAL:HG23	3:A:3594:ARG:HE	1.69	0.55
2:I:40:ARG:NH1	3:G:674:PHE:HB3	2.21	0.55
2:I:71:ARG:HB3	2:I:102:GLU:HB3	1.88	0.55
3:G:2976:HIS:CE1	3:G:2990:PRO:HD3	2.40	0.55
3:C:556:ALA:O	3:C:560:ILE:HD12	2.06	0.55
3:C:801:LYS:HD2	3:C:1623:ARG:HH22	1.71	0.55
3:C:1302:ARG:HD3	3:C:1302:ARG:H	1.70	0.55
3:A:298:GLY:HA3	3:A:377:ILE:HA	1.88	0.55
3:A:2116:LEU:O	3:A:2120:MET:HG2	2.05	0.55
3:A:3226:GLU:HA	3:A:3229:ILE:HG12	1.88	0.55
3:G:35:LEU:HD13	3:G:182:LEU:HD21	1.88	0.55
3:G:3859:VAL:HG22	3:G:3864:THR:HA	1.89	0.55
3:J:298:GLY:HA3	3:J:377:ILE:HA	1.88	0.55
3:J:3180:ASN:HD21	3:J:3183:VAL:HG13	1.72	0.55
3:C:3226:GLU:HA	3:C:3229:ILE:HG12	1.88	0.55
3:G:4780:PHE:HD1	3:G:4783:ILE:HD11	1.72	0.55
3:J:2186:MET:HE1	3:J:2235:PHE:HA	1.88	0.55
3:J:2871:LEU:HG	3:J:2927:LEU:HD21	1.88	0.55
3:A:114:SER:HB3	3:A:116:MET:HG3	1.87	0.55
1:H:53:SER:HB2	3:G:916:PRO:HB3	1.89	0.55
3:C:4834:GLY:HA3	8:C:5108:POV:H24	1.87	0.55
2:I:76:CYS:HB2	2:I:97:LEU:HB2	1.89	0.55
3:G:556:ALA:O	3:G:560:ILE:HD12	2.06	0.55
3:J:3414:ARG:HH21	3:J:3471:THR:HG23	1.72	0.55
3:J:3916:ILE:HG22	3:J:3980:LEU:HD21	1.89	0.55
3:J:4780:PHE:HD1	3:J:4783:ILE:HD11	1.72	0.55
3:C:4780:PHE:HD1	3:C:4783:ILE:HD11	1.72	0.55
3:A:3870:ASN:HB2	3:A:3873:LYS:HE2	1.89	0.55
3:G:20:VAL:HG21	3:G:202:MET:HG2	1.87	0.55
3:G:1745:ILE:HD12	3:G:1745:ILE:H	1.71	0.55
3:G:2871:LEU:HG	3:G:2927:LEU:HD21	1.88	0.55
3:G:3916:ILE:HG22	3:G:3980:LEU:HD21	1.89	0.55
3:C:114:SER:HB3	3:C:116:MET:HG3	1.87	0.55
3:C:1567:GLY:HA2	3:C:1589:PRO:HB3	1.89	0.55
3:C:3916:ILE:HG22	3:C:3980:LEU:HD21	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:233:ILE:HG13	3:A:234:SER:H	1.71	0.55
3:A:1567:GLY:HA2	3:A:1589:PRO:HB3	1.89	0.55
3:A:2871:LEU:HG	3:A:2927:LEU:HD21	1.88	0.55
3:G:551:LEU:HD13	3:G:589:LEU:HD11	1.89	0.55
3:J:2302:LEU:HD12	3:J:2363:CYS:HB3	1.88	0.55
3:J:3406:TYR:HD1	3:J:3509:LEU:HB2	1.71	0.55
3:C:233:ILE:HG13	3:C:234:SER:H	1.71	0.55
3:C:1676:LEU:HA	3:C:1725:ARG:HH12	1.72	0.55
3:C:4909:TYR:HE1	8:A:5107:POV:H22	1.72	0.55
3:G:1567:GLY:HA2	3:G:1589:PRO:HB3	1.89	0.55
2:L:71:ARG:HB3	2:L:102:GLU:HB3	1.88	0.55
3:J:1738:LEU:HB2	3:J:2146:PRO:HD3	1.89	0.55
3:A:556:ALA:O	3:A:560:ILE:HD12	2.06	0.55
3:A:3859:VAL:HG22	3:A:3864:THR:HA	1.89	0.55
1:H:24:ALA:HB2	1:H:34:MET:HE1	1.88	0.54
3:G:3284:TRP:CD1	3:G:3305:THR:HG1	2.25	0.54
3:J:62:LEU:HB3	3:J:261:ARG:HH12	1.72	0.54
3:A:2186:MET:HE1	3:A:2235:PHE:HA	1.88	0.54
3:A:3916:ILE:HG22	3:A:3980:LEU:HD21	1.89	0.54
3:C:3066:ASN:O	3:C:3070:ILE:HG13	2.08	0.54
2:F:76:CYS:HB2	2:F:97:LEU:HB2	1.89	0.54
3:G:1676:LEU:HA	3:G:1725:ARG:HH22	1.72	0.54
3:G:3226:GLU:HA	3:G:3229:ILE:HG12	1.88	0.54
3:J:551:LEU:HD13	3:J:589:LEU:HD11	1.89	0.54
3:J:1068:ARG:HG3	3:J:1071:ARG:HB2	1.90	0.54
3:J:1567:GLY:HA2	3:J:1589:PRO:HB3	1.89	0.54
3:J:1676:LEU:HA	3:J:1725:ARG:HH12	1.72	0.54
3:J:3066:ASN:O	3:J:3070:ILE:HG13	2.08	0.54
2:E:76:CYS:HB2	2:E:97:LEU:HB2	1.89	0.54
3:C:943:ASP:HB2	3:C:946:ALA:HB3	1.90	0.54
3:C:2272:PRO:HA	3:C:2275:VAL:HG12	1.90	0.54
3:A:3284:TRP:CD1	3:A:3305:THR:HG1	2.26	0.54
3:G:1676:LEU:HA	3:G:1725:ARG:HH12	1.72	0.54
3:G:2186:MET:HE1	3:G:2235:PHE:HA	1.88	0.54
3:G:3180:ASN:HD21	3:G:3183:VAL:HG13	1.72	0.54
3:J:3321:ARG:HH11	3:J:3324:VAL:HG11	1.72	0.54
3:C:1676:LEU:HA	3:C:1725:ARG:HH22	1.72	0.54
3:C:3870:ASN:HB2	3:C:3873:LYS:HE2	1.89	0.54
1:B:24:ALA:HB2	1:B:34:MET:HE1	1.88	0.54
3:A:886:ARG:HH12	3:A:893:TYR:HA	1.72	0.54
3:A:1131:ARG:HH11	3:A:1139:PHE:HB2	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:1676:LEU:HA	3:A:1725:ARG:HH22	1.72	0.54
3:A:3515:LYS:HA	3:A:3518:LEU:HD13	1.89	0.54
2:I:25:HIS:HE1	3:G:674:PHE:CD2	2.25	0.54
3:G:3321:ARG:HH11	3:G:3324:VAL:HG11	1.72	0.54
3:G:3414:ARG:HH21	3:G:3471:THR:HG23	1.72	0.54
3:G:4909:TYR:HE1	8:J:5108:POV:H22	1.72	0.54
3:C:298:GLY:HA3	3:C:377:ILE:HA	1.88	0.54
3:C:3859:VAL:HG22	3:C:3864:THR:HA	1.89	0.54
3:A:35:LEU:HD13	3:A:182:LEU:HD21	1.88	0.54
3:A:3180:ASN:HD21	3:A:3183:VAL:HG13	1.72	0.54
3:A:4780:PHE:HD1	3:A:4783:ILE:HD11	1.72	0.54
2:L:76:CYS:HB2	2:L:97:LEU:HB2	1.89	0.54
3:J:1676:LEU:HA	3:J:1725:ARG:HH22	1.72	0.54
3:C:596:ASN:HB2	3:C:599:VAL:HG23	1.90	0.54
3:A:596:ASN:HB2	3:A:599:VAL:HG23	1.90	0.54
3:A:1066:GLN:HE22	3:A:1068:ARG:HE	1.56	0.54
3:G:937:CYS:HB3	3:G:1053:ILE:HG13	1.89	0.54
3:G:1131:ARG:HH11	3:G:1139:PHE:HB2	1.73	0.54
3:G:3515:LYS:HA	3:G:3518:LEU:HD13	1.89	0.54
1:K:52:THR:HB	1:K:56:SER:HB3	1.90	0.54
3:J:3336:LYS:HE3	3:J:3464:ILE:HD11	1.90	0.54
3:C:35:LEU:HD13	3:C:182:LEU:HD21	1.88	0.54
3:C:62:LEU:HB3	3:C:261:ARG:HH12	1.72	0.54
3:A:1676:LEU:HA	3:A:1725:ARG:HH12	1.72	0.54
3:A:3066:ASN:O	3:A:3070:ILE:HG13	2.08	0.54
3:A:3336:LYS:HE3	3:A:3464:ILE:HD11	1.90	0.54
1:H:52:THR:HB	1:H:56:SER:HB3	1.90	0.54
3:G:2158:CYS:O	3:G:2162:ILE:HG13	2.08	0.54
3:G:3324:VAL:HA	3:G:3327:LEU:HD22	1.89	0.54
3:G:3870:ASN:HB2	3:G:3873:LYS:HE2	1.89	0.54
3:J:917:GLU:HA	3:J:920:TYR:HB3	1.90	0.54
3:J:4857:ASN:HD22	8:C:5106:POV:H33	1.72	0.54
1:D:52:THR:HB	1:D:56:SER:HB3	1.90	0.54
3:C:917:GLU:HA	3:C:920:TYR:HB3	1.90	0.54
3:C:1066:GLN:HE22	3:C:1068:ARG:HE	1.56	0.54
3:C:1738:LEU:HB2	3:C:2146:PRO:HD3	1.89	0.54
3:C:3324:VAL:HA	3:C:3327:LEU:HD22	1.89	0.54
3:A:237:ASP:HA	3:A:242:ARG:HE	1.73	0.54
3:G:62:LEU:HB3	3:G:261:ARG:HH12	1.72	0.54
3:J:237:ASP:HA	3:J:242:ARG:HE	1.73	0.54
3:J:2158:CYS:O	3:J:2162:ILE:HG13	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:638:ILE:HD11	3:C:1636:MET:HE2	1.90	0.54
3:C:758:ARG:HA	3:C:763:PRO:HA	1.90	0.54
3:C:3336:LYS:HE3	3:C:3464:ILE:HD11	1.90	0.54
3:C:4839:MET:HE1	8:C:5107:POV:H218	1.90	0.54
3:A:62:LEU:HB3	3:A:261:ARG:HH12	1.72	0.54
3:A:1810:LYS:HG2	3:A:1814:MET:HE2	1.90	0.54
3:A:2272:PRO:HA	3:A:2275:VAL:HG12	1.90	0.54
3:G:886:ARG:HH12	3:G:893:TYR:HA	1.72	0.54
3:J:3245:VAL:HG13	3:J:3248:ARG:H	1.73	0.54
3:J:3324:VAL:HA	3:J:3327:LEU:HD22	1.89	0.54
3:C:237:ASP:HA	3:C:242:ARG:HE	1.73	0.54
3:C:551:LEU:HD13	3:C:589:LEU:HD11	1.89	0.54
3:C:1068:ARG:HG3	3:C:1071:ARG:HB2	1.90	0.54
1:B:39:GLN:HB2	1:B:92:VAL:HG22	1.89	0.54
1:B:52:THR:HB	1:B:56:SER:HB3	1.90	0.54
3:A:943:ASP:HB2	3:A:946:ALA:HB3	1.90	0.54
1:H:39:GLN:HB2	1:H:92:VAL:HG22	1.89	0.53
3:G:897:ARG:HH12	3:G:913:LEU:HD23	1.73	0.53
3:G:1066:GLN:HE22	3:G:1068:ARG:HE	1.55	0.53
3:G:1738:LEU:HB2	3:G:2146:PRO:HD3	1.89	0.53
3:G:3066:ASN:O	3:G:3070:ILE:HG13	2.08	0.53
8:G:5107:POV:H22	3:A:4909:TYR:HE1	1.72	0.53
3:J:2272:PRO:HA	3:J:2275:VAL:HG12	1.90	0.53
3:J:3870:ASN:HB2	3:J:3873:LYS:HE2	1.89	0.53
3:C:2158:CYS:O	3:C:2162:ILE:HG13	2.08	0.53
3:C:3245:VAL:HG13	3:C:3248:ARG:H	1.73	0.53
3:A:638:ILE:HD11	3:A:1636:MET:HE2	1.90	0.53
3:A:3443:ILE:HG12	3:A:3605:HIS:HD2	1.73	0.53
3:A:4809:PHE:HA	3:A:4812:HIS:HD2	1.73	0.53
3:G:1068:ARG:HG3	3:G:1071:ARG:HB2	1.90	0.53
3:G:1153:ILE:HG13	3:G:1160:ILE:HG12	1.90	0.53
3:G:1810:LYS:HG2	3:G:1814:MET:HE2	1.90	0.53
3:G:2159:LEU:HA	3:G:2162:ILE:HD12	1.91	0.53
3:J:1810:LYS:HG2	3:J:1814:MET:HE2	1.90	0.53
3:J:4858:PHE:HE2	8:J:5101:POV:H2	1.73	0.53
3:C:667:MET:HB3	3:C:743:VAL:HG13	1.91	0.53
3:A:551:LEU:HD13	3:A:589:LEU:HD11	1.89	0.53
3:A:3324:VAL:HA	3:A:3327:LEU:HD22	1.89	0.53
3:G:2751:LEU:O	3:G:2755:ILE:HG12	2.09	0.53
3:J:1153:ILE:HG13	3:J:1160:ILE:HG12	1.90	0.53
3:A:2751:LEU:O	3:A:2755:ILE:HG12	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:917:GLU:HA	3:G:920:TYR:HB3	1.90	0.53
3:G:1733:GLU:HG2	3:G:2201:LEU:HD23	1.91	0.53
3:G:3336:LYS:HE3	3:G:3464:ILE:HD11	1.90	0.53
3:J:2924:GLN:O	3:J:2928:LYS:HG2	2.09	0.53
3:J:3416:VAL:O	3:J:3420:ARG:HB2	2.09	0.53
3:J:4809:PHE:HA	3:J:4812:HIS:HD2	1.73	0.53
3:C:886:ARG:HH12	3:C:893:TYR:HA	1.72	0.53
3:C:2801:ASP:HA	3:C:2804:ILE:HG12	1.91	0.53
3:C:3321:ARG:HH11	3:C:3324:VAL:HG11	1.72	0.53
3:C:3414:ARG:HH21	3:C:3471:THR:HG23	1.72	0.53
3:A:897:ARG:HH12	3:A:913:LEU:HD23	1.73	0.53
3:J:638:ILE:HD11	3:J:1636:MET:HE2	1.90	0.53
3:J:886:ARG:HH12	3:J:893:TYR:HA	1.72	0.53
3:J:1131:ARG:HH11	3:J:1139:PHE:HB2	1.73	0.53
1:D:36:TRP:HZ3	1:D:93:TYR:HB3	1.74	0.53
3:C:1153:ILE:HG13	3:C:1160:ILE:HG12	1.90	0.53
3:C:3180:ASN:HD21	3:C:3183:VAL:HG13	1.72	0.53
1:B:36:TRP:HZ3	1:B:93:TYR:HB3	1.74	0.53
3:A:937:CYS:HB3	3:A:1053:ILE:HG13	1.89	0.53
3:G:237:ASP:HA	3:G:242:ARG:HE	1.73	0.53
3:G:596:ASN:HB2	3:G:599:VAL:HG23	1.90	0.53
3:G:2148:SER:O	3:G:2152:THR:HG23	2.09	0.53
1:K:101:PRO:HG2	3:J:917:GLU:HG3	1.91	0.53
3:J:943:ASP:HB2	3:J:946:ALA:HB3	1.90	0.53
3:J:1267:PRO:HG2	3:J:1565:GLU:HB3	1.91	0.53
3:J:1733:GLU:HG2	3:J:2201:LEU:HD23	1.90	0.53
3:C:1131:ARG:HH11	3:C:1139:PHE:HB2	1.73	0.53
3:C:3416:VAL:O	3:C:3420:ARG:HB2	2.09	0.53
3:G:2924:GLN:O	3:G:2928:LYS:HG2	2.09	0.53
3:J:3443:ILE:HG12	3:J:3605:HIS:HD2	1.74	0.53
3:J:3515:LYS:HA	3:J:3518:LEU:HD13	1.89	0.53
1:D:39:GLN:HB2	1:D:92:VAL:HG22	1.89	0.53
3:C:937:CYS:HB3	3:C:1053:ILE:HG13	1.89	0.53
3:C:1079:LYS:HA	3:C:1189:LEU:HD11	1.91	0.53
3:C:3515:LYS:HA	3:C:3518:LEU:HD13	1.89	0.53
3:C:4697:VAL:HB	8:C:5109:POV:H1A	1.90	0.53
3:A:2801:ASP:HA	3:A:2804:ILE:HG12	1.91	0.53
3:A:3245:VAL:HG13	3:A:3248:ARG:H	1.73	0.53
3:A:3416:VAL:O	3:A:3420:ARG:HB2	2.08	0.53
1:K:8:GLY:HA3	1:K:20:LEU:HA	1.91	0.53
3:J:758:ARG:HA	3:J:763:PRO:HA	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:937:CYS:HB3	3:J:1053:ILE:HG13	1.89	0.53
3:J:2801:ASP:HA	3:J:2804:ILE:HG12	1.91	0.53
3:C:698:GLY:H	3:C:1636:MET:HE1	1.74	0.53
3:C:2159:LEU:HA	3:C:2162:ILE:HD12	1.91	0.53
3:A:1738:LEU:HB2	3:A:2146:PRO:HD3	1.89	0.53
3:A:3414:ARG:HH21	3:A:3471:THR:HG23	1.72	0.53
2:I:25:HIS:HE1	3:G:674:PHE:CE2	2.27	0.53
1:D:8:GLY:HA3	1:D:20:LEU:HA	1.91	0.53
3:A:698:GLY:H	3:A:1636:MET:HE1	1.74	0.53
3:A:2148:SER:O	3:A:2152:THR:HG23	2.09	0.53
3:A:3321:ARG:HH11	3:A:3324:VAL:HG11	1.72	0.53
3:A:3969:ILE:HD13	3:A:3980:LEU:HD12	1.91	0.53
3:G:2476:ILE:HD11	3:G:2532:ALA:HB1	1.91	0.53
3:G:2801:ASP:HA	3:G:2804:ILE:HG12	1.91	0.53
3:G:3245:VAL:HG13	3:G:3248:ARG:H	1.73	0.53
3:J:667:MET:HB3	3:J:743:VAL:HG13	1.91	0.53
3:J:2159:LEU:HA	3:J:2162:ILE:HD12	1.91	0.53
2:F:89:GLY:HA3	3:A:1684:ALA:HB1	1.89	0.53
3:A:1068:ARG:HG3	3:A:1071:ARG:HB2	1.90	0.53
3:G:758:ARG:HA	3:G:763:PRO:HA	1.90	0.52
3:G:2272:PRO:HA	3:G:2275:VAL:HG12	1.90	0.52
3:J:2476:ILE:HD11	3:J:2532:ALA:HB1	1.92	0.52
3:J:3969:ILE:HD13	3:J:3980:LEU:HD12	1.91	0.52
3:C:951:LYS:H	3:C:974:HIS:HE1	1.55	0.52
3:C:2495:VAL:HG23	3:C:2497:ASP:H	1.74	0.52
3:G:638:ILE:HD11	3:G:1636:MET:HE2	1.90	0.52
3:G:4546:VAL:HG22	3:G:4550:LYS:HE3	1.92	0.52
3:J:951:LYS:H	3:J:974:HIS:HE1	1.55	0.52
3:J:2751:LEU:O	3:J:2755:ILE:HG12	2.09	0.52
3:C:1810:LYS:HG2	3:C:1814:MET:HE2	1.90	0.52
3:A:1079:LYS:HA	3:A:1189:LEU:HD11	1.91	0.52
3:A:2512:ILE:HG21	3:A:2518:LEU:HD13	1.92	0.52
3:G:943:ASP:HB2	3:G:946:ALA:HB3	1.90	0.52
3:G:2466:LEU:O	3:G:2470:ILE:HG13	2.09	0.52
3:G:2512:ILE:HG21	3:G:2518:LEU:HD13	1.92	0.52
3:G:3224:PRO:HA	3:G:3227:ARG:HD2	1.92	0.52
3:G:3416:VAL:O	3:G:3420:ARG:HB2	2.08	0.52
1:K:39:GLN:HB2	1:K:92:VAL:HG22	1.89	0.52
3:J:596:ASN:HB2	3:J:599:VAL:HG23	1.90	0.52
3:J:2175:GLU:O	3:J:2179:ILE:HG12	2.09	0.52
3:J:4546:VAL:HG22	3:J:4550:LYS:HE3	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:2751:LEU:O	3:C:2755:ILE:HG12	2.09	0.52
3:C:3969:ILE:HD13	3:C:3980:LEU:HD12	1.91	0.52
3:A:667:MET:HB3	3:A:743:VAL:HG13	1.90	0.52
3:A:951:LYS:H	3:A:974:HIS:HE1	1.55	0.52
3:A:2158:CYS:O	3:A:2162:ILE:HG13	2.08	0.52
3:A:2466:LEU:O	3:A:2470:ILE:HG13	2.09	0.52
1:H:36:TRP:HZ3	1:H:93:TYR:HB3	1.74	0.52
3:C:4049:VAL:HG11	3:C:4159:ARG:HB3	1.92	0.52
3:A:917:GLU:HA	3:A:920:TYR:HB3	1.90	0.52
3:A:4839:MET:HE1	8:A:5108:POV:H218	1.92	0.52
1:H:8:GLY:HA3	1:H:20:LEU:HA	1.91	0.52
2:I:7:ILE:HA	3:G:719:LEU:HD21	1.92	0.52
3:G:698:GLY:H	3:G:1636:MET:HE1	1.74	0.52
3:J:897:ARG:HH12	3:J:913:LEU:HD23	1.73	0.52
3:C:4546:VAL:HG22	3:C:4550:LYS:HE3	1.92	0.52
3:A:758:ARG:HA	3:A:763:PRO:HA	1.90	0.52
3:A:2159:LEU:HA	3:A:2162:ILE:HD12	1.91	0.52
3:A:4680:LYS:HD3	3:A:4686:LEU:HD13	1.92	0.52
3:G:667:MET:HB3	3:G:743:VAL:HG13	1.91	0.52
3:G:4809:PHE:HA	3:G:4812:HIS:HD2	1.73	0.52
3:J:232:THR:HG21	3:J:248:GLU:HB3	1.92	0.52
3:J:1066:GLN:HE22	3:J:1068:ARG:HE	1.56	0.52
3:J:2512:ILE:HG21	3:J:2518:LEU:HD13	1.92	0.52
3:J:3224:PRO:HA	3:J:3227:ARG:HD2	1.92	0.52
3:J:3438:VAL:HA	3:J:3441:ILE:HD12	1.92	0.52
3:J:4049:VAL:HG11	3:J:4159:ARG:HB3	1.92	0.52
3:C:750:LEU:HD13	3:C:773:LEU:HD12	1.92	0.52
3:C:1267:PRO:HG2	3:C:1565:GLU:HB3	1.91	0.52
3:C:2148:SER:O	3:C:2152:THR:HG23	2.09	0.52
3:C:2175:GLU:O	3:C:2179:ILE:HG12	2.09	0.52
3:C:2626:LEU:O	3:C:2630:VAL:HG22	2.10	0.52
3:C:3443:ILE:HG12	3:C:3605:HIS:HD2	1.74	0.52
3:A:750:LEU:HD13	3:A:773:LEU:HD12	1.92	0.52
3:A:1252:HIS:CE1	3:A:1254:HIS:HB2	2.45	0.52
3:A:2626:LEU:O	3:A:2630:VAL:HG22	2.10	0.52
3:A:3539:ARG:HG3	3:A:3549:VAL:HG12	1.92	0.52
3:G:750:LEU:HD13	3:G:773:LEU:HD12	1.92	0.52
3:G:951:LYS:H	3:G:974:HIS:HE1	1.55	0.52
3:G:4567:LEU:HD21	3:G:4816:ILE:HG22	1.92	0.52
3:C:145:ALA:HA	3:C:175:SER:HB2	1.92	0.52
3:C:2476:ILE:HD11	3:C:2532:ALA:HB1	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:232:THR:HG21	3:A:248:GLU:HB3	1.92	0.52
3:A:1115:LEU:HD23	3:A:1123:VAL:HG21	1.92	0.52
3:A:1926:LEU:HG	3:A:1939:MET:HE1	1.92	0.52
3:A:4546:VAL:HG22	3:A:4550:LYS:HE3	1.92	0.52
3:G:150:MET:HB3	3:G:169:LEU:HD12	1.92	0.52
3:G:2495:VAL:HG23	3:G:2497:ASP:H	1.74	0.52
3:G:3130:THR:O	3:G:3134:VAL:HG12	2.10	0.52
3:G:3443:ILE:HG12	3:G:3605:HIS:HD2	1.74	0.52
3:G:3539:ARG:HG3	3:G:3549:VAL:HG12	1.92	0.52
1:K:36:TRP:HZ3	1:K:93:TYR:HB3	1.74	0.52
3:J:698:GLY:H	3:J:1636:MET:HE1	1.74	0.52
3:J:2148:SER:O	3:J:2152:THR:HG23	2.09	0.52
1:D:107:TRP:HZ2	3:C:921:ASN:HA	1.75	0.52
3:C:1252:HIS:CE1	3:C:1254:HIS:HB2	2.45	0.52
3:C:1733:GLU:HG2	3:C:2201:LEU:HD23	1.90	0.52
3:C:2924:GLN:O	3:C:2928:LYS:HG2	2.09	0.52
1:B:8:GLY:HA3	1:B:20:LEU:HA	1.91	0.52
3:A:1733:GLU:HG2	3:A:2201:LEU:HD23	1.91	0.52
3:G:1267:PRO:HG2	3:G:1565:GLU:HB3	1.91	0.52
3:G:3326:ASN:HB2	3:G:3329:ILE:HG12	1.92	0.52
3:J:150:MET:HB3	3:J:169:LEU:HD12	1.92	0.52
3:C:13:PHE:HA	3:C:164:ARG:HA	1.92	0.52
3:C:150:MET:HB3	3:C:169:LEU:HD12	1.92	0.52
3:C:1115:LEU:HD23	3:C:1123:VAL:HG21	1.92	0.52
1:H:39:GLN:HG2	1:H:45:ARG:HD2	1.91	0.52
3:G:2175:GLU:O	3:G:2179:ILE:HG12	2.09	0.52
3:G:3969:ILE:HD13	3:G:3980:LEU:HD12	1.91	0.52
3:J:145:ALA:HA	3:J:175:SER:HB2	1.92	0.52
3:J:2309:SER:HB2	3:J:2322:GLY:H	1.75	0.52
3:C:2512:ILE:HG21	3:C:2518:LEU:HD13	1.92	0.52
3:C:3438:VAL:HA	3:C:3441:ILE:HD12	1.92	0.52
3:A:1040:CYS:O	3:A:1044:ARG:HG3	2.10	0.52
3:A:1267:PRO:HG2	3:A:1565:GLU:HB3	1.91	0.52
3:A:1434:TYR:HB3	3:A:1572:ILE:HG21	1.92	0.52
3:G:1079:LYS:HA	3:G:1189:LEU:HD11	1.91	0.51
3:G:4049:VAL:HG11	3:G:4159:ARG:HB3	1.92	0.51
3:C:897:ARG:HH12	3:C:913:LEU:HD23	1.73	0.51
3:C:1422:ASP:CG	3:C:1571:ASN:H	2.19	0.51
3:C:3285:TRP:CZ3	3:C:3291:ALA:HB2	2.45	0.51
3:A:2175:GLU:O	3:A:2179:ILE:HG12	2.09	0.51
3:A:2476:ILE:HD11	3:A:2532:ALA:HB1	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:232:THR:HG21	3:G:248:GLU:HB3	1.92	0.51
3:G:1252:HIS:CE1	3:G:1254:HIS:HB2	2.45	0.51
3:J:1079:LYS:HA	3:J:1189:LEU:HD11	1.91	0.51
3:J:1252:HIS:CE1	3:J:1254:HIS:HB2	2.44	0.51
3:J:1422:ASP:CG	3:J:1571:ASN:H	2.19	0.51
3:J:2626:LEU:O	3:J:2630:VAL:HG22	2.10	0.51
3:C:2466:LEU:O	3:C:2470:ILE:HG13	2.09	0.51
3:C:2574:HIS:HB2	3:C:2575:ARG:HE	1.75	0.51
3:C:2963:LEU:HA	3:C:2966:TRP:CD1	2.45	0.51
3:C:4680:LYS:HD3	3:C:4686:LEU:HD13	1.92	0.51
3:C:4809:PHE:HA	3:C:4812:HIS:HD2	1.73	0.51
3:A:1153:ILE:HG13	3:A:1160:ILE:HG12	1.90	0.51
3:A:2318:TYR:HA	3:A:2395:PRO:HA	1.92	0.51
3:G:2318:TYR:HA	3:G:2395:PRO:HA	1.92	0.51
3:J:952:LYS:H	3:J:969:PRO:HA	1.75	0.51
3:J:2318:TYR:HA	3:J:2395:PRO:HA	1.92	0.51
3:J:3326:ASN:HB2	3:J:3329:ILE:HG12	1.92	0.51
3:J:4680:LYS:HD3	3:J:4686:LEU:HD13	1.92	0.51
3:C:1926:LEU:HG	3:C:1939:MET:HE1	1.92	0.51
3:C:2318:TYR:HA	3:C:2395:PRO:HA	1.92	0.51
3:A:2924:GLN:O	3:A:2928:LYS:HG2	2.09	0.51
3:A:3224:PRO:HA	3:A:3227:ARG:HD2	1.92	0.51
2:I:44:LYS:HZ3	3:G:1780:PRO:HD2	1.76	0.51
3:G:1926:LEU:HG	3:G:1939:MET:HE1	1.92	0.51
3:J:750:LEU:HD13	3:J:773:LEU:HD12	1.92	0.51
3:J:878:ILE:HD13	3:J:881:LEU:HD12	1.92	0.51
3:J:3285:TRP:CZ3	3:J:3291:ALA:HB2	2.45	0.51
1:D:101:PRO:HG2	3:C:917:GLU:HG3	1.92	0.51
3:C:232:THR:HG21	3:C:248:GLU:HB3	1.92	0.51
3:C:878:ILE:HD13	3:C:881:LEU:HD12	1.92	0.51
3:C:1434:TYR:HB3	3:C:1572:ILE:HG21	1.92	0.51
3:A:2309:SER:HB2	3:A:2322:GLY:H	1.75	0.51
3:A:4844:LEU:HD11	3:A:4924:VAL:HG13	1.93	0.51
3:G:726:VAL:HB	3:G:728:ARG:HH12	1.76	0.51
3:G:1434:TYR:HB3	3:G:1572:ILE:HG21	1.92	0.51
3:G:2626:LEU:O	3:G:2630:VAL:HG22	2.10	0.51
3:G:3438:VAL:HA	3:G:3441:ILE:HD12	1.92	0.51
3:G:4680:LYS:HD3	3:G:4686:LEU:HD13	1.92	0.51
3:G:4844:LEU:HD11	3:G:4924:VAL:HG13	1.93	0.51
2:L:29:MET:HA	2:L:34:LYS:O	2.11	0.51
3:J:13:PHE:HA	3:J:164:ARG:HA	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:2574:HIS:HB2	3:J:2575:ARG:HE	1.75	0.51
2:E:29:MET:HA	2:E:34:LYS:O	2.11	0.51
3:C:1528:THR:C	3:C:1529:PHE:HD2	2.19	0.51
3:C:2309:SER:HB2	3:C:2322:GLY:H	1.75	0.51
1:B:39:GLN:HG2	1:B:45:ARG:HD2	1.91	0.51
3:A:150:MET:HB3	3:A:169:LEU:HD12	1.92	0.51
3:A:1554:VAL:HB	3:A:1562:ILE:HD11	1.93	0.51
3:A:2495:VAL:HG23	3:A:2497:ASP:H	1.74	0.51
3:A:4049:VAL:HG11	3:A:4159:ARG:HB3	1.92	0.51
3:G:3285:TRP:CZ3	3:G:3291:ALA:HB2	2.45	0.51
3:G:4839:MET:HE1	8:G:5108:POV:H218	1.91	0.51
3:J:2466:LEU:O	3:J:2470:ILE:HG13	2.09	0.51
3:C:1040:CYS:O	3:C:1044:ARG:HG3	2.10	0.51
3:C:4567:LEU:HD21	3:C:4816:ILE:HG22	1.92	0.51
2:F:29:MET:HA	2:F:34:LYS:O	2.11	0.51
3:A:145:ALA:HA	3:A:175:SER:HB2	1.92	0.51
3:A:3130:THR:O	3:A:3134:VAL:HG12	2.10	0.51
2:I:29:MET:HA	2:I:34:LYS:O	2.11	0.51
3:G:2700:MET:SD	3:G:2701:PRO:HD3	2.51	0.51
3:J:1040:CYS:O	3:J:1044:ARG:HG3	2.10	0.51
3:J:1528:THR:C	3:J:1529:PHE:HD2	2.19	0.51
3:C:3326:ASN:HB2	3:C:3329:ILE:HG12	1.92	0.51
3:C:3966:THR:HG22	3:C:3970:GLN:HG3	1.93	0.51
3:A:3326:ASN:HB2	3:A:3329:ILE:HG12	1.92	0.51
3:A:4567:LEU:HD21	3:A:4816:ILE:HG22	1.92	0.51
2:I:55:VAL:HA	3:G:1784:ALA:HA	1.91	0.51
3:G:13:PHE:HA	3:G:164:ARG:HA	1.92	0.51
3:G:1528:THR:C	3:G:1529:PHE:HD2	2.19	0.51
3:J:1115:LEU:HD23	3:J:1123:VAL:HG21	1.92	0.51
3:J:2963:LEU:HA	3:J:2966:TRP:CD1	2.45	0.51
3:J:3539:ARG:HG3	3:J:3549:VAL:HG12	1.92	0.51
3:J:4928:LEU:HD23	3:J:4931:ILE:HD12	1.93	0.51
3:C:726:VAL:HB	3:C:728:ARG:HH12	1.76	0.51
3:C:1554:VAL:HB	3:C:1562:ILE:HD11	1.93	0.51
3:C:3206:LEU:HD12	3:C:3207:GLU:H	1.76	0.51
3:A:726:VAL:HB	3:A:728:ARG:HH12	1.76	0.51
3:A:863:LEU:HD22	3:A:867:LEU:HG	1.93	0.51
3:A:2440:MET:HE2	3:A:2440:MET:HA	1.93	0.51
3:A:2861:ASP:HB2	3:A:2925:GLU:HG2	1.93	0.51
3:G:1040:CYS:O	3:G:1044:ARG:HG3	2.10	0.51
3:J:675:LEU:HG	3:J:676:THR:HG23	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:3089:LYS:HG3	3:J:3093:ARG:HE	1.76	0.51
3:C:863:LEU:HD22	3:C:867:LEU:HG	1.93	0.51
3:C:3130:THR:O	3:C:3134:VAL:HG12	2.10	0.51
3:A:1422:ASP:CG	3:A:1571:ASN:H	2.19	0.51
3:G:675:LEU:HG	3:G:676:THR:HG23	1.93	0.51
3:G:1115:LEU:HD22	3:G:1193:SER:HB2	1.93	0.51
3:G:2771:ILE:HG21	3:G:2856:ASN:HD21	1.76	0.51
3:G:4928:LEU:HD23	3:G:4931:ILE:HD12	1.93	0.51
3:J:726:VAL:HB	3:J:728:ARG:HH12	1.76	0.51
3:J:1613:LEU:H	3:J:1613:LEU:HD12	1.76	0.51
3:J:4567:LEU:HD21	3:J:4816:ILE:HG22	1.92	0.51
3:C:2700:MET:SD	3:C:2701:PRO:HD3	2.51	0.51
3:C:3224:PRO:HA	3:C:3227:ARG:HD2	1.92	0.51
3:A:13:PHE:HA	3:A:164:ARG:HA	1.92	0.51
3:A:2380:ILE:HD13	3:A:2472:LEU:HD13	1.93	0.51
3:A:2963:LEU:HA	3:A:2966:TRP:CD1	2.45	0.51
3:A:3206:LEU:HD12	3:A:3207:GLU:H	1.76	0.51
3:A:3285:TRP:CZ3	3:A:3291:ALA:HB2	2.45	0.51
3:A:3308:THR:H	3:A:3311:HIS:HB2	1.76	0.51
3:A:3438:VAL:HA	3:A:3441:ILE:HD12	1.92	0.51
3:G:1422:ASP:CG	3:G:1571:ASN:H	2.19	0.50
3:G:2309:SER:HB2	3:G:2322:GLY:H	1.75	0.50
3:G:2963:LEU:HA	3:G:2966:TRP:CD1	2.45	0.50
3:G:3514:LEU:O	3:G:3518:LEU:HD12	2.11	0.50
2:L:34:LYS:HE3	3:J:629:ARG:CZ	2.40	0.50
3:J:2495:VAL:HG23	3:J:2497:ASP:H	1.74	0.50
3:C:372:LEU:H	3:C:372:LEU:HD12	1.76	0.50
3:C:3308:THR:H	3:C:3311:HIS:HB2	1.76	0.50
3:C:3539:ARG:HG3	3:C:3549:VAL:HG12	1.92	0.50
3:A:1115:LEU:HD22	3:A:1193:SER:HB2	1.93	0.50
3:A:1613:LEU:H	3:A:1613:LEU:HD12	1.76	0.50
3:G:2380:ILE:HD13	3:G:2472:LEU:HD13	1.93	0.50
3:G:2574:HIS:HB2	3:G:2575:ARG:HE	1.75	0.50
3:J:2700:MET:SD	3:J:2701:PRO:HD3	2.51	0.50
3:J:3400:VAL:HG13	3:J:3403:ARG:HH21	1.76	0.50
3:J:4844:LEU:HD11	3:J:4924:VAL:HG13	1.93	0.50
1:D:39:GLN:HG2	1:D:45:ARG:HD2	1.91	0.50
3:C:675:LEU:HG	3:C:676:THR:HG23	1.93	0.50
3:C:2861:ASP:HB2	3:C:2925:GLU:HG2	1.93	0.50
3:A:783:PHE:HB2	3:A:787:VAL:HG11	1.93	0.50
3:A:2821:TRP:HD1	3:A:2939:ARG:HA	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:3450:ASN:HA	3:A:3453:ARG:HG2	1.93	0.50
3:A:3966:THR:HG22	3:A:3970:GLN:HG3	1.93	0.50
3:G:1554:VAL:HB	3:G:1562:ILE:HD11	1.93	0.50
3:G:2739:PRO:HG3	3:G:2888:ARG:HG2	1.94	0.50
3:J:372:LEU:HD12	3:J:372:LEU:H	1.76	0.50
3:J:943:ASP:HA	3:J:1050:GLY:HA3	1.94	0.50
3:J:3130:THR:O	3:J:3134:VAL:HG12	2.10	0.50
3:C:2420:HIS:HA	3:C:2423:MET:HE3	1.94	0.50
3:C:3089:LYS:HG3	3:C:3093:ARG:HE	1.76	0.50
3:G:145:ALA:HA	3:G:175:SER:HB2	1.92	0.50
3:G:372:LEU:HD12	3:G:372:LEU:H	1.76	0.50
3:G:952:LYS:H	3:G:969:PRO:HA	1.76	0.50
3:G:1613:LEU:H	3:G:1613:LEU:HD12	1.76	0.50
3:G:2821:TRP:HD1	3:G:2939:ARG:HA	1.76	0.50
3:G:3400:VAL:HG13	3:G:3403:ARG:HH21	1.77	0.50
3:G:3966:THR:HG22	3:G:3970:GLN:HG3	1.93	0.50
1:K:39:GLN:HG2	1:K:45:ARG:HD2	1.91	0.50
3:J:1926:LEU:HG	3:J:1939:MET:HE1	1.92	0.50
3:J:2739:PRO:HG3	3:J:2888:ARG:HG2	1.94	0.50
3:J:3308:THR:H	3:J:3311:HIS:HB2	1.76	0.50
3:C:357:LEU:HD12	3:C:357:LEU:H	1.77	0.50
3:C:411:TYR:HB2	3:C:486:LEU:HD21	1.93	0.50
3:C:1115:LEU:HD22	3:C:1193:SER:HB2	1.93	0.50
3:C:2189:LYS:HD2	3:C:2192:TYR:HD2	1.77	0.50
3:C:2380:ILE:HD13	3:C:2472:LEU:HD13	1.93	0.50
3:C:3400:VAL:HG13	3:C:3403:ARG:HH21	1.76	0.50
3:A:411:TYR:HB2	3:A:486:LEU:HD21	1.93	0.50
3:A:2739:PRO:HG3	3:A:2888:ARG:HG2	1.94	0.50
3:G:665:GLU:HB2	3:G:792:LEU:HB2	1.93	0.50
3:G:1115:LEU:HD23	3:G:1123:VAL:HG21	1.92	0.50
3:G:3107:VAL:HG11	3:G:3171:SER:HB2	1.93	0.50
3:G:3398:PHE:HE1	3:G:3450:ASN:HB2	1.77	0.50
3:J:1248:VAL:HG11	3:J:1257:VAL:HG11	1.94	0.50
3:J:1434:TYR:HB3	3:J:1572:ILE:HG21	1.92	0.50
3:J:3648:ARG:O	3:J:3652:MET:HG2	2.12	0.50
3:C:1613:LEU:H	3:C:1613:LEU:HD12	1.76	0.50
3:C:3648:ARG:O	3:C:3652:MET:HG2	2.12	0.50
1:B:107:TRP:HZ2	3:A:921:ASN:HA	1.76	0.50
3:A:878:ILE:HD13	3:A:881:LEU:HD12	1.92	0.50
3:A:2574:HIS:HB2	3:A:2575:ARG:HE	1.75	0.50
3:G:943:ASP:HA	3:G:1050:GLY:HA3	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:2189:LYS:HD2	3:G:2192:TYR:HD2	1.77	0.50
3:G:2466:LEU:HD21	3:G:2505:PHE:HD1	1.76	0.50
3:G:2806:ARG:HG3	3:G:2810:LYS:HZ3	1.77	0.50
3:J:911:HIS:HB2	3:J:913:LEU:HG	1.94	0.50
3:J:2189:LYS:HD2	3:J:2192:TYR:HD2	1.77	0.50
3:J:3206:LEU:HD12	3:J:3207:GLU:H	1.76	0.50
3:J:3398:PHE:HE1	3:J:3450:ASN:HB2	1.77	0.50
3:J:4839:MET:HE1	8:C:5110:POV:H218	1.92	0.50
3:C:3450:ASN:HA	3:C:3453:ARG:HG2	1.93	0.50
3:A:372:LEU:H	3:A:372:LEU:HD12	1.76	0.50
3:A:675:LEU:HG	3:A:676:THR:HG23	1.93	0.50
3:A:2189:LYS:HD2	3:A:2192:TYR:HD2	1.77	0.50
3:A:2420:HIS:HA	3:A:2423:MET:HE3	1.94	0.50
3:G:878:ILE:HD13	3:G:881:LEU:HD12	1.92	0.50
3:J:718:GLY:HA3	3:J:737:LEU:HA	1.94	0.50
3:J:2771:ILE:HG21	3:J:2856:ASN:HD21	1.77	0.50
3:J:2806:ARG:HG3	3:J:2810:LYS:HZ3	1.77	0.50
3:J:3037:GLU:HA	3:J:3080:VAL:HG22	1.93	0.50
3:C:665:GLU:HB2	3:C:792:LEU:HB2	1.93	0.50
3:C:911:HIS:HB2	3:C:913:LEU:HG	1.94	0.50
3:C:2178:MET:O	3:C:2182:ILE:HG13	2.12	0.50
3:C:2499:LYS:HB3	3:C:2553:TYR:CZ	2.47	0.50
3:C:4844:LEU:HD11	3:C:4924:VAL:HG13	1.93	0.50
3:A:4939:ALA:HA	3:A:4942:GLU:HG2	1.94	0.50
3:G:3343:GLN:HE22	3:G:3410:PRO:HB2	1.77	0.50
3:G:3648:ARG:O	3:G:3652:MET:HG2	2.12	0.50
3:J:2380:ILE:HD13	3:J:2472:LEU:HD13	1.93	0.50
3:J:2499:LYS:HB3	3:J:2553:TYR:CZ	2.47	0.50
2:E:21:THR:HG23	2:E:49:ARG:HE	1.77	0.50
3:C:952:LYS:H	3:C:969:PRO:HA	1.76	0.50
3:C:1248:VAL:HG11	3:C:1257:VAL:HG11	1.94	0.50
3:C:2771:ILE:HG21	3:C:2856:ASN:HD21	1.77	0.50
2:F:21:THR:HG23	2:F:49:ARG:HE	1.77	0.50
3:A:718:GLY:HA3	3:A:737:LEU:HA	1.94	0.50
3:A:2466:LEU:HD21	3:A:2505:PHE:HD1	1.76	0.50
3:G:831:ARG:HE	3:G:840:VAL:HG11	1.77	0.50
3:G:863:LEU:HD22	3:G:867:LEU:HG	1.93	0.50
3:G:3308:THR:H	3:G:3311:HIS:HB2	1.76	0.50
3:J:1115:LEU:HD22	3:J:1193:SER:HB2	1.93	0.50
3:J:1554:VAL:HB	3:J:1562:ILE:HD11	1.93	0.50
3:J:2861:ASP:HB2	3:J:2925:GLU:HG2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:3107:VAL:HG11	3:J:3171:SER:HB2	1.93	0.50
3:J:3966:THR:HG22	3:J:3970:GLN:HG3	1.93	0.50
3:C:718:GLY:HA3	3:C:737:LEU:HA	1.94	0.50
3:C:2209:GLU:HA	3:C:2212:VAL:HG23	1.94	0.50
3:C:2739:PRO:HG3	3:C:2888:ARG:HG2	1.94	0.50
3:C:2821:TRP:HD1	3:C:2939:ARG:HA	1.76	0.50
3:C:3514:LEU:O	3:C:3518:LEU:HD12	2.12	0.50
3:A:357:LEU:H	3:A:357:LEU:HD12	1.77	0.50
3:A:665:GLU:HB2	3:A:792:LEU:HB2	1.93	0.50
3:A:1528:THR:C	3:A:1529:PHE:HD2	2.19	0.50
3:A:3398:PHE:HE1	3:A:3450:ASN:HB2	1.77	0.50
3:A:3400:VAL:HG13	3:A:3403:ARG:HH21	1.76	0.50
1:H:107:TRP:HZ2	3:G:921:ASN:HA	1.77	0.49
3:G:2861:ASP:HB2	3:G:2925:GLU:HG2	1.93	0.49
3:G:3406:TYR:CD1	3:G:3509:LEU:HB2	2.47	0.49
2:L:21:THR:HG23	2:L:49:ARG:HE	1.77	0.49
3:J:866:HIS:O	3:J:870:ILE:HD12	2.12	0.49
3:J:2420:HIS:HA	3:J:2423:MET:HE3	1.94	0.49
3:J:3450:ASN:HA	3:J:3453:ARG:HG2	1.93	0.49
3:C:3037:GLU:HA	3:C:3080:VAL:HG22	1.93	0.49
3:C:3406:TYR:CD1	3:C:3509:LEU:HB2	2.47	0.49
3:C:4939:ALA:HA	3:C:4942:GLU:HG2	1.94	0.49
3:A:831:ARG:HE	3:A:840:VAL:HG11	1.77	0.49
3:A:1581:LEU:HA	3:A:1584:ARG:HG3	1.94	0.49
3:A:3514:LEU:O	3:A:3518:LEU:HD12	2.12	0.49
3:A:3648:ARG:O	3:A:3652:MET:HG2	2.12	0.49
1:H:39:GLN:O	1:H:91:ALA:HB1	2.12	0.49
3:G:718:GLY:HA3	3:G:737:LEU:HA	1.94	0.49
3:G:2209:GLU:HA	3:G:2212:VAL:HG23	1.94	0.49
3:G:3089:LYS:HG3	3:G:3093:ARG:HE	1.76	0.49
3:G:3206:LEU:HD12	3:G:3207:GLU:H	1.76	0.49
3:G:3450:ASN:HA	3:G:3453:ARG:HG2	1.93	0.49
3:C:2440:MET:HA	3:C:2440:MET:HE2	1.93	0.49
1:B:39:GLN:O	1:B:91:ALA:HB1	2.12	0.49
3:A:911:HIS:HB2	3:A:913:LEU:HG	1.94	0.49
3:G:783:PHE:HB2	3:G:787:VAL:HG11	1.93	0.49
3:G:911:HIS:HB2	3:G:913:LEU:HG	1.94	0.49
3:G:1230:MET:HB3	3:G:1828:ASP:HB3	1.94	0.49
3:G:1248:VAL:HG11	3:G:1257:VAL:HG11	1.94	0.49
3:G:2420:HIS:HA	3:G:2423:MET:HE3	1.93	0.49
3:G:2499:LYS:HB3	3:G:2553:TYR:CZ	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:2883:HIS:HA	3:G:2886:TRP:CE2	2.47	0.49
3:J:357:LEU:H	3:J:357:LEU:HD12	1.77	0.49
3:J:783:PHE:HB2	3:J:787:VAL:HG11	1.93	0.49
3:C:866:HIS:O	3:C:870:ILE:HD12	2.12	0.49
3:A:426:ARG:HG3	3:A:431:PRO:HA	1.94	0.49
3:A:943:ASP:HA	3:A:1050:GLY:HA3	1.94	0.49
3:A:1230:MET:HB3	3:A:1828:ASP:HB3	1.94	0.49
3:A:2700:MET:SD	3:A:2701:PRO:HD3	2.51	0.49
3:G:984:LEU:HD22	3:G:987:ARG:NH2	2.27	0.49
3:G:2440:MET:HE2	3:G:2440:MET:HA	1.93	0.49
3:J:2178:MET:O	3:J:2182:ILE:HG13	2.12	0.49
3:J:2821:TRP:HD1	3:J:2939:ARG:HA	1.76	0.49
3:J:3406:TYR:CD1	3:J:3509:LEU:HB2	2.47	0.49
3:C:1230:MET:HB3	3:C:1828:ASP:HB3	1.94	0.49
3:A:952:LYS:H	3:A:969:PRO:HA	1.75	0.49
3:A:2178:MET:O	3:A:2182:ILE:HG13	2.12	0.49
2:I:21:THR:HG23	2:I:49:ARG:HE	1.77	0.49
3:G:842:PRO:HG2	3:G:1071:ARG:C	2.38	0.49
3:J:426:ARG:HG3	3:J:431:PRO:HA	1.94	0.49
3:J:831:ARG:HE	3:J:840:VAL:HG11	1.77	0.49
3:J:2381:GLU:O	3:J:2385:ARG:HG2	2.13	0.49
3:J:2440:MET:HE2	3:J:2440:MET:HA	1.93	0.49
3:J:3206:LEU:HB3	3:J:3280:TYR:CE1	2.48	0.49
3:J:3244:PRO:HB2	3:J:3248:ARG:HD3	1.94	0.49
3:J:3343:GLN:HE22	3:J:3410:PRO:HB2	1.77	0.49
3:J:3514:LEU:O	3:J:3518:LEU:HD12	2.12	0.49
3:C:831:ARG:HE	3:C:840:VAL:HG11	1.77	0.49
3:C:984:LEU:HD22	3:C:987:ARG:NH2	2.28	0.49
3:C:3107:VAL:HG11	3:C:3171:SER:HB2	1.93	0.49
3:A:1248:VAL:HG11	3:A:1257:VAL:HG11	1.94	0.49
3:A:2777:TYR:HB2	3:A:2791:LEU:HG	1.95	0.49
3:A:2974:ILE:HG13	3:A:3053:ARG:HH12	1.78	0.49
3:A:3037:GLU:HA	3:A:3080:VAL:HG22	1.94	0.49
3:A:4952:GLU:O	3:A:4956:THR:HG22	2.13	0.49
3:G:411:TYR:HB2	3:G:486:LEU:HD21	1.93	0.49
3:G:2178:MET:O	3:G:2182:ILE:HG13	2.12	0.49
1:K:39:GLN:O	1:K:91:ALA:HB1	2.12	0.49
3:J:2466:LEU:HD21	3:J:2505:PHE:HD1	1.76	0.49
3:J:2883:HIS:HA	3:J:2886:TRP:CE2	2.47	0.49
3:J:2974:ILE:HG13	3:J:3053:ARG:HH12	1.78	0.49
3:C:943:ASP:HA	3:C:1050:GLY:HA3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:2466:LEU:HD21	3:C:2505:PHE:HD1	1.76	0.49
3:A:2499:LYS:HB3	3:A:2553:TYR:CZ	2.47	0.49
3:A:2883:HIS:HA	3:A:2886:TRP:CE2	2.47	0.49
3:A:2978:GLU:HA	3:A:2981:VAL:HG22	1.93	0.49
3:A:3089:LYS:HG3	3:A:3093:ARG:HE	1.76	0.49
3:A:3343:GLN:HE22	3:A:3410:PRO:HB2	1.77	0.49
3:G:2974:ILE:HG13	3:G:3053:ARG:HH12	1.78	0.49
3:J:411:TYR:HB2	3:J:486:LEU:HD21	1.93	0.49
3:J:863:LEU:HD22	3:J:867:LEU:HG	1.93	0.49
3:J:2978:GLU:HA	3:J:2981:VAL:HG22	1.93	0.49
3:C:350:HIS:HE1	3:C:352:ALA:HB3	1.78	0.49
3:C:3206:LEU:HB3	3:C:3280:TYR:CE1	2.48	0.49
3:A:2771:ILE:HG21	3:A:2856:ASN:HD21	1.77	0.49
3:A:3401:LEU:O	3:A:3405:LEU:HG	2.13	0.49
3:A:3598:GLU:O	3:A:3602:VAL:HG23	2.13	0.49
3:G:972:LEU:HB2	3:G:1044:ARG:HH11	1.77	0.49
3:G:1225:PRO:HB2	3:G:1228:ILE:HB	1.95	0.49
3:G:2978:GLU:HA	3:G:2981:VAL:HG22	1.93	0.49
3:G:3037:GLU:HA	3:G:3080:VAL:HG22	1.94	0.49
3:G:3598:GLU:O	3:G:3602:VAL:HG23	2.13	0.49
3:J:4952:GLU:O	3:J:4956:THR:HG22	2.13	0.49
3:C:1130:GLN:HG2	3:C:1138:PRO:HA	1.94	0.49
3:C:1735:ILE:HD11	3:C:2201:LEU:HD21	1.95	0.49
3:C:3343:GLN:HE22	3:C:3410:PRO:HB2	1.77	0.49
3:A:842:PRO:HG2	3:A:1071:ARG:C	2.38	0.49
3:G:2381:GLU:O	3:G:2385:ARG:HG2	2.13	0.49
3:G:4952:GLU:O	3:G:4956:THR:HG22	2.13	0.49
3:J:350:HIS:HE1	3:J:352:ALA:HB3	1.78	0.49
3:J:1581:LEU:HA	3:J:1584:ARG:HG3	1.94	0.49
3:C:3398:PHE:HE1	3:C:3450:ASN:HB2	1.77	0.49
3:A:3590:GLU:O	3:A:3594:ARG:HG2	2.13	0.49
3:A:4928:LEU:HD23	3:A:4931:ILE:HD12	1.93	0.49
3:G:663:TYR:HD1	3:G:747:CYS:HB3	1.78	0.49
3:G:1130:GLN:HG2	3:G:1138:PRO:HA	1.94	0.49
3:C:165:VAL:HG12	3:C:204:PRO:HG2	1.95	0.49
3:C:426:ARG:HG3	3:C:431:PRO:HA	1.94	0.49
3:C:1581:LEU:HA	3:C:1584:ARG:HG3	1.94	0.49
3:C:2182:ILE:O	3:C:2185:ILE:HG22	2.13	0.49
3:C:4952:GLU:O	3:C:4956:THR:HG22	2.13	0.49
3:A:1272:LEU:HD21	3:A:1287:LEU:HD23	1.95	0.49
3:G:1272:LEU:HD21	3:G:1287:LEU:HD23	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:2777:TYR:HB2	3:G:2791:LEU:HG	1.95	0.48
2:L:34:LYS:HZ1	3:J:629:ARG:NE	2.10	0.48
3:J:591:ASP:HA	3:J:631:LEU:HD21	1.95	0.48
3:J:842:PRO:HG2	3:J:1071:ARG:C	2.38	0.48
3:J:1225:PRO:HB2	3:J:1228:ILE:HB	1.95	0.48
3:J:1230:MET:HB3	3:J:1828:ASP:HB3	1.94	0.48
3:J:2182:ILE:O	3:J:2185:ILE:HG22	2.13	0.48
3:J:2209:GLU:HA	3:J:2212:VAL:HG23	1.94	0.48
1:D:39:GLN:O	1:D:91:ALA:HB1	2.12	0.48
3:C:2883:HIS:HA	3:C:2886:TRP:CE2	2.48	0.48
3:C:3244:PRO:HB2	3:C:3248:ARG:HD3	1.94	0.48
3:C:3598:GLU:O	3:C:3602:VAL:HG23	2.13	0.48
1:B:101:PRO:HG2	3:A:917:GLU:HG3	1.94	0.48
3:A:3107:VAL:HG11	3:A:3171:SER:HB2	1.94	0.48
3:G:1581:LEU:HA	3:G:1584:ARG:HG3	1.94	0.48
3:G:1735:ILE:HD11	3:G:2201:LEU:HD21	1.95	0.48
3:G:4939:ALA:HA	3:G:4942:GLU:HG2	1.94	0.48
3:J:165:VAL:HG12	3:J:204:PRO:HG2	1.95	0.48
3:J:213:TYR:HB3	3:J:273:HIS:HE1	1.78	0.48
3:J:665:GLU:HB2	3:J:792:LEU:HB2	1.93	0.48
3:J:3346:VAL:HG21	3:J:3411:LEU:HB3	1.95	0.48
3:C:2978:GLU:HA	3:C:2981:VAL:HG22	1.93	0.48
3:C:4928:LEU:HD23	3:C:4931:ILE:HD12	1.93	0.48
3:A:951:LYS:HE2	3:A:974:HIS:HE2	1.78	0.48
3:A:2182:ILE:O	3:A:2185:ILE:HG22	2.13	0.48
2:I:31:GLN:HE22	3:G:1545:ASN:HD21	1.61	0.48
3:G:951:LYS:HE2	3:G:974:HIS:HE2	1.78	0.48
3:G:3277:LEU:O	3:G:3281:LEU:HD12	2.13	0.48
3:J:1871:PHE:HZ	3:J:2094:LEU:HD13	1.79	0.48
3:J:3401:LEU:O	3:J:3405:LEU:HG	2.13	0.48
3:C:788:LYS:HG2	3:C:1629:GLN:HG3	1.95	0.48
3:C:1433:TYR:CD2	3:C:1578:ALA:HB2	2.49	0.48
3:C:2170:MET:HE1	3:C:2178:MET:HE1	1.95	0.48
3:A:316:PHE:HD2	3:A:346:CYS:HB2	1.78	0.48
3:A:3277:LEU:O	3:A:3281:LEU:HD12	2.13	0.48
3:G:213:TYR:HB3	3:G:273:HIS:HE1	1.79	0.48
3:J:663:TYR:HD1	3:J:747:CYS:HB3	1.78	0.48
3:J:3590:GLU:O	3:J:3594:ARG:HG2	2.13	0.48
3:J:4634:GLU:HG3	3:J:4639:MET:HB2	1.96	0.48
3:J:4939:ALA:HA	3:J:4942:GLU:HG2	1.94	0.48
3:C:2806:ARG:HG3	3:C:2810:LYS:HZ3	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:4989:MET:HE2	3:C:4989:MET:HA	1.95	0.48
3:A:663:TYR:HD1	3:A:747:CYS:HB3	1.78	0.48
3:A:3406:TYR:CD1	3:A:3509:LEU:HB2	2.47	0.48
3:G:299:LEU:HD22	3:G:378:LEU:HG	1.96	0.48
3:G:426:ARG:HG3	3:G:431:PRO:HA	1.94	0.48
3:G:564:LEU:O	3:G:568:LEU:HG	2.14	0.48
3:G:1451:GLY:HA3	3:G:1494:MET:HA	1.96	0.48
3:G:1815:LEU:HD22	3:G:1845:VAL:HG21	1.96	0.48
3:G:3206:LEU:HB3	3:G:3280:TYR:CE1	2.48	0.48
3:G:3590:GLU:O	3:G:3594:ARG:HG2	2.13	0.48
3:J:788:LYS:HG2	3:J:1629:GLN:HG3	1.95	0.48
3:J:1130:GLN:HG2	3:J:1138:PRO:HA	1.95	0.48
3:J:1155:LEU:HD12	3:J:1184:ILE:HD12	1.95	0.48
3:J:1815:LEU:HD22	3:J:1845:VAL:HG21	1.96	0.48
3:C:591:ASP:HA	3:C:631:LEU:HD21	1.95	0.48
3:C:783:PHE:HB2	3:C:787:VAL:HG11	1.94	0.48
3:C:2777:TYR:HB2	3:C:2791:LEU:HG	1.95	0.48
3:C:3346:VAL:HG21	3:C:3411:LEU:HB3	1.95	0.48
3:C:3401:LEU:O	3:C:3405:LEU:HG	2.13	0.48
3:G:866:HIS:O	3:G:870:ILE:HD12	2.12	0.48
3:G:1703:LEU:HD12	3:G:1704:PRO:HD2	1.95	0.48
3:G:2182:ILE:O	3:G:2185:ILE:HG22	2.13	0.48
3:C:842:PRO:HG2	3:C:1071:ARG:C	2.38	0.48
3:C:951:LYS:HE2	3:C:974:HIS:HE2	1.78	0.48
3:C:972:LEU:HB2	3:C:1044:ARG:HH11	1.77	0.48
3:C:2381:GLU:O	3:C:2385:ARG:HG2	2.13	0.48
3:C:2563:THR:HG22	3:C:2606:CYS:HA	1.96	0.48
3:C:2676:ARG:HG3	3:C:2955:PHE:CD2	2.49	0.48
3:A:984:LEU:HD22	3:A:987:ARG:NH2	2.28	0.48
3:A:1130:GLN:HG2	3:A:1138:PRO:HA	1.95	0.48
3:A:1433:TYR:CD2	3:A:1578:ALA:HB2	2.49	0.48
3:A:2563:THR:HG22	3:A:2606:CYS:HA	1.96	0.48
1:H:114:TYR:HE1	3:G:996:TRP:HB2	1.79	0.48
3:G:165:VAL:HG12	3:G:204:PRO:HG2	1.95	0.48
3:G:316:PHE:HD2	3:G:346:CYS:HB2	1.79	0.48
3:G:357:LEU:H	3:G:357:LEU:HD12	1.77	0.48
3:G:2170:MET:HE1	3:G:2178:MET:HE1	1.95	0.48
3:G:3401:LEU:O	3:G:3405:LEU:HG	2.13	0.48
2:L:9:PRO:HD3	3:J:736:HIS:HA	1.95	0.48
3:J:320:LYS:HA	3:J:356:TRP:CH2	2.49	0.48
3:J:1433:TYR:CD2	3:J:1578:ALA:HB2	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:2777:TYR:HB2	3:J:2791:LEU:HG	1.95	0.48
3:C:1272:LEU:HD21	3:C:1287:LEU:HD23	1.95	0.48
3:C:1451:GLY:HA3	3:C:1494:MET:HA	1.96	0.48
3:C:1703:LEU:HD12	3:C:1704:PRO:HD2	1.95	0.48
3:A:534:ARG:HH21	3:A:572:PRO:HD3	1.79	0.48
3:A:591:ASP:HA	3:A:631:LEU:HD21	1.95	0.48
3:A:3244:PRO:HB2	3:A:3248:ARG:HD3	1.94	0.48
3:A:3989:VAL:HG13	3:A:4023:MET:SD	2.54	0.48
1:H:104:TYR:HE2	3:G:913:LEU:HD21	1.79	0.48
3:G:350:HIS:HE1	3:G:352:ALA:HB3	1.78	0.48
3:G:1433:TYR:CD2	3:G:1578:ALA:HB2	2.49	0.48
3:G:3244:PRO:HB2	3:G:3248:ARG:HD3	1.94	0.48
3:G:3346:VAL:HG21	3:G:3411:LEU:HB3	1.95	0.48
3:J:564:LEU:O	3:J:568:LEU:HG	2.14	0.48
3:J:1272:LEU:HD21	3:J:1287:LEU:HD23	1.95	0.48
3:J:3277:LEU:O	3:J:3281:LEU:HD12	2.13	0.48
1:B:114:TYR:HE1	3:A:996:TRP:HB2	1.78	0.48
3:A:213:TYR:HB3	3:A:273:HIS:HE1	1.78	0.48
3:A:299:LEU:HD22	3:A:378:LEU:HG	1.96	0.48
3:A:561:LEU:HD23	3:A:598:LYS:HE2	1.96	0.48
3:A:866:HIS:O	3:A:870:ILE:HD12	2.12	0.48
3:A:1703:LEU:HD12	3:A:1704:PRO:HD2	1.95	0.48
3:A:3103:ILE:O	3:A:3107:VAL:HG13	2.14	0.48
3:G:1155:LEU:HD12	3:G:1184:ILE:HD12	1.95	0.48
3:G:4634:GLU:HG3	3:G:4639:MET:HB2	1.96	0.48
3:J:972:LEU:HB2	3:J:1044:ARG:HH11	1.77	0.48
3:J:2563:THR:HG22	3:J:2606:CYS:HA	1.96	0.48
3:J:2755:ILE:HG23	3:J:2813:LEU:HD13	1.96	0.48
3:C:213:TYR:HB3	3:C:273:HIS:HE1	1.78	0.48
3:C:320:LYS:HA	3:C:356:TRP:CH2	2.49	0.48
3:C:534:ARG:HH21	3:C:572:PRO:HD3	1.79	0.48
3:C:1155:LEU:HD12	3:C:1184:ILE:HD12	1.95	0.48
3:A:1155:LEU:HD12	3:A:1184:ILE:HD12	1.95	0.48
3:A:2209:GLU:HA	3:A:2212:VAL:HG23	1.94	0.48
3:A:2381:GLU:O	3:A:2385:ARG:HG2	2.13	0.48
3:A:2676:ARG:HG3	3:A:2955:PHE:CD2	2.49	0.48
3:A:3206:LEU:HB3	3:A:3280:TYR:CE1	2.48	0.48
1:K:12:MET:HE3	1:K:13:GLN:H	1.78	0.48
3:J:580:GLU:O	3:J:584:LYS:HG2	2.14	0.48
3:J:984:LEU:HD22	3:J:987:ARG:NH2	2.28	0.48
3:J:1451:GLY:HA3	3:J:1494:MET:HA	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1614:GLN:HE21	3:J:1632:ASP:HB3	1.79	0.48
3:J:2170:MET:HE1	3:J:2178:MET:HE1	1.95	0.48
1:D:12:MET:HE3	1:D:13:GLN:H	1.79	0.48
3:C:663:TYR:HD1	3:C:747:CYS:HB3	1.78	0.48
3:C:1871:PHE:HZ	3:C:2094:LEU:HD13	1.79	0.48
3:C:3277:LEU:O	3:C:3281:LEU:HD12	2.13	0.48
3:C:3590:GLU:O	3:C:3594:ARG:HG2	2.13	0.48
3:C:3989:VAL:HG13	3:C:4023:MET:SD	2.54	0.48
3:A:350:HIS:HE1	3:A:352:ALA:HB3	1.78	0.48
3:A:788:LYS:HG2	3:A:1629:GLN:HG3	1.95	0.48
3:A:1815:LEU:HD22	3:A:1845:VAL:HG21	1.96	0.48
3:G:1854:PHE:HD1	3:G:1858:ASP:HB3	1.79	0.47
2:L:91:ILE:HD11	2:L:95:ALA:HB3	1.96	0.47
3:J:1703:LEU:HD12	3:J:1704:PRO:HD2	1.95	0.47
3:C:1225:PRO:HB2	3:C:1228:ILE:HB	1.95	0.47
3:C:1569:GLN:HG3	3:C:1570:LYS:HZ1	1.77	0.47
3:C:3103:ILE:O	3:C:3107:VAL:HG13	2.14	0.47
3:A:1225:PRO:HB2	3:A:1228:ILE:HB	1.95	0.47
3:A:1854:PHE:HD1	3:A:1858:ASP:HB3	1.79	0.47
2:I:91:ILE:HD11	2:I:95:ALA:HB3	1.97	0.47
3:G:320:LYS:HA	3:G:356:TRP:CH2	2.49	0.47
3:G:534:ARG:HH21	3:G:572:PRO:HD3	1.79	0.47
3:G:561:LEU:HD23	3:G:598:LYS:HE2	1.96	0.47
3:G:2010:LEU:HD23	3:G:3656:SER:OG	2.14	0.47
3:J:316:PHE:HD2	3:J:346:CYS:HB2	1.79	0.47
3:J:1735:ILE:HD11	3:J:2201:LEU:HD21	1.95	0.47
3:J:3443:ILE:HG12	3:J:3605:HIS:CD2	2.49	0.47
3:J:3598:GLU:O	3:J:3602:VAL:HG23	2.13	0.47
3:C:580:GLU:O	3:C:584:LYS:HG2	2.14	0.47
3:C:1815:LEU:HD22	3:C:1845:VAL:HG21	1.96	0.47
3:C:2974:ILE:HG13	3:C:3053:ARG:HH12	1.78	0.47
3:A:165:VAL:HG12	3:A:204:PRO:HG2	1.95	0.47
3:A:972:LEU:HB2	3:A:1044:ARG:HH11	1.77	0.47
3:A:1735:ILE:HD11	3:A:2201:LEU:HD21	1.95	0.47
3:A:2170:MET:HE1	3:A:2178:MET:HE1	1.95	0.47
3:G:3103:ILE:O	3:G:3107:VAL:HG13	2.14	0.47
3:G:4989:MET:HE2	3:G:4989:MET:HA	1.95	0.47
3:J:941:MET:HA	3:J:1051:TYR:HA	1.96	0.47
3:J:2676:ARG:HG3	3:J:2955:PHE:CD2	2.49	0.47
3:J:3592:ILE:O	3:J:3596:VAL:HG12	2.14	0.47
3:J:4930:ALA:HB2	3:C:4933:GLN:HG2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:561:LEU:HD23	3:C:598:LYS:HE2	1.96	0.47
3:C:1433:TYR:CD2	3:C:1573:MET:HB3	2.50	0.47
3:C:2010:LEU:HD23	3:C:3656:SER:OG	2.14	0.47
3:C:2799:GLU:HA	3:C:2802:LYS:HB2	1.96	0.47
3:C:3443:ILE:HG12	3:C:3605:HIS:CD2	2.49	0.47
3:C:4248:ALA:HA	3:C:4251:ILE:HG12	1.96	0.47
3:A:4677:LEU:HD11	3:A:4687:TYR:HE2	1.79	0.47
3:A:4989:MET:HA	3:A:4989:MET:HE2	1.95	0.47
3:G:3443:ILE:HG12	3:G:3605:HIS:CD2	2.49	0.47
3:G:4206:GLU:HA	3:G:4211:LYS:HE3	1.97	0.47
3:J:1854:PHE:HD1	3:J:1858:ASP:HB3	1.79	0.47
3:J:2010:LEU:HD23	3:J:3656:SER:OG	2.14	0.47
3:J:3989:VAL:HG13	3:J:4023:MET:SD	2.54	0.47
3:J:4989:MET:HE2	3:J:4989:MET:HA	1.95	0.47
3:C:1614:GLN:HE21	3:C:1632:ASP:HB3	1.79	0.47
3:A:564:LEU:O	3:A:568:LEU:HG	2.14	0.47
3:A:580:GLU:O	3:A:584:LYS:HG2	2.14	0.47
3:A:1433:TYR:CD2	3:A:1573:MET:HB3	2.50	0.47
3:A:1451:GLY:HA3	3:A:1494:MET:HA	1.96	0.47
3:A:2522:LEU:HA	3:A:2526:PHE:HB2	1.97	0.47
3:A:2555:CYS:SG	3:A:2599:GLN:HG2	2.54	0.47
3:A:4206:GLU:HA	3:A:4211:LYS:HE3	1.97	0.47
3:A:4681:LEU:HA	3:A:4681:LEU:HD23	1.77	0.47
3:G:591:ASP:HA	3:G:631:LEU:HD21	1.95	0.47
3:G:941:MET:HA	3:G:1051:TYR:HA	1.96	0.47
3:G:1614:GLN:HE21	3:G:1632:ASP:HB3	1.79	0.47
3:G:2563:THR:HG22	3:G:2606:CYS:HA	1.96	0.47
3:G:3346:VAL:HB	3:G:3411:LEU:HD12	1.97	0.47
3:J:534:ARG:HH21	3:J:572:PRO:HD3	1.79	0.47
3:J:561:LEU:HD23	3:J:598:LYS:HE2	1.96	0.47
3:J:1076:ARG:HG2	3:J:1077:ALA:O	2.15	0.47
3:C:941:MET:HA	3:C:1051:TYR:HA	1.96	0.47
3:C:3346:VAL:HB	3:C:3411:LEU:HD12	1.97	0.47
3:C:3592:ILE:O	3:C:3596:VAL:HG12	2.14	0.47
3:A:320:LYS:HA	3:A:356:TRP:CH2	2.49	0.47
3:A:1614:GLN:HE21	3:A:1632:ASP:HB3	1.79	0.47
3:A:3346:VAL:HG21	3:A:3411:LEU:HB3	1.95	0.47
3:A:3443:ILE:HG12	3:A:3605:HIS:CD2	2.49	0.47
3:G:788:LYS:HG2	3:G:1629:GLN:HG3	1.95	0.47
3:G:1076:ARG:HG2	3:G:1077:ALA:O	2.15	0.47
3:G:2676:ARG:HG3	3:G:2955:PHE:CD2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:2969:ILE:HG22	3:G:2973:PHE:CE2	2.47	0.47
3:G:3768:SER:HA	3:G:3771:HIS:CE1	2.50	0.47
3:G:3989:VAL:HG13	3:G:4023:MET:SD	2.54	0.47
3:J:721:LEU:HB3	3:J:768:PHE:HE2	1.80	0.47
3:J:2969:ILE:HG22	3:J:2973:PHE:CE2	2.47	0.47
3:C:299:LEU:HD22	3:C:378:LEU:HG	1.96	0.47
3:C:795:GLY:HA3	3:C:812:HIS:CE1	2.50	0.47
3:C:2098:VAL:HB	3:C:2127:GLN:HG3	1.97	0.47
3:C:2655:TYR:HA	3:C:2667:THR:HB	1.96	0.47
3:A:629:ARG:HH21	3:A:634:GLN:HG2	1.80	0.47
3:A:1871:PHE:HZ	3:A:2094:LEU:HD13	1.79	0.47
3:A:2098:VAL:HB	3:A:2127:GLN:HG3	1.97	0.47
3:A:2599:GLN:O	3:A:2603:ILE:HG12	2.15	0.47
1:H:12:MET:HE3	1:H:13:GLN:H	1.79	0.47
3:G:320:LYS:HA	3:G:356:TRP:HH2	1.80	0.47
3:G:560:ILE:HD12	3:G:560:ILE:H	1.80	0.47
3:G:580:GLU:O	3:G:584:LYS:HG2	2.14	0.47
3:G:629:ARG:HH21	3:G:634:GLN:HG2	1.80	0.47
3:G:661:LYS:HB3	3:G:808:TYR:CD1	2.50	0.47
3:G:1433:TYR:CD2	3:G:1573:MET:HB3	2.50	0.47
3:G:2799:GLU:HA	3:G:2802:LYS:HB2	1.97	0.47
3:G:4248:ALA:HA	3:G:4251:ILE:HG12	1.97	0.47
3:G:4744:ASP:HB3	3:G:4747:SER:HB3	1.97	0.47
3:J:299:LEU:HD22	3:J:378:LEU:HG	1.96	0.47
3:J:629:ARG:HH21	3:J:634:GLN:HG2	1.80	0.47
3:J:795:GLY:HA3	3:J:812:HIS:CE1	2.50	0.47
3:J:951:LYS:HE2	3:J:974:HIS:HE2	1.78	0.47
3:J:1619:ARG:HA	3:J:1626:TRP:HA	1.97	0.47
3:J:1619:ARG:HH21	3:J:1621:GLY:HA2	1.79	0.47
3:J:3103:ILE:O	3:J:3107:VAL:HG13	2.14	0.47
3:J:3804:ILE:HG22	3:J:3812:VAL:HG21	1.97	0.47
2:E:91:ILE:HD11	2:E:95:ALA:HB3	1.96	0.47
3:C:629:ARG:HH21	3:C:634:GLN:HG2	1.80	0.47
3:C:629:ARG:NH2	3:C:634:GLN:HG2	2.30	0.47
3:C:985:VAL:HG13	3:C:1039:LEU:HB3	1.96	0.47
3:C:1128:ARG:HA	3:C:1142:PRO:HG3	1.97	0.47
3:C:1288:PHE:HB2	3:C:1600:LEU:HB2	1.97	0.47
3:C:2755:ILE:HG23	3:C:2813:LEU:HD13	1.96	0.47
3:C:3437:MET:O	3:C:3441:ILE:HG13	2.15	0.47
3:C:4634:GLU:HG3	3:C:4639:MET:HB2	1.96	0.47
1:B:23:THR:HA	1:B:77:THR:HG23	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:104:TYR:HE2	3:A:913:LEU:HD21	1.80	0.47
2:F:91:ILE:HD11	2:F:95:ALA:HB3	1.96	0.47
3:A:320:LYS:HA	3:A:356:TRP:HH2	1.80	0.47
3:A:941:MET:HA	3:A:1051:TYR:HA	1.96	0.47
3:A:985:VAL:HG13	3:A:1039:LEU:HB3	1.97	0.47
3:A:1076:ARG:HG2	3:A:1077:ALA:O	2.15	0.47
3:A:1128:ARG:HA	3:A:1142:PRO:HG3	1.97	0.47
3:A:3592:ILE:O	3:A:3596:VAL:HG12	2.14	0.47
3:G:2555:CYS:SG	3:G:2599:GLN:HG2	2.54	0.47
3:G:2599:GLN:O	3:G:2603:ILE:HG12	2.15	0.47
2:L:7:ILE:HA	3:J:719:LEU:HD21	1.96	0.47
3:J:661:LYS:HB3	3:J:808:TYR:CD1	2.50	0.47
3:J:3036:LYS:HG2	3:J:3076:ASP:HB3	1.97	0.47
3:C:1619:ARG:HA	3:C:1626:TRP:HA	1.97	0.47
3:C:1854:PHE:HD1	3:C:1858:ASP:HB3	1.79	0.47
3:C:4677:LEU:HD11	3:C:4687:TYR:HE2	1.79	0.47
3:A:3346:VAL:HB	3:A:3411:LEU:HD12	1.97	0.47
3:A:3768:SER:HA	3:A:3771:HIS:CE1	2.50	0.47
3:A:3804:ILE:HG22	3:A:3812:VAL:HG21	1.97	0.47
3:A:4248:ALA:HA	3:A:4251:ILE:HG12	1.97	0.47
3:G:292:ALA:HB2	3:G:312:THR:HG22	1.97	0.47
3:G:985:VAL:HG13	3:G:1039:LEU:HB3	1.96	0.47
3:G:1018:ASN:HB3	3:G:1021:LEU:HD23	1.97	0.47
3:G:3592:ILE:O	3:G:3596:VAL:HG12	2.14	0.47
3:J:292:ALA:HB2	3:J:312:THR:HG22	1.97	0.47
3:J:629:ARG:NH2	3:J:634:GLN:HG2	2.30	0.47
3:J:2258:LEU:HA	3:J:2261:SER:HB3	1.97	0.47
3:J:2555:CYS:SG	3:J:2599:GLN:HG2	2.54	0.47
3:J:3346:VAL:HB	3:J:3411:LEU:HD12	1.97	0.47
3:C:316:PHE:HD2	3:C:346:CYS:HB2	1.79	0.47
3:C:2258:LEU:HA	3:C:2261:SER:HB3	1.97	0.47
3:C:2522:LEU:HA	3:C:2526:PHE:HB2	1.97	0.47
3:C:3804:ILE:HG22	3:C:3812:VAL:HG21	1.97	0.47
1:B:12:MET:HE3	1:B:13:GLN:H	1.79	0.47
3:A:1018:ASN:HB3	3:A:1021:LEU:HD23	1.97	0.47
3:A:2755:ILE:HG23	3:A:2813:LEU:HD13	1.96	0.47
3:A:2902:HIS:HE1	3:A:2904:LEU:HD13	1.80	0.47
3:A:3036:LYS:HG2	3:A:3076:ASP:HB3	1.97	0.47
3:G:721:LEU:HB3	3:G:768:PHE:HE2	1.80	0.47
3:G:2098:VAL:HB	3:G:2127:GLN:HG3	1.97	0.47
3:G:3036:LYS:HG2	3:G:3076:ASP:HB3	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:3804:ILE:HG22	3:G:3812:VAL:HG21	1.97	0.47
3:J:461:HIS:CD2	3:J:3707:ARG:HG3	2.50	0.47
3:J:799:GLU:HB2	3:J:1623:ARG:HH11	1.79	0.47
1:D:40:ALA:HB3	1:D:43:LYS:HB2	1.97	0.47
3:C:564:LEU:O	3:C:568:LEU:HG	2.14	0.47
3:C:1619:ARG:HH21	3:C:1621:GLY:HA2	1.79	0.47
3:C:2102:VAL:HG13	3:C:2120:MET:HE3	1.97	0.47
3:C:2599:GLN:O	3:C:2603:ILE:HG12	2.15	0.47
3:A:629:ARG:NH2	3:A:634:GLN:HG2	2.30	0.47
1:H:23:THR:HA	1:H:77:THR:HG23	1.96	0.46
1:H:40:ALA:HB3	1:H:43:LYS:HB2	1.98	0.46
3:J:320:LYS:HA	3:J:356:TRP:HH2	1.80	0.46
3:J:2519:LEU:HA	3:J:2522:LEU:HD12	1.97	0.46
3:J:2799:GLU:HA	3:J:2802:LYS:HB2	1.96	0.46
3:J:3406:TYR:HB3	3:J:3509:LEU:HD22	1.97	0.46
1:D:2:VAL:HB	1:D:116:TYR:CD2	2.51	0.46
3:C:1076:ARG:HG2	3:C:1077:ALA:O	2.15	0.46
3:C:3019:SER:HB3	3:C:3030:HIS:HA	1.98	0.46
3:A:461:HIS:CD2	3:A:3707:ARG:HG3	2.51	0.46
3:A:795:GLY:HA3	3:A:812:HIS:CE1	2.50	0.46
3:A:1614:GLN:NE2	3:A:1632:ASP:H	2.14	0.46
3:A:2102:VAL:HG13	3:A:2120:MET:HE3	1.97	0.46
3:A:3437:MET:O	3:A:3441:ILE:HG13	2.15	0.46
3:G:35:LEU:HD21	3:G:189:LEU:HD22	1.97	0.46
3:G:984:LEU:HD22	3:G:987:ARG:HH21	1.81	0.46
3:G:2012:PHE:HZ	3:G:2031:LEU:HD23	1.80	0.46
3:G:3547:GLU:O	3:G:3551:GLU:HG2	2.15	0.46
3:J:2655:TYR:HA	3:J:2667:THR:HB	1.96	0.46
3:J:3437:MET:O	3:J:3441:ILE:HG13	2.15	0.46
3:J:4677:LEU:HD11	3:J:4687:TYR:HE2	1.79	0.46
3:C:2094:LEU:O	3:C:2098:VAL:HG23	2.16	0.46
3:C:2519:LEU:HA	3:C:2522:LEU:HD12	1.97	0.46
3:C:2902:HIS:HE1	3:C:2904:LEU:HD13	1.80	0.46
3:C:3442:PHE:HA	3:C:3510:ILE:HD11	1.97	0.46
3:A:935:LEU:HD11	3:A:991:ASN:HD22	1.80	0.46
3:A:3547:GLU:O	3:A:3551:GLU:HG2	2.15	0.46
3:G:461:HIS:CD2	3:G:3707:ARG:HG3	2.51	0.46
3:G:1286:MET:HB2	3:G:1462:MET:HA	1.97	0.46
3:G:1569:GLN:HB3	3:G:1572:ILE:HD12	1.98	0.46
3:G:1619:ARG:HH21	3:G:1621:GLY:HA2	1.79	0.46
3:G:4933:GLN:HG2	3:A:4930:ALA:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:2599:GLN:O	3:J:2603:ILE:HG12	2.15	0.46
3:J:3768:SER:HA	3:J:3771:HIS:CE1	2.50	0.46
3:C:320:LYS:HA	3:C:356:TRP:HH2	1.80	0.46
3:C:799:GLU:HB2	3:C:1623:ARG:HH11	1.79	0.46
3:C:2555:CYS:SG	3:C:2599:GLN:HG2	2.54	0.46
3:A:1569:GLN:HB3	3:A:1572:ILE:HD12	1.98	0.46
3:A:2672:LEU:HD12	3:A:2672:LEU:HA	1.81	0.46
3:A:2799:GLU:HA	3:A:2802:LYS:HB2	1.97	0.46
3:G:877:ASN:O	3:G:881:LEU:HG	2.15	0.46
3:G:2377:LEU:O	3:G:2381:GLU:HG2	2.16	0.46
3:J:985:VAL:HG13	3:J:1039:LEU:HB3	1.96	0.46
3:J:1433:TYR:CD2	3:J:1573:MET:HB3	2.50	0.46
3:J:2973:PHE:HA	3:J:2976:HIS:CD2	2.51	0.46
3:J:3223:SER:O	3:J:3226:GLU:HG3	2.16	0.46
3:J:4206:GLU:HA	3:J:4211:LYS:HE3	1.97	0.46
3:J:4744:ASP:HB3	3:J:4747:SER:HB3	1.97	0.46
3:C:560:ILE:HD12	3:C:560:ILE:H	1.80	0.46
3:C:3102:ASP:HA	3:C:3105:LYS:HE2	1.98	0.46
3:C:3547:GLU:O	3:C:3551:GLU:HG2	2.15	0.46
3:A:565:TYR:O	3:A:569:ILE:HG22	2.16	0.46
3:A:2010:LEU:HD23	3:A:3656:SER:OG	2.14	0.46
3:A:2012:PHE:HZ	3:A:2031:LEU:HD23	1.80	0.46
3:A:3513:THR:O	3:A:3517:MET:HG2	2.16	0.46
3:G:2522:LEU:HA	3:G:2526:PHE:HB2	1.97	0.46
3:G:2662:ALA:HB3	3:G:2664:PHE:CE2	2.51	0.46
3:G:3437:MET:O	3:G:3441:ILE:HG13	2.15	0.46
3:G:4675:LYS:O	3:G:4679:ARG:HG2	2.16	0.46
3:J:224:HIS:HA	3:J:388:LEU:HG	1.98	0.46
3:J:1128:ARG:HA	3:J:1142:PRO:HG3	1.97	0.46
3:J:2102:VAL:HG13	3:J:2120:MET:HE3	1.97	0.46
3:J:3019:SER:HB3	3:J:3030:HIS:HA	1.97	0.46
3:J:3442:PHE:HA	3:J:3510:ILE:HD11	1.97	0.46
1:D:23:THR:HA	1:D:77:THR:HG23	1.96	0.46
3:C:984:LEU:HD22	3:C:987:ARG:HH21	1.81	0.46
3:C:1614:GLN:NE2	3:C:1632:ASP:H	2.14	0.46
3:C:2662:ALA:HB3	3:C:2664:PHE:CE2	2.51	0.46
3:C:3223:SER:O	3:C:3226:GLU:HG3	2.15	0.46
2:F:29:MET:HB3	2:F:34:LYS:H	1.81	0.46
3:A:292:ALA:HB2	3:A:312:THR:HG22	1.97	0.46
3:A:1619:ARG:HH21	3:A:1621:GLY:HA2	1.79	0.46
3:A:2655:TYR:HA	3:A:2667:THR:HB	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:3223:SER:O	3:A:3226:GLU:HG3	2.15	0.46
3:A:4634:GLU:HG3	3:A:4639:MET:HB2	1.96	0.46
3:G:439:GLU:O	3:G:443:LEU:HG	2.16	0.46
3:G:1619:ARG:HB3	3:G:1626:TRP:CD2	2.51	0.46
3:G:1871:PHE:HZ	3:G:2094:LEU:HD13	1.79	0.46
3:G:2648:TYR:HD2	3:G:2709:ALA:HB3	1.81	0.46
3:G:3019:SER:HB3	3:G:3030:HIS:HA	1.97	0.46
3:G:4677:LEU:HD11	3:G:4687:TYR:HE2	1.79	0.46
1:K:53:SER:HA	1:K:71:ARG:NH2	2.31	0.46
2:L:89:GLY:HA3	3:J:1684:ALA:HB1	1.97	0.46
3:J:1288:PHE:HB2	3:J:1600:LEU:HB2	1.97	0.46
3:J:3547:GLU:O	3:J:3551:GLU:HG2	2.15	0.46
3:J:4248:ALA:HA	3:J:4251:ILE:HG12	1.97	0.46
3:C:472:ARG:HB2	3:C:472:ARG:NH1	2.30	0.46
3:C:3459:VAL:HG23	3:C:3464:ILE:HB	1.97	0.46
3:C:4206:GLU:HA	3:C:4211:LYS:HE3	1.97	0.46
3:C:4744:ASP:HB3	3:C:4747:SER:HB3	1.97	0.46
1:B:40:ALA:HB3	1:B:43:LYS:HB2	1.98	0.46
1:B:53:SER:HA	1:B:71:ARG:NH2	2.31	0.46
3:A:35:LEU:HD21	3:A:189:LEU:HD22	1.97	0.46
3:A:472:ARG:NH1	3:A:472:ARG:HB2	2.30	0.46
3:A:582:HIS:O	3:A:586:ILE:HG12	2.16	0.46
3:A:799:GLU:HB2	3:A:1623:ARG:HH11	1.79	0.46
3:A:1288:PHE:HB2	3:A:1600:LEU:HB2	1.97	0.46
3:A:3413:ILE:HD12	3:A:3475:LYS:HG2	1.98	0.46
3:G:629:ARG:HB3	3:G:634:GLN:HE22	1.79	0.46
3:G:629:ARG:NH2	3:G:634:GLN:HG2	2.30	0.46
3:G:795:GLY:HA3	3:G:812:HIS:CE1	2.50	0.46
3:G:799:GLU:HB2	3:G:1623:ARG:HH11	1.79	0.46
3:G:935:LEU:HD11	3:G:991:ASN:HD22	1.80	0.46
3:G:1128:ARG:HA	3:G:1142:PRO:HG3	1.97	0.46
3:G:1470:ARG:HA	3:G:1470:ARG:HD3	1.75	0.46
3:G:1619:ARG:HA	3:G:1626:TRP:HA	1.97	0.46
3:G:2559:LEU:O	3:G:2563:THR:HG23	2.16	0.46
3:G:2755:ILE:HG23	3:G:2813:LEU:HD13	1.96	0.46
3:G:3102:ASP:HA	3:G:3105:LYS:HE2	1.98	0.46
3:G:4725:LEU:HA	3:G:4737:ILE:HG21	1.97	0.46
3:G:4936:ILE:HD11	3:A:4930:ALA:HB3	1.98	0.46
1:K:23:THR:HA	1:K:77:THR:HG23	1.96	0.46
1:K:40:ALA:HB3	1:K:43:LYS:HB2	1.98	0.46
3:J:2098:VAL:HB	3:J:2127:GLN:HG3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:2527:LEU:HD21	3:J:2582:MET:HB2	1.98	0.46
3:J:2648:TYR:HD2	3:J:2709:ALA:HB3	1.81	0.46
3:J:3396:ASP:O	3:J:3400:VAL:HG23	2.16	0.46
2:E:29:MET:HB3	2:E:34:LYS:H	1.81	0.46
3:C:113:HIS:CE1	3:C:402:ARG:HB3	2.51	0.46
3:C:1930:LYS:HB2	3:C:1930:LYS:HE3	1.79	0.46
3:C:3036:LYS:HG2	3:C:3076:ASP:HB3	1.97	0.46
3:C:3406:TYR:HB3	3:C:3509:LEU:HD22	1.97	0.46
3:C:3513:THR:O	3:C:3517:MET:HG2	2.16	0.46
3:C:4675:LYS:O	3:C:4679:ARG:HG2	2.16	0.46
3:C:4857:ASN:HD22	8:A:5106:POV:H33	1.81	0.46
3:A:1286:MET:HB2	3:A:1462:MET:HA	1.97	0.46
3:A:2267:MET:HE3	3:A:2267:MET:HB2	1.79	0.46
3:A:2527:LEU:HD21	3:A:2582:MET:HB2	1.98	0.46
3:A:2973:PHE:HA	3:A:2976:HIS:CD2	2.51	0.46
3:G:1861:GLN:O	3:G:1865:MET:HB3	2.16	0.46
3:G:2179:ILE:HD12	3:G:2227:LYS:HE3	1.98	0.46
3:G:2519:LEU:HD13	3:G:2522:LEU:HD12	1.98	0.46
3:G:2655:TYR:HA	3:G:2667:THR:HB	1.96	0.46
3:G:2902:HIS:HE1	3:G:2904:LEU:HD13	1.80	0.46
3:G:3396:ASP:O	3:G:3400:VAL:HG23	2.16	0.46
3:G:4930:ALA:HB3	3:J:4936:ILE:HD11	1.98	0.46
3:J:560:ILE:HD12	3:J:560:ILE:H	1.80	0.46
3:J:1455:PRO:HG3	3:J:1549:PHE:HE1	1.81	0.46
3:J:1569:GLN:HB3	3:J:1572:ILE:HD12	1.98	0.46
3:J:2094:LEU:O	3:J:2098:VAL:HG23	2.16	0.46
3:J:2102:VAL:HG13	3:J:2120:MET:HB2	1.98	0.46
3:J:3102:ASP:HA	3:J:3105:LYS:HE2	1.98	0.46
1:D:53:SER:HA	1:D:71:ARG:NH2	2.31	0.46
3:C:935:LEU:HD11	3:C:991:ASN:HD22	1.80	0.46
3:C:2012:PHE:HZ	3:C:2031:LEU:HD23	1.80	0.46
3:C:2952:GLU:HA	3:C:2957:PHE:CG	2.51	0.46
3:C:4930:ALA:HB2	3:A:4933:GLN:HG2	1.96	0.46
3:C:4930:ALA:HB3	3:A:4936:ILE:HD11	1.98	0.46
1:B:2:VAL:HB	1:B:116:TYR:CD2	2.51	0.46
3:A:224:HIS:HA	3:A:388:LEU:HG	1.98	0.46
3:A:2526:PHE:O	3:A:2530:MET:HG3	2.16	0.46
3:A:3396:ASP:O	3:A:3400:VAL:HG23	2.16	0.46
3:G:3459:VAL:HG23	3:G:3464:ILE:HB	1.97	0.46
3:J:59:PRO:HA	3:J:60:PRO:HD3	1.86	0.46
3:J:472:ARG:NH1	3:J:472:ARG:HB2	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1286:MET:HB2	3:J:1462:MET:HA	1.97	0.46
3:J:1683:HIS:CG	3:J:1800:PRO:HG3	2.51	0.46
3:J:2012:PHE:HZ	3:J:2031:LEU:HD23	1.81	0.46
3:J:3413:ILE:HD12	3:J:3475:LYS:HG2	1.98	0.46
3:C:661:LYS:HB3	3:C:808:TYR:CD1	2.50	0.46
3:C:1286:MET:HB2	3:C:1462:MET:HA	1.97	0.46
3:C:1569:GLN:HB3	3:C:1572:ILE:HD12	1.98	0.46
3:C:2973:PHE:HA	3:C:2976:HIS:CD2	2.51	0.46
3:C:3768:SER:HA	3:C:3771:HIS:CE1	2.50	0.46
3:A:113:HIS:CE1	3:A:402:ARG:HB3	2.51	0.46
3:A:439:GLU:O	3:A:443:LEU:HG	2.16	0.46
3:A:4889:VAL:HG12	3:A:4900:GLU:HG3	1.98	0.46
1:H:2:VAL:HB	1:H:116:TYR:CD2	2.51	0.46
3:G:980:ALA:O	3:G:984:LEU:HG	2.16	0.46
3:G:2736:ASP:HA	3:G:2891:LYS:HD2	1.98	0.46
2:L:29:MET:HB3	2:L:34:LYS:H	1.81	0.46
3:J:35:LEU:HD21	3:J:189:LEU:HD22	1.97	0.46
3:J:877:ASN:O	3:J:881:LEU:HG	2.15	0.46
3:J:2179:ILE:HD12	3:J:2227:LYS:HE3	1.98	0.46
3:J:3257:ALA:HA	3:J:3325:ASN:HD21	1.81	0.46
3:J:4930:ALA:HB3	3:C:4936:ILE:HD11	1.98	0.46
3:C:224:HIS:HA	3:C:388:LEU:HG	1.98	0.46
3:C:461:HIS:CD2	3:C:3707:ARG:HG3	2.51	0.46
3:C:582:HIS:O	3:C:586:ILE:HG12	2.16	0.46
3:C:1861:GLN:O	3:C:1865:MET:HB3	2.16	0.46
3:C:2377:LEU:O	3:C:2381:GLU:HG2	2.16	0.46
3:A:560:ILE:HD12	3:A:560:ILE:H	1.80	0.46
3:A:877:ASN:O	3:A:881:LEU:HG	2.15	0.46
3:A:980:ALA:O	3:A:984:LEU:HG	2.16	0.46
3:A:1619:ARG:HA	3:A:1626:TRP:HA	1.97	0.46
3:A:1619:ARG:HB3	3:A:1626:TRP:CD2	2.51	0.46
2:I:90:VAL:HG12	3:G:1687:SER:OG	2.16	0.45
3:G:103:TYR:HB2	3:G:159:GLU:HA	1.98	0.45
3:G:707:VAL:O	3:G:713:SER:HB2	2.16	0.45
3:G:1184:ILE:HD12	3:G:1184:ILE:HA	1.87	0.45
3:G:2526:PHE:O	3:G:2530:MET:HG3	2.16	0.45
3:G:2527:LEU:HD21	3:G:2582:MET:HB2	1.98	0.45
3:G:3223:SER:O	3:G:3226:GLU:HG3	2.15	0.45
3:G:3409:TYR:O	3:G:3413:ILE:HG23	2.17	0.45
3:G:4857:ASN:HD22	8:J:5107:POV:H33	1.81	0.45
3:G:4930:ALA:HB2	3:J:4933:GLN:HG2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:113:HIS:CE1	3:J:402:ARG:HB3	2.51	0.45
3:J:935:LEU:HD11	3:J:991:ASN:HD22	1.80	0.45
3:J:1018:ASN:HB3	3:J:1021:LEU:HD23	1.97	0.45
3:J:2519:LEU:HD13	3:J:2522:LEU:HD12	1.98	0.45
3:J:2522:LEU:HA	3:J:2526:PHE:HB2	1.97	0.45
3:J:2526:PHE:O	3:J:2530:MET:HG3	2.16	0.45
3:J:2902:HIS:HE1	3:J:2904:LEU:HD13	1.80	0.45
3:J:2952:GLU:HA	3:J:2957:PHE:CG	2.51	0.45
3:J:4675:LYS:O	3:J:4679:ARG:HG2	2.16	0.45
3:J:4943:LEU:O	3:J:4947:GLN:HG2	2.16	0.45
3:C:283:ARG:HB2	3:C:290:TYR:CE1	2.51	0.45
3:C:292:ALA:HB2	3:C:312:THR:HG22	1.97	0.45
3:C:565:TYR:O	3:C:569:ILE:HG22	2.16	0.45
3:C:707:VAL:O	3:C:713:SER:HB2	2.16	0.45
3:C:4943:LEU:O	3:C:4947:GLN:HG2	2.16	0.45
3:A:984:LEU:HD22	3:A:987:ARG:HH21	1.81	0.45
3:A:2952:GLU:HA	3:A:2957:PHE:CG	2.51	0.45
3:A:3019:SER:HB3	3:A:3030:HIS:HA	1.97	0.45
2:I:29:MET:HB3	2:I:34:LYS:H	1.81	0.45
3:G:472:ARG:NH1	3:G:472:ARG:HB2	2.30	0.45
3:G:1183:GLU:CD	3:G:1183:GLU:H	2.25	0.45
3:G:3406:TYR:HB3	3:G:3509:LEU:HD22	1.97	0.45
3:G:4889:VAL:HG12	3:G:4900:GLU:HG3	1.99	0.45
1:K:2:VAL:HB	1:K:116:TYR:CD2	2.51	0.45
3:J:1619:ARG:HB3	3:J:1626:TRP:CD2	2.51	0.45
3:J:2377:LEU:O	3:J:2381:GLU:HG2	2.16	0.45
3:J:2662:ALA:HB3	3:J:2664:PHE:CE2	2.51	0.45
3:J:2736:ASP:HA	3:J:2891:LYS:HD2	1.99	0.45
3:J:2743:LEU:HD12	3:J:2807:TRP:HZ2	1.81	0.45
1:D:51:ILE:HB	1:D:69:ILE:HD13	1.99	0.45
3:C:629:ARG:HB3	3:C:634:GLN:HE22	1.79	0.45
3:C:721:LEU:HB3	3:C:768:PHE:HE2	1.80	0.45
3:C:1619:ARG:HB3	3:C:1626:TRP:CD2	2.51	0.45
3:C:3413:ILE:HD12	3:C:3475:LYS:HG2	1.98	0.45
3:A:707:VAL:O	3:A:713:SER:HB2	2.16	0.45
3:A:1455:PRO:HG3	3:A:1549:PHE:HE1	1.81	0.45
3:A:2648:TYR:HD2	3:A:2709:ALA:HB3	1.81	0.45
3:A:3257:ALA:HA	3:A:3325:ASN:HD21	1.81	0.45
3:G:224:HIS:HA	3:G:388:LEU:HG	1.98	0.45
3:G:1101:ARG:HB2	3:G:1193:SER:HB3	1.98	0.45
3:G:1455:PRO:HG3	3:G:1549:PHE:HE1	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:2519:LEU:HA	3:G:2522:LEU:HD12	1.97	0.45
3:G:3413:ILE:HD12	3:G:3475:LYS:HG2	1.98	0.45
3:J:439:GLU:O	3:J:443:LEU:HG	2.16	0.45
3:J:980:ALA:O	3:J:984:LEU:HG	2.17	0.45
3:J:984:LEU:HD22	3:J:987:ARG:HH21	1.81	0.45
3:J:3459:VAL:HG23	3:J:3464:ILE:HB	1.97	0.45
1:D:114:TYR:HE1	3:C:996:TRP:HB2	1.81	0.45
3:C:35:LEU:HD21	3:C:189:LEU:HD22	1.97	0.45
3:C:439:GLU:O	3:C:443:LEU:HG	2.16	0.45
3:C:1018:ASN:HB3	3:C:1021:LEU:HD23	1.97	0.45
3:C:1152:MET:HE3	3:C:1161:ILE:HB	1.99	0.45
3:C:1639:LEU:HD23	3:C:1653:LEU:HD11	1.99	0.45
3:C:2527:LEU:HD21	3:C:2582:MET:HB2	1.98	0.45
3:C:2648:TYR:HD2	3:C:2709:ALA:HB3	1.81	0.45
3:C:4854:VAL:HG11	8:A:5107:POV:H211	1.98	0.45
1:B:51:ILE:HB	1:B:69:ILE:HD13	1.99	0.45
3:A:708:GLY:HA3	3:A:722:TRP:HB3	1.99	0.45
3:A:2094:LEU:O	3:A:2098:VAL:HG23	2.16	0.45
3:A:3102:ASP:HA	3:A:3105:LYS:HE2	1.98	0.45
3:A:3459:VAL:HG23	3:A:3464:ILE:HB	1.97	0.45
3:A:4675:LYS:O	3:A:4679:ARG:HG2	2.16	0.45
3:A:4943:LEU:O	3:A:4947:GLN:HG2	2.16	0.45
3:G:1683:HIS:CG	3:G:1800:PRO:HG3	2.51	0.45
3:G:2258:LEU:HA	3:G:2261:SER:HB3	1.97	0.45
3:G:2973:PHE:HA	3:G:2976:HIS:CD2	2.51	0.45
3:G:3442:PHE:HA	3:G:3510:ILE:HD11	1.97	0.45
1:K:68:THR:HB	1:K:81:GLN:HB3	1.98	0.45
3:J:667:MET:SD	3:J:790:ARG:HB2	2.57	0.45
3:J:3550:ARG:HE	3:J:3597:GLN:CD	2.24	0.45
3:C:667:MET:SD	3:C:790:ARG:HB2	2.57	0.45
3:C:980:ALA:O	3:C:984:LEU:HG	2.16	0.45
3:C:1101:ARG:HB2	3:C:1193:SER:HB3	1.98	0.45
3:C:2526:PHE:O	3:C:2530:MET:HG3	2.16	0.45
3:C:3257:ALA:HA	3:C:3325:ASN:HD21	1.81	0.45
3:A:661:LYS:HB3	3:A:808:TYR:CD1	2.50	0.45
3:A:667:MET:SD	3:A:790:ARG:HB2	2.57	0.45
3:A:1116:GLY:HA3	3:A:1132:TRP:HB3	1.99	0.45
3:A:3406:TYR:HB3	3:A:3509:LEU:HD22	1.97	0.45
3:G:565:TYR:O	3:G:569:ILE:HG22	2.16	0.45
3:G:1288:PHE:HB2	3:G:1600:LEU:HB2	1.97	0.45
3:G:2102:VAL:HG13	3:G:2120:MET:HE3	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:2743:LEU:HD12	3:G:2807:TRP:HZ2	1.81	0.45
3:G:2952:GLU:HA	3:G:2957:PHE:CG	2.51	0.45
3:G:4832:HIS:CE1	3:G:4942:GLU:HG3	2.52	0.45
1:K:51:ILE:HB	1:K:69:ILE:HD13	1.99	0.45
3:J:365:LYS:HE2	3:J:367:LEU:HD23	1.99	0.45
3:J:2559:LEU:O	3:J:2563:THR:HG23	2.16	0.45
3:J:3567:PRO:HA	3:J:3570:ARG:HB2	1.99	0.45
3:J:3777:GLU:HG2	3:J:3819:TYR:CD1	2.52	0.45
3:J:4725:LEU:HA	3:J:4737:ILE:HG21	1.97	0.45
3:C:365:LYS:HE2	3:C:367:LEU:HD23	1.99	0.45
3:C:1455:PRO:HG3	3:C:1549:PHE:HE1	1.81	0.45
3:C:1470:ARG:HA	3:C:1470:ARG:HD3	1.75	0.45
3:C:1683:HIS:CG	3:C:1800:PRO:HG3	2.51	0.45
3:C:2179:ILE:HD12	3:C:2227:LYS:HE3	1.98	0.45
3:A:365:LYS:HE2	3:A:367:LEU:HD23	1.99	0.45
3:A:775:GLY:H	3:A:848:HIS:CE1	2.35	0.45
3:A:1639:LEU:HD23	3:A:1653:LEU:HD11	1.99	0.45
3:A:1683:HIS:CG	3:A:1800:PRO:HG3	2.51	0.45
3:A:2386:ILE:HG12	3:A:2392:ARG:NH1	2.32	0.45
3:A:2519:LEU:HA	3:A:2522:LEU:HD12	1.97	0.45
3:A:4744:ASP:HB3	3:A:4747:SER:HB3	1.97	0.45
3:G:913:LEU:HD22	3:G:917:GLU:HB2	1.99	0.45
3:G:2207:VAL:HG22	3:G:2211:MET:HE3	1.99	0.45
3:G:3567:PRO:HA	3:G:3570:ARG:HB2	1.99	0.45
3:J:103:TYR:HB2	3:J:159:GLU:HA	1.98	0.45
3:J:1184:ILE:HD12	3:J:1184:ILE:HA	1.87	0.45
3:J:2592:GLY:HA3	3:J:2636:PHE:HE2	1.82	0.45
3:J:4853:VAL:HA	3:J:4879:MET:HE1	1.99	0.45
1:D:66:ARG:HE	1:D:83:ASN:HB2	1.82	0.45
1:D:68:THR:HB	1:D:81:GLN:HB3	1.98	0.45
3:C:708:GLY:HA3	3:C:722:TRP:HB3	1.99	0.45
3:C:877:ASN:O	3:C:881:LEU:HG	2.15	0.45
3:C:3550:ARG:HE	3:C:3597:GLN:CD	2.24	0.45
1:B:68:THR:HB	1:B:81:GLN:HB3	1.98	0.45
3:A:1663:HIS:HD2	3:A:1707:LEU:HD22	1.81	0.45
3:A:2258:LEU:HA	3:A:2261:SER:HB3	1.97	0.45
3:A:2970:SER:HA	3:A:2973:PHE:CZ	2.52	0.45
3:G:1747:LEU:HD23	3:G:1747:LEU:HA	1.81	0.45
3:G:2094:LEU:O	3:G:2098:VAL:HG23	2.16	0.45
3:G:3257:ALA:HA	3:G:3325:ASN:HD21	1.81	0.45
1:K:114:TYR:HE1	3:J:996:TRP:HB2	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:582:HIS:O	3:J:586:ILE:HG12	2.16	0.45
3:J:629:ARG:HB3	3:J:634:GLN:HE22	1.79	0.45
3:J:1614:GLN:NE2	3:J:1632:ASP:H	2.14	0.45
3:J:4761:PRO:HB2	3:J:4766:THR:HB	1.99	0.45
3:C:394:GLN:HB2	3:C:397:GLU:HG2	1.99	0.45
3:C:2969:ILE:HG22	3:C:2973:PHE:CE2	2.47	0.45
3:C:3067:CYS:O	3:C:3071:LEU:HG	2.16	0.45
3:C:3227:ARG:HB3	3:C:3232:LEU:HB2	1.98	0.45
3:C:3550:ARG:O	3:C:3554:GLN:HG2	2.17	0.45
3:C:4725:LEU:HA	3:C:4737:ILE:HG21	1.97	0.45
3:C:4832:HIS:CE1	3:C:4942:GLU:HG3	2.52	0.45
3:A:1861:GLN:O	3:A:1865:MET:HB3	2.16	0.45
3:A:2179:ILE:HD12	3:A:2227:LYS:HE3	1.98	0.45
3:A:2377:LEU:O	3:A:2381:GLU:HG2	2.16	0.45
3:A:2736:ASP:HA	3:A:2891:LYS:HD2	1.98	0.45
3:A:3227:ARG:HB3	3:A:3232:LEU:HB2	1.98	0.45
3:A:3409:TYR:O	3:A:3413:ILE:HG23	2.17	0.45
3:A:3442:PHE:HA	3:A:3510:ILE:HD11	1.97	0.45
1:H:51:ILE:HB	1:H:69:ILE:HD13	1.99	0.45
1:H:53:SER:HA	1:H:71:ARG:NH2	2.31	0.45
3:G:1663:HIS:HD2	3:G:1707:LEU:HD22	1.81	0.45
3:J:1663:HIS:HD2	3:J:1707:LEU:HD22	1.81	0.45
3:J:1861:GLN:O	3:J:1865:MET:HB3	2.16	0.45
3:J:3550:ARG:O	3:J:3554:GLN:HG2	2.17	0.45
3:J:4813:LEU:HA	3:J:4813:LEU:HD23	1.77	0.45
3:C:775:GLY:H	3:C:848:HIS:CE1	2.35	0.45
3:C:2519:LEU:HD13	3:C:2522:LEU:HD12	1.98	0.45
3:C:2626:LEU:HD23	3:C:2626:LEU:HA	1.86	0.45
3:C:2970:SER:HA	3:C:2973:PHE:CZ	2.52	0.45
3:C:3107:VAL:HG12	3:C:3175:LEU:HG	1.99	0.45
3:A:1101:ARG:HB2	3:A:1193:SER:HB3	1.98	0.45
3:A:2559:LEU:O	3:A:2563:THR:HG23	2.16	0.45
3:A:3257:ALA:HB1	3:A:3321:ARG:HB3	1.99	0.45
3:A:3567:PRO:HA	3:A:3570:ARG:HB2	1.99	0.45
3:A:4832:HIS:CE1	3:A:4942:GLU:HG3	2.52	0.45
3:G:1614:GLN:NE2	3:G:1632:ASP:H	2.14	0.45
3:G:2102:VAL:HG13	3:G:2120:MET:HB2	1.98	0.45
3:G:2466:LEU:HD21	3:G:2505:PHE:CD1	2.52	0.45
3:G:2495:VAL:HG22	3:G:2498:HIS:CE1	2.52	0.45
3:G:3286:GLU:HG2	3:G:3287:ARG:HD2	1.99	0.45
3:G:3513:THR:O	3:G:3517:MET:HG2	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:4761:PRO:HB2	3:G:4766:THR:HB	1.99	0.45
3:G:4943:LEU:O	3:G:4947:GLN:HG2	2.16	0.45
3:J:1116:GLY:HA3	3:J:1132:TRP:HB3	1.99	0.45
3:J:1152:MET:HE3	3:J:1161:ILE:HB	1.99	0.45
3:J:1183:GLU:H	3:J:1183:GLU:CD	2.25	0.45
3:J:2495:VAL:HG22	3:J:2498:HIS:CE1	2.52	0.45
3:J:3107:VAL:HG12	3:J:3175:LEU:HG	1.99	0.45
3:J:3222:LYS:HB3	3:J:3226:GLU:OE2	2.17	0.45
3:J:3257:ALA:HB1	3:J:3321:ARG:HB3	1.99	0.45
3:C:913:LEU:HD22	3:C:917:GLU:HB2	1.99	0.45
3:C:3409:TYR:O	3:C:3413:ILE:HG23	2.17	0.45
3:C:3777:GLU:HG2	3:C:3819:TYR:CD1	2.52	0.45
3:C:4853:VAL:HA	3:C:4879:MET:HE1	1.99	0.45
3:A:1183:GLU:CD	3:A:1183:GLU:H	2.25	0.45
3:A:2102:VAL:HG13	3:A:2120:MET:HB2	1.98	0.45
3:A:2662:ALA:HB3	3:A:2664:PHE:CE2	2.51	0.45
3:A:3183:VAL:O	3:A:3187:ARG:HG3	2.17	0.45
3:A:3406:TYR:HD2	3:A:3458:PHE:HE2	1.65	0.45
3:A:4062:PHE:HB2	3:A:4170:ILE:HD11	1.99	0.45
3:G:365:LYS:HE2	3:G:367:LEU:HD23	1.99	0.45
3:G:582:HIS:O	3:G:586:ILE:HG12	2.16	0.45
3:G:1960:ALA:O	3:G:1963:GLU:HG3	2.18	0.45
8:G:5106:POV:H33	3:A:4857:ASN:HD22	1.81	0.45
3:J:565:TYR:O	3:J:569:ILE:HG22	2.16	0.45
3:J:708:GLY:HA3	3:J:722:TRP:HB3	1.98	0.45
3:J:1101:ARG:HB2	3:J:1193:SER:HB3	1.98	0.45
3:J:3067:CYS:O	3:J:3071:LEU:HG	2.16	0.45
3:J:3513:THR:O	3:J:3517:MET:HG2	2.16	0.45
3:J:3836:MET:HG3	3:J:3884:LEU:HD21	1.98	0.45
3:J:4062:PHE:HB2	3:J:4170:ILE:HD11	1.99	0.45
3:J:4832:HIS:CE1	3:J:4942:GLU:HG3	2.52	0.45
3:C:755:ILE:HB	3:C:768:PHE:HB2	1.99	0.45
3:C:1076:ARG:HB2	3:C:1191:VAL:HG23	1.99	0.45
3:C:1855:GLY:O	3:C:1859:VAL:HG22	2.17	0.45
3:C:2559:LEU:O	3:C:2563:THR:HG23	2.16	0.45
3:C:4889:VAL:HG12	3:C:4900:GLU:HG3	1.98	0.45
2:F:3:GLU:HB2	2:F:75:THR:HB	1.99	0.45
3:A:222:LEU:HB3	3:A:388:LEU:HD23	2.00	0.45
1:H:53:SER:HA	1:H:71:ARG:HH22	1.82	0.44
3:G:755:ILE:HB	3:G:768:PHE:HB2	1.99	0.44
3:G:2193:GLN:HG3	3:G:2194:HIS:CD2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:2468:GLY:O	3:G:2472:LEU:HD12	2.17	0.44
3:G:2522:LEU:HD22	3:G:2582:MET:HE1	1.99	0.44
1:K:1:GLN:HB3	1:K:2:VAL:H	1.54	0.44
3:J:283:ARG:HB2	3:J:290:TYR:CE1	2.52	0.44
3:J:707:VAL:O	3:J:713:SER:HB2	2.16	0.44
3:J:755:ILE:HB	3:J:768:PHE:HB2	1.99	0.44
3:J:1240:LYS:HG2	3:J:1242:LEU:H	1.82	0.44
3:J:1252:HIS:HE1	3:J:1254:HIS:HB2	1.83	0.44
3:J:2207:VAL:HG22	3:J:2211:MET:HE3	1.99	0.44
3:J:2522:LEU:HD22	3:J:2582:MET:HE1	1.99	0.44
3:J:3406:TYR:HD2	3:J:3458:PHE:HE2	1.65	0.44
3:J:4181:ILE:HG22	3:J:4987:ASN:HB3	2.00	0.44
3:C:648:ILE:HD11	3:C:821:LEU:HD11	1.99	0.44
3:C:662:TRP:CH2	3:C:814:ALA:HB2	2.52	0.44
3:C:821:LEU:HD12	3:C:821:LEU:HA	1.88	0.44
3:C:1116:GLY:HA3	3:C:1132:TRP:HB3	1.99	0.44
3:C:1184:ILE:HD12	3:C:1184:ILE:HA	1.87	0.44
3:C:2495:VAL:HG22	3:C:2498:HIS:CE1	2.52	0.44
3:C:2736:ASP:HA	3:C:2891:LYS:HD2	1.98	0.44
3:C:3286:GLU:HG2	3:C:3287:ARG:HD2	1.99	0.44
1:B:66:ARG:HE	1:B:83:ASN:HB2	1.82	0.44
3:A:103:TYR:HB2	3:A:159:GLU:HA	1.98	0.44
3:A:721:LEU:HB3	3:A:768:PHE:HE2	1.80	0.44
3:A:1076:ARG:HB2	3:A:1191:VAL:HG23	1.99	0.44
3:A:2207:VAL:HG22	3:A:2211:MET:HE3	1.99	0.44
3:A:2468:GLY:O	3:A:2472:LEU:HD12	2.17	0.44
3:A:3067:CYS:O	3:A:3071:LEU:HG	2.16	0.44
3:A:3222:LYS:HB3	3:A:3226:GLU:OE2	2.17	0.44
3:A:3286:GLU:HG2	3:A:3287:ARG:HD2	1.99	0.44
3:G:113:HIS:CE1	3:G:402:ARG:HB3	2.51	0.44
3:G:483:MET:HE3	3:G:483:MET:HB3	1.80	0.44
3:G:1855:GLY:O	3:G:1859:VAL:HG22	2.17	0.44
3:G:3406:TYR:HD2	3:G:3458:PHE:HE2	1.65	0.44
3:G:3550:ARG:O	3:G:3554:GLN:HG2	2.17	0.44
3:G:4062:PHE:HB2	3:G:4170:ILE:HD11	1.99	0.44
3:J:3545:THR:HG23	3:J:3548:GLU:H	1.83	0.44
3:J:4889:VAL:HG12	3:J:4900:GLU:HG3	1.98	0.44
3:C:222:LEU:HB3	3:C:388:LEU:HD23	1.99	0.44
3:C:2386:ILE:HG12	3:C:2392:ARG:NH1	2.32	0.44
3:C:2743:LEU:HD12	3:C:2807:TRP:HZ2	1.81	0.44
3:C:3060:ASP:O	3:C:3064:VAL:HG22	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:4761:PRO:HB2	3:C:4766:THR:HB	1.99	0.44
1:B:51:ILE:HG23	1:B:71:ARG:HH11	1.82	0.44
3:A:394:GLN:HB2	3:A:397:GLU:HG2	1.99	0.44
3:A:755:ILE:HB	3:A:768:PHE:HB2	1.99	0.44
3:A:1240:LYS:HG2	3:A:1242:LEU:H	1.82	0.44
3:A:2193:GLN:HG3	3:A:2194:HIS:CD2	2.52	0.44
3:A:2340:PHE:HE1	3:A:2508:ARG:HH21	1.65	0.44
1:H:51:ILE:HG23	1:H:71:ARG:HH11	1.82	0.44
2:I:3:GLU:HB2	2:I:75:THR:HB	2.00	0.44
3:G:1229:ASN:HB2	3:G:1827:ARG:HH11	1.83	0.44
3:G:1240:LYS:HG2	3:G:1242:LEU:H	1.83	0.44
3:G:3239:MET:HB3	3:G:3239:MET:HE2	1.63	0.44
3:G:3550:ARG:HE	3:G:3597:GLN:CD	2.24	0.44
3:G:4681:LEU:HD23	3:G:4681:LEU:HA	1.77	0.44
3:J:3442:PHE:CE2	3:J:3511:VAL:HG12	2.52	0.44
3:C:701:GLY:HA3	3:C:725:HIS:NE2	2.33	0.44
3:C:2102:VAL:HG13	3:C:2120:MET:HB2	1.98	0.44
3:C:2350:ALA:O	3:C:2354:VAL:HG12	2.18	0.44
3:C:3222:LYS:HB3	3:C:3226:GLU:OE2	2.17	0.44
3:C:3257:ALA:HB1	3:C:3321:ARG:HB3	1.99	0.44
3:C:3406:TYR:HD2	3:C:3458:PHE:HE2	1.65	0.44
3:C:3545:THR:HG23	3:C:3548:GLU:H	1.83	0.44
3:A:1152:MET:HE3	3:A:1161:ILE:HB	1.99	0.44
3:A:2522:LEU:HD22	3:A:2582:MET:HE1	1.99	0.44
3:A:4725:LEU:HA	3:A:4737:ILE:HG21	1.97	0.44
3:G:3067:CYS:O	3:G:3071:LEU:HG	2.16	0.44
3:G:3257:ALA:HB1	3:G:3321:ARG:HB3	1.99	0.44
1:K:53:SER:HA	1:K:71:ARG:HH22	1.82	0.44
3:J:680:THR:HG23	3:J:784:SER:HB3	1.99	0.44
3:J:1639:LEU:HD23	3:J:1653:LEU:HD11	1.99	0.44
3:J:2238:TYR:O	3:J:2242:ILE:HG12	2.18	0.44
3:J:2506:LEU:HD12	3:J:2506:LEU:HA	1.85	0.44
3:J:2926:LEU:O	3:J:2930:LEU:HG	2.18	0.44
3:J:3286:GLU:HG2	3:J:3287:ARG:HD2	1.99	0.44
3:J:3409:TYR:O	3:J:3413:ILE:HG23	2.17	0.44
3:J:4779:LYS:O	3:J:4783:ILE:HG12	2.17	0.44
3:C:103:TYR:HB2	3:C:159:GLU:HA	1.98	0.44
3:C:2193:GLN:HG3	3:C:2194:HIS:CD2	2.52	0.44
3:C:3396:ASP:O	3:C:3400:VAL:HG23	2.16	0.44
3:C:4057:MET:HE2	3:C:4057:MET:HB3	1.89	0.44
3:A:1229:ASN:HB2	3:A:1827:ARG:HH11	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:1960:ALA:O	3:A:1963:GLU:HG3	2.18	0.44
3:A:2495:VAL:HG22	3:A:2498:HIS:CE1	2.52	0.44
3:A:4761:PRO:HB2	3:A:4766:THR:HB	1.99	0.44
3:G:215:THR:O	3:G:218:HIS:HB2	2.18	0.44
3:G:667:MET:SD	3:G:790:ARG:HB2	2.57	0.44
3:G:775:GLY:H	3:G:848:HIS:CE1	2.35	0.44
3:G:866:HIS:HB2	3:G:939:VAL:HG22	2.00	0.44
3:G:2386:ILE:HG12	3:G:2392:ARG:NH1	2.32	0.44
3:G:3222:LYS:HB3	3:G:3226:GLU:OE2	2.17	0.44
3:G:4181:ILE:HG22	3:G:4987:ASN:HB3	2.00	0.44
3:J:1229:ASN:HB2	3:J:1827:ARG:HH11	1.83	0.44
3:J:1855:GLY:O	3:J:1859:VAL:HG22	2.17	0.44
3:J:2350:ALA:O	3:J:2354:VAL:HG12	2.18	0.44
3:J:2386:ILE:HG12	3:J:2392:ARG:NH1	2.32	0.44
3:J:2697:ARG:HH22	3:J:2698:MET:HE3	1.83	0.44
3:J:3281:LEU:HD11	3:J:3315:LEU:HD13	2.00	0.44
1:D:53:SER:HA	1:D:71:ARG:HH22	1.82	0.44
3:C:1663:HIS:HD2	3:C:1707:LEU:HD22	1.81	0.44
3:C:3567:PRO:HA	3:C:3570:ARG:HB2	1.99	0.44
3:C:3836:MET:HG3	3:C:3884:LEU:HD21	1.98	0.44
3:C:4062:PHE:HB2	3:C:4170:ILE:HD11	1.99	0.44
3:A:523:TYR:CE1	3:A:560:ILE:HG13	2.53	0.44
3:A:1252:HIS:HE1	3:A:1254:HIS:HB2	1.83	0.44
3:A:2519:LEU:HD13	3:A:2522:LEU:HD12	1.98	0.44
3:A:3060:ASP:O	3:A:3064:VAL:HG22	2.17	0.44
3:A:4853:VAL:HA	3:A:4879:MET:HE1	1.99	0.44
1:H:66:ARG:HE	1:H:83:ASN:HB2	1.82	0.44
3:G:680:THR:HG23	3:G:784:SER:HB3	2.00	0.44
3:G:708:GLY:HA3	3:G:722:TRP:HB3	1.99	0.44
3:G:1252:HIS:HE1	3:G:1254:HIS:HB2	1.83	0.44
3:G:2149:VAL:O	3:G:2153:MET:HG2	2.18	0.44
3:G:2238:TYR:O	3:G:2242:ILE:HG12	2.18	0.44
3:G:3144:PHE:HB3	3:G:3196:ARG:HB3	2.00	0.44
3:G:3836:MET:HG3	3:G:3884:LEU:HD21	1.98	0.44
3:G:4853:VAL:HA	3:G:4879:MET:HE1	1.99	0.44
8:G:5107:POV:H211	3:A:4854:VAL:HG11	1.99	0.44
1:K:66:ARG:HE	1:K:83:ASN:HB2	1.82	0.44
3:J:701:GLY:HA3	3:J:725:HIS:NE2	2.33	0.44
3:J:775:GLY:H	3:J:848:HIS:CE1	2.35	0.44
3:J:866:HIS:HB2	3:J:939:VAL:HG22	2.00	0.44
3:J:913:LEU:HD22	3:J:917:GLU:HB2	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1960:ALA:O	3:J:1963:GLU:HG3	2.17	0.44
3:J:3060:ASP:O	3:J:3064:VAL:HG22	2.17	0.44
3:C:523:TYR:CE1	3:C:560:ILE:HG13	2.53	0.44
3:C:2976:HIS:HE1	3:C:2990:PRO:HD3	1.83	0.44
3:A:629:ARG:HB3	3:A:634:GLN:HE22	1.79	0.44
3:A:1205:GLY:HA2	3:A:1211:LEU:HD13	2.00	0.44
3:A:3239:MET:HE2	3:A:3239:MET:HB3	1.63	0.44
3:A:3550:ARG:HE	3:A:3597:GLN:CD	2.24	0.44
3:G:1152:MET:HE3	3:G:1161:ILE:HB	1.99	0.44
3:G:2976:HIS:HE1	3:G:2990:PRO:HD3	1.83	0.44
3:G:3227:ARG:HB3	3:G:3232:LEU:HB2	1.98	0.44
3:G:3281:LEU:HD11	3:G:3315:LEU:HD13	1.99	0.44
3:G:3442:PHE:CE2	3:G:3511:VAL:HG12	2.52	0.44
3:J:662:TRP:CH2	3:J:814:ALA:HB2	2.52	0.44
3:J:2149:VAL:O	3:J:2153:MET:HG2	2.18	0.44
3:J:3227:ARG:HB3	3:J:3232:LEU:HB2	1.98	0.44
3:J:4857:ASN:HB3	8:J:5101:POV:H14	1.99	0.44
1:D:104:TYR:HE2	3:C:913:LEU:HD21	1.82	0.44
2:E:3:GLU:HB2	2:E:75:THR:HB	2.00	0.44
3:C:1183:GLU:H	3:C:1183:GLU:CD	2.25	0.44
3:C:1205:GLY:HA2	3:C:1211:LEU:HD13	2.00	0.44
3:C:2468:GLY:O	3:C:2472:LEU:HD12	2.17	0.44
3:C:2926:LEU:O	3:C:2930:LEU:HG	2.18	0.44
3:A:215:THR:O	3:A:218:HIS:HB2	2.18	0.44
3:A:283:ARG:HB2	3:A:290:TYR:CE1	2.52	0.44
3:A:979:PRO:O	3:A:983:THR:HG23	2.18	0.44
3:A:3550:ARG:O	3:A:3554:GLN:HG2	2.17	0.44
3:A:3836:MET:HG3	3:A:3884:LEU:HD21	1.98	0.44
3:A:4569:LEU:HG	3:A:4646:LEU:HD12	2.00	0.44
3:G:283:ARG:HB2	3:G:290:TYR:CE1	2.52	0.44
3:G:1000:ARG:HE	3:G:1003:GLN:NE2	2.16	0.44
3:G:1435:TYR:CE1	3:G:1518:CYS:HB2	2.53	0.44
3:G:3183:VAL:O	3:G:3187:ARG:HG3	2.17	0.44
3:J:394:GLN:HB2	3:J:397:GLU:HG2	1.99	0.44
3:J:5000:GLU:HA	3:J:5003:HIS:CE1	2.53	0.44
2:E:56:ILE:HD12	2:E:56:ILE:HA	1.81	0.44
3:C:1960:ALA:O	3:C:1963:GLU:HG3	2.17	0.44
3:C:2592:GLY:HA3	3:C:2636:PHE:HE2	1.82	0.44
3:C:2766:TRP:O	3:C:2770:LYS:HG2	2.18	0.44
3:C:3183:VAL:O	3:C:3187:ARG:HG3	2.17	0.44
3:C:3442:PHE:CE2	3:C:3511:VAL:HG12	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:662:TRP:CH2	3:A:814:ALA:HB2	2.52	0.44
3:A:680:THR:HG23	3:A:784:SER:HB3	1.99	0.44
3:A:1585:LYS:HD3	3:A:1585:LYS:HA	1.83	0.44
3:A:1653:LEU:HD23	3:A:1660:GLN:HA	2.00	0.44
3:A:1855:GLY:O	3:A:1859:VAL:HG22	2.17	0.44
3:A:2149:VAL:O	3:A:2153:MET:HG2	2.18	0.44
3:A:2238:TYR:O	3:A:2242:ILE:HG12	2.18	0.44
3:A:2743:LEU:HD12	3:A:2807:TRP:HZ2	1.81	0.44
3:A:2969:ILE:HG22	3:A:2973:PHE:CE2	2.47	0.44
3:A:4000:MET:HE1	3:A:4058:ILE:HG23	2.00	0.44
1:H:68:THR:HB	1:H:81:GLN:HB3	1.98	0.44
3:G:283:ARG:HG2	3:G:285:VAL:H	1.83	0.44
3:G:1116:GLY:HA3	3:G:1132:TRP:HB3	1.99	0.44
3:G:2514:ASN:HB2	3:G:2517:PHE:HB3	2.00	0.44
3:G:3866:ILE:HD12	3:G:3866:ILE:H	1.83	0.44
3:J:461:HIS:NE2	3:J:3707:ARG:HG3	2.33	0.44
3:J:979:PRO:O	3:J:983:THR:HG23	2.18	0.44
3:J:1277:TRP:HZ3	3:J:1284:VAL:HG21	1.83	0.44
3:J:1297:PHE:CD1	3:J:1522:LEU:HA	2.53	0.44
2:E:46:PHE:CE2	2:E:48:PHE:HB3	2.53	0.44
3:C:283:ARG:HG2	3:C:285:VAL:H	1.83	0.44
3:C:479:GLN:HE21	3:C:539:LEU:HD13	1.83	0.44
3:C:2207:VAL:HG22	3:C:2211:MET:HE3	1.99	0.44
3:C:2238:TYR:O	3:C:2242:ILE:HG12	2.18	0.44
3:C:2340:PHE:HE1	3:C:2508:ARG:HH21	1.65	0.44
3:C:4000:MET:HE1	3:C:4058:ILE:HG23	2.00	0.44
3:A:701:GLY:HA3	3:A:725:HIS:NE2	2.33	0.44
3:A:2123:LEU:O	3:A:2127:GLN:HG2	2.18	0.44
3:A:2766:TRP:O	3:A:2770:LYS:HG2	2.18	0.44
3:A:3777:GLU:HG2	3:A:3819:TYR:CD1	2.52	0.44
3:A:4181:ILE:HG22	3:A:4987:ASN:HB3	1.99	0.44
3:A:5000:GLU:HA	3:A:5003:HIS:CE1	2.53	0.44
2:I:46:PHE:CE2	2:I:48:PHE:HB3	2.53	0.43
3:G:1452:TRP:HB3	3:G:1548:LEU:HD13	2.00	0.43
3:G:1639:LEU:HD23	3:G:1653:LEU:HD11	1.99	0.43
3:G:2592:GLY:HA3	3:G:2636:PHE:HE2	1.82	0.43
3:G:2905:LEU:HD23	3:G:2905:LEU:HA	1.87	0.43
3:G:2926:LEU:O	3:G:2930:LEU:HG	2.18	0.43
3:G:2970:SER:HA	3:G:2973:PHE:CZ	2.52	0.43
3:G:3453:ARG:NH1	3:G:3454:GLU:HG2	2.33	0.43
3:G:4000:MET:HE1	3:G:4058:ILE:HG23	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:L:3:GLU:HB2	2:L:75:THR:HB	2.00	0.43
3:J:222:LEU:HB3	3:J:388:LEU:HD23	1.99	0.43
3:J:551:LEU:HD11	3:J:564:LEU:HD22	2.00	0.43
3:J:2193:GLN:HG3	3:J:2194:HIS:CD2	2.53	0.43
3:J:4000:MET:HE1	3:J:4058:ILE:HG23	2.00	0.43
1:D:1:GLN:HB3	1:D:2:VAL:H	1.54	0.43
1:D:51:ILE:HG23	1:D:71:ARG:HH11	1.82	0.43
3:C:551:LEU:HD11	3:C:564:LEU:HD22	2.00	0.43
3:C:979:PRO:O	3:C:983:THR:HG23	2.18	0.43
3:C:1277:TRP:HZ3	3:C:1284:VAL:HG21	1.83	0.43
3:C:2522:LEU:HD22	3:C:2582:MET:HE1	1.99	0.43
3:C:4235:VAL:HG11	3:C:5019:TRP:CH2	2.54	0.43
3:C:5000:GLU:HA	3:C:5003:HIS:CE1	2.53	0.43
1:B:53:SER:HA	1:B:71:ARG:HH22	1.82	0.43
3:A:1152:MET:HB3	3:A:1223:PHE:CD2	2.53	0.43
3:A:1297:PHE:CD1	3:A:1522:LEU:HA	2.53	0.43
3:A:2592:GLY:HA3	3:A:2636:PHE:HE2	1.82	0.43
3:A:2697:ARG:HH22	3:A:2698:MET:HE3	1.83	0.43
3:A:2742:THR:HA	3:A:2745:VAL:HB	2.00	0.43
3:A:2926:LEU:O	3:A:2930:LEU:HG	2.18	0.43
3:G:319:SER:HA	3:G:347:PHE:HE2	1.83	0.43
3:G:1152:MET:HB3	3:G:1223:PHE:CD2	2.53	0.43
3:G:2302:LEU:HD23	3:G:2331:TYR:HB2	2.00	0.43
3:G:3777:GLU:HG2	3:G:3819:TYR:CD1	2.52	0.43
3:G:4779:LYS:O	3:G:4783:ILE:HG12	2.17	0.43
1:K:51:ILE:HG23	1:K:71:ARG:HH11	1.82	0.43
3:J:1575:LEU:HD23	3:J:1575:LEU:HA	1.86	0.43
3:J:3866:ILE:H	3:J:3866:ILE:HD12	1.83	0.43
3:C:680:THR:HG23	3:C:784:SER:HB3	1.99	0.43
3:C:866:HIS:HB2	3:C:939:VAL:HG22	2.00	0.43
3:C:1229:ASN:HB2	3:C:1827:ARG:HH11	1.83	0.43
3:C:2113:SER:O	3:C:2117:VAL:HG23	2.19	0.43
3:C:2742:THR:HA	3:C:2745:VAL:HB	2.00	0.43
1:B:4:LEU:HD11	1:B:95:CYS:O	2.18	0.43
3:A:103:TYR:CZ	3:A:163:VAL:HG12	2.54	0.43
3:A:283:ARG:HG2	3:A:285:VAL:H	1.83	0.43
3:A:728:ARG:HE	3:A:1487:LEU:HD22	1.83	0.43
3:A:3545:THR:HG23	3:A:3548:GLU:H	1.82	0.43
1:H:37:TYR:CZ	1:H:47:LEU:HB3	2.54	0.43
3:G:979:PRO:O	3:G:983:THR:HG23	2.18	0.43
3:G:2340:PHE:HE1	3:G:2508:ARG:HH21	1.65	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:2350:ALA:O	3:G:2354:VAL:HG12	2.18	0.43
3:G:2648:TYR:CD2	3:G:2706:ILE:HD13	2.54	0.43
3:G:3545:THR:HG23	3:G:3548:GLU:H	1.82	0.43
1:K:4:LEU:HD11	1:K:95:CYS:O	2.18	0.43
1:K:107:TRP:HZ2	3:J:921:ASN:HA	1.83	0.43
3:J:283:ARG:HG2	3:J:285:VAL:H	1.83	0.43
3:J:648:ILE:HD11	3:J:821:LEU:HD11	1.99	0.43
3:J:2468:GLY:O	3:J:2472:LEU:HD12	2.17	0.43
3:J:3183:VAL:O	3:J:3187:ARG:HG3	2.17	0.43
3:J:3453:ARG:NH1	3:J:3454:GLU:HG2	2.33	0.43
3:C:595:ARG:NH2	3:C:1642:PRO:HD2	2.33	0.43
3:C:4670:ILE:HD13	3:C:4670:ILE:HA	1.88	0.43
3:C:4839:MET:HG3	3:A:4822:THR:HG21	2.00	0.43
3:A:56:GLN:HG3	3:A:309:THR:HG21	2.00	0.43
3:A:730:VAL:HG23	3:A:1476:MET:HG2	2.01	0.43
3:A:1000:ARG:HE	3:A:1003:GLN:NE2	2.16	0.43
3:A:1106:ARG:HB2	3:A:1120:LEU:HB3	2.01	0.43
3:A:2302:LEU:HD23	3:A:2331:TYR:HB2	2.00	0.43
3:A:2514:ASN:HB2	3:A:2517:PHE:HB3	2.00	0.43
3:A:3284:TRP:HB3	3:A:3305:THR:HG21	2.01	0.43
3:A:4779:LYS:O	3:A:4783:ILE:HG12	2.18	0.43
2:I:42:ARG:HH12	3:G:1782:PHE:HD1	1.65	0.43
3:G:222:LEU:HB3	3:G:388:LEU:HD23	1.99	0.43
3:G:394:GLN:HB2	3:G:397:GLU:HG2	1.99	0.43
3:G:461:HIS:NE2	3:G:3707:ARG:HG3	2.33	0.43
3:G:523:TYR:CE1	3:G:560:ILE:HG13	2.53	0.43
3:G:701:GLY:HA3	3:G:725:HIS:NE2	2.33	0.43
3:G:1095:VAL:HG12	3:G:1096:THR:HG23	2.00	0.43
3:G:2233:CYS:CB	3:G:2270:SER:HB3	2.48	0.43
3:G:3107:VAL:HG12	3:G:3175:LEU:HG	1.99	0.43
3:J:1435:TYR:CE1	3:J:1518:CYS:HB2	2.53	0.43
3:J:1747:LEU:HD23	3:J:1747:LEU:HA	1.81	0.43
3:J:2123:LEU:O	3:J:2127:GLN:HG2	2.18	0.43
3:J:2766:TRP:O	3:J:2770:LYS:HG2	2.18	0.43
3:J:3284:TRP:HB3	3:J:3305:THR:HG21	2.00	0.43
3:C:728:ARG:HE	3:C:1487:LEU:HD22	1.83	0.43
3:C:1152:MET:HB3	3:C:1223:PHE:CD2	2.53	0.43
3:C:1240:LYS:HG2	3:C:1242:LEU:H	1.83	0.43
3:C:1297:PHE:CD1	3:C:1522:LEU:HA	2.53	0.43
3:C:1435:TYR:CE1	3:C:1518:CYS:HB2	2.53	0.43
3:C:2348:GLU:CD	3:C:2348:GLU:H	2.27	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:2648:TYR:CD2	3:C:2706:ILE:HD13	2.54	0.43
3:C:3453:ARG:NH1	3:C:3454:GLU:HG2	2.33	0.43
3:C:4779:LYS:O	3:C:4783:ILE:HG12	2.18	0.43
3:A:648:ILE:HD11	3:A:821:LEU:HD11	1.99	0.43
3:A:1184:ILE:HD12	3:A:1184:ILE:HA	1.87	0.43
3:A:4207:MET:HG3	3:A:4208:PRO:HD2	2.00	0.43
3:G:551:LEU:HD11	3:G:564:LEU:HD22	2.00	0.43
3:G:730:VAL:HG23	3:G:1476:MET:HG2	2.01	0.43
3:G:2377:LEU:HD23	3:G:2377:LEU:HA	1.83	0.43
3:G:4813:LEU:HD23	3:G:4813:LEU:HA	1.77	0.43
3:G:5000:GLU:HA	3:G:5003:HIS:CE1	2.53	0.43
3:J:14:LEU:H	3:J:14:LEU:HD12	1.84	0.43
3:J:287:THR:HB	3:J:289:ARG:HE	1.84	0.43
3:J:2113:SER:O	3:J:2117:VAL:HG23	2.18	0.43
3:J:2742:THR:HA	3:J:2745:VAL:HB	2.00	0.43
3:J:2970:SER:HA	3:J:2973:PHE:CZ	2.52	0.43
3:J:3144:PHE:HB3	3:J:3196:ARG:HB3	2.00	0.43
3:C:103:TYR:CZ	3:C:163:VAL:HG12	2.54	0.43
3:C:1263:THR:HB	3:C:1266:THR:HB	2.01	0.43
3:C:2149:VAL:O	3:C:2153:MET:HG2	2.18	0.43
3:A:445:LEU:HD23	3:A:445:LEU:HA	1.87	0.43
3:A:2466:LEU:HD21	3:A:2505:PHE:CD1	2.52	0.43
3:G:1277:TRP:HZ3	3:G:1284:VAL:HG21	1.83	0.43
3:G:1653:LEU:HD23	3:G:1660:GLN:HA	2.00	0.43
3:G:2348:GLU:H	3:G:2348:GLU:CD	2.27	0.43
3:G:2742:THR:HA	3:G:2745:VAL:HB	2.00	0.43
3:G:3060:ASP:O	3:G:3064:VAL:HG22	2.18	0.43
3:G:3284:TRP:HB3	3:G:3305:THR:HG21	2.01	0.43
3:G:4569:LEU:HG	3:G:4646:LEU:HD12	2.00	0.43
3:G:4854:VAL:HG11	8:J:5108:POV:H211	1.99	0.43
3:J:103:TYR:CZ	3:J:163:VAL:HG12	2.54	0.43
3:J:595:ARG:NH2	3:J:1642:PRO:HD2	2.33	0.43
3:J:1000:ARG:HE	3:J:1003:GLN:NE2	2.16	0.43
3:J:1076:ARG:HB2	3:J:1191:VAL:HG23	1.99	0.43
3:J:1786:LEU:HD12	3:J:1787:PRO:HD2	2.01	0.43
3:J:2648:TYR:CD2	3:J:2706:ILE:HD13	2.54	0.43
3:J:2939:ARG:H	3:J:2939:ARG:HG3	1.63	0.43
3:J:4928:LEU:HD23	3:J:4928:LEU:HA	1.84	0.43
3:C:14:LEU:HD12	3:C:14:LEU:H	1.84	0.43
3:C:56:GLN:HG3	3:C:309:THR:HG21	2.00	0.43
3:C:75:VAL:O	3:C:79:GLN:HG3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:537:CYS:SG	3:C:571:SER:HB2	2.59	0.43
3:C:1106:ARG:HB2	3:C:1120:LEU:HB3	2.01	0.43
3:C:1651:LEU:HD13	3:C:1702:HIS:HB2	2.01	0.43
3:C:2302:LEU:HD23	3:C:2331:TYR:HB2	2.00	0.43
3:C:3780:LEU:HD11	3:C:3816:MET:HG2	2.01	0.43
2:F:57:LYS:HE2	2:F:80:VAL:HG12	2.01	0.43
3:A:551:LEU:HD11	3:A:564:LEU:HD22	2.00	0.43
3:A:866:HIS:HB2	3:A:939:VAL:HG22	2.00	0.43
3:A:2976:HIS:HE1	3:A:2990:PRO:HD3	1.83	0.43
3:A:3107:VAL:HG12	3:A:3175:LEU:HG	1.99	0.43
3:A:4235:VAL:HG11	3:A:5019:TRP:CH2	2.53	0.43
3:A:4813:LEU:HD23	3:A:4813:LEU:HA	1.77	0.43
3:A:4823:LEU:HD23	3:A:4823:LEU:HA	1.84	0.43
3:G:355:LEU:HD22	3:G:379:HIS:HA	2.01	0.43
3:G:479:GLN:HE21	3:G:539:LEU:HD13	1.83	0.43
3:G:637:LEU:HD23	3:G:637:LEU:HA	1.92	0.43
3:G:1076:ARG:HB2	3:G:1191:VAL:HG23	1.99	0.43
2:L:46:PHE:CE2	2:L:48:PHE:HB3	2.53	0.43
3:J:523:TYR:CE1	3:J:560:ILE:HG13	2.53	0.43
3:J:3144:PHE:CE2	3:J:3197:LEU:HB2	2.54	0.43
3:J:3780:LEU:HD11	3:J:3816:MET:HG2	2.01	0.43
3:J:4207:MET:HG3	3:J:4208:PRO:HD2	2.00	0.43
1:D:32:ASN:HB2	1:D:99:ARG:HA	2.01	0.43
2:E:57:LYS:HE2	2:E:80:VAL:HG12	2.01	0.43
3:C:1452:TRP:HB3	3:C:1548:LEU:HD13	2.00	0.43
3:C:2466:LEU:HD21	3:C:2505:PHE:CD1	2.52	0.43
3:C:2514:ASN:HB2	3:C:2517:PHE:HB3	2.00	0.43
3:C:2697:ARG:HH22	3:C:2698:MET:HE3	1.83	0.43
3:C:3866:ILE:H	3:C:3866:ILE:HD12	1.83	0.43
3:A:319:SER:HA	3:A:347:PHE:HE2	1.83	0.43
3:A:1277:TRP:HZ3	3:A:1284:VAL:HG21	1.83	0.43
3:A:1435:TYR:CE1	3:A:1518:CYS:HB2	2.53	0.43
3:A:1786:LEU:HD12	3:A:1787:PRO:HD2	2.01	0.43
3:A:3144:PHE:HB3	3:A:3196:ARG:HB3	2.00	0.43
3:A:3453:ARG:NH1	3:A:3454:GLU:HG2	2.33	0.43
3:A:3780:LEU:HD11	3:A:3816:MET:HG2	2.01	0.43
3:A:4060:LYS:HB3	3:A:4060:LYS:HE3	1.76	0.43
1:H:32:ASN:HB2	1:H:99:ARG:HA	2.01	0.43
1:H:101:PRO:HG2	3:G:917:GLU:HG3	2.01	0.43
3:G:75:VAL:O	3:G:79:GLN:HG3	2.19	0.43
3:G:180:LEU:HD23	3:G:180:LEU:HA	1.92	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:537:CYS:SG	3:G:571:SER:HB2	2.59	0.43
3:G:662:TRP:CH2	3:G:814:ALA:HB2	2.52	0.43
3:G:1297:PHE:CD1	3:G:1522:LEU:HA	2.53	0.43
3:G:2123:LEU:O	3:G:2127:GLN:HG2	2.18	0.43
3:G:3442:PHE:HE2	3:G:3511:VAL:HG12	1.84	0.43
3:G:4235:VAL:HG11	3:G:5019:TRP:CH2	2.54	0.43
3:J:75:VAL:O	3:J:79:GLN:HG3	2.19	0.43
3:J:1653:LEU:HD23	3:J:1660:GLN:HA	2.00	0.43
3:J:1674:CYS:SG	3:J:1718:ILE:HG22	2.59	0.43
3:J:2626:LEU:HD23	3:J:2626:LEU:HA	1.85	0.43
3:J:4235:VAL:HG11	3:J:5019:TRP:CH2	2.54	0.43
3:C:78:LEU:HD12	3:C:78:LEU:HA	1.83	0.43
3:C:287:THR:HB	3:C:289:ARG:HE	1.84	0.43
3:C:477:LEU:O	3:C:481:GLU:HG2	2.19	0.43
3:C:1000:ARG:HE	3:C:1003:GLN:NE2	2.16	0.43
3:C:1653:LEU:HD23	3:C:1660:GLN:HA	2.00	0.43
3:C:1674:CYS:SG	3:C:1718:ILE:HG22	2.59	0.43
3:C:3144:PHE:CE2	3:C:3197:LEU:HB2	2.54	0.43
1:B:37:TYR:CZ	1:B:47:LEU:HB3	2.54	0.43
3:A:73:LEU:HD12	3:A:73:LEU:HA	1.90	0.43
3:A:2350:ALA:O	3:A:2354:VAL:HG12	2.18	0.43
3:A:2377:LEU:HD23	3:A:2469:ILE:HG13	2.00	0.43
3:A:3442:PHE:CE2	3:A:3511:VAL:HG12	2.52	0.43
3:A:3896:ASN:OD1	3:A:3899:PHE:HB2	2.19	0.43
3:G:14:LEU:H	3:G:14:LEU:HD12	1.84	0.43
3:G:103:TYR:CZ	3:G:163:VAL:HG12	2.54	0.43
3:G:451:TYR:CE1	3:G:474:ARG:HD2	2.54	0.43
3:G:2377:LEU:HD23	3:G:2469:ILE:HG13	2.00	0.43
3:G:2670:GLU:HG3	3:G:2912:THR:HA	2.01	0.43
3:G:3035:GLU:O	3:G:3039:ILE:HG23	2.19	0.43
3:G:3433:GLU:O	3:G:3437:MET:HG2	2.19	0.43
3:G:3780:LEU:HD11	3:G:3816:MET:HG2	2.01	0.43
1:K:37:TYR:CZ	1:K:47:LEU:HB3	2.54	0.43
2:L:25:HIS:HE1	3:J:674:PHE:CD2	2.37	0.43
3:J:1452:TRP:HB3	3:J:1548:LEU:HD13	2.00	0.43
3:J:1470:ARG:HD3	3:J:1470:ARG:HA	1.74	0.43
3:J:2340:PHE:HE1	3:J:2508:ARG:HH21	1.65	0.43
3:J:2466:LEU:HD21	3:J:2505:PHE:CD1	2.52	0.43
3:J:2536:LEU:HG	3:J:2541:PHE:HB3	2.01	0.43
3:J:3035:GLU:O	3:J:3039:ILE:HG23	2.19	0.43
3:C:157:ARG:HA	3:C:157:ARG:HD3	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:461:HIS:NE2	3:C:3707:ARG:HG3	2.33	0.43
3:C:1496:TRP:CE3	3:C:1499:ASP:HB2	2.54	0.43
3:C:1786:LEU:HD12	3:C:1787:PRO:HD2	2.01	0.43
3:C:2443:ILE:HG12	3:C:2454:ARG:NH1	2.34	0.43
3:C:2672:LEU:HD12	3:C:2672:LEU:HA	1.81	0.43
3:C:3284:TRP:HB3	3:C:3305:THR:HG21	2.01	0.43
3:C:4817:ALA:HB1	3:C:4827:LEU:HD22	2.00	0.43
2:F:46:PHE:CE2	2:F:48:PHE:HB3	2.53	0.43
3:A:479:GLN:HE21	3:A:539:LEU:HD13	1.83	0.43
3:A:913:LEU:HD22	3:A:917:GLU:HB2	1.99	0.43
3:A:1496:TRP:CE3	3:A:1499:ASP:HB2	2.54	0.43
3:A:3144:PHE:CE2	3:A:3197:LEU:HB2	2.54	0.43
3:A:3281:LEU:HD11	3:A:3315:LEU:HD13	1.99	0.43
3:A:3866:ILE:H	3:A:3866:ILE:HD12	1.83	0.43
3:A:4034:ASN:HD21	3:A:4041:ALA:HB2	1.84	0.43
3:G:56:GLN:HG3	3:G:309:THR:HG21	2.00	0.43
3:G:477:LEU:O	3:G:481:GLU:HG2	2.19	0.43
3:G:1205:GLY:HA2	3:G:1211:LEU:HD13	2.00	0.43
3:G:2113:SER:O	3:G:2117:VAL:HG23	2.18	0.43
3:G:2766:TRP:O	3:G:2770:LYS:HG2	2.18	0.43
3:G:3278:CYS:SG	3:G:3341:PHE:HB3	2.59	0.43
3:J:56:GLN:HG3	3:J:309:THR:HG21	2.00	0.43
3:J:78:LEU:HD12	3:J:78:LEU:HA	1.83	0.43
3:J:215:THR:O	3:J:218:HIS:HB2	2.18	0.43
3:J:1205:GLY:HA2	3:J:1211:LEU:HD13	2.00	0.43
3:J:2377:LEU:HD23	3:J:2469:ILE:HG13	2.00	0.43
3:J:3319:ILE:O	3:J:3322:ILE:HG12	2.19	0.43
3:J:3433:GLU:O	3:J:3437:MET:HG2	2.19	0.43
3:C:445:LEU:HD23	3:C:445:LEU:HA	1.87	0.43
3:C:2208:MET:O	3:C:2212:VAL:HG23	2.19	0.43
3:C:2905:LEU:HD23	3:C:2905:LEU:HA	1.87	0.43
3:C:3281:LEU:HD11	3:C:3315:LEU:HD13	1.99	0.43
3:C:4181:ILE:HG22	3:C:4987:ASN:HB3	2.00	0.43
3:C:4207:MET:HG3	3:C:4208:PRO:HD2	2.00	0.43
3:A:75:VAL:O	3:A:79:GLN:HG3	2.19	0.43
3:A:461:HIS:NE2	3:A:3707:ARG:HG3	2.33	0.43
3:A:477:LEU:O	3:A:481:GLU:HG2	2.19	0.43
3:A:1263:THR:HB	3:A:1266:THR:HB	2.01	0.43
3:A:2648:TYR:CD2	3:A:2706:ILE:HD13	2.54	0.43
3:A:3010:PHE:O	3:A:3014:CYS:HB3	2.19	0.43
1:H:4:LEU:HD11	1:H:95:CYS:O	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:100:VAL:HG22	3:G:924:MET:HE1	2.00	0.42
3:G:1786:LEU:HD12	3:G:1787:PRO:HD2	2.01	0.42
3:G:2443:ILE:HG12	3:G:2454:ARG:NH1	2.34	0.42
3:G:3144:PHE:CE2	3:G:3197:LEU:HB2	2.54	0.42
3:G:3166:TYR:O	3:G:3169:LEU:HG	2.19	0.42
3:G:3768:SER:HA	3:G:3771:HIS:ND1	2.34	0.42
1:K:32:ASN:HB2	1:K:99:ARG:HA	2.01	0.42
2:L:57:LYS:HE2	2:L:80:VAL:HG12	2.01	0.42
3:J:355:LEU:HD22	3:J:379:HIS:HA	2.00	0.42
3:J:1095:VAL:HG12	3:J:1096:THR:HG23	2.00	0.42
3:J:1263:THR:HB	3:J:1266:THR:HB	2.01	0.42
3:J:2670:GLU:HG3	3:J:2912:THR:HA	2.01	0.42
3:J:3050:VAL:HB	3:J:3054:VAL:HG12	2.01	0.42
3:J:3896:ASN:OD1	3:J:3899:PHE:HB2	2.19	0.42
1:D:4:LEU:HD11	1:D:95:CYS:O	2.18	0.42
3:C:801:LYS:HE3	3:C:801:LYS:HB3	1.89	0.42
3:C:1095:VAL:HG12	3:C:1096:THR:HG23	2.00	0.42
3:C:2377:LEU:HD23	3:C:2469:ILE:HG13	2.00	0.42
3:C:2536:LEU:HG	3:C:2541:PHE:HB3	2.01	0.42
3:C:3050:VAL:HB	3:C:3054:VAL:HG12	2.01	0.42
3:C:3144:PHE:HB3	3:C:3196:ARG:HB3	2.00	0.42
3:C:3439:GLY:O	3:C:3443:ILE:HG13	2.19	0.42
3:C:3441:ILE:HG13	3:C:3441:ILE:H	1.71	0.42
1:B:1:GLN:HB3	1:B:2:VAL:H	1.54	0.42
3:A:287:THR:HB	3:A:289:ARG:HE	1.84	0.42
3:A:978:THR:O	3:A:982:THR:HG23	2.19	0.42
3:A:2113:SER:O	3:A:2117:VAL:HG23	2.18	0.42
3:A:2443:ILE:HG12	3:A:2454:ARG:NH1	2.34	0.42
3:A:2578:MET:HE3	3:A:2578:MET:HB3	1.81	0.42
3:A:2607:LEU:HD21	3:A:2643:LEU:HD22	2.01	0.42
1:H:51:ILE:HD12	1:H:51:ILE:HA	1.91	0.42
3:G:652:ARG:HB2	3:G:750:LEU:HB3	2.02	0.42
3:G:728:ARG:HE	3:G:1487:LEU:HD22	1.83	0.42
3:G:1496:TRP:CE3	3:G:1499:ASP:HB2	2.54	0.42
3:G:2583:LEU:HD12	3:G:2583:LEU:HA	1.85	0.42
3:G:3010:PHE:O	3:G:3014:CYS:HB3	2.19	0.42
3:G:4817:ALA:HB1	3:G:4827:LEU:HD22	2.00	0.42
3:G:4835:LYS:O	3:G:4839:MET:HG2	2.19	0.42
3:J:477:LEU:O	3:J:481:GLU:HG2	2.19	0.42
3:J:479:GLN:HE21	3:J:539:LEU:HD13	1.83	0.42
3:J:492:ASP:O	3:J:496:VAL:HG13	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:1651:LEU:HD13	3:J:1702:HIS:HB2	2.01	0.42
3:J:3041:SER:HB3	3:J:3088:VAL:HG22	2.02	0.42
3:J:4090:LYS:HE3	3:J:4090:LYS:HB2	1.90	0.42
3:J:4817:ALA:HB1	3:J:4827:LEU:HD22	2.00	0.42
3:C:2034:PHE:HA	3:C:2037:ASP:OD2	2.19	0.42
3:C:4569:LEU:HG	3:C:4646:LEU:HD12	2.00	0.42
3:A:537:CYS:SG	3:A:571:SER:HB2	2.58	0.42
3:A:595:ARG:NH2	3:A:1642:PRO:HD2	2.33	0.42
3:A:1452:TRP:HB3	3:A:1548:LEU:HD13	2.00	0.42
3:A:2034:PHE:HA	3:A:2037:ASP:OD2	2.19	0.42
2:I:21:THR:HG23	2:I:49:ARG:NE	2.35	0.42
3:G:978:THR:O	3:G:982:THR:HG23	2.19	0.42
3:G:1106:ARG:HB2	3:G:1120:LEU:HB3	2.01	0.42
3:G:1263:THR:HB	3:G:1266:THR:HB	2.01	0.42
3:G:2034:PHE:HA	3:G:2037:ASP:OD2	2.19	0.42
3:G:2697:ARG:HH22	3:G:2698:MET:HE3	1.83	0.42
3:G:3265:GLU:OE1	3:G:3266:MET:HB3	2.20	0.42
3:J:451:TYR:CE1	3:J:474:ARG:HD2	2.54	0.42
3:J:509:GLU:O	3:J:513:GLU:HG3	2.19	0.42
3:J:1068:ARG:HA	3:J:1068:ARG:HD3	1.84	0.42
3:J:1152:MET:HB3	3:J:1223:PHE:CD2	2.53	0.42
3:J:2034:PHE:HA	3:J:2037:ASP:OD2	2.19	0.42
3:J:2233:CYS:CB	3:J:2270:SER:HB3	2.48	0.42
3:J:3439:GLY:O	3:J:3443:ILE:HG13	2.19	0.42
3:J:3442:PHE:HE2	3:J:3511:VAL:HG12	1.84	0.42
3:C:451:TYR:CE1	3:C:474:ARG:HD2	2.54	0.42
3:C:1159:THR:HG22	3:C:1180:ARG:HA	2.02	0.42
3:C:2123:LEU:O	3:C:2127:GLN:HG2	2.18	0.42
3:C:2607:LEU:HD21	3:C:2643:LEU:HD22	2.01	0.42
3:C:2670:GLU:HG3	3:C:2912:THR:HA	2.01	0.42
3:C:3362:ILE:HD12	3:C:3362:ILE:HA	1.89	0.42
3:A:1159:THR:HG22	3:A:1180:ARG:HA	2.02	0.42
3:A:2348:GLU:CD	3:A:2348:GLU:H	2.27	0.42
3:A:2765:LYS:HD3	3:A:2765:LYS:HA	1.86	0.42
3:A:3050:VAL:HB	3:A:3054:VAL:HG12	2.01	0.42
3:A:3166:TYR:O	3:A:3169:LEU:HG	2.20	0.42
3:A:3278:CYS:SG	3:A:3341:PHE:HB3	2.59	0.42
3:A:3442:PHE:HE2	3:A:3511:VAL:HG12	1.84	0.42
3:G:883:ALA:HA	3:G:886:ARG:HE	1.84	0.42
3:G:1674:CYS:SG	3:G:1718:ILE:HG22	2.59	0.42
3:G:2228:MET:HA	3:G:2228:MET:HE3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:2930:LEU:HA	3:G:2935:TYR:CD2	2.49	0.42
3:G:3041:SER:HB3	3:G:3088:VAL:HG22	2.02	0.42
3:G:4063:ASP:HB2	3:G:4169:SER:HB2	2.02	0.42
8:G:5110:POV:H13B	8:G:5110:POV:H11A	1.85	0.42
3:J:180:LEU:HD23	3:J:180:LEU:HA	1.92	0.42
3:J:537:CYS:SG	3:J:571:SER:HB2	2.59	0.42
3:J:1106:ARG:HB2	3:J:1120:LEU:HB3	2.01	0.42
3:J:2348:GLU:H	3:J:2348:GLU:CD	2.27	0.42
3:J:2514:ASN:HB2	3:J:2517:PHE:HB3	2.00	0.42
3:J:3768:SER:HA	3:J:3771:HIS:ND1	2.34	0.42
2:E:21:THR:HG23	2:E:49:ARG:NE	2.35	0.42
3:C:355:LEU:HD22	3:C:379:HIS:HA	2.01	0.42
3:C:883:ALA:HA	3:C:886:ARG:HE	1.84	0.42
3:C:3010:PHE:O	3:C:3014:CYS:HB3	2.19	0.42
3:C:3035:GLU:O	3:C:3039:ILE:HG23	2.19	0.42
3:C:3433:GLU:O	3:C:3437:MET:HG2	2.19	0.42
3:A:4835:LYS:O	3:A:4839:MET:HG2	2.19	0.42
3:G:509:GLU:O	3:G:513:GLU:HG3	2.19	0.42
3:G:595:ARG:NH2	3:G:1642:PRO:HD2	2.33	0.42
3:G:2578:MET:HE3	3:G:2578:MET:HB3	1.81	0.42
3:G:3800:LEU:O	3:G:3804:ILE:HG12	2.19	0.42
3:G:4034:ASN:HD21	3:G:4041:ALA:HB2	1.84	0.42
3:G:4207:MET:HG3	3:G:4208:PRO:HD2	2.00	0.42
3:G:4687:TYR:CD2	3:G:4706:LEU:HD11	2.55	0.42
1:K:47:LEU:HD11	1:K:60:ALA:HB3	2.01	0.42
3:J:728:ARG:HE	3:J:1487:LEU:HD22	1.83	0.42
3:J:730:VAL:HG23	3:J:1476:MET:HG2	2.01	0.42
3:J:2302:LEU:HD23	3:J:2331:TYR:HB2	2.00	0.42
3:J:3800:LEU:O	3:J:3804:ILE:HG12	2.19	0.42
3:J:4678:ALA:HB1	3:J:4720:VAL:HG21	2.02	0.42
3:J:4835:LYS:O	3:J:4839:MET:HG2	2.19	0.42
3:C:215:THR:O	3:C:218:HIS:HB2	2.18	0.42
3:C:509:GLU:O	3:C:513:GLU:HG3	2.19	0.42
3:C:583:ILE:HD13	3:C:621:ILE:HG13	2.02	0.42
3:C:3278:CYS:SG	3:C:3341:PHE:HB3	2.59	0.42
3:C:3442:PHE:HE2	3:C:3511:VAL:HG12	1.84	0.42
3:C:3768:SER:HA	3:C:3771:HIS:ND1	2.34	0.42
3:C:4678:ALA:HB1	3:C:4720:VAL:HG21	2.01	0.42
3:A:509:GLU:O	3:A:513:GLU:HG3	2.19	0.42
3:A:1102:VAL:HG11	3:A:1149:VAL:HG11	2.02	0.42
3:A:2233:CYS:CB	3:A:2270:SER:HB3	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:2670:GLU:HG3	3:A:2912:THR:HA	2.01	0.42
3:A:2691:TYR:HB2	3:A:2993:GLN:HA	2.01	0.42
3:A:3041:SER:HB3	3:A:3088:VAL:HG22	2.02	0.42
3:A:4820:VAL:HG13	3:A:4823:LEU:HB2	2.02	0.42
2:I:31:GLN:HE22	3:G:1545:ASN:ND2	2.17	0.42
3:G:78:LEU:HD12	3:G:78:LEU:HA	1.82	0.42
3:G:359:TYR:HB2	3:G:374:LYS:HB3	2.01	0.42
3:G:492:ASP:O	3:G:496:VAL:HG13	2.19	0.42
3:G:900:ASN:HB2	3:G:901:LYS:HZ2	1.84	0.42
3:G:1849:LEU:HD12	3:G:1849:LEU:HA	1.79	0.42
3:G:2526:PHE:CE1	3:G:2558:VAL:HG13	2.55	0.42
3:G:3842:LEU:HD23	3:G:3842:LEU:HA	1.89	0.42
3:J:359:TYR:HB2	3:J:374:LYS:HB3	2.01	0.42
3:J:412:ASN:O	3:J:416:LYS:HG2	2.20	0.42
3:J:863:LEU:HD21	3:J:930:LYS:HE3	2.02	0.42
3:J:883:ALA:HA	3:J:886:ARG:HE	1.84	0.42
3:J:1500:PHE:HD2	3:J:1531:ALA:HB2	1.84	0.42
3:J:3441:ILE:HG13	3:J:3441:ILE:H	1.71	0.42
3:J:3535:LEU:HD23	3:J:3556:ASN:HB3	2.02	0.42
3:J:4091:LYS:O	3:J:4095:LYS:HG2	2.20	0.42
3:J:4687:TYR:CD2	3:J:4706:LEU:HD11	2.55	0.42
3:C:492:ASP:O	3:C:496:VAL:HG13	2.19	0.42
3:C:730:VAL:HG23	3:C:1476:MET:HG2	2.01	0.42
3:C:1500:PHE:CZ	3:C:1536:SER:HB2	2.55	0.42
3:C:2267:MET:HB2	3:C:2267:MET:HE3	1.79	0.42
3:C:2470:ILE:HG21	3:C:2526:PHE:CE2	2.55	0.42
3:C:3319:ILE:O	3:C:3322:ILE:HG12	2.19	0.42
3:C:3800:LEU:O	3:C:3804:ILE:HG12	2.19	0.42
3:C:4091:LYS:O	3:C:4095:LYS:HG2	2.20	0.42
3:C:4813:LEU:HD23	3:C:4813:LEU:HA	1.77	0.42
2:F:21:THR:HG23	2:F:49:ARG:NE	2.35	0.42
3:A:355:LEU:HD22	3:A:379:HIS:HA	2.01	0.42
3:A:583:ILE:HD13	3:A:621:ILE:HG13	2.02	0.42
3:A:652:ARG:HB2	3:A:750:LEU:HB3	2.02	0.42
3:A:1857:GLU:O	3:A:1861:GLN:HG2	2.20	0.42
3:A:3035:GLU:O	3:A:3039:ILE:HG23	2.19	0.42
3:A:3043:PHE:CE2	3:A:3143:LEU:HD21	2.51	0.42
3:A:4636:THR:HG22	3:A:4638:TYR:HD2	1.85	0.42
3:G:583:ILE:HD13	3:G:621:ILE:HG13	2.02	0.42
3:G:648:ILE:HD11	3:G:821:LEU:HD11	1.99	0.42
3:G:1102:VAL:HG11	3:G:1149:VAL:HG11	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:2211:MET:N	3:G:2211:MET:HE2	2.35	0.42
3:G:3316:LEU:HD12	3:G:3316:LEU:HA	1.91	0.42
3:G:4822:THR:HG21	3:A:4839:MET:HG3	2.01	0.42
1:K:30:SER:H	1:K:99:ARG:HD2	1.85	0.42
2:L:56:ILE:HA	2:L:56:ILE:HD12	1.81	0.42
3:J:652:ARG:HB2	3:J:750:LEU:HB3	2.02	0.42
3:J:1159:THR:HG22	3:J:1180:ARG:HA	2.02	0.42
3:J:1496:TRP:CE3	3:J:1499:ASP:HB2	2.54	0.42
3:J:2443:ILE:HG12	3:J:2454:ARG:NH1	2.34	0.42
3:J:3278:CYS:SG	3:J:3341:PHE:HB3	2.59	0.42
3:J:4049:VAL:HG12	3:J:4163:PHE:HE2	1.84	0.42
3:J:4569:LEU:HG	3:J:4646:LEU:HD12	2.00	0.42
3:J:4820:VAL:HG13	3:J:4823:LEU:HB2	2.02	0.42
1:D:51:ILE:HD12	1:D:51:ILE:HA	1.91	0.42
2:E:40:ARG:HD3	2:E:40:ARG:HA	1.89	0.42
3:C:900:ASN:HB2	3:C:901:LYS:HZ2	1.84	0.42
3:C:978:THR:O	3:C:982:THR:HG23	2.19	0.42
3:C:1747:LEU:HD23	3:C:1747:LEU:HA	1.81	0.42
3:C:4820:VAL:HG13	3:C:4823:LEU:HB2	2.02	0.42
1:B:32:ASN:HB2	1:B:99:ARG:HA	2.01	0.42
1:B:57:ILE:HG23	1:B:69:ILE:HG22	2.02	0.42
3:A:913:LEU:HD23	3:A:913:LEU:HA	1.94	0.42
3:A:1651:LEU:HD13	3:A:1702:HIS:HB2	2.01	0.42
3:A:2470:ILE:HG21	3:A:2526:PHE:CE2	2.55	0.42
3:A:3768:SER:HA	3:A:3771:HIS:ND1	2.34	0.42
3:A:4044:MET:HE2	3:A:4044:MET:HB3	1.86	0.42
3:A:4817:ALA:HB1	3:A:4827:LEU:HD22	2.00	0.42
2:I:57:LYS:HE2	2:I:80:VAL:HG12	2.01	0.42
3:G:1159:THR:HG22	3:G:1180:ARG:HA	2.02	0.42
3:G:1500:PHE:HD2	3:G:1531:ALA:HB2	1.84	0.42
3:G:1718:ILE:HG13	3:G:1719:HIS:ND1	2.35	0.42
3:G:3723:MET:HE3	3:G:3723:MET:HB3	1.93	0.42
3:G:4049:VAL:HG12	3:G:4163:PHE:HE2	1.84	0.42
3:J:46:LEU:HD11	3:J:134:ASP:HB3	2.02	0.42
3:J:978:THR:O	3:J:982:THR:HG23	2.19	0.42
3:J:1930:LYS:HE3	3:J:1930:LYS:HB2	1.79	0.42
3:J:2208:MET:O	3:J:2212:VAL:HG23	2.19	0.42
3:J:3723:MET:HE3	3:J:3723:MET:HB3	1.94	0.42
3:J:4839:MET:HG3	3:C:4822:THR:HG21	2.01	0.42
1:D:37:TYR:CZ	1:D:47:LEU:HB3	2.54	0.42
3:C:319:SER:HA	3:C:347:PHE:HE2	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:1640:HIS:CE1	3:C:1642:PRO:HA	2.55	0.42
3:C:2281:ILE:HD13	3:C:2281:ILE:HA	1.89	0.42
3:C:3391:GLU:HA	3:C:3394:VAL:HG22	2.02	0.42
3:C:3842:LEU:HD23	3:C:3842:LEU:HA	1.88	0.42
3:C:4083:ASP:HB2	3:C:4086:GLY:O	2.20	0.42
3:C:4687:TYR:CD2	3:C:4706:LEU:HD11	2.55	0.42
3:C:4835:LYS:O	3:C:4839:MET:HG2	2.19	0.42
3:A:180:LEU:O	3:A:198:THR:HB	2.20	0.42
3:A:419:ASP:HA	3:A:422:SER:HB2	2.02	0.42
3:A:1739:THR:H	3:A:1742:THR:HB	1.85	0.42
3:A:1849:LEU:HA	3:A:1849:LEU:HD12	1.79	0.42
3:A:3265:GLU:OE1	3:A:3266:MET:HB3	2.20	0.42
3:A:3362:ILE:HD12	3:A:3362:ILE:HA	1.89	0.42
3:A:3518:LEU:HD11	3:A:3606:LEU:HD22	2.02	0.42
1:H:57:ILE:HG23	1:H:69:ILE:HG22	2.02	0.42
2:I:74:LEU:O	2:I:98:ILE:HA	2.20	0.42
3:G:858:THR:HA	3:G:861:ILE:HD13	2.02	0.42
3:G:1500:PHE:CZ	3:G:1536:SER:HB2	2.55	0.42
3:G:3050:VAL:HB	3:G:3054:VAL:HG12	2.01	0.42
1:K:67:PHE:CD1	1:K:82:MET:HE3	2.55	0.42
3:J:2377:LEU:HD23	3:J:2377:LEU:HA	1.83	0.42
3:J:2470:ILE:HG21	3:J:2526:PHE:CE2	2.55	0.42
3:J:2576:ALA:HB1	3:J:2618:MET:SD	2.60	0.42
3:J:2958:GLY:O	3:J:2962:GLN:HG2	2.20	0.42
2:E:22:CYS:HB2	2:E:48:PHE:CE1	2.55	0.42
3:C:1575:LEU:HA	3:C:1575:LEU:HD23	1.86	0.42
3:C:3041:SER:HB3	3:C:3088:VAL:HG22	2.02	0.42
3:C:3140:LEU:HA	3:C:3143:LEU:HD12	2.02	0.42
3:C:3265:GLU:OE1	3:C:3266:MET:HB3	2.20	0.42
3:C:4034:ASN:HD21	3:C:4041:ALA:HB2	1.84	0.42
3:C:4049:VAL:HG12	3:C:4163:PHE:HE2	1.84	0.42
1:B:47:LEU:HD11	1:B:60:ALA:HB3	2.01	0.42
2:F:40:ARG:HD3	2:F:40:ARG:HA	1.89	0.42
2:F:74:LEU:O	2:F:98:ILE:HA	2.20	0.42
3:A:157:ARG:HA	3:A:157:ARG:HD3	1.84	0.42
3:A:821:LEU:HD12	3:A:821:LEU:HA	1.88	0.42
3:A:900:ASN:HB2	3:A:901:LYS:HZ2	1.85	0.42
3:A:1293:LEU:HA	3:A:1294:PRO:HD3	1.90	0.42
3:A:4687:TYR:CD2	3:A:4706:LEU:HD11	2.55	0.42
8:A:5110:POV:H13B	8:A:5110:POV:H11A	1.85	0.42
3:G:219:VAL:HG12	3:G:261:ARG:HB2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:412:ASN:O	3:G:416:LYS:HG2	2.20	0.42
3:G:1739:THR:H	3:G:1742:THR:HB	1.85	0.42
3:G:3391:GLU:HA	3:G:3394:VAL:HG22	2.02	0.42
3:G:4014:LYS:HG2	3:G:4135:PRO:HB3	2.02	0.42
1:K:30:SER:HA	1:K:99:ARG:HB3	2.02	0.42
2:L:74:LEU:O	2:L:98:ILE:HA	2.20	0.42
3:J:319:SER:HA	3:J:347:PHE:HE2	1.83	0.42
3:J:1739:THR:H	3:J:1742:THR:HB	1.85	0.42
3:J:2526:PHE:CE1	3:J:2558:VAL:HG13	2.55	0.42
3:J:3166:TYR:O	3:J:3169:LEU:HG	2.20	0.42
1:D:30:SER:H	1:D:99:ARG:HD2	1.85	0.42
3:C:73:LEU:HD12	3:C:73:LEU:HA	1.89	0.42
3:C:359:TYR:HB2	3:C:374:LYS:HB3	2.01	0.42
3:C:652:ARG:HB2	3:C:750:LEU:HB3	2.02	0.42
3:C:951:LYS:HA	3:C:951:LYS:HD3	1.80	0.42
3:C:1585:LYS:HD3	3:C:1585:LYS:HA	1.83	0.42
3:C:3316:LEU:HD12	3:C:3316:LEU:HA	1.91	0.42
3:C:3896:ASN:OD1	3:C:3899:PHE:HB2	2.19	0.42
1:B:9:GLY:HA3	1:B:123:VAL:HG22	2.02	0.42
1:B:30:SER:H	1:B:99:ARG:HD2	1.85	0.42
3:A:635:THR:HG22	3:A:1693:GLN:NE2	2.35	0.42
3:A:883:ALA:HA	3:A:886:ARG:HE	1.84	0.42
3:A:1068:ARG:HD3	3:A:1068:ARG:HA	1.84	0.42
3:A:1095:VAL:HG12	3:A:1096:THR:HG23	2.00	0.42
3:A:1500:PHE:HD2	3:A:1531:ALA:HB2	1.84	0.42
3:A:1640:HIS:CE1	3:A:1642:PRO:HA	2.55	0.42
3:A:1674:CYS:SG	3:A:1718:ILE:HG22	2.59	0.42
3:A:2208:MET:O	3:A:2212:VAL:HG23	2.19	0.42
3:A:2211:MET:N	3:A:2211:MET:HE2	2.35	0.42
1:H:30:SER:H	1:H:99:ARG:HD2	1.85	0.41
1:H:47:LEU:HD11	1:H:60:ALA:HB3	2.01	0.41
1:H:67:PHE:CD1	1:H:82:MET:HE3	2.55	0.41
3:G:951:LYS:HD3	3:G:951:LYS:HA	1.80	0.41
3:G:2470:ILE:HG21	3:G:2526:PHE:CE2	2.55	0.41
3:G:2536:LEU:HG	3:G:2541:PHE:HB3	2.01	0.41
3:G:2649:GLU:H	3:G:2649:GLU:HG2	1.75	0.41
3:G:3289:PRO:HB2	3:G:3308:THR:HG22	2.02	0.41
3:G:3400:VAL:HG13	3:G:3403:ARG:HE	1.85	0.41
3:G:4678:ALA:HB1	3:G:4720:VAL:HG21	2.01	0.41
3:G:4928:LEU:HD23	3:G:4928:LEU:HA	1.84	0.41
2:L:34:LYS:NZ	3:J:629:ARG:HD3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:803:LEU:HD22	3:J:803:LEU:H	1.85	0.41
3:J:1449:TRP:HB2	3:J:1553:PHE:HB2	2.02	0.41
3:J:3391:GLU:HA	3:J:3394:VAL:HG22	2.02	0.41
3:J:3400:VAL:HG13	3:J:3403:ARG:HE	1.85	0.41
3:J:4701:TRP:CZ2	3:J:4781:GLY:HA3	2.55	0.41
3:J:4968:PHE:O	3:J:4974:GLY:HA3	2.21	0.41
1:D:9:GLY:HA3	1:D:123:VAL:HG22	2.02	0.41
1:D:67:PHE:CD1	1:D:82:MET:HE3	2.55	0.41
3:C:635:THR:HG22	3:C:1693:GLN:NE2	2.35	0.41
3:C:803:LEU:HD22	3:C:803:LEU:H	1.85	0.41
3:C:1009:ALA:HA	3:C:1019:PRO:HB3	2.02	0.41
3:C:1252:HIS:HE1	3:C:1254:HIS:HB2	1.83	0.41
3:C:1449:TRP:HB2	3:C:1553:PHE:HB2	2.02	0.41
3:C:3518:LEU:HD11	3:C:3606:LEU:HD22	2.02	0.41
3:C:3694:LYS:HE2	3:C:3694:LYS:HB3	1.96	0.41
3:A:14:LEU:H	3:A:14:LEU:HD12	1.84	0.41
3:A:182:LEU:HD12	3:A:182:LEU:HA	1.88	0.41
3:A:492:ASP:O	3:A:496:VAL:HG13	2.19	0.41
3:A:894:GLY:HA3	3:A:903:LEU:HA	2.02	0.41
3:A:2228:MET:HA	3:A:2228:MET:HE3	2.01	0.41
3:A:3038:MET:HE2	3:A:3038:MET:HB2	1.96	0.41
3:A:3391:GLU:HA	3:A:3394:VAL:HG22	2.02	0.41
3:A:3433:GLU:O	3:A:3437:MET:HG2	2.19	0.41
3:A:3990:VAL:HG21	3:A:4050:GLU:OE2	2.20	0.41
3:G:1651:LEU:HD13	3:G:1702:HIS:HB2	2.01	0.41
3:G:2610:LEU:O	3:G:2614:ILE:HG12	2.21	0.41
3:G:2691:TYR:HB2	3:G:2993:GLN:HA	2.01	0.41
3:G:3990:VAL:HG21	3:G:4050:GLU:OE2	2.20	0.41
3:G:4179:GLY:HA3	3:G:4197:ILE:HD11	2.02	0.41
3:G:4636:THR:HG22	3:G:4638:TYR:HD2	1.85	0.41
2:L:22:CYS:HB2	2:L:48:PHE:CE1	2.55	0.41
2:L:44:LYS:NZ	3:J:1779:PRO:HB3	2.36	0.41
3:J:1500:PHE:CZ	3:J:1536:SER:HB2	2.55	0.41
3:J:2504:LEU:O	3:J:2508:ARG:HB2	2.20	0.41
3:J:2607:LEU:HD21	3:J:2643:LEU:HD22	2.01	0.41
3:J:3010:PHE:O	3:J:3014:CYS:HB3	2.19	0.41
3:J:3158:LEU:HA	3:J:3162:GLN:HG3	2.02	0.41
3:J:4034:ASN:HD21	3:J:4041:ALA:HB2	1.84	0.41
3:C:3990:VAL:HG21	3:C:4050:GLU:OE2	2.20	0.41
3:A:451:TYR:CE1	3:A:474:ARG:HD2	2.54	0.41
3:A:863:LEU:HD21	3:A:930:LYS:HE3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:2526:PHE:CE1	3:A:2558:VAL:HG13	2.55	0.41
3:A:3089:LYS:HG3	3:A:3093:ARG:NE	2.35	0.41
3:A:3096:PHE:CG	3:A:3161:VAL:HG13	2.56	0.41
3:A:4014:LYS:HG2	3:A:4135:PRO:HB3	2.02	0.41
3:A:4091:LYS:O	3:A:4095:LYS:HG2	2.20	0.41
3:A:4968:PHE:O	3:A:4974:GLY:HA3	2.20	0.41
1:H:86:LYS:H	1:H:86:LYS:HG3	1.63	0.41
3:G:863:LEU:HD21	3:G:930:LYS:HE3	2.01	0.41
3:G:1640:HIS:CE1	3:G:1642:PRO:HA	2.55	0.41
3:G:2281:ILE:HD13	3:G:2281:ILE:HA	1.89	0.41
3:G:2292:GLU:HA	3:G:2295:LEU:HD23	2.02	0.41
3:G:2576:ALA:HB1	3:G:2618:MET:SD	2.60	0.41
3:G:3439:GLY:O	3:G:3443:ILE:HG13	2.19	0.41
3:G:4017:LEU:HD22	3:G:4139:ILE:HG21	2.02	0.41
3:G:4968:PHE:O	3:G:4974:GLY:HA3	2.20	0.41
2:L:42:ARG:HH12	3:J:1782:PHE:HD1	1.68	0.41
3:J:2267:MET:HE3	3:J:2267:MET:HB2	1.79	0.41
3:J:2691:TYR:HB2	3:J:2993:GLN:HA	2.01	0.41
3:J:2764:GLU:HG2	3:J:2855:TYR:HA	2.02	0.41
3:J:3539:ARG:HD3	3:J:3539:ARG:HA	1.93	0.41
3:J:3990:VAL:HG21	3:J:4050:GLU:OE2	2.20	0.41
3:C:894:GLY:HA3	3:C:903:LEU:HA	2.02	0.41
3:C:1500:PHE:HD2	3:C:1531:ALA:HB2	1.84	0.41
3:C:2292:GLU:HA	3:C:2295:LEU:HD23	2.02	0.41
3:C:2526:PHE:CE1	3:C:2558:VAL:HG13	2.55	0.41
1:B:30:SER:HA	1:B:99:ARG:HB3	2.02	0.41
3:A:1009:ALA:HA	3:A:1019:PRO:HB3	2.02	0.41
3:A:2466:LEU:HD23	3:A:2506:LEU:HD13	2.02	0.41
3:A:2504:LEU:O	3:A:2508:ARG:HB2	2.20	0.41
3:A:2536:LEU:HG	3:A:2541:PHE:HB3	2.01	0.41
3:A:2815:ALA:O	3:A:2819:TRP:HD1	2.04	0.41
3:A:3150:HIS:N	3:A:3150:HIS:CD2	2.89	0.41
3:A:4091:LYS:H	3:A:4091:LYS:HG2	1.74	0.41
3:G:73:LEU:HD12	3:G:73:LEU:HA	1.90	0.41
3:G:1106:ARG:NH1	3:G:1185:GLY:HA3	2.35	0.41
3:G:1585:LYS:HD3	3:G:1585:LYS:HA	1.83	0.41
3:G:2607:LEU:HD21	3:G:2643:LEU:HD22	2.01	0.41
3:G:3319:ILE:O	3:G:3322:ILE:HG12	2.19	0.41
3:G:3535:LEU:HD23	3:G:3556:ASN:HB3	2.02	0.41
3:G:3896:ASN:OD1	3:G:3899:PHE:HB2	2.19	0.41
3:G:4091:LYS:O	3:G:4095:LYS:HG2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:4839:MET:HG3	3:J:4822:THR:HG21	2.01	0.41
3:G:4944:ARG:HG2	3:G:4944:ARG:NH1	2.35	0.41
3:J:180:LEU:O	3:J:198:THR:HB	2.20	0.41
3:J:645:ARG:HH12	3:J:689:THR:HG22	1.86	0.41
3:J:2211:MET:HE2	3:J:2211:MET:N	2.35	0.41
3:J:2292:GLU:HA	3:J:2295:LEU:HD23	2.02	0.41
3:J:3289:PRO:HB2	3:J:3308:THR:HG22	2.02	0.41
3:J:3550:ARG:HD3	3:J:3594:ARG:NH1	2.36	0.41
3:C:180:LEU:O	3:C:198:THR:HB	2.20	0.41
3:C:1857:GLU:O	3:C:1861:GLN:HG2	2.20	0.41
3:C:2722:LYS:HD3	3:C:2877:GLN:NE2	2.35	0.41
3:C:3289:PRO:HB2	3:C:3308:THR:HG22	2.03	0.41
3:C:4701:TRP:CZ2	3:C:4781:GLY:HA3	2.55	0.41
3:C:4801:LEU:HD23	3:C:4801:LEU:HA	1.89	0.41
3:A:46:LEU:HD11	3:A:134:ASP:HB3	2.02	0.41
3:A:359:TYR:HB2	3:A:374:LYS:HB3	2.01	0.41
3:A:483:MET:HE3	3:A:483:MET:HB3	1.80	0.41
3:A:1500:PHE:CZ	3:A:1536:SER:HB2	2.55	0.41
3:A:2821:TRP:CD1	3:A:2939:ARG:HA	2.56	0.41
3:A:3800:LEU:O	3:A:3804:ILE:HG12	2.19	0.41
3:A:4701:TRP:CZ2	3:A:4781:GLY:HA3	2.55	0.41
3:G:287:THR:HB	3:G:289:ARG:HE	1.84	0.41
3:G:803:LEU:HD22	3:G:803:LEU:H	1.85	0.41
3:G:1449:TRP:HB2	3:G:1553:PHE:HB2	2.02	0.41
3:G:2245:GLN:HB3	3:G:3868:ARG:NH1	2.35	0.41
3:G:2319:PRO:HD2	3:G:2418:LEU:HD11	2.03	0.41
3:G:4701:TRP:CZ2	3:G:4781:GLY:HA3	2.56	0.41
3:G:4820:VAL:HG13	3:G:4823:LEU:HB2	2.02	0.41
3:J:219:VAL:HG12	3:J:261:ARG:HB2	2.01	0.41
3:J:583:ILE:HD13	3:J:621:ILE:HG13	2.01	0.41
3:J:1011:GLN:HE21	3:J:1013:ILE:HD11	1.86	0.41
3:J:1293:LEU:HA	3:J:1294:PRO:HD3	1.90	0.41
3:J:1640:HIS:CE1	3:J:1642:PRO:HA	2.55	0.41
3:J:2228:MET:HA	3:J:2228:MET:HE3	2.01	0.41
3:J:2743:LEU:HD12	3:J:2807:TRP:CZ2	2.56	0.41
3:J:4017:LEU:HD22	3:J:4139:ILE:HG21	2.02	0.41
3:J:4245:MET:HG3	3:J:4245:MET:H	1.66	0.41
3:C:412:ASN:O	3:C:416:LYS:HG2	2.20	0.41
3:C:722:TRP:CZ2	3:C:727:ALA:HB2	2.56	0.41
3:C:858:THR:HA	3:C:861:ILE:HD13	2.02	0.41
3:C:1106:ARG:NH1	3:C:1185:GLY:HA3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:1718:ILE:HG13	3:C:1719:HIS:ND1	2.35	0.41
3:C:2466:LEU:HD23	3:C:2506:LEU:HD13	2.02	0.41
3:C:2576:ALA:HB1	3:C:2618:MET:SD	2.60	0.41
3:C:2992:GLU:O	3:C:2996:LYS:HG2	2.21	0.41
3:C:3096:PHE:CG	3:C:3161:VAL:HG13	2.56	0.41
3:C:3180:ASN:ND2	3:C:3183:VAL:HG13	2.36	0.41
3:C:3400:VAL:HG13	3:C:3403:ARG:HE	1.86	0.41
3:C:4034:ASN:ND2	3:C:4041:ALA:HB2	2.36	0.41
3:C:4968:PHE:O	3:C:4974:GLY:HA3	2.20	0.41
3:A:874:LEU:HD11	3:A:1046:LEU:HD21	2.02	0.41
3:A:2582:MET:O	3:A:2586:VAL:HG23	2.21	0.41
3:A:2722:LYS:HD3	3:A:2877:GLN:NE2	2.35	0.41
3:A:3439:GLY:O	3:A:3443:ILE:HG13	2.19	0.41
3:A:4063:ASP:HB2	3:A:4169:SER:HB2	2.02	0.41
2:I:40:ARG:HA	2:I:40:ARG:HD3	1.89	0.41
3:G:180:LEU:O	3:G:198:THR:HB	2.20	0.41
3:G:635:THR:HG22	3:G:1693:GLN:NE2	2.35	0.41
3:G:1134:LEU:HD23	3:G:1134:LEU:HA	1.93	0.41
3:G:2208:MET:O	3:G:2212:VAL:HG23	2.19	0.41
3:G:2815:ALA:O	3:G:2819:TRP:HD1	2.03	0.41
3:G:3089:LYS:HG3	3:G:3093:ARG:NE	2.36	0.41
3:G:3140:LEU:HA	3:G:3143:LEU:HD12	2.02	0.41
3:G:3682:GLU:O	3:G:3686:GLU:HG2	2.21	0.41
3:J:473:ASN:O	3:J:477:LEU:HG	2.21	0.41
3:J:2369:ARG:HD2	3:J:2371:GLU:HB3	2.03	0.41
3:J:2437:ALA:HB3	3:J:2508:ARG:HD2	2.03	0.41
3:J:2649:GLU:H	3:J:2649:GLU:HG2	1.75	0.41
3:J:3409:TYR:HD1	3:J:3409:TYR:HA	1.80	0.41
3:J:4014:LYS:HG2	3:J:4135:PRO:HB3	2.02	0.41
3:J:4063:ASP:HB2	3:J:4169:SER:HB2	2.02	0.41
3:J:4179:GLY:HA3	3:J:4197:ILE:HD11	2.02	0.41
1:D:57:ILE:HG23	1:D:69:ILE:HG22	2.02	0.41
3:C:2170:MET:HE2	3:C:2170:MET:HA	2.03	0.41
3:C:2504:LEU:O	3:C:2508:ARG:HB2	2.20	0.41
3:C:2506:LEU:HD12	3:C:2506:LEU:HA	1.86	0.41
3:C:2583:LEU:HD12	3:C:2583:LEU:HA	1.86	0.41
3:C:2691:TYR:HB2	3:C:2993:GLN:HA	2.01	0.41
3:C:2815:ALA:O	3:C:2819:TRP:HD1	2.04	0.41
3:C:2958:GLY:O	3:C:2962:GLN:HG2	2.20	0.41
3:C:3089:LYS:HG3	3:C:3093:ARG:NE	2.36	0.41
3:C:3550:ARG:HD3	3:C:3594:ARG:NH1	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:4014:LYS:HG2	3:C:4135:PRO:HB3	2.02	0.41
3:A:43:GLY:HA2	3:A:443:LEU:HB2	2.03	0.41
3:A:858:THR:HA	3:A:861:ILE:HD13	2.02	0.41
3:A:1106:ARG:NH1	3:A:1185:GLY:HA3	2.35	0.41
3:A:1449:TRP:HB2	3:A:1553:PHE:HB2	2.03	0.41
3:A:2245:GLN:HB3	3:A:3868:ARG:NH1	2.35	0.41
3:A:2261:SER:HB2	3:A:2273:LEU:HD22	2.02	0.41
3:A:2437:ALA:HB3	3:A:2508:ARG:HD2	2.03	0.41
3:A:2576:ALA:HB1	3:A:2618:MET:SD	2.60	0.41
3:A:2764:GLU:HG2	3:A:2855:TYR:HA	2.02	0.41
3:A:3400:VAL:HG13	3:A:3403:ARG:HE	1.86	0.41
3:A:4017:LEU:HD22	3:A:4139:ILE:HG21	2.02	0.41
3:A:4049:VAL:HG12	3:A:4163:PHE:HE2	1.84	0.41
3:A:4678:ALA:HB1	3:A:4720:VAL:HG21	2.02	0.41
3:A:4934:GLY:HA2	3:A:4937:ILE:HB	2.03	0.41
1:H:114:TYR:CE1	3:G:996:TRP:HB2	2.56	0.41
3:G:2676:ARG:HG3	3:G:2955:PHE:HD2	1.86	0.41
3:G:2890:LYS:HB3	3:G:2905:LEU:HD21	2.03	0.41
3:G:3550:ARG:HD3	3:G:3594:ARG:NH1	2.36	0.41
3:G:4060:LYS:HB3	3:G:4060:LYS:HE3	1.77	0.41
3:J:900:ASN:HB2	3:J:901:LYS:HZ2	1.85	0.41
3:J:2976:HIS:HE1	3:J:2990:PRO:HD3	1.83	0.41
3:J:4083:ASP:HB2	3:J:4086:GLY:O	2.20	0.41
3:J:4636:THR:HG22	3:J:4638:TYR:HD2	1.85	0.41
1:D:47:LEU:HD11	1:D:60:ALA:HB3	2.01	0.41
3:C:219:VAL:HG12	3:C:261:ARG:HB2	2.01	0.41
3:C:1011:GLN:HE21	3:C:1013:ILE:HD11	1.86	0.41
3:C:2348:GLU:O	3:C:2352:VAL:HG22	2.21	0.41
3:A:1718:ILE:HG13	3:A:1719:HIS:ND1	2.35	0.41
3:A:2348:GLU:O	3:A:2352:VAL:HG22	2.21	0.41
3:A:2992:GLU:O	3:A:2996:LYS:HG2	2.21	0.41
3:A:3195:ALA:HB2	3:A:3275:PRO:HB3	2.03	0.41
3:A:3319:ILE:O	3:A:3322:ILE:HG12	2.19	0.41
3:A:3517:MET:HE3	3:A:3517:MET:HB3	1.90	0.41
3:A:3550:ARG:HD3	3:A:3594:ARG:NH1	2.36	0.41
3:A:3842:LEU:HD23	3:A:3842:LEU:HA	1.89	0.41
3:A:4034:ASN:ND2	3:A:4041:ALA:HB2	2.36	0.41
3:A:4083:ASP:HB2	3:A:4086:GLY:O	2.20	0.41
3:G:419:ASP:HA	3:G:422:SER:HB2	2.02	0.41
3:G:874:LEU:HD11	3:G:1046:LEU:HD21	2.02	0.41
3:G:2369:ARG:HD2	3:G:2371:GLU:HB3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:2430:ILE:HG21	3:G:2502:MET:SD	2.61	0.41
3:G:2504:LEU:O	3:G:2508:ARG:HB2	2.20	0.41
3:G:3180:ASN:ND2	3:G:3183:VAL:HG13	2.36	0.41
3:G:4034:ASN:ND2	3:G:4041:ALA:HB2	2.36	0.41
3:G:4083:ASP:HB2	3:G:4086:GLY:O	2.20	0.41
3:G:5036:LEU:HD13	3:G:5036:LEU:HA	1.95	0.41
3:J:635:THR:HG22	3:J:1693:GLN:NE2	2.35	0.41
3:J:1106:ARG:NH1	3:J:1185:GLY:HA3	2.35	0.41
3:J:1456:ASP:O	3:J:1491:ASN:HB2	2.21	0.41
3:J:1857:GLU:O	3:J:1861:GLN:HG2	2.20	0.41
3:J:2245:GLN:HB3	3:J:3868:ARG:NH1	2.35	0.41
3:J:2689:LYS:HB3	3:J:2689:LYS:HE2	1.93	0.41
3:J:3140:LEU:HA	3:J:3143:LEU:HD12	2.02	0.41
3:J:3265:GLU:OE1	3:J:3266:MET:HB3	2.20	0.41
3:J:3518:LEU:HD11	3:J:3606:LEU:HD22	2.02	0.41
2:E:74:LEU:O	2:E:98:ILE:HA	2.20	0.41
3:C:1591:CYS:HA	3:C:1595:LEU:HD21	2.03	0.41
3:C:2430:ILE:HG21	3:C:2502:MET:SD	2.61	0.41
3:C:2821:TRP:CD1	3:C:2939:ARG:HA	2.56	0.41
3:C:3195:ALA:HB2	3:C:3275:PRO:HB3	2.03	0.41
3:C:3535:LEU:HD23	3:C:3556:ASN:HB3	2.02	0.41
3:C:4063:ASP:HB2	3:C:4169:SER:HB2	2.02	0.41
3:C:4179:GLY:HA3	3:C:4197:ILE:HD11	2.02	0.41
2:F:22:CYS:HB2	2:F:48:PHE:CE1	2.55	0.41
3:A:412:ASN:O	3:A:416:LYS:HG2	2.20	0.41
3:A:2170:MET:HE2	3:A:2170:MET:HA	2.03	0.41
3:A:2292:GLU:HA	3:A:2295:LEU:HD23	2.02	0.41
3:A:2369:ARG:HD2	3:A:2371:GLU:HB3	2.03	0.41
3:A:2610:LEU:O	3:A:2614:ILE:HG12	2.21	0.41
3:A:3289:PRO:HB2	3:A:3308:THR:HG22	2.02	0.41
3:A:4944:ARG:NH1	3:A:4944:ARG:HG2	2.35	0.41
3:G:46:LEU:HD11	3:G:134:ASP:HB3	2.02	0.41
3:G:157:ARG:HD3	3:G:157:ARG:HA	1.84	0.41
3:G:424:LYS:HA	3:G:424:LYS:HD2	1.86	0.41
3:G:551:LEU:HD23	3:G:551:LEU:HA	1.89	0.41
3:G:604:CYS:O	3:G:604:CYS:SG	2.79	0.41
3:G:1012:ASP:HB3	3:G:1017:ARG:HB2	2.03	0.41
3:G:1857:GLU:O	3:G:1861:GLN:HG2	2.20	0.41
3:G:2295:LEU:HA	3:G:2298:VAL:HG12	2.03	0.41
3:G:2437:ALA:HB3	3:G:2508:ARG:HD2	2.03	0.41
3:G:2743:LEU:HD12	3:G:2807:TRP:CZ2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:2958:GLY:O	3:G:2962:GLN:HG2	2.20	0.41
3:G:2992:GLU:O	3:G:2996:LYS:HG2	2.21	0.41
3:G:3891:LEU:HD23	3:G:3891:LEU:HA	1.93	0.41
1:K:2:VAL:HB	1:K:116:TYR:CG	2.56	0.41
3:J:182:LEU:HD12	3:J:182:LEU:HA	1.88	0.41
3:J:220:LEU:HD21	3:J:262:LEU:HD21	2.03	0.41
3:J:722:TRP:CZ2	3:J:727:ALA:HB2	2.56	0.41
3:J:858:THR:HA	3:J:861:ILE:HD13	2.02	0.41
3:J:1102:VAL:HG11	3:J:1149:VAL:HG11	2.02	0.41
3:J:1293:LEU:HA	3:J:1293:LEU:HD13	1.92	0.41
3:J:1591:CYS:HA	3:J:1595:LEU:HD21	2.03	0.41
3:J:2319:PRO:HD2	3:J:2418:LEU:HD11	2.03	0.41
3:J:2582:MET:O	3:J:2586:VAL:HG23	2.21	0.41
3:J:2890:LYS:HB3	3:J:2905:LEU:HD21	2.03	0.41
3:J:3195:ALA:HB2	3:J:3275:PRO:HB3	2.03	0.41
3:J:3682:GLU:O	3:J:3686:GLU:HG2	2.21	0.41
3:J:4934:GLY:HA2	3:J:4937:ILE:HB	2.03	0.41
3:C:43:GLY:HA2	3:C:443:LEU:HB2	2.03	0.41
3:C:473:ASN:O	3:C:477:LEU:HG	2.21	0.41
3:C:670:GLU:HA	3:C:740:PRO:HB3	2.03	0.41
3:C:863:LEU:HD21	3:C:930:LYS:HE3	2.02	0.41
3:C:1102:VAL:HG11	3:C:1149:VAL:HG11	2.02	0.41
3:C:1943:LEU:HD23	3:C:1943:LEU:HA	1.84	0.41
3:C:2228:MET:HE3	3:C:2228:MET:HA	2.01	0.41
3:C:2295:LEU:HA	3:C:2298:VAL:HG12	2.03	0.41
3:C:2309:SER:HB2	3:C:2322:GLY:N	2.36	0.41
3:C:2369:ARG:HD2	3:C:2371:GLU:HB3	2.03	0.41
3:C:2437:ALA:HB3	3:C:2508:ARG:HD2	2.03	0.41
3:C:2443:ILE:HD12	3:C:2443:ILE:HA	1.95	0.41
3:C:2764:GLU:HG2	3:C:2855:TYR:HA	2.02	0.41
3:C:3166:TYR:O	3:C:3169:LEU:HG	2.20	0.41
3:C:3324:VAL:HA	3:C:3327:LEU:CD2	2.51	0.41
3:C:4636:THR:HG22	3:C:4638:TYR:HD2	1.85	0.41
3:C:4822:THR:O	3:C:4826:ILE:HG12	2.21	0.41
3:C:4934:GLY:HA2	3:C:4937:ILE:HB	2.03	0.41
3:A:213:TYR:HB3	3:A:273:HIS:CE1	2.56	0.41
3:A:219:VAL:HG12	3:A:261:ARG:HB2	2.01	0.41
3:A:604:CYS:O	3:A:604:CYS:SG	2.79	0.41
3:A:722:TRP:CZ2	3:A:727:ALA:HB2	2.56	0.41
3:A:803:LEU:HD22	3:A:803:LEU:H	1.85	0.41
3:A:867:LEU:O	3:A:871:ARG:HB2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:1012:ASP:HB3	3:A:1017:ARG:HB2	2.03	0.41
3:A:1297:PHE:HB2	3:A:1545:ASN:N	2.33	0.41
3:A:1456:ASP:O	3:A:1491:ASN:HB2	2.21	0.41
3:A:2583:LEU:HD12	3:A:2583:LEU:HA	1.86	0.41
3:A:2679:PHE:HB2	3:A:2706:ILE:CG2	2.50	0.41
3:A:3316:LEU:HD12	3:A:3316:LEU:HA	1.91	0.41
3:A:3539:ARG:HD3	3:A:3539:ARG:HA	1.93	0.41
3:A:3682:GLU:O	3:A:3686:GLU:HG2	2.21	0.41
3:A:4031:LEU:HD12	3:A:4031:LEU:HA	1.94	0.41
3:A:4670:ILE:HD13	3:A:4670:ILE:HA	1.88	0.41
3:A:4822:THR:O	3:A:4826:ILE:HG12	2.21	0.41
1:H:1:GLN:O	1:H:3:GLN:HB2	2.21	0.41
1:H:2:VAL:HB	1:H:116:TYR:CG	2.56	0.41
3:G:213:TYR:HB3	3:G:273:HIS:CE1	2.56	0.41
3:G:894:GLY:HA3	3:G:903:LEU:HA	2.02	0.41
3:G:1009:ALA:HA	3:G:1019:PRO:HB3	2.02	0.41
3:G:1011:GLN:HE21	3:G:1013:ILE:HD11	1.86	0.41
3:G:1683:HIS:CD2	3:G:1800:PRO:HG3	2.56	0.41
3:G:2159:LEU:HD13	3:G:2203:MET:HB3	2.03	0.41
3:G:2466:LEU:HD23	3:G:2506:LEU:HD13	2.03	0.41
3:G:2559:LEU:H	3:G:2559:LEU:HD12	1.85	0.41
3:G:2722:LYS:HD3	3:G:2877:GLN:NE2	2.35	0.41
3:G:2764:GLU:HG2	3:G:2855:TYR:HA	2.02	0.41
3:G:2995:ILE:HG22	3:G:2996:LYS:HD3	2.03	0.41
3:G:3158:LEU:HA	3:G:3162:GLN:HG3	2.02	0.41
3:G:3232:LEU:HA	3:G:3233:PRO:HD3	1.90	0.41
3:G:3441:ILE:HG13	3:G:3441:ILE:H	1.71	0.41
1:K:57:ILE:HG23	1:K:69:ILE:HG22	2.02	0.41
2:L:21:THR:HG23	2:L:49:ARG:NE	2.35	0.41
3:J:821:LEU:HD12	3:J:821:LEU:HA	1.88	0.41
3:J:1552:VAL:C	3:J:1553:PHE:HD1	2.29	0.41
3:J:2559:LEU:H	3:J:2559:LEU:HD12	1.86	0.41
3:J:2995:ILE:HG22	3:J:2996:LYS:HD3	2.03	0.41
3:J:4939:ALA:O	3:J:4942:GLU:HB2	2.21	0.41
3:C:483:MET:HE3	3:C:483:MET:HB3	1.79	0.41
3:C:2271:THR:HG22	3:C:2273:LEU:H	1.86	0.41
3:C:2610:LEU:O	3:C:2614:ILE:HG12	2.21	0.41
3:C:2645:THR:O	3:C:2649:GLU:HG2	2.21	0.41
3:C:2676:ARG:HG3	3:C:2955:PHE:HD2	1.86	0.41
3:C:3158:LEU:HA	3:C:3162:GLN:HG3	2.02	0.41
3:C:3735:LEU:HD23	3:C:3735:LEU:HA	1.92	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:100:VAL:HG22	3:A:924:MET:HE1	2.02	0.41
3:A:1591:CYS:HA	3:A:1595:LEU:HD21	2.03	0.41
3:A:2095:GLN:HA	3:A:2127:GLN:NE2	2.36	0.41
3:A:2295:LEU:HA	3:A:2298:VAL:HG12	2.03	0.41
3:A:2653:LYS:HB3	3:A:2657:LEU:HD12	2.03	0.41
3:A:2676:ARG:HG3	3:A:2955:PHE:HD2	1.86	0.41
3:A:2995:ILE:HG22	3:A:2996:LYS:HD3	2.03	0.41
3:A:3535:LEU:HD23	3:A:3556:ASN:HB3	2.02	0.41
3:G:248:GLU:HB2	3:G:373:LYS:HD2	2.03	0.40
3:G:473:ASN:O	3:G:477:LEU:HG	2.21	0.40
3:G:821:LEU:HD12	3:G:821:LEU:HA	1.88	0.40
3:G:1149:VAL:HA	3:G:1163:THR:O	2.22	0.40
3:G:2095:GLN:HA	3:G:2127:GLN:NE2	2.37	0.40
3:G:2348:GLU:O	3:G:2352:VAL:HG22	2.21	0.40
3:G:2672:LEU:HA	3:G:2672:LEU:HD12	1.81	0.40
3:G:4582:VAL:HG11	3:A:4860:ARG:HH11	1.86	0.40
3:G:4939:ALA:O	3:G:4942:GLU:HB2	2.21	0.40
2:L:40:ARG:HD3	2:L:40:ARG:HA	1.89	0.40
3:J:419:ASP:HA	3:J:422:SER:HB2	2.02	0.40
3:J:874:LEU:HD11	3:J:1046:LEU:HD21	2.02	0.40
3:J:1149:VAL:HA	3:J:1163:THR:O	2.22	0.40
3:J:1585:LYS:HD3	3:J:1585:LYS:HA	1.83	0.40
3:J:1718:ILE:HG13	3:J:1719:HIS:ND1	2.35	0.40
3:J:2261:SER:HB2	3:J:2273:LEU:HD22	2.02	0.40
3:J:2348:GLU:O	3:J:2352:VAL:HG22	2.21	0.40
3:J:2466:LEU:HD23	3:J:2506:LEU:HD13	2.02	0.40
3:J:2722:LYS:HD3	3:J:2877:GLN:NE2	2.35	0.40
1:D:2:VAL:HB	1:D:116:TYR:CG	2.56	0.40
1:D:30:SER:HA	1:D:99:ARG:HB3	2.02	0.40
3:C:220:LEU:HD21	3:C:262:LEU:HD21	2.04	0.40
3:C:874:LEU:HD11	3:C:1046:LEU:HD21	2.02	0.40
3:C:2095:GLN:HA	3:C:2127:GLN:NE2	2.37	0.40
3:C:2159:LEU:HD13	3:C:2203:MET:HB3	2.03	0.40
3:C:2211:MET:HE2	3:C:2211:MET:N	2.35	0.40
3:C:2245:GLN:HB3	3:C:3868:ARG:NH1	2.35	0.40
3:C:3150:HIS:CD2	3:C:3150:HIS:N	2.89	0.40
3:C:4172:GLU:HA	3:C:4172:GLU:OE1	2.21	0.40
3:A:2556:LEU:HD23	3:A:2556:LEU:HA	1.89	0.40
3:A:3140:LEU:HA	3:A:3143:LEU:HD12	2.02	0.40
3:A:3324:VAL:HA	3:A:3327:LEU:CD2	2.51	0.40
1:H:30:SER:HA	1:H:99:ARG:HB3	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:I:22:CYS:HB2	2:I:48:PHE:CE1	2.55	0.40
3:G:1591:CYS:HA	3:G:1595:LEU:HD21	2.03	0.40
3:G:1803:PRO:HB2	3:G:1806:ALA:HB3	2.04	0.40
3:G:2261:SER:HB2	3:G:2273:LEU:HD22	2.02	0.40
3:G:2582:MET:O	3:G:2586:VAL:HG23	2.21	0.40
3:G:3195:ALA:HB2	3:G:3275:PRO:HB3	2.03	0.40
3:G:4677:LEU:HD12	3:G:4677:LEU:HA	1.88	0.40
3:J:1009:ALA:HA	3:J:1019:PRO:HB3	2.02	0.40
3:J:1066:GLN:NE2	3:J:1068:ARG:HE	2.19	0.40
3:J:1229:ASN:HB2	3:J:1827:ARG:HG3	2.03	0.40
3:J:1803:PRO:HB2	3:J:1806:ALA:HB3	2.04	0.40
3:J:1943:LEU:HD23	3:J:1943:LEU:HA	1.84	0.40
3:J:2645:THR:O	3:J:2649:GLU:HG2	2.21	0.40
3:J:3089:LYS:HG3	3:J:3093:ARG:NE	2.35	0.40
3:J:3687:GLU:HB3	3:J:3690:VAL:HB	2.03	0.40
3:J:4034:ASN:ND2	3:J:4041:ALA:HB2	2.36	0.40
3:J:4746:ALA:O	3:J:4750:ILE:HG23	2.21	0.40
3:J:4822:THR:O	3:J:4826:ILE:HG12	2.21	0.40
3:J:4944:ARG:HG2	3:J:4944:ARG:NH1	2.35	0.40
3:J:5009:TYR:O	3:J:5012:LYS:HG2	2.22	0.40
3:C:1739:THR:H	3:C:1742:THR:HB	1.85	0.40
3:C:2261:SER:HB2	3:C:2273:LEU:HD22	2.02	0.40
3:C:2653:LYS:HB3	3:C:2657:LEU:HD12	2.03	0.40
3:C:2995:ILE:HG22	3:C:2996:LYS:HD3	2.03	0.40
1:B:2:VAL:HB	1:B:116:TYR:CG	2.56	0.40
1:B:67:PHE:CD1	1:B:82:MET:HE3	2.55	0.40
3:A:670:GLU:HA	3:A:740:PRO:HB3	2.03	0.40
3:A:717:ASP:O	3:A:738:LEU:HD23	2.21	0.40
3:A:2129:ASP:HB2	3:A:3669:PHE:CZ	2.57	0.40
3:A:2271:THR:HG22	3:A:2273:LEU:H	1.86	0.40
3:A:2559:LEU:HD12	3:A:2559:LEU:H	1.85	0.40
3:A:2645:THR:O	3:A:2649:GLU:HG2	2.21	0.40
3:A:2710:LEU:HD12	3:A:2711:PRO:HD2	2.04	0.40
3:A:3874:VAL:HG11	3:A:3950:ASN:HD21	1.86	0.40
3:G:717:ASP:O	3:G:738:LEU:HD23	2.21	0.40
3:G:1237:TRP:CZ3	3:G:1652:GLU:HG3	2.57	0.40
3:G:1456:ASP:O	3:G:1491:ASN:HB2	2.21	0.40
3:G:2129:ASP:HB2	3:G:3669:PHE:CZ	2.57	0.40
3:G:2939:ARG:H	3:G:2939:ARG:HG3	1.63	0.40
3:G:3517:MET:HE3	3:G:3517:MET:HB3	1.90	0.40
3:G:3518:LEU:HD11	3:G:3606:LEU:HD22	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:G:3694:LYS:HE2	3:G:3694:LYS:HB3	1.96	0.40
3:G:4670:ILE:HD13	3:G:4670:ILE:HA	1.88	0.40
3:G:4823:LEU:HA	3:G:4823:LEU:HD23	1.84	0.40
3:G:5009:TYR:O	3:G:5012:LYS:HG2	2.22	0.40
3:J:20:VAL:HG23	3:J:203:ASN:C	2.47	0.40
3:J:73:LEU:HD12	3:J:73:LEU:HA	1.90	0.40
3:J:867:LEU:O	3:J:871:ARG:HB2	2.21	0.40
3:J:972:LEU:HD12	3:J:976:ARG:HA	2.04	0.40
3:J:1012:ASP:HB3	3:J:1017:ARG:HB2	2.03	0.40
3:J:2159:LEU:HD13	3:J:2203:MET:HB3	2.03	0.40
3:J:2768:PHE:O	3:J:2771:ILE:HG22	2.21	0.40
3:J:3150:HIS:CD2	3:J:3150:HIS:N	2.89	0.40
3:J:4172:GLU:HA	3:J:4172:GLU:OE1	2.21	0.40
3:C:419:ASP:HA	3:C:422:SER:HB2	2.02	0.40
3:C:1260:MET:HE2	3:C:1269:CYS:SG	2.62	0.40
3:C:1552:VAL:C	3:C:1553:PHE:HD1	2.29	0.40
3:C:2930:LEU:HB3	3:C:2935:TYR:HB2	2.04	0.40
3:C:2960:LEU:CB	3:C:3038:MET:HE1	2.47	0.40
3:C:4044:MET:HE2	3:C:4044:MET:HB3	1.86	0.40
1:B:105:ASN:HA	3:A:920:TYR:OH	2.22	0.40
3:A:645:ARG:HH12	3:A:689:THR:HG22	1.86	0.40
3:A:952:LYS:HD3	3:A:952:LYS:HA	1.90	0.40
3:A:2159:LEU:HD13	3:A:2203:MET:HB3	2.03	0.40
3:A:2189:LYS:HD2	3:A:2192:TYR:CD2	2.57	0.40
3:A:2308:GLN:HG2	3:A:2309:SER:N	2.37	0.40
3:A:3373:VAL:HG21	3:A:3444:TYR:HB3	2.03	0.40
3:A:3902:TYR:O	3:A:3906:GLN:HG3	2.22	0.40
3:A:4090:LYS:HB2	3:A:4090:LYS:HE3	1.90	0.40
1:H:9:GLY:HA3	1:H:123:VAL:HG22	2.02	0.40
3:G:43:GLY:HA2	3:G:443:LEU:HB2	2.03	0.40
3:G:867:LEU:O	3:G:871:ARG:HB2	2.21	0.40
3:G:2645:THR:O	3:G:2649:GLU:HG2	2.21	0.40
3:G:2768:PHE:O	3:G:2771:ILE:HG22	2.21	0.40
3:G:4220:ASP:O	3:G:4224:GLU:HB2	2.22	0.40
1:K:51:ILE:HD12	1:K:51:ILE:HA	1.91	0.40
3:J:637:LEU:HD23	3:J:637:LEU:HA	1.92	0.40
3:J:1683:HIS:CD2	3:J:1800:PRO:HG3	2.56	0.40
3:J:2095:GLN:HA	3:J:2127:GLN:NE2	2.37	0.40
3:J:2309:SER:HB2	3:J:2322:GLY:N	2.36	0.40
3:J:3373:VAL:HG21	3:J:3444:TYR:HB3	2.03	0.40
3:J:3593:VAL:HA	3:J:3596:VAL:HG12	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:J:4220:ASP:O	3:J:4224:GLU:HB2	2.22	0.40
3:J:4864:ASN:HB2	3:J:4874:MET:HE1	2.03	0.40
3:C:972:LEU:HD12	3:C:976:ARG:HA	2.04	0.40
3:C:1012:ASP:HB3	3:C:1017:ARG:HB2	2.03	0.40
3:C:2012:PHE:CE2	3:C:2028:ARG:HG3	2.57	0.40
3:C:2308:GLN:HG2	3:C:2309:SER:N	2.37	0.40
3:C:2559:LEU:H	3:C:2559:LEU:HD12	1.86	0.40
3:C:2582:MET:O	3:C:2586:VAL:HG23	2.21	0.40
3:C:2710:LEU:HD12	3:C:2711:PRO:HD2	2.04	0.40
3:C:2930:LEU:HA	3:C:2935:TYR:CD2	2.49	0.40
3:C:4219:PHE:CD1	3:C:4950:VAL:HG21	2.57	0.40
3:C:4860:ARG:HH11	3:A:4582:VAL:HG11	1.87	0.40
1:B:86:LYS:H	1:B:86:LYS:HG3	1.63	0.40
3:A:1470:ARG:HA	3:A:1470:ARG:HD3	1.75	0.40
3:A:2319:PRO:HD2	3:A:2418:LEU:HD11	2.03	0.40
3:A:2890:LYS:HB3	3:A:2905:LEU:HD21	2.03	0.40
3:A:3158:LEU:HA	3:A:3162:GLN:HG3	2.02	0.40
3:A:4179:GLY:HA3	3:A:4197:ILE:HD11	2.02	0.40
3:G:59:PRO:HA	3:G:60:PRO:HD3	1.86	0.40
3:G:688:LEU:HD11	3:G:775:GLY:HA3	2.03	0.40
3:G:2189:LYS:HD2	3:G:2192:TYR:CD2	2.57	0.40
3:G:2779:GLU:HA	3:G:2792:ARG:HG2	2.03	0.40
3:G:4076:ALA:O	3:G:4079:ASP:HB3	2.22	0.40
3:G:4219:PHE:CD1	3:G:4950:VAL:HG21	2.56	0.40
3:G:4934:GLY:HA2	3:G:4937:ILE:HB	2.03	0.40
3:J:670:GLU:HA	3:J:740:PRO:HB3	2.03	0.40
3:J:2295:LEU:HA	3:J:2298:VAL:HG12	2.03	0.40
3:J:2430:ILE:HG21	3:J:2502:MET:SD	2.61	0.40
3:J:2930:LEU:HA	3:J:2935:TYR:CD2	2.49	0.40
3:J:2992:GLU:O	3:J:2996:LYS:HG2	2.21	0.40
3:J:3096:PHE:CG	3:J:3161:VAL:HG13	2.56	0.40
3:J:4056:GLU:HG2	3:J:4166:LEU:HD13	2.04	0.40
3:J:4219:PHE:CD1	3:J:4950:VAL:HG21	2.57	0.40
3:J:4937:ILE:HD13	3:J:4937:ILE:HA	1.95	0.40
3:J:5000:GLU:HA	3:J:5003:HIS:ND1	2.36	0.40
1:D:86:LYS:H	1:D:86:LYS:HG3	1.63	0.40
3:C:471:LEU:HA	3:C:474:ARG:HE	1.86	0.40
3:C:645:ARG:HH12	3:C:689:THR:HG22	1.86	0.40
3:C:1427:ILE:HD13	3:C:1427:ILE:HA	1.93	0.40
3:C:1456:ASP:O	3:C:1491:ASN:HB2	2.21	0.40
3:C:3034:LYS:HA	3:C:3037:GLU:OE1	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:4017:LEU:HD22	3:C:4139:ILE:HG21	2.02	0.40
3:C:4746:ALA:O	3:C:4750:ILE:HG23	2.21	0.40
3:C:4935:LEU:HD23	3:C:4935:LEU:HA	1.89	0.40
1:B:1:GLN:O	1:B:3:GLN:HB2	2.22	0.40
1:B:51:ILE:HD12	1:B:51:ILE:HA	1.91	0.40
3:A:20:VAL:HG23	3:A:203:ASN:C	2.47	0.40
3:A:1683:HIS:CD2	3:A:1800:PRO:HG3	2.56	0.40
3:A:1803:PRO:HB2	3:A:1806:ALA:HB3	2.04	0.40
3:A:2430:ILE:HG21	3:A:2502:MET:SD	2.61	0.40
3:A:2779:GLU:HA	3:A:2792:ARG:HG2	2.03	0.40
3:A:3379:LEU:HD11	3:A:3390:GLY:C	2.46	0.40
3:A:4172:GLU:HA	3:A:4172:GLU:OE1	2.21	0.40
3:A:4219:PHE:CD1	3:A:4950:VAL:HG21	2.57	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	124/126 (98%)	115 (93%)	9 (7%)	0	100	100
1	D	124/126 (98%)	116 (94%)	8 (6%)	0	100	100
1	H	124/126 (98%)	116 (94%)	8 (6%)	0	100	100
1	K	124/126 (98%)	116 (94%)	8 (6%)	0	100	100
2	E	105/107 (98%)	98 (93%)	7 (7%)	0	100	100
2	F	105/107 (98%)	98 (93%)	7 (7%)	0	100	100
2	I	105/107 (98%)	98 (93%)	7 (7%)	0	100	100
2	L	105/107 (98%)	98 (93%)	7 (7%)	0	100	100
3	A	4276/5027 (85%)	4150 (97%)	126 (3%)	0	100	100
3	C	4276/5027 (85%)	4149 (97%)	127 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	G	4276/5027 (85%)	4149 (97%)	127 (3%)	0	100	100
3	J	4276/5027 (85%)	4149 (97%)	127 (3%)	0	100	100
All	All	18020/21040 (86%)	17452 (97%)	568 (3%)	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 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	B	104/104 (100%)	100 (96%)	4 (4%)	29	57
1	D	104/104 (100%)	100 (96%)	4 (4%)	29	57
1	H	104/104 (100%)	100 (96%)	4 (4%)	29	57
1	K	104/104 (100%)	100 (96%)	4 (4%)	29	57
2	E	88/88 (100%)	87 (99%)	1 (1%)	65	76
2	F	88/88 (100%)	87 (99%)	1 (1%)	65	76
2	I	88/88 (100%)	87 (99%)	1 (1%)	65	76
2	L	88/88 (100%)	87 (99%)	1 (1%)	65	76
3	A	3670/4270 (86%)	3643 (99%)	27 (1%)	76	80
3	C	3670/4270 (86%)	3642 (99%)	28 (1%)	73	79
3	G	3670/4270 (86%)	3642 (99%)	28 (1%)	73	79
3	J	3670/4270 (86%)	3644 (99%)	26 (1%)	76	80
All	All	15448/17848 (87%)	15319 (99%)	129 (1%)	70	79

All (129) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	H	22	CYS
1	H	47	LEU
1	H	79	TYR
1	H	82	MET

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Mol	Chain	Res	Type
2	I	23	VAL
3	G	182	LEU
3	G	266	ARG
3	G	791	PHE
3	G	867	LEU
3	G	896	VAL
3	G	1124	PHE
3	G	1235	THR
3	G	1492	CYS
3	G	1500	PHE
3	G	1509	ILE
3	G	1736	VAL
3	G	2128	TYR
3	G	2267	MET
3	G	2280	VAL
3	G	2457	LEU
3	G	2611	CYS
3	G	2906	VAL
3	G	2991	HIS
3	G	3157	ILE
3	G	3197	LEU
3	G	3285	TRP
3	G	3312	LEU
3	G	3381	LEU
3	G	3552	PHE
3	G	4580	TYR
3	G	4771	ILE
3	G	4927	ILE
3	G	5013	MET
1	K	22	CYS
1	K	47	LEU
1	K	79	TYR
1	K	82	MET
2	L	23	VAL
3	J	182	LEU
3	J	266	ARG
3	J	791	PHE
3	J	867	LEU
3	J	896	VAL
3	J	1124	PHE
3	J	1235	THR
3	J	1492	CYS

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Mol	Chain	Res	Type
3	J	1509	ILE
3	J	1736	VAL
3	J	2128	TYR
3	J	2267	MET
3	J	2280	VAL
3	J	2457	LEU
3	J	2611	CYS
3	J	2906	VAL
3	J	2991	HIS
3	J	3157	ILE
3	J	3197	LEU
3	J	3285	TRP
3	J	3312	LEU
3	J	3381	LEU
3	J	3552	PHE
3	J	4580	TYR
3	J	4927	ILE
3	J	5013	MET
1	D	22	CYS
1	D	47	LEU
1	D	79	TYR
1	D	82	MET
2	E	23	VAL
3	C	182	LEU
3	C	266	ARG
3	C	759	ILE
3	C	791	PHE
3	C	867	LEU
3	C	896	VAL
3	C	1124	PHE
3	C	1235	THR
3	C	1492	CYS
3	C	1500	PHE
3	C	1509	ILE
3	C	1736	VAL
3	C	2128	TYR
3	C	2267	MET
3	C	2280	VAL
3	C	2457	LEU
3	C	2611	CYS
3	C	2906	VAL
3	C	2991	HIS

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Mol	Chain	Res	Type
3	C	3157	ILE
3	C	3197	LEU
3	C	3285	TRP
3	C	3312	LEU
3	C	3381	LEU
3	C	3552	PHE
3	C	3899	PHE
3	C	4580	TYR
3	C	5013	MET
1	B	22	CYS
1	B	47	LEU
1	B	79	TYR
1	B	82	MET
2	F	23	VAL
3	A	182	LEU
3	A	266	ARG
3	A	791	PHE
3	A	867	LEU
3	A	896	VAL
3	A	1124	PHE
3	A	1235	THR
3	A	1492	CYS
3	A	1500	PHE
3	A	1509	ILE
3	A	1736	VAL
3	A	1944	GLU
3	A	2128	TYR
3	A	2267	MET
3	A	2280	VAL
3	A	2457	LEU
3	A	2611	CYS
3	A	2906	VAL
3	A	2991	HIS
3	A	3157	ILE
3	A	3197	LEU
3	A	3285	TRP
3	A	3312	LEU
3	A	3381	LEU
3	A	3552	PHE
3	A	4580	TYR
3	A	5013	MET

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (156)

such sidechains are listed below:

Mol	Chain	Res	Type
1	H	119	GLN
1	H	122	GLN
2	I	25	HIS
2	I	31	GLN
2	I	94	ASN
3	G	98	HIS
3	G	151	HIS
3	G	226	HIS
3	G	579	GLN
3	G	921	ASN
3	G	991	ASN
3	G	1011	GLN
3	G	1052	ASN
3	G	1066	GLN
3	G	1201	HIS
3	G	1203	ASN
3	G	1274	HIS
3	G	1614	GLN
3	G	1631	GLN
3	G	1861	GLN
3	G	2169	GLN
3	G	2213	ASN
3	G	2441	HIS
3	G	2487	GLN
3	G	2574	HIS
3	G	2772	GLN
3	G	2877	GLN
3	G	2971	GLN
3	G	3180	ASN
3	G	3325	ASN
3	G	3998	HIS
3	G	4246	GLN
3	G	4700	GLN
3	G	4946	GLN
3	G	4973	HIS
1	K	119	GLN
1	K	122	GLN
2	L	25	HIS
2	L	31	GLN
2	L	94	ASN
3	J	98	HIS
3	J	151	HIS

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Mol	Chain	Res	Type
3	J	226	HIS
3	J	394	GLN
3	J	461	HIS
3	J	579	GLN
3	J	921	ASN
3	J	923	GLN
3	J	991	ASN
3	J	1011	GLN
3	J	1052	ASN
3	J	1066	GLN
3	J	1203	ASN
3	J	1274	HIS
3	J	1614	GLN
3	J	1631	GLN
3	J	1861	GLN
3	J	2169	GLN
3	J	2441	HIS
3	J	2487	GLN
3	J	2574	HIS
3	J	2772	GLN
3	J	2877	GLN
3	J	2971	GLN
3	J	3180	ASN
3	J	3325	ASN
3	J	3418	ASN
3	J	3869	GLN
3	J	3998	HIS
3	J	4034	ASN
3	J	4246	GLN
3	J	4857	ASN
3	J	4946	GLN
3	J	4973	HIS
3	J	5003	HIS
1	D	119	GLN
1	D	122	GLN
2	E	31	GLN
2	E	94	ASN
3	C	98	HIS
3	C	151	HIS
3	C	226	HIS
3	C	394	GLN
3	C	461	HIS

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Mol	Chain	Res	Type
3	C	579	GLN
3	C	812	HIS
3	C	919	ASN
3	C	921	ASN
3	C	991	ASN
3	C	1011	GLN
3	C	1052	ASN
3	C	1066	GLN
3	C	1203	ASN
3	C	1274	HIS
3	C	1614	GLN
3	C	1631	GLN
3	C	1861	GLN
3	C	1928	GLN
3	C	2169	GLN
3	C	2441	HIS
3	C	2487	GLN
3	C	2574	HIS
3	C	2877	GLN
3	C	2971	GLN
3	C	3180	ASN
3	C	3325	ASN
3	C	3998	HIS
3	C	4034	ASN
3	C	4216	GLN
3	C	4246	GLN
3	C	4700	GLN
3	C	4946	GLN
3	C	4973	HIS
3	C	5003	HIS
1	B	119	GLN
1	B	122	GLN
2	F	31	GLN
2	F	94	ASN
3	A	98	HIS
3	A	226	HIS
3	A	394	GLN
3	A	461	HIS
3	A	579	GLN
3	A	812	HIS
3	A	848	HIS
3	A	921	ASN

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Mol	Chain	Res	Type
3	A	981	GLN
3	A	991	ASN
3	A	1011	GLN
3	A	1052	ASN
3	A	1066	GLN
3	A	1201	HIS
3	A	1203	ASN
3	A	1274	HIS
3	A	1614	GLN
3	A	1631	GLN
3	A	1691	GLN
3	A	1861	GLN
3	A	1928	GLN
3	A	2169	GLN
3	A	2441	HIS
3	A	2487	GLN
3	A	2574	HIS
3	A	2772	GLN
3	A	2877	GLN
3	A	2971	GLN
3	A	3180	ASN
3	A	3325	ASN
3	A	3860	ASN
3	A	3998	HIS
3	A	4216	GLN
3	A	4246	GLN
3	A	4700	GLN
3	A	4857	ASN
3	A	4946	GLN
3	A	4973	HIS

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 [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 40 ligands modelled in this entry, 8 are monoatomic - leaving 32 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	$\# Z > 2$
8	POV	C	5106	-	35,35,51	0.61	0	41,43,59	0.58	0
8	POV	C	5107	-	12,12,51	0.20	0	11,11,59	0.28	0
5	ATP	A	5102	-	32,33,33	0.53	0	48,52,52	0.39	0
8	POV	G	5108	-	12,12,51	0.20	0	11,11,59	0.28	0
8	POV	J	5107	-	35,35,51	0.61	0	41,43,59	0.58	0
8	POV	C	5110	-	12,12,51	0.20	0	11,11,59	0.28	0
6	CFF	G	5103	-	15,15,15	0.72	0	23,23,23	0.78	1 (4%)
6	CFF	J	5104	-	15,15,15	0.72	0	23,23,23	0.78	1 (4%)
8	POV	A	5106	-	35,35,51	0.61	0	41,43,59	0.58	0
8	POV	G	5107	-	44,44,51	0.53	0	50,52,59	0.51	1 (2%)
5	ATP	G	5102	-	32,33,33	0.53	0	48,52,52	0.39	0
6	CFF	C	5103	-	15,15,15	0.72	0	23,23,23	0.78	1 (4%)
8	POV	J	5109	-	37,37,51	0.59	0	43,45,59	0.52	0
5	ATP	C	5102	-	32,33,33	0.53	0	48,52,52	0.39	0
6	CFF	A	5103	-	15,15,15	0.72	0	23,23,23	0.78	1 (4%)
5	ATP	J	5103	-	32,33,33	0.53	0	48,52,52	0.39	0
8	POV	J	5108	-	44,44,51	0.53	0	50,52,59	0.51	1 (2%)
8	POV	C	5109	-	28,28,51	0.65	0	34,36,59	0.64	0
8	POV	J	5110	-	28,28,51	0.65	0	34,36,59	0.64	0
8	POV	A	5109	-	37,37,51	0.59	0	43,45,59	0.52	0
8	POV	G	5109	-	37,37,51	0.59	0	43,45,59	0.52	0
8	POV	A	5105	-	33,33,51	0.60	0	39,41,59	0.50	0
8	POV	G	5105	-	33,33,51	0.60	0	39,41,59	0.50	0
8	POV	J	5101	-	44,44,51	0.53	0	50,52,59	0.51	1 (2%)
8	POV	A	5108	-	12,12,51	0.20	0	11,11,59	0.28	0
8	POV	C	5105	-	33,33,51	0.60	0	39,41,59	0.50	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
8	POV	J	5106	-	33,33,51	0.60	0	39,41,59	0.50	0
8	POV	C	5108	-	37,37,51	0.59	0	43,45,59	0.52	0
8	POV	A	5110	-	28,28,51	0.65	0	34,36,59	0.64	0
8	POV	G	5110	-	28,28,51	0.65	0	34,36,59	0.64	0
8	POV	A	5107	-	44,44,51	0.53	0	50,52,59	0.51	1 (2%)
8	POV	G	5106	-	35,35,51	0.61	0	41,43,59	0.58	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
8	POV	C	5106	-	-	10/39/39/55	-
8	POV	C	5107	-	-	2/10/10/55	-
5	ATP	A	5102	-	-	2/22/38/38	0/3/3/3
8	POV	G	5108	-	-	2/10/10/55	-
8	POV	J	5107	-	-	10/39/39/55	-
8	POV	C	5110	-	-	2/10/10/55	-
6	CFF	G	5103	-	-	-	0/2/2/2
6	CFF	J	5104	-	-	-	0/2/2/2
8	POV	A	5106	-	-	10/39/39/55	-
8	POV	G	5107	-	-	12/48/48/55	-
5	ATP	G	5102	-	-	2/22/38/38	0/3/3/3
8	POV	J	5109	-	-	16/41/41/55	-
6	CFF	C	5103	-	-	-	0/2/2/2
5	ATP	C	5102	-	-	2/22/38/38	0/3/3/3
6	CFF	A	5103	-	-	-	0/2/2/2
5	ATP	J	5103	-	-	2/22/38/38	0/3/3/3
8	POV	J	5108	-	-	12/48/48/55	-
8	POV	C	5109	-	-	9/32/32/55	-
8	POV	J	5110	-	-	9/32/32/55	-
8	POV	A	5109	-	-	16/41/41/55	-
8	POV	G	5109	-	-	16/41/41/55	-
8	POV	A	5105	-	-	9/37/37/55	-
8	POV	G	5105	-	-	9/37/37/55	-
8	POV	J	5101	-	-	12/48/48/55	-
8	POV	A	5108	-	-	2/10/10/55	-

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
8	POV	C	5105	-	-	9/37/37/55	-
8	POV	J	5106	-	-	9/37/37/55	-
8	POV	C	5108	-	-	16/41/41/55	-
8	POV	A	5110	-	-	9/32/32/55	-
8	POV	G	5110	-	-	9/32/32/55	-
8	POV	A	5107	-	-	12/48/48/55	-
8	POV	G	5106	-	-	10/39/39/55	-

There are no bond length outliers.

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	G	5103	CFF	C12-N3-C2	2.65	121.95	117.33
6	J	5104	CFF	C12-N3-C2	2.65	121.95	117.33
6	A	5103	CFF	C12-N3-C2	2.65	121.95	117.33
6	C	5103	CFF	C12-N3-C2	2.65	121.94	117.33
8	G	5107	POV	O13-P-O14	2.02	121.82	112.44
8	J	5101	POV	O13-P-O14	2.02	121.82	112.44
8	J	5108	POV	O13-P-O14	2.02	121.82	112.44
8	A	5107	POV	O13-P-O14	2.01	121.82	112.44

There are no chirality outliers.

All (240) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
8	G	5105	POV	C11-O12-P-O11
8	G	5105	POV	O22-C21-O21-C2
8	G	5106	POV	C1-O11-P-O12
8	G	5106	POV	C1-O11-P-O13
8	G	5106	POV	C1-O11-P-O14
8	G	5106	POV	C11-O12-P-O13
8	G	5106	POV	C12-C11-O12-P
8	G	5107	POV	C1-O11-P-O12
8	G	5107	POV	C1-O11-P-O13
8	G	5107	POV	C11-O12-P-O11
8	G	5107	POV	C11-O12-P-O14
8	G	5107	POV	O12-C11-C12-N
8	G	5107	POV	O22-C21-O21-C2
8	G	5109	POV	C1-O11-P-O13

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Mol	Chain	Res	Type	Atoms
8	G	5109	POV	C11-O12-P-O11
8	G	5109	POV	C11-O12-P-O14
8	G	5110	POV	C1-O11-P-O12
8	G	5110	POV	C1-O11-P-O13
8	G	5110	POV	C1-O11-P-O14
8	G	5110	POV	C11-O12-P-O11
8	G	5110	POV	O12-C11-C12-N
8	J	5101	POV	C1-O11-P-O12
8	J	5101	POV	C1-O11-P-O13
8	J	5101	POV	C11-O12-P-O11
8	J	5101	POV	C11-O12-P-O14
8	J	5101	POV	O12-C11-C12-N
8	J	5101	POV	O22-C21-O21-C2
8	J	5106	POV	C11-O12-P-O11
8	J	5106	POV	O22-C21-O21-C2
8	J	5107	POV	C1-O11-P-O12
8	J	5107	POV	C1-O11-P-O13
8	J	5107	POV	C1-O11-P-O14
8	J	5107	POV	C11-O12-P-O13
8	J	5107	POV	C12-C11-O12-P
8	J	5108	POV	C1-O11-P-O12
8	J	5108	POV	C1-O11-P-O13
8	J	5108	POV	C11-O12-P-O11
8	J	5108	POV	C11-O12-P-O14
8	J	5108	POV	O12-C11-C12-N
8	J	5108	POV	O22-C21-O21-C2
8	J	5109	POV	C1-O11-P-O13
8	J	5109	POV	C11-O12-P-O11
8	J	5109	POV	C11-O12-P-O14
8	J	5110	POV	C1-O11-P-O12
8	J	5110	POV	C1-O11-P-O13
8	J	5110	POV	C1-O11-P-O14
8	J	5110	POV	C11-O12-P-O11
8	J	5110	POV	O12-C11-C12-N
8	C	5105	POV	C11-O12-P-O11
8	C	5105	POV	O22-C21-O21-C2
8	C	5106	POV	C1-O11-P-O12
8	C	5106	POV	C1-O11-P-O13
8	C	5106	POV	C1-O11-P-O14
8	C	5106	POV	C11-O12-P-O13
8	C	5106	POV	C12-C11-O12-P
8	C	5108	POV	C1-O11-P-O13

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Mol	Chain	Res	Type	Atoms
8	C	5108	POV	C11-O12-P-O11
8	C	5108	POV	C11-O12-P-O14
8	C	5109	POV	C1-O11-P-O12
8	C	5109	POV	C1-O11-P-O13
8	C	5109	POV	C1-O11-P-O14
8	C	5109	POV	C11-O12-P-O11
8	C	5109	POV	O12-C11-C12-N
8	A	5105	POV	C11-O12-P-O11
8	A	5105	POV	O22-C21-O21-C2
8	A	5106	POV	C1-O11-P-O12
8	A	5106	POV	C1-O11-P-O13
8	A	5106	POV	C1-O11-P-O14
8	A	5106	POV	C11-O12-P-O13
8	A	5106	POV	C12-C11-O12-P
8	A	5107	POV	C1-O11-P-O12
8	A	5107	POV	C1-O11-P-O13
8	A	5107	POV	C11-O12-P-O11
8	A	5107	POV	C11-O12-P-O14
8	A	5107	POV	O12-C11-C12-N
8	A	5107	POV	O22-C21-O21-C2
8	A	5109	POV	C1-O11-P-O13
8	A	5109	POV	C11-O12-P-O11
8	A	5109	POV	C11-O12-P-O14
8	A	5110	POV	C1-O11-P-O12
8	A	5110	POV	C1-O11-P-O13
8	A	5110	POV	C1-O11-P-O14
8	A	5110	POV	C11-O12-P-O11
8	A	5110	POV	O12-C11-C12-N
8	G	5105	POV	C22-C21-O21-C2
8	G	5107	POV	C22-C21-O21-C2
8	J	5101	POV	C22-C21-O21-C2
8	J	5106	POV	C22-C21-O21-C2
8	J	5108	POV	C22-C21-O21-C2
8	C	5105	POV	C22-C21-O21-C2
8	A	5105	POV	C22-C21-O21-C2
8	A	5107	POV	C22-C21-O21-C2
8	G	5108	POV	C211-C212-C213-C214
8	C	5107	POV	C211-C212-C213-C214
8	C	5110	POV	C211-C212-C213-C214
8	A	5108	POV	C211-C212-C213-C214
8	G	5109	POV	C26-C27-C28-C29
8	J	5109	POV	C26-C27-C28-C29

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Mol	Chain	Res	Type	Atoms
8	C	5108	POV	C26-C27-C28-C29
8	A	5109	POV	C26-C27-C28-C29
8	G	5105	POV	C32-C31-O31-C3
8	J	5106	POV	C32-C31-O31-C3
8	C	5105	POV	C32-C31-O31-C3
8	A	5105	POV	C32-C31-O31-C3
8	G	5109	POV	C32-C31-O31-C3
8	J	5109	POV	C32-C31-O31-C3
8	C	5108	POV	C32-C31-O31-C3
8	A	5109	POV	C32-C31-O31-C3
8	G	5109	POV	C25-C26-C27-C28
8	J	5109	POV	C25-C26-C27-C28
8	C	5108	POV	C25-C26-C27-C28
8	A	5109	POV	C25-C26-C27-C28
8	G	5105	POV	O32-C31-O31-C3
8	J	5106	POV	O32-C31-O31-C3
8	C	5105	POV	O32-C31-O31-C3
8	A	5105	POV	O32-C31-O31-C3
8	G	5109	POV	O32-C31-O31-C3
8	J	5109	POV	O32-C31-O31-C3
8	C	5108	POV	O32-C31-O31-C3
8	A	5109	POV	O32-C31-O31-C3
8	G	5109	POV	O11-C1-C2-C3
8	J	5109	POV	O11-C1-C2-C3
8	C	5108	POV	O11-C1-C2-C3
8	A	5109	POV	O11-C1-C2-C3
8	G	5109	POV	O11-C1-C2-O21
8	J	5109	POV	O11-C1-C2-O21
8	C	5108	POV	O11-C1-C2-O21
8	A	5109	POV	O11-C1-C2-O21
8	G	5109	POV	C12-C11-O12-P
8	J	5109	POV	C12-C11-O12-P
8	C	5108	POV	C12-C11-O12-P
8	A	5109	POV	C12-C11-O12-P
8	G	5105	POV	C11-O12-P-O14
8	G	5107	POV	C11-O12-P-O13
8	G	5109	POV	C1-O11-P-O12
8	G	5109	POV	C11-O12-P-O13
8	G	5110	POV	C11-O12-P-O14
8	J	5101	POV	C11-O12-P-O13
8	J	5106	POV	C11-O12-P-O14
8	J	5108	POV	C11-O12-P-O13

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Mol	Chain	Res	Type	Atoms
8	J	5109	POV	C1-O11-P-O12
8	J	5109	POV	C11-O12-P-O13
8	J	5110	POV	C11-O12-P-O14
8	C	5105	POV	C11-O12-P-O14
8	C	5108	POV	C1-O11-P-O12
8	C	5108	POV	C11-O12-P-O13
8	C	5109	POV	C11-O12-P-O14
8	A	5105	POV	C11-O12-P-O14
8	A	5107	POV	C11-O12-P-O13
8	A	5109	POV	C1-O11-P-O12
8	A	5109	POV	C11-O12-P-O13
8	A	5110	POV	C11-O12-P-O14
8	G	5106	POV	C2-C1-O11-P
8	J	5107	POV	C2-C1-O11-P
8	C	5106	POV	C2-C1-O11-P
8	A	5106	POV	C2-C1-O11-P
8	G	5106	POV	O11-C1-C2-O21
8	J	5107	POV	O11-C1-C2-O21
8	C	5106	POV	O11-C1-C2-O21
8	A	5106	POV	O11-C1-C2-O21
5	G	5102	ATP	O4'-C1'-N9-C8
5	J	5103	ATP	O4'-C1'-N9-C8
5	C	5102	ATP	O4'-C1'-N9-C8
5	A	5102	ATP	O4'-C1'-N9-C8
5	G	5102	ATP	O4'-C1'-N9-C4
5	J	5103	ATP	O4'-C1'-N9-C4
5	C	5102	ATP	O4'-C1'-N9-C4
5	A	5102	ATP	O4'-C1'-N9-C4
8	G	5106	POV	O22-C21-O21-C2
8	J	5107	POV	O22-C21-O21-C2
8	C	5106	POV	O22-C21-O21-C2
8	A	5106	POV	O22-C21-O21-C2
8	G	5105	POV	C25-C26-C27-C28
8	J	5106	POV	C25-C26-C27-C28
8	C	5105	POV	C25-C26-C27-C28
8	A	5105	POV	C25-C26-C27-C28
8	G	5106	POV	C22-C21-O21-C2
8	J	5107	POV	C22-C21-O21-C2
8	C	5106	POV	C22-C21-O21-C2
8	A	5106	POV	C22-C21-O21-C2
8	G	5107	POV	C214-C215-C216-C217
8	J	5101	POV	C214-C215-C216-C217

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Mol	Chain	Res	Type	Atoms
8	J	5108	POV	C214-C215-C216-C217
8	A	5107	POV	C214-C215-C216-C217
8	G	5109	POV	C21-C22-C23-C24
8	J	5109	POV	C21-C22-C23-C24
8	A	5109	POV	C21-C22-C23-C24
8	C	5108	POV	C21-C22-C23-C24
8	G	5108	POV	C26-C27-C28-C29
8	C	5107	POV	C26-C27-C28-C29
8	C	5110	POV	C26-C27-C28-C29
8	A	5108	POV	C26-C27-C28-C29
8	G	5110	POV	C11-C12-N-C13
8	J	5110	POV	C11-C12-N-C13
8	C	5109	POV	C11-C12-N-C13
8	A	5110	POV	C11-C12-N-C13
8	G	5110	POV	C11-C12-N-C15
8	J	5110	POV	C11-C12-N-C15
8	C	5109	POV	C11-C12-N-C15
8	A	5110	POV	C11-C12-N-C15
8	G	5107	POV	C29-C210-C211-C212
8	J	5101	POV	C29-C210-C211-C212
8	J	5108	POV	C29-C210-C211-C212
8	A	5107	POV	C29-C210-C211-C212
8	G	5110	POV	C11-C12-N-C14
8	J	5110	POV	C11-C12-N-C14
8	C	5109	POV	C11-C12-N-C14
8	A	5110	POV	C11-C12-N-C14
8	G	5109	POV	O21-C2-C3-O31
8	J	5109	POV	O21-C2-C3-O31
8	C	5108	POV	O21-C2-C3-O31
8	A	5109	POV	O21-C2-C3-O31
8	G	5106	POV	O11-C1-C2-C3
8	J	5107	POV	O11-C1-C2-C3
8	C	5106	POV	O11-C1-C2-C3
8	A	5106	POV	O11-C1-C2-C3
8	G	5105	POV	O31-C31-C32-C33
8	J	5106	POV	O31-C31-C32-C33
8	C	5105	POV	O31-C31-C32-C33
8	A	5105	POV	O31-C31-C32-C33
8	G	5109	POV	C1-C2-C3-O31
8	J	5109	POV	C1-C2-C3-O31
8	C	5108	POV	C1-C2-C3-O31
8	A	5109	POV	C1-C2-C3-O31

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Mol	Chain	Res	Type	Atoms
8	G	5107	POV	O21-C21-C22-C23
8	J	5101	POV	O21-C21-C22-C23
8	J	5108	POV	O21-C21-C22-C23
8	A	5107	POV	O21-C21-C22-C23
8	G	5105	POV	O32-C31-C32-C33
8	J	5106	POV	O32-C31-C32-C33
8	C	5105	POV	O32-C31-C32-C33
8	A	5105	POV	O32-C31-C32-C33
8	G	5109	POV	C27-C28-C29-C210
8	J	5109	POV	C27-C28-C29-C210
8	C	5108	POV	C27-C28-C29-C210
8	A	5109	POV	C27-C28-C29-C210
8	G	5107	POV	C33-C34-C35-C36
8	J	5101	POV	C33-C34-C35-C36
8	J	5108	POV	C33-C34-C35-C36
8	A	5107	POV	C33-C34-C35-C36

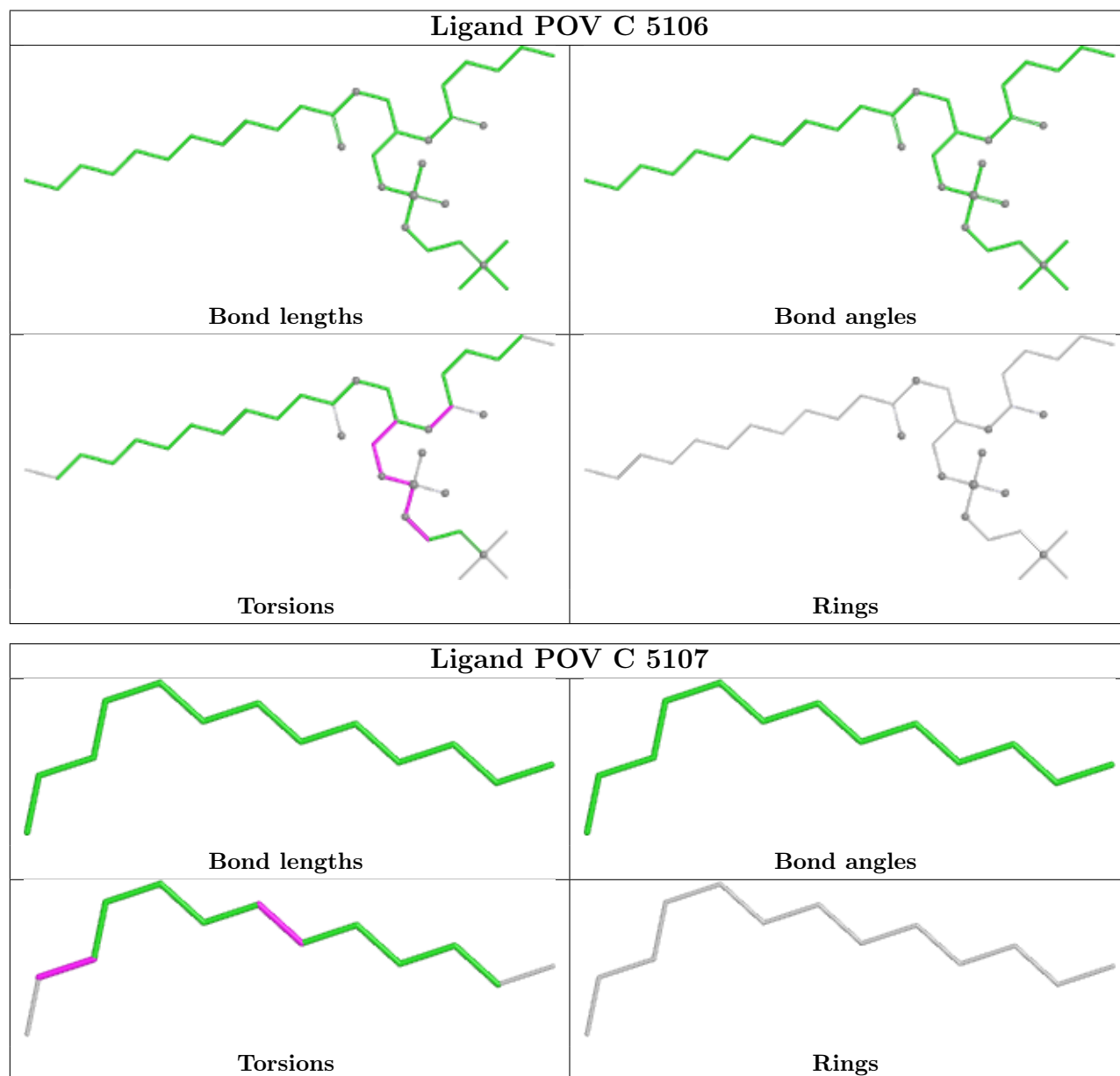
There are no ring outliers.

16 monomers are involved in 25 short contacts:

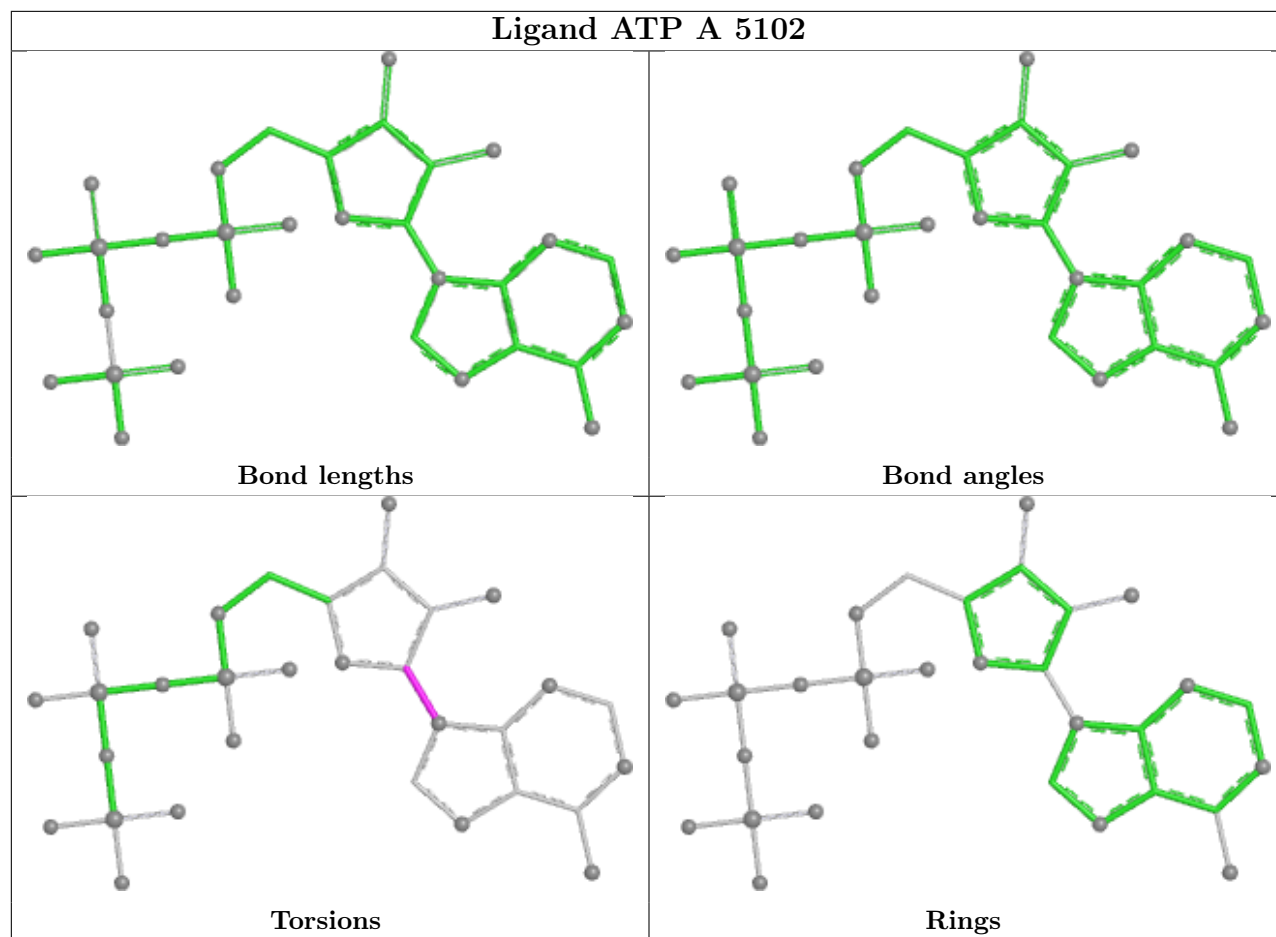
Mol	Chain	Res	Type	Clashes	Symm-Clashes
8	C	5106	POV	2	0
8	C	5107	POV	1	0
8	G	5108	POV	1	0
8	J	5107	POV	2	0
8	C	5110	POV	1	0
8	A	5106	POV	2	0
8	G	5107	POV	2	0
8	J	5108	POV	2	0
8	C	5109	POV	1	0
8	J	5101	POV	3	0
8	A	5108	POV	1	0
8	C	5108	POV	1	0
8	A	5110	POV	1	0
8	G	5110	POV	1	0
8	A	5107	POV	2	0
8	G	5106	POV	2	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

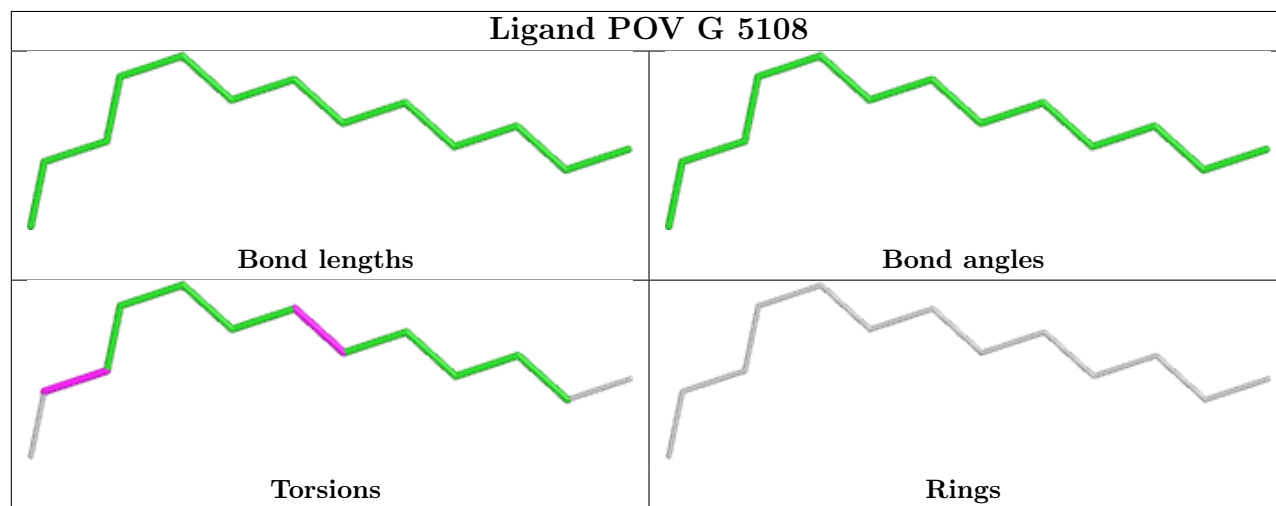
within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question 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.

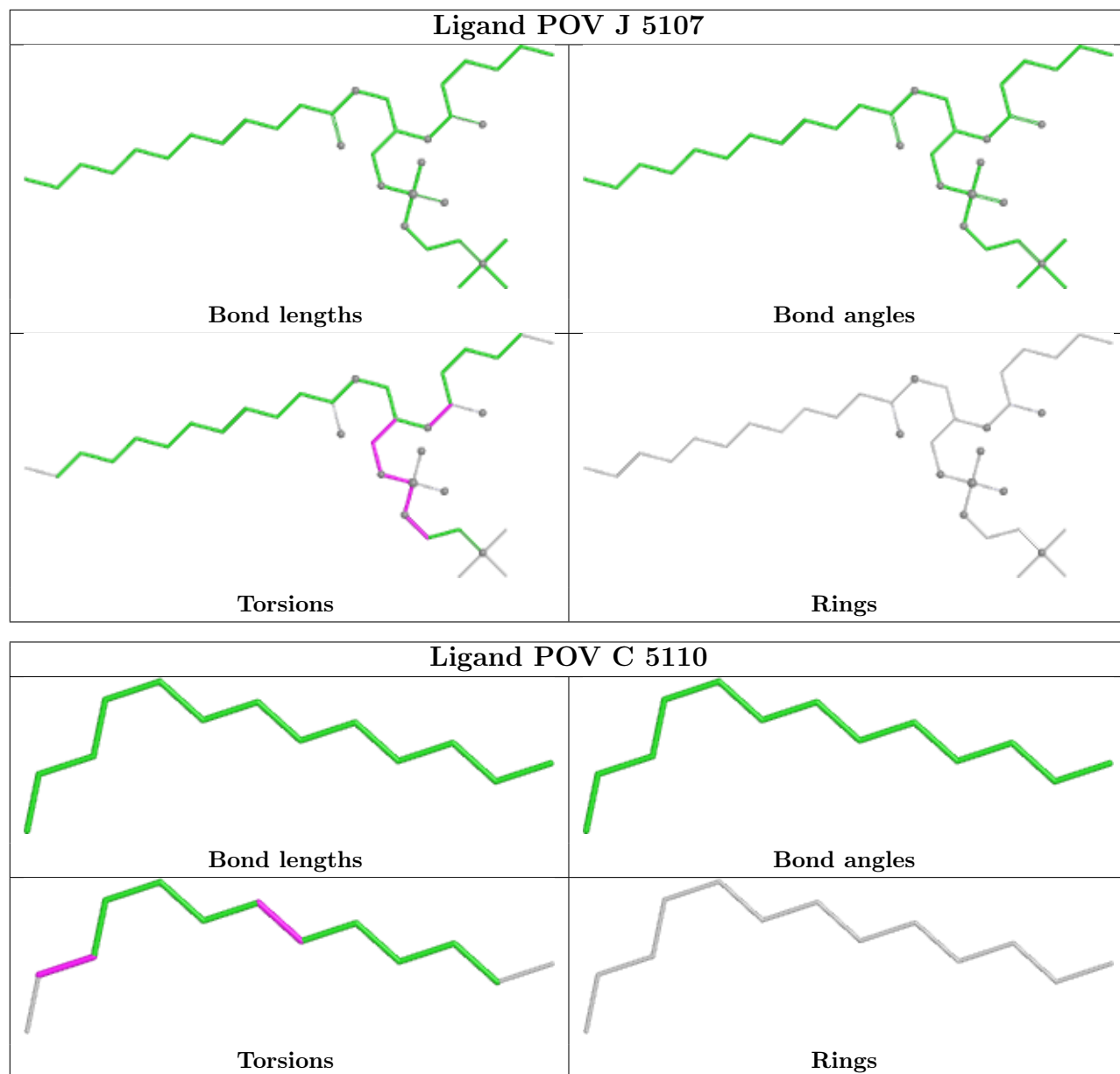


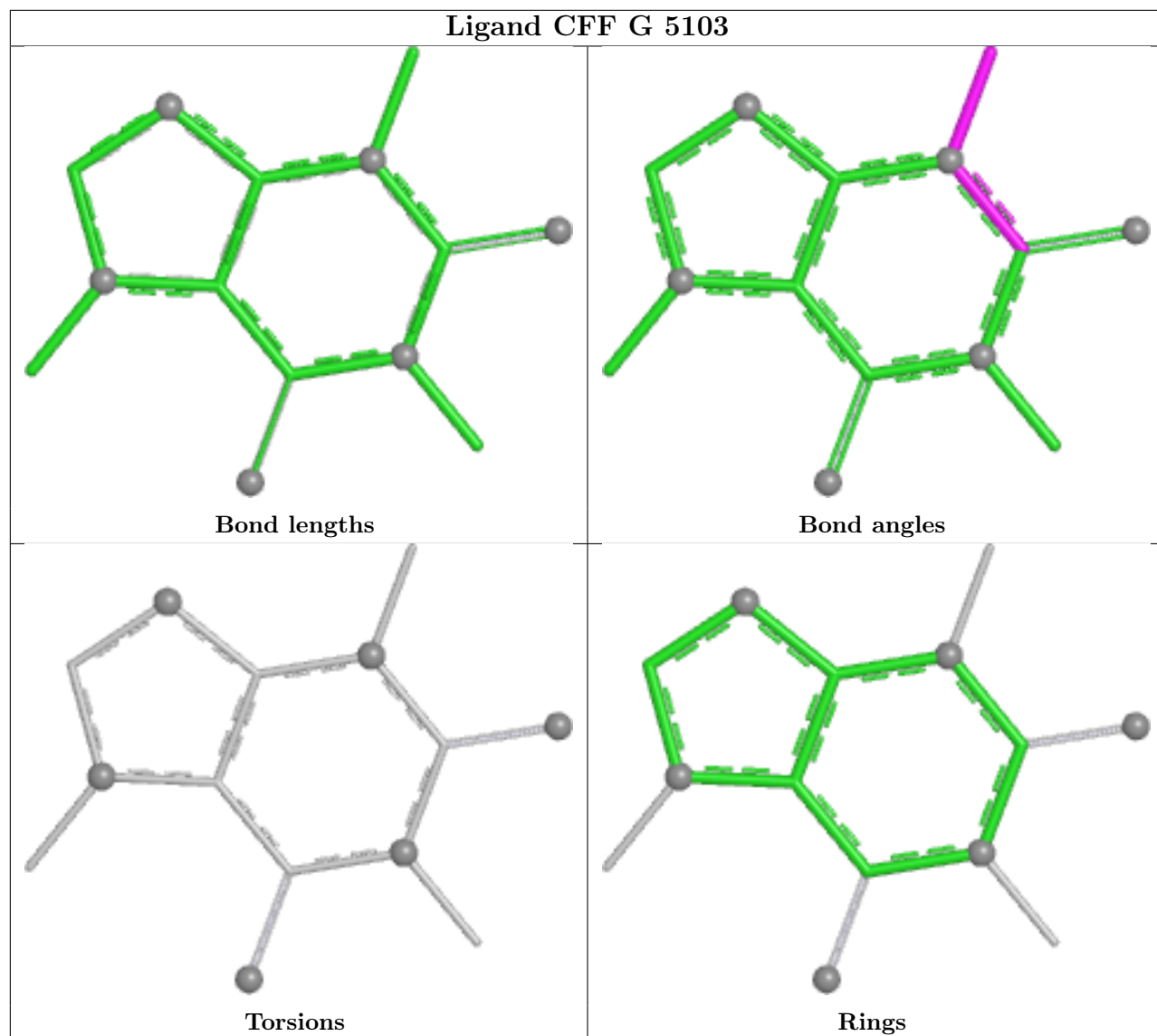
Ligand ATP A 5102

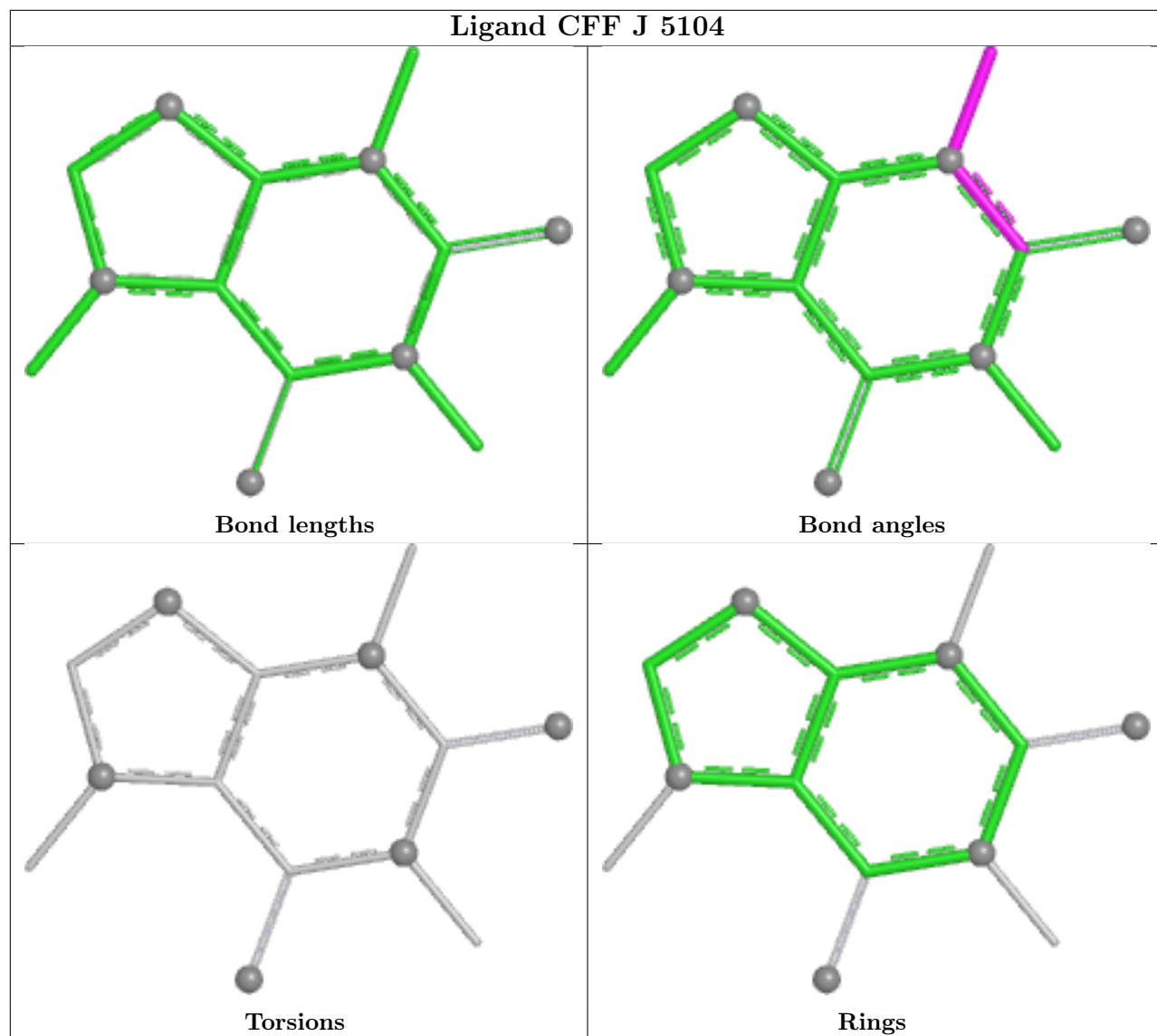


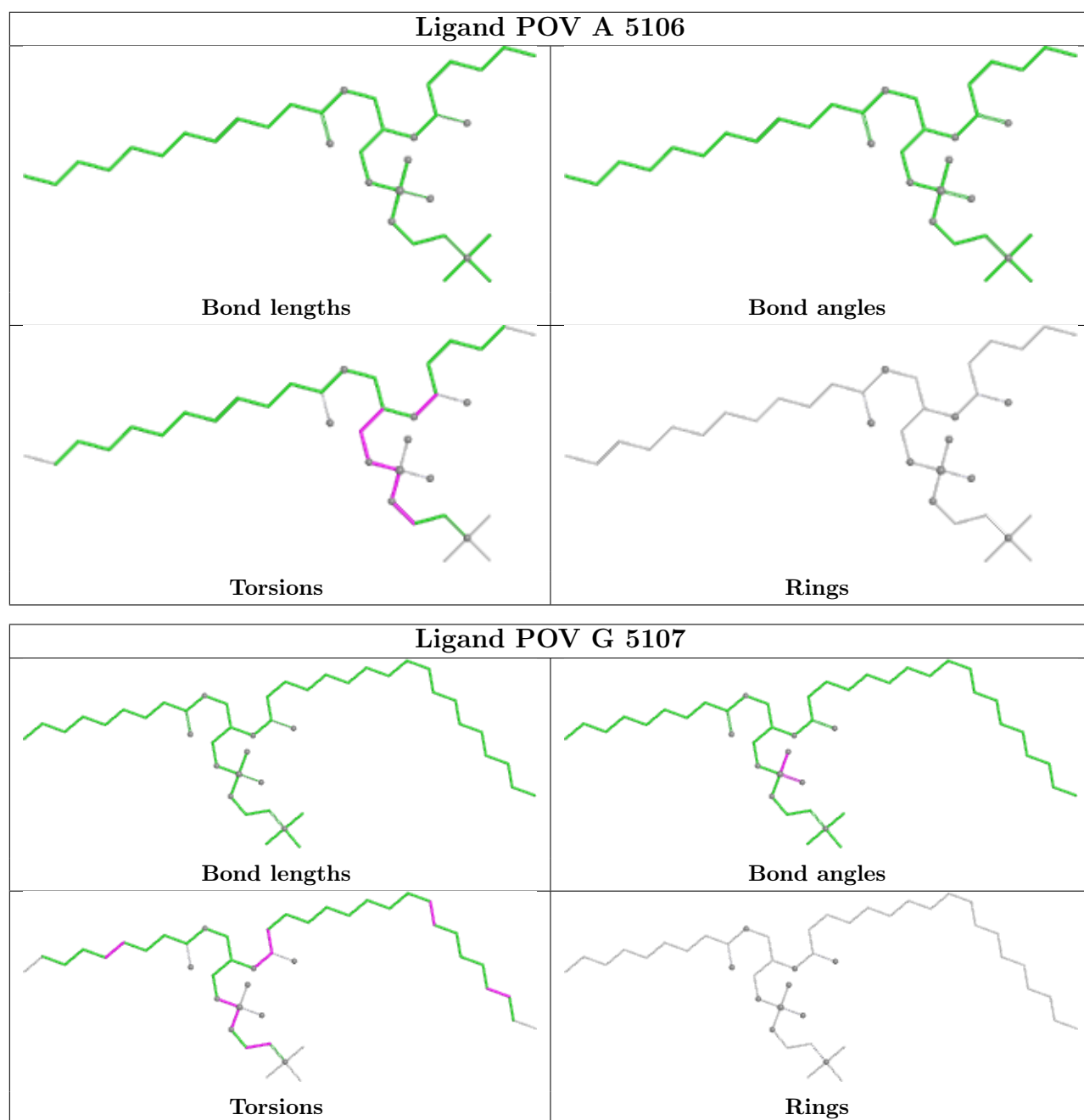
Ligand POV G 5108

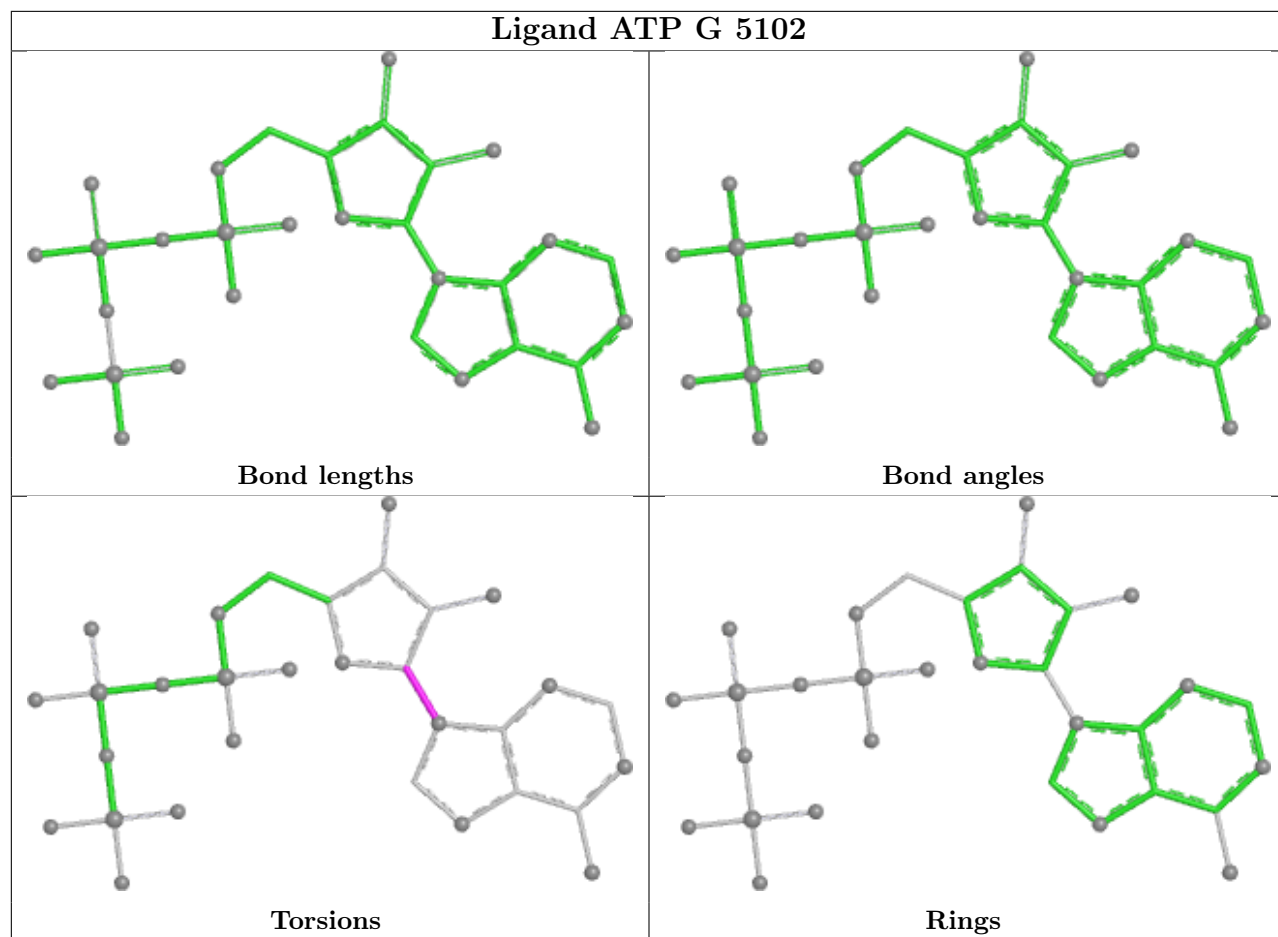


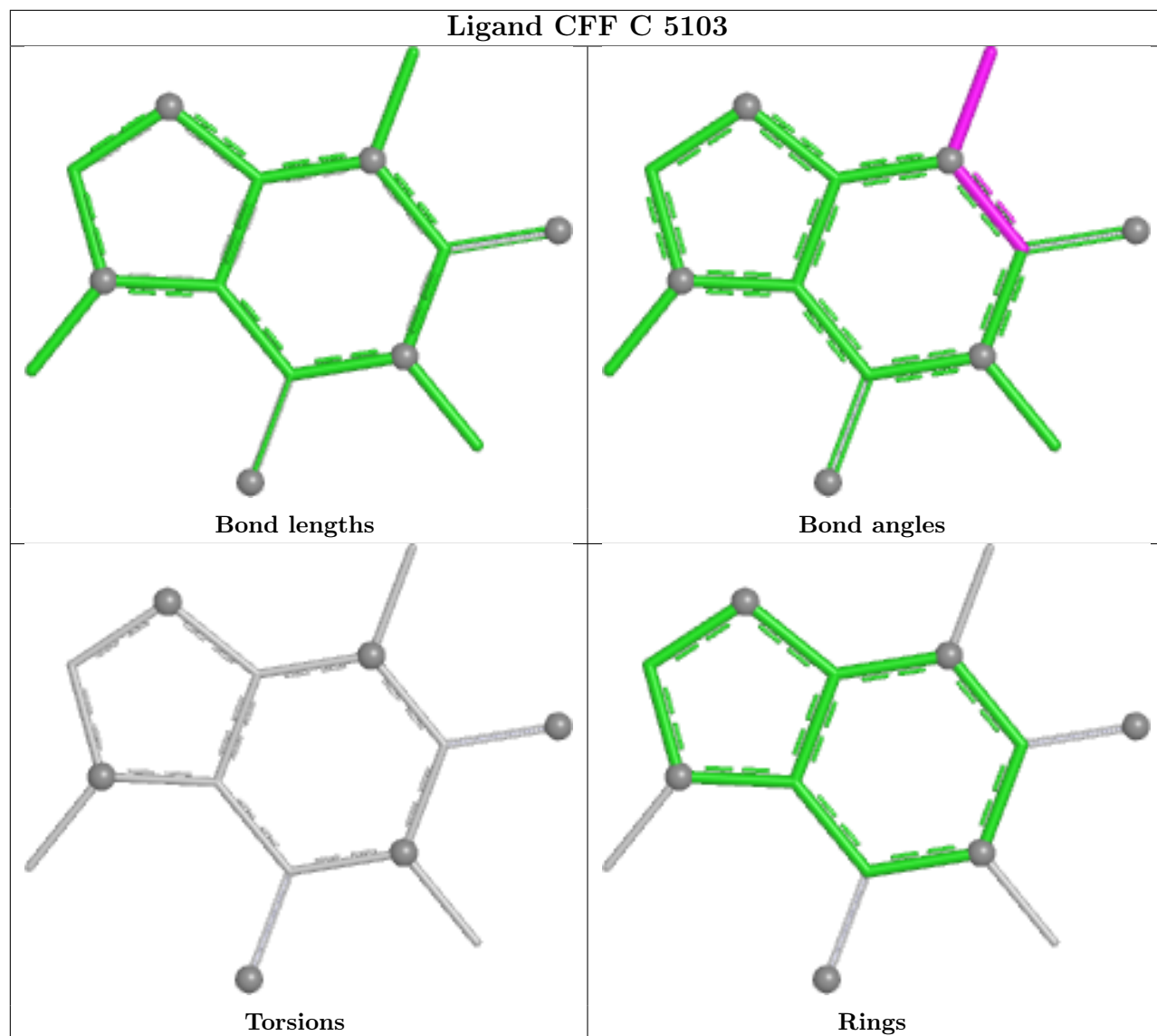


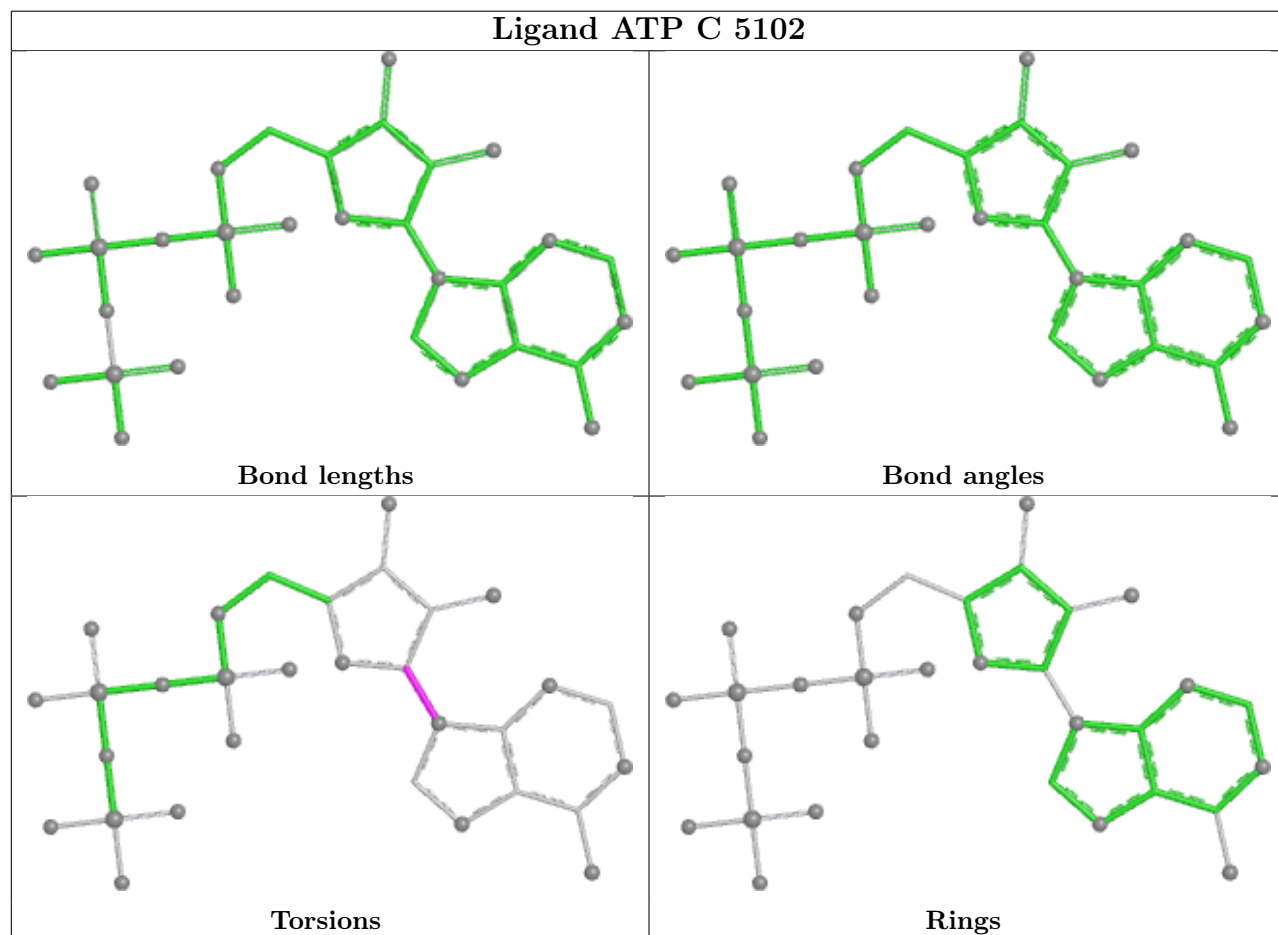
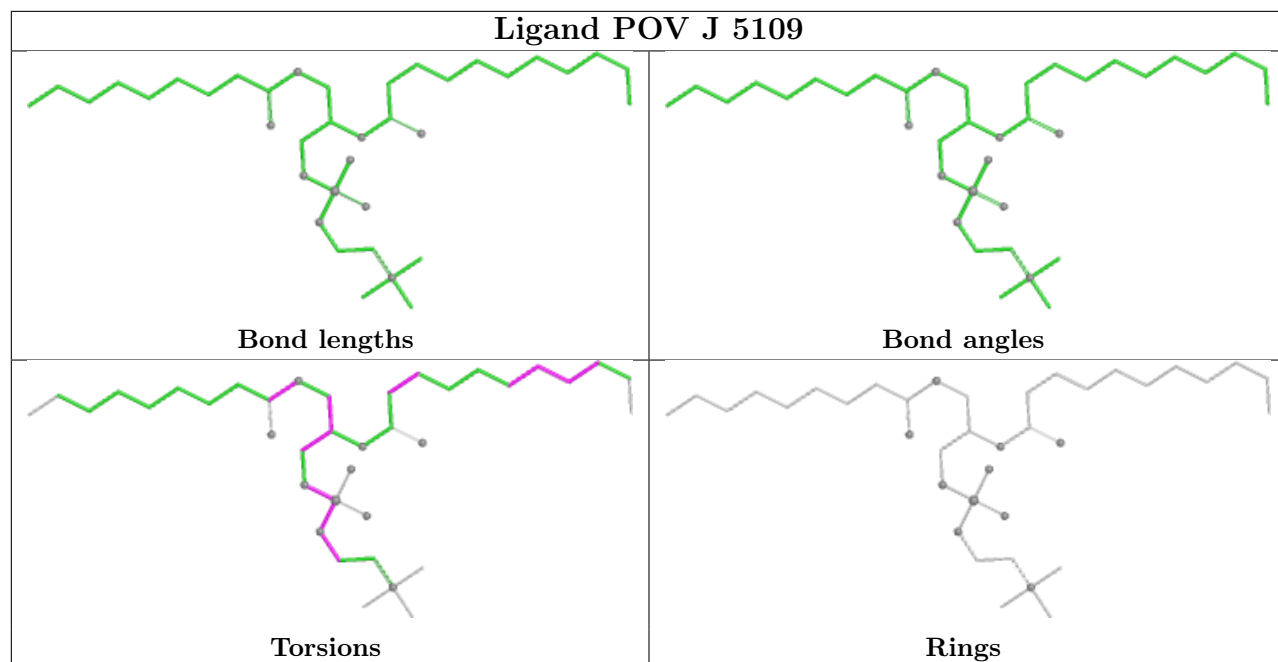


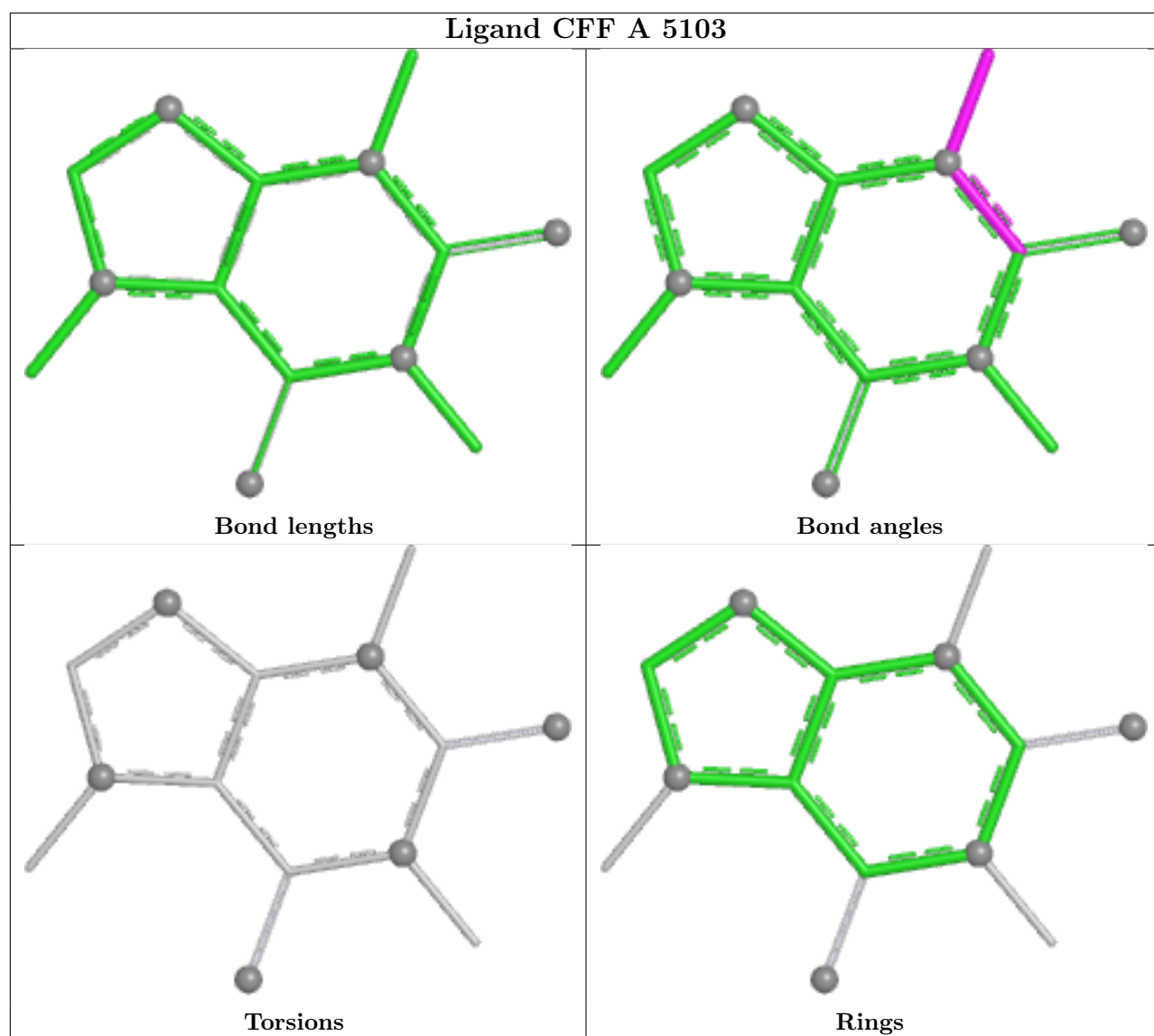


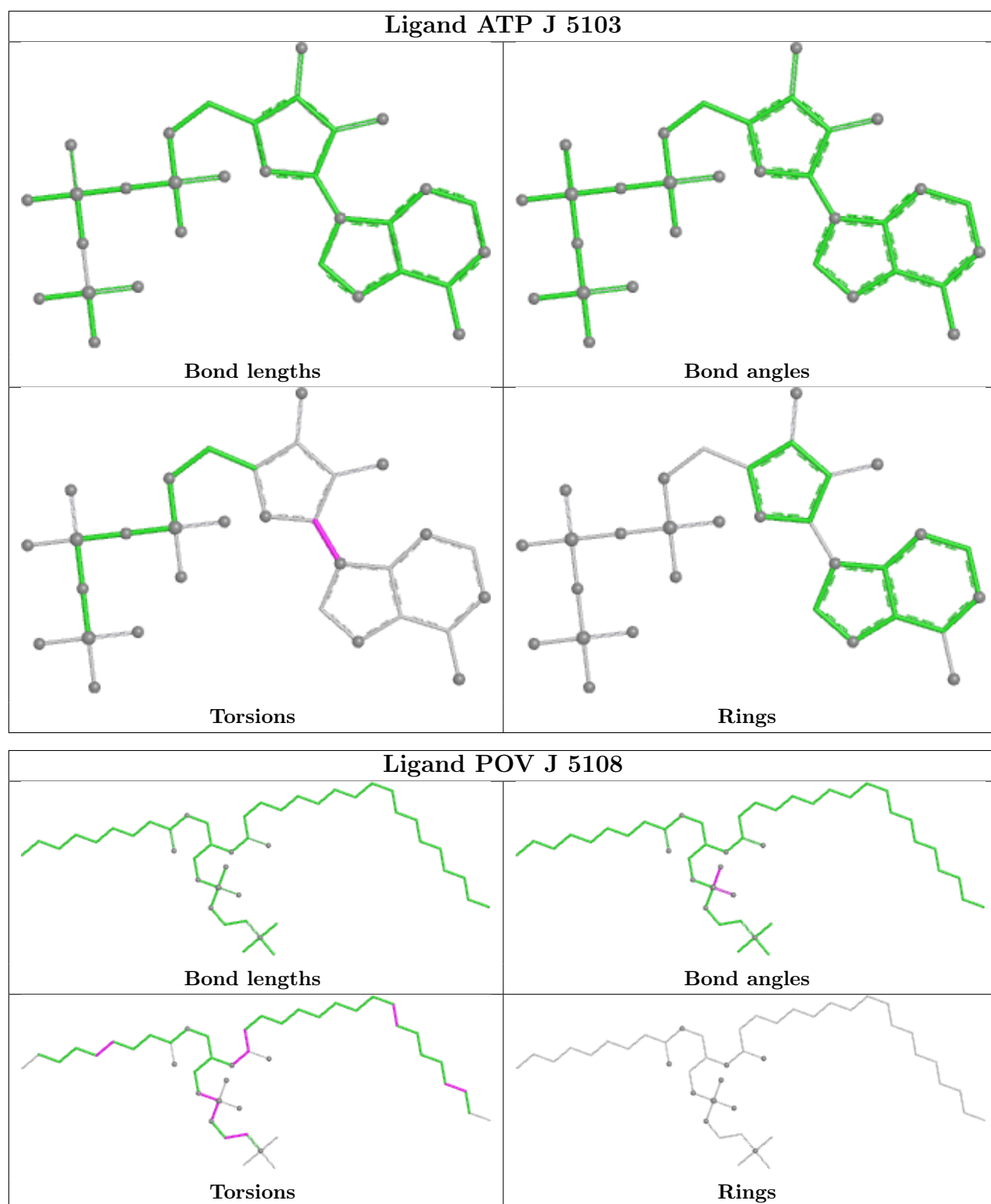


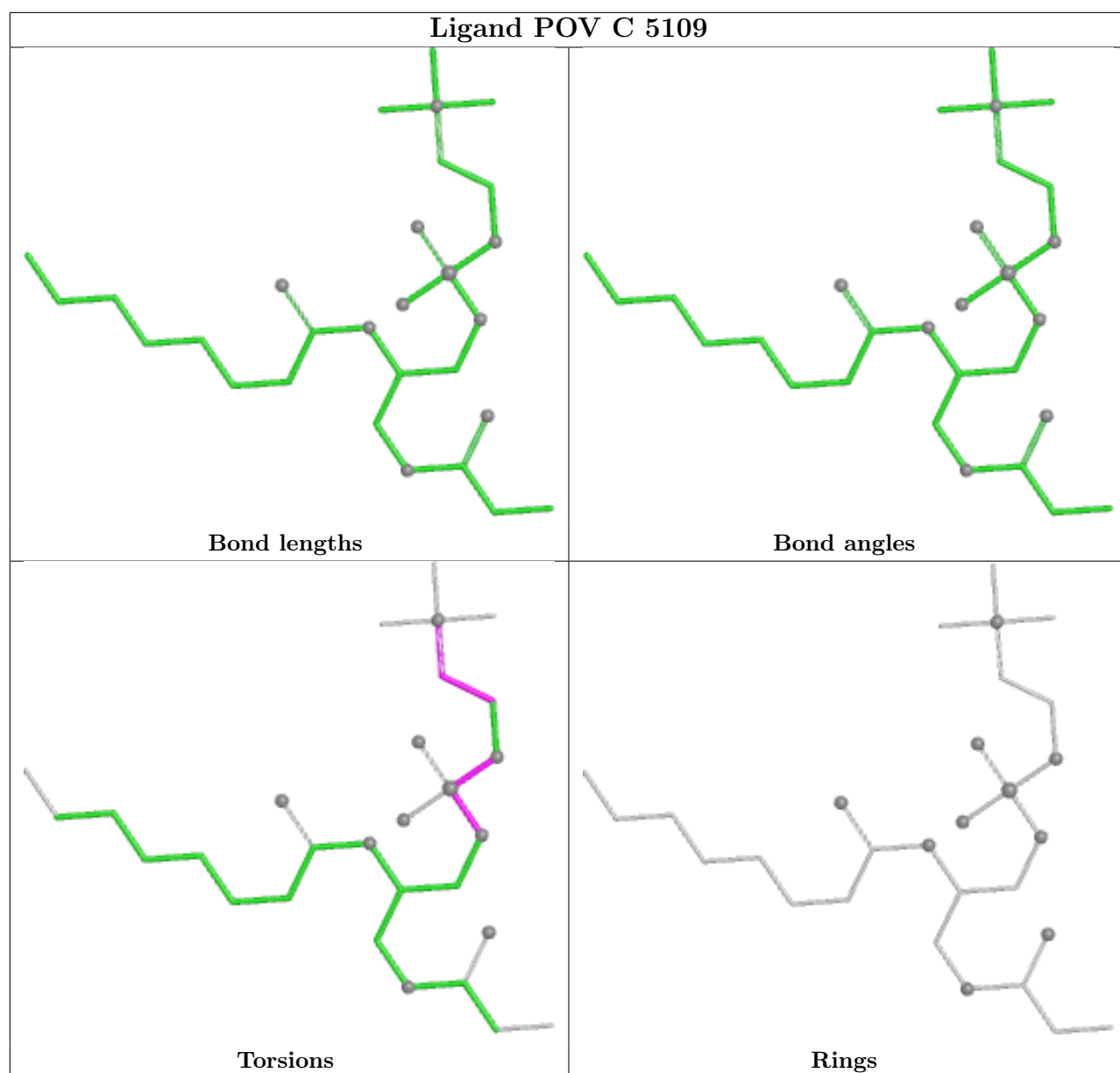


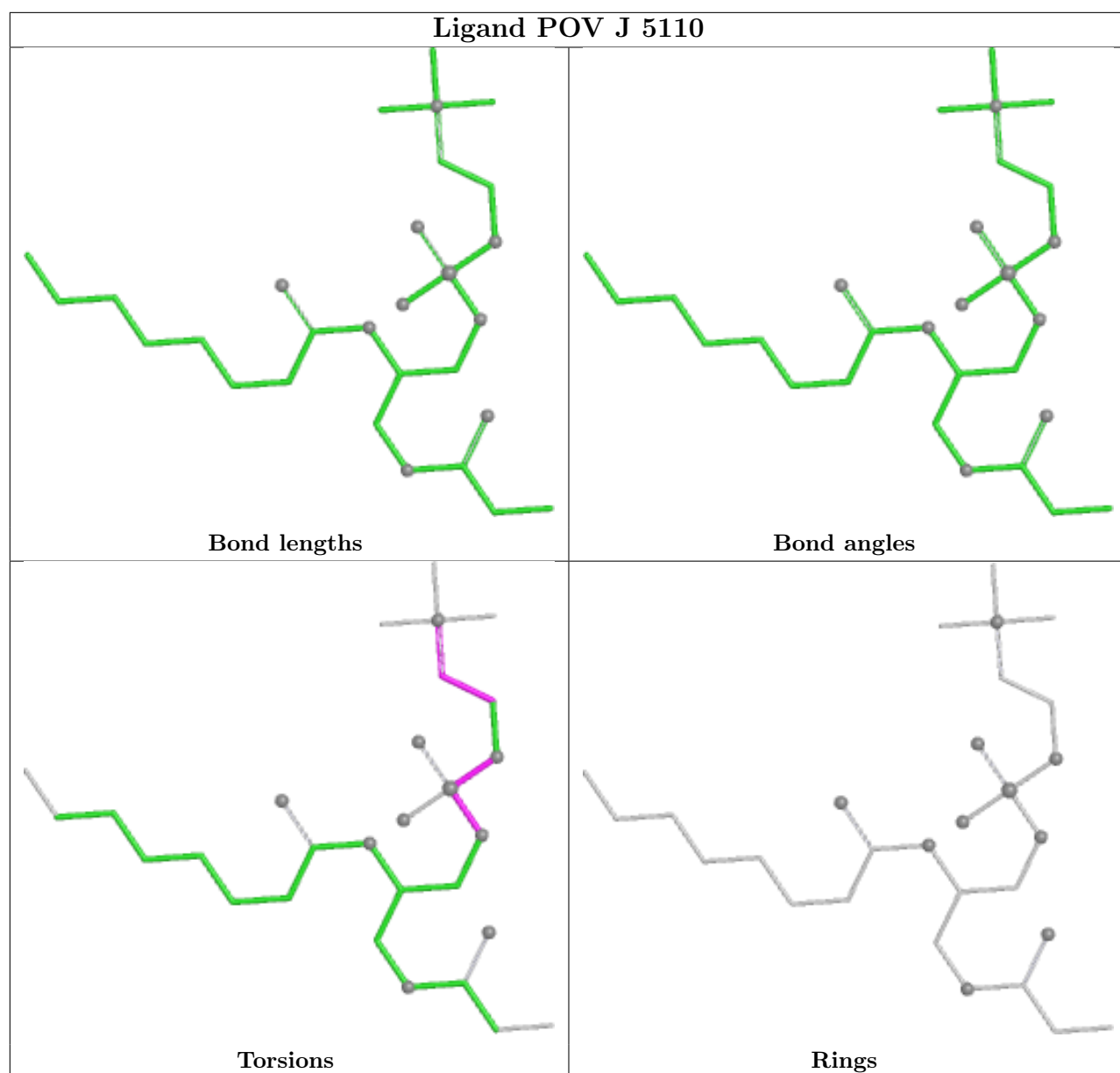


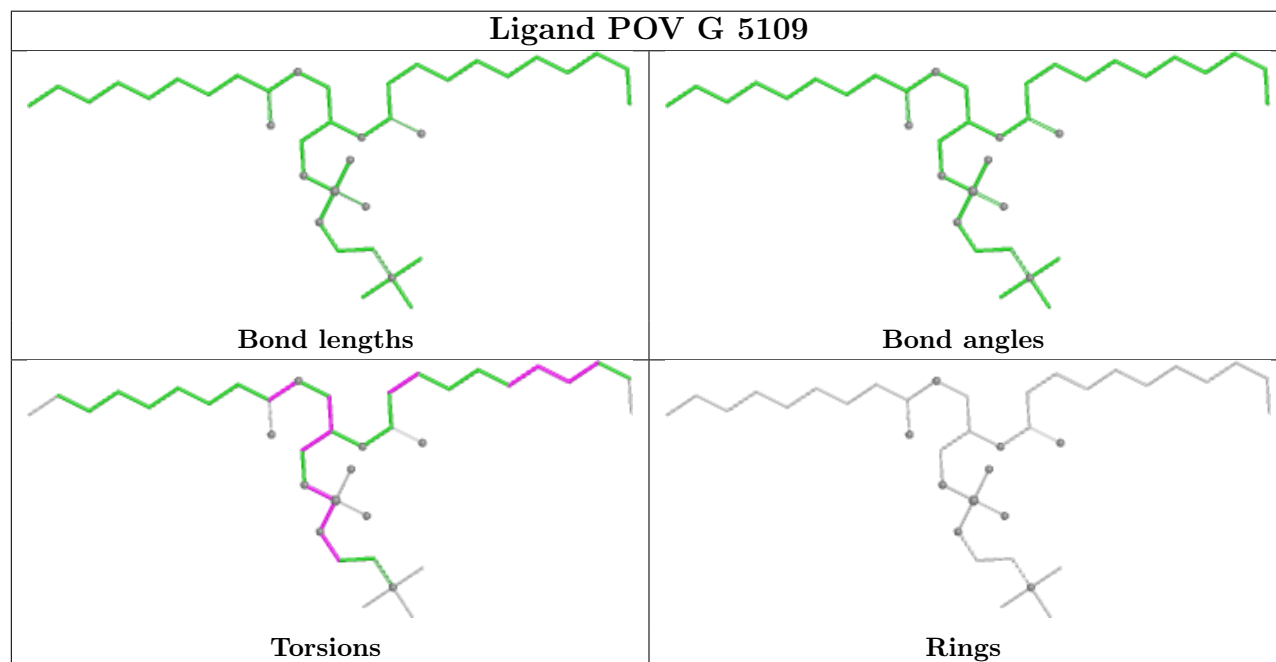
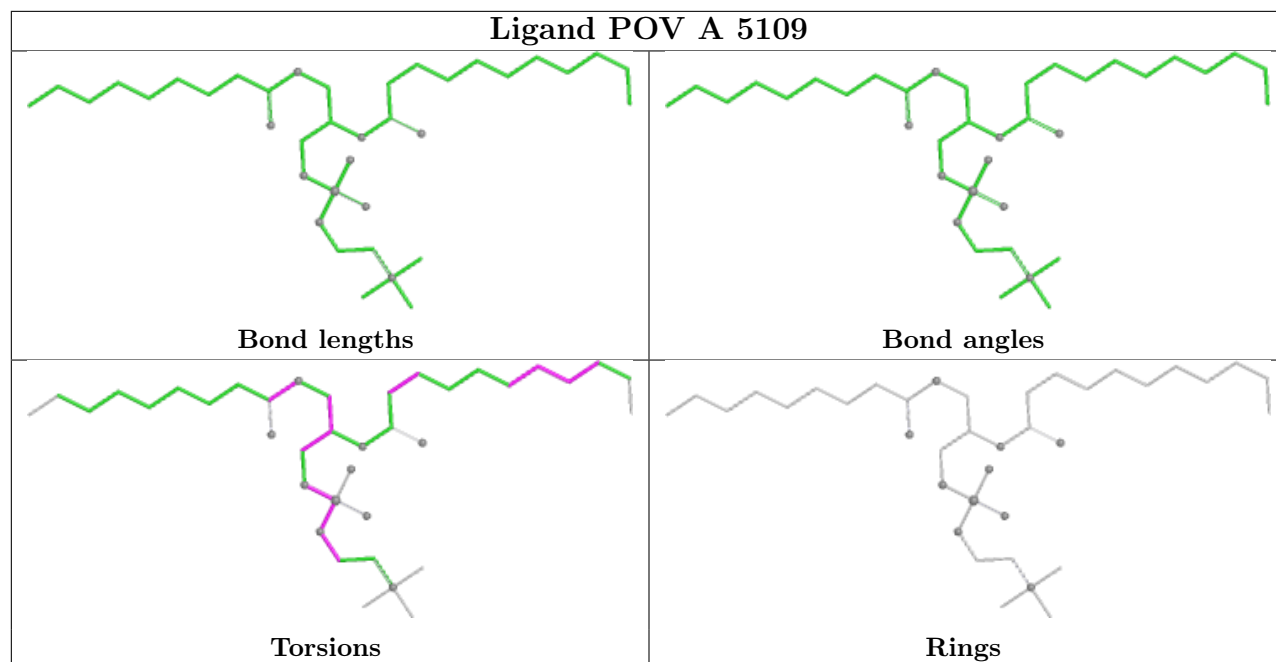


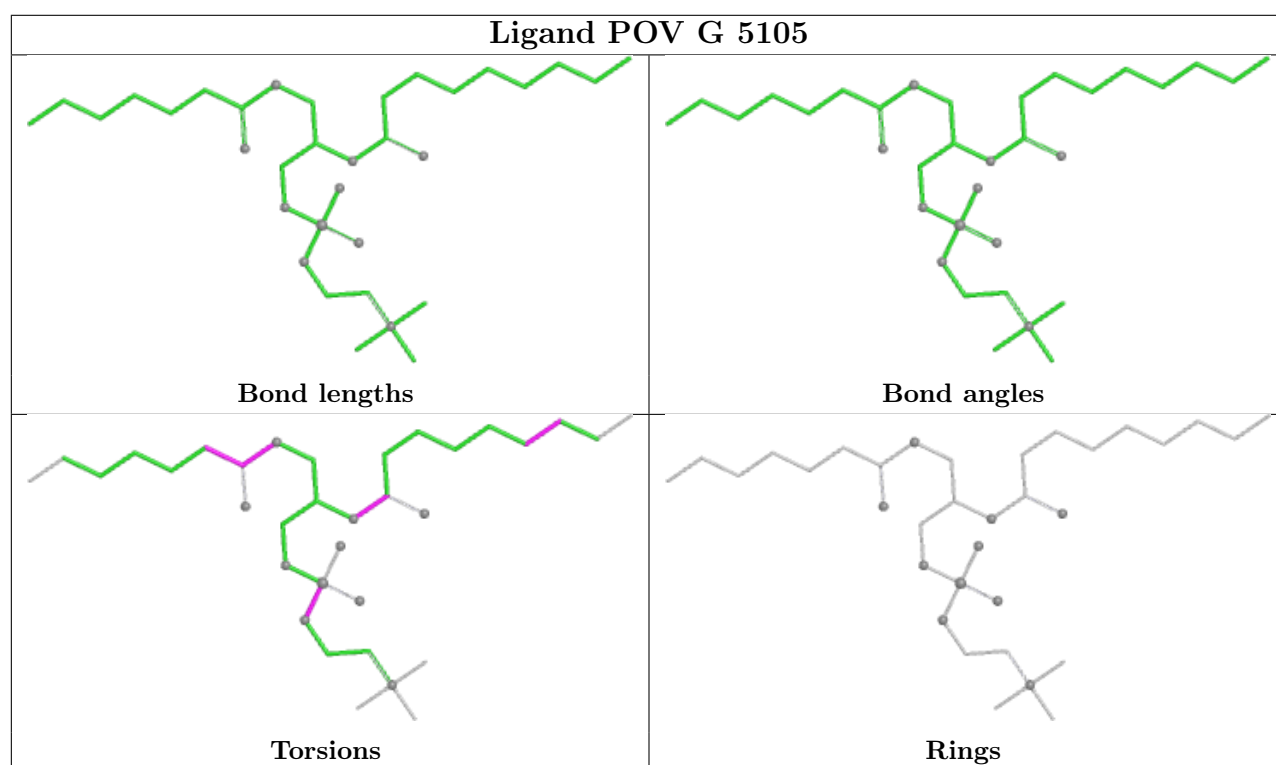
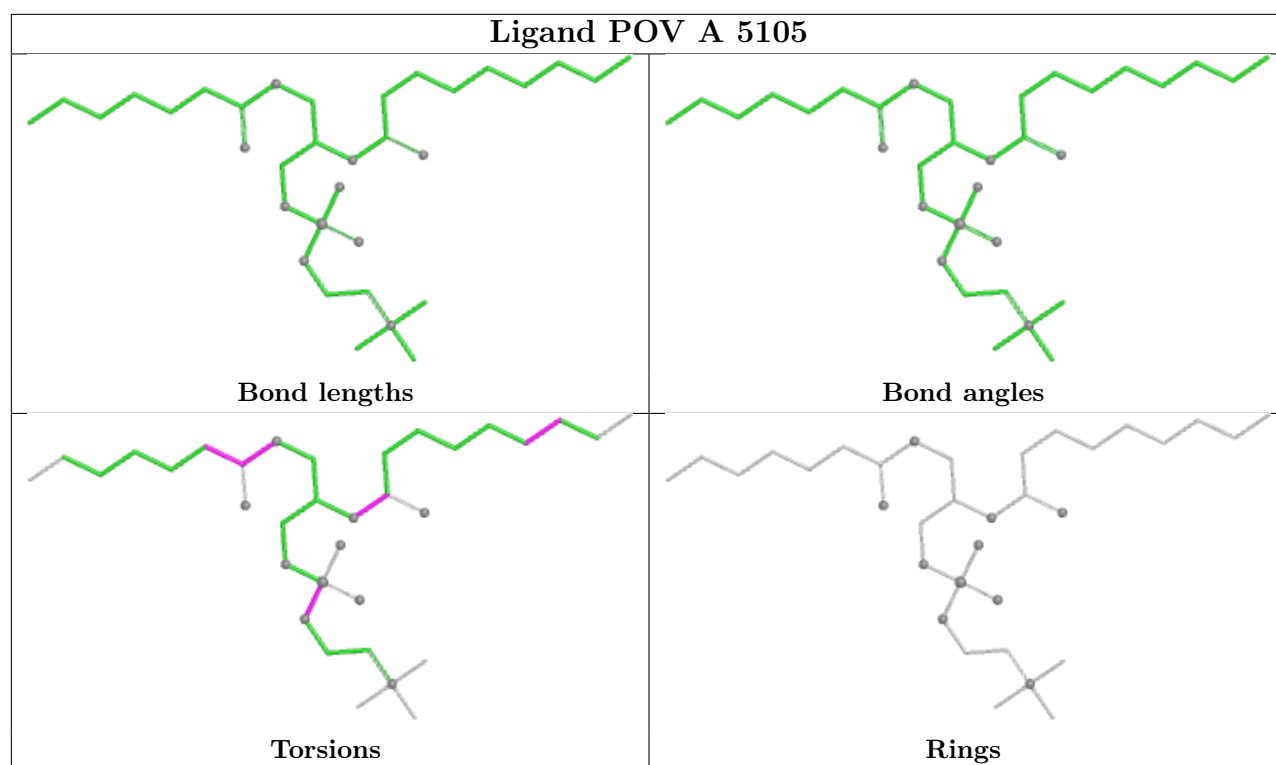


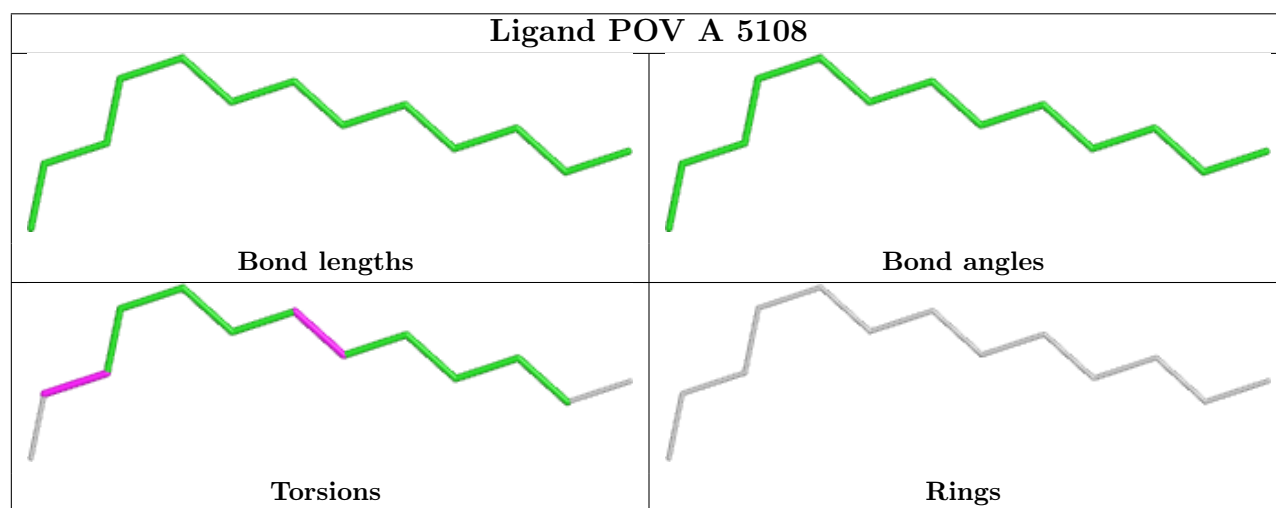
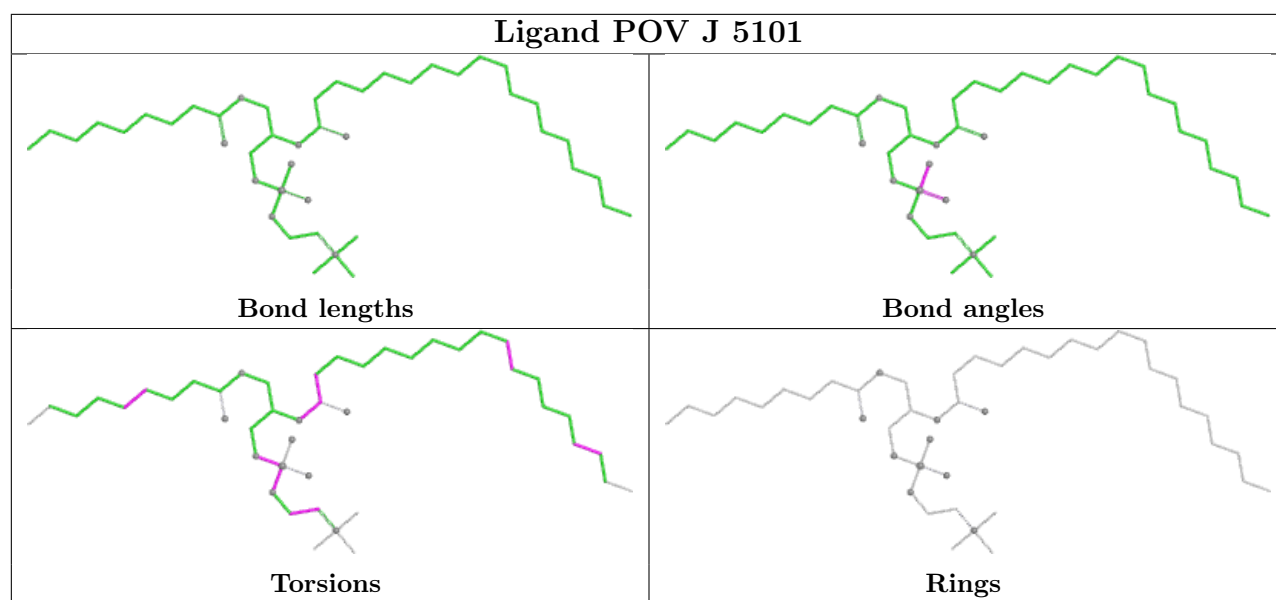


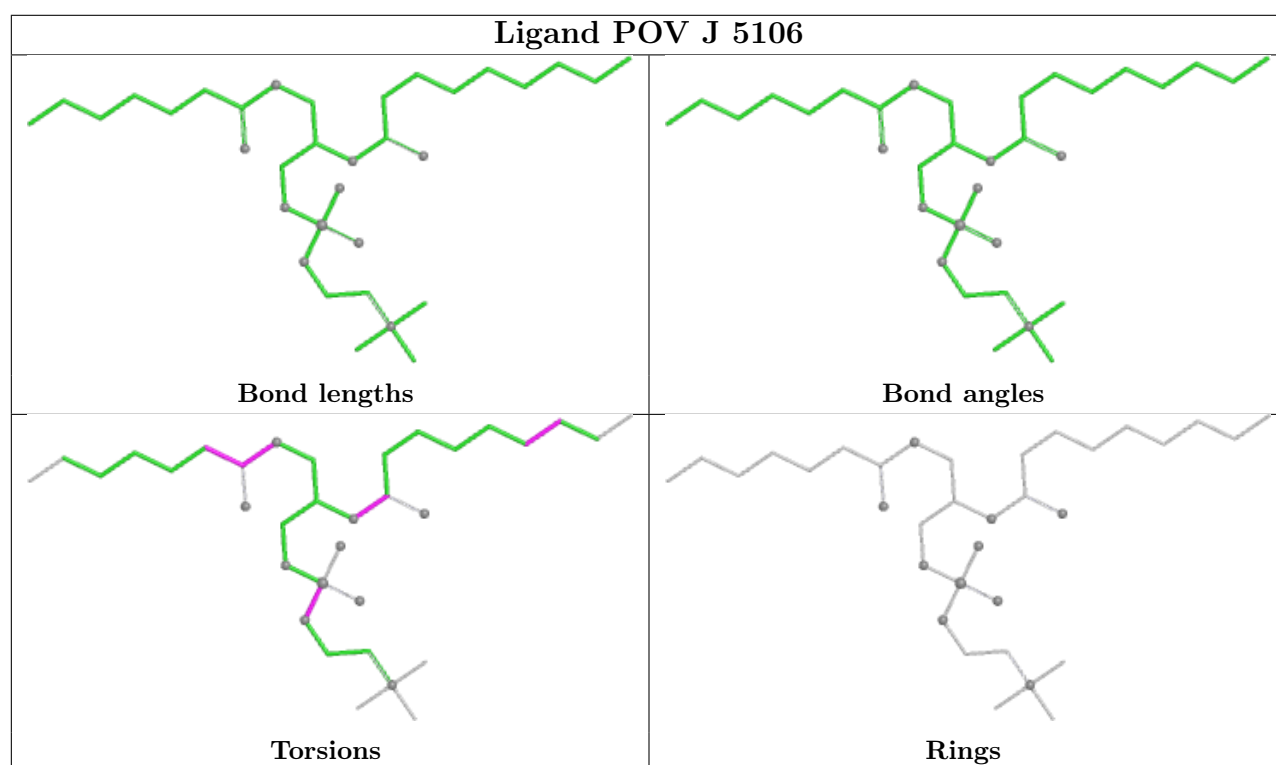
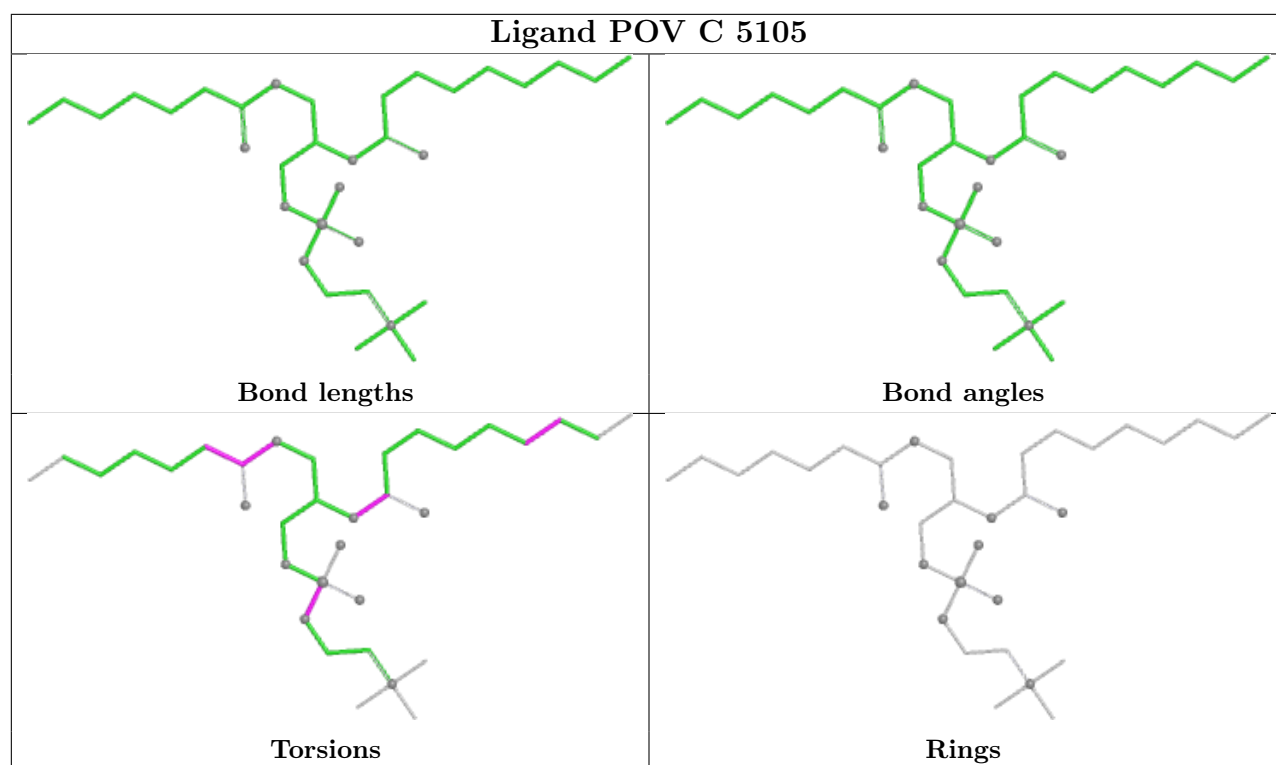


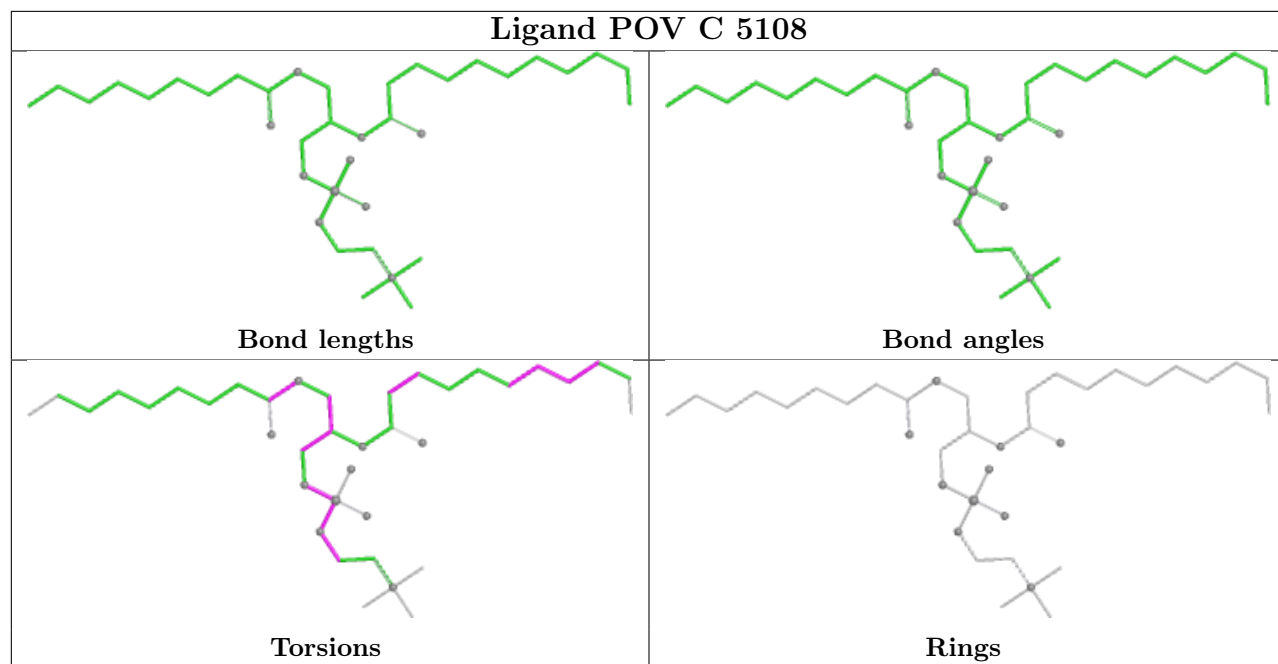


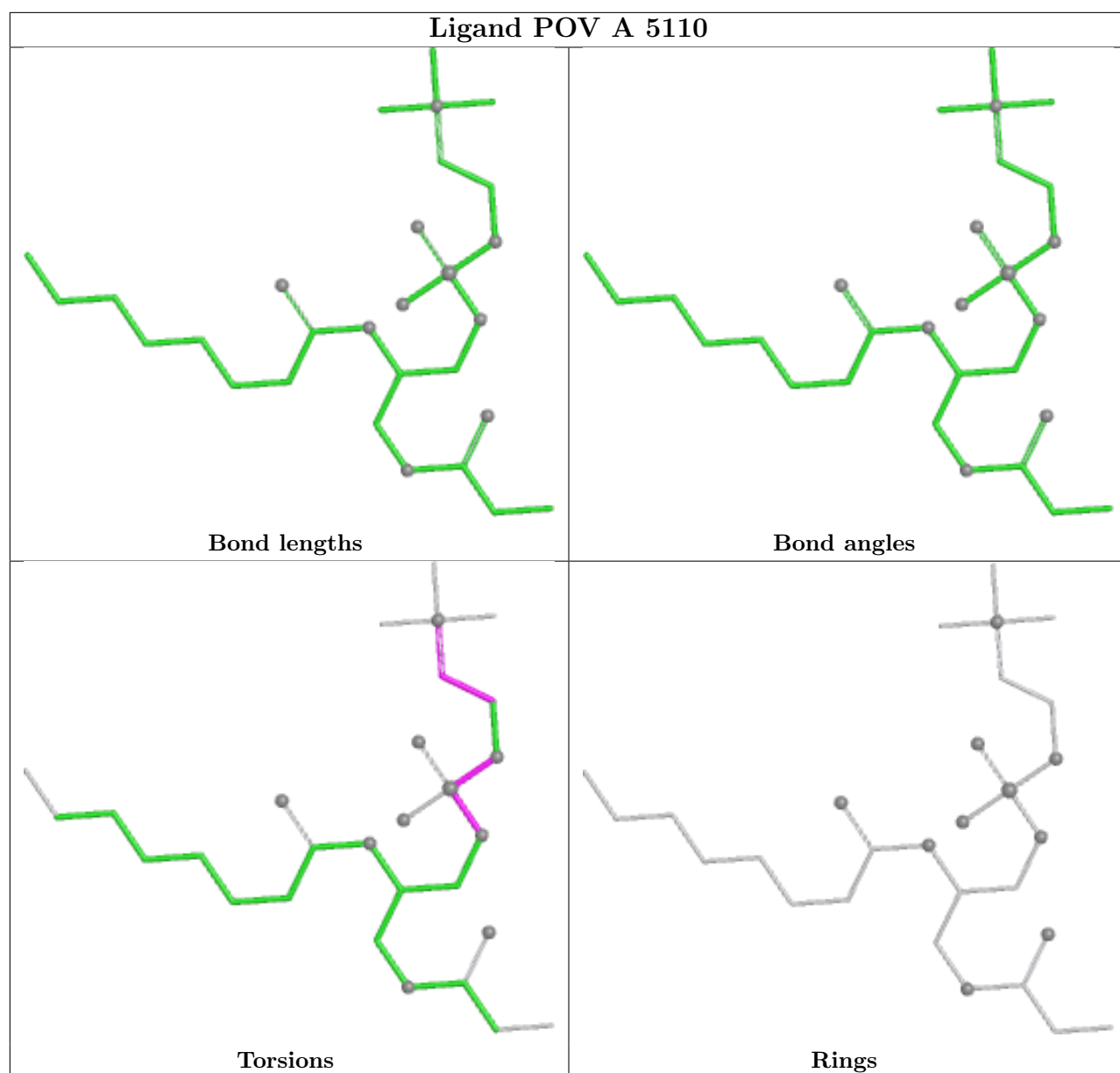


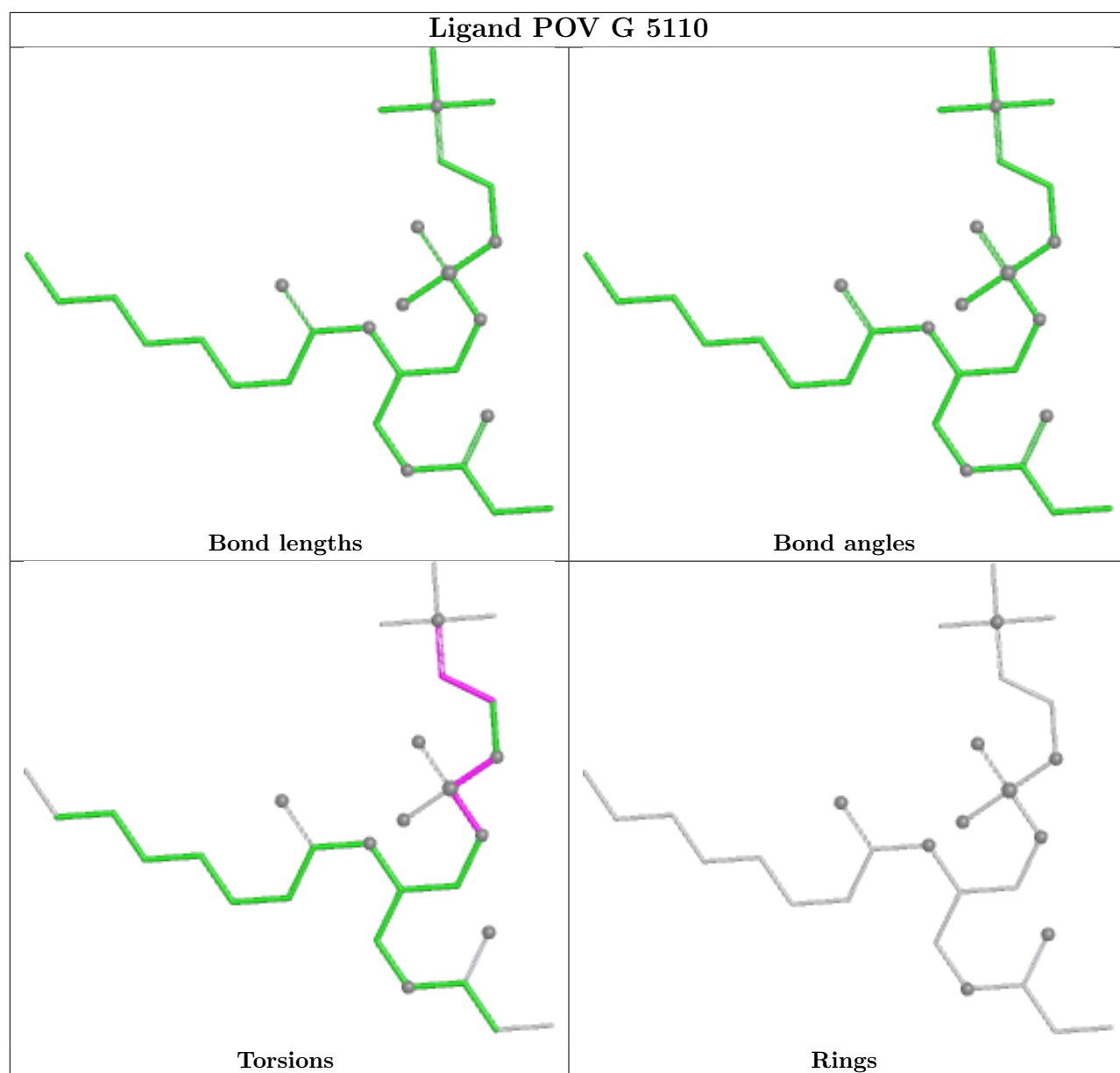


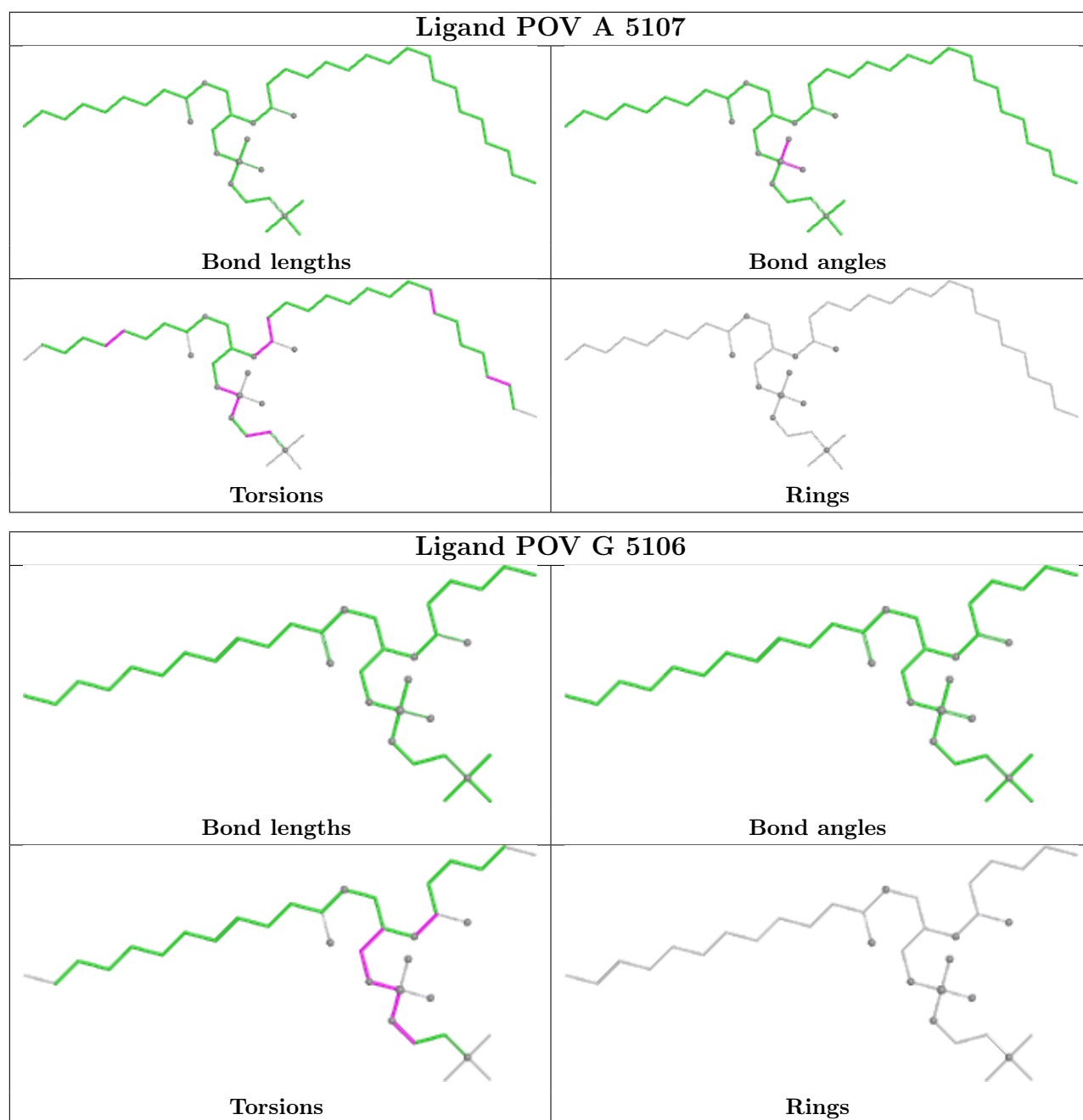












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

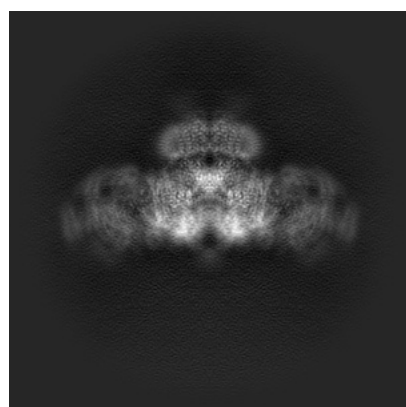
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-53924. These allow visual inspection of the internal detail of the map and identification of artifacts.

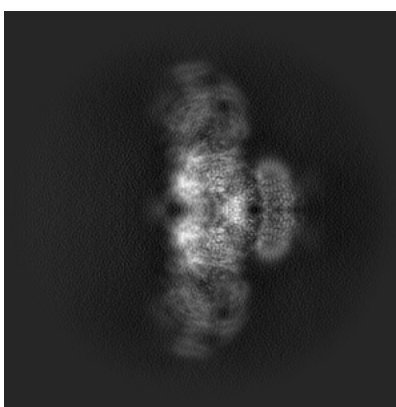
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

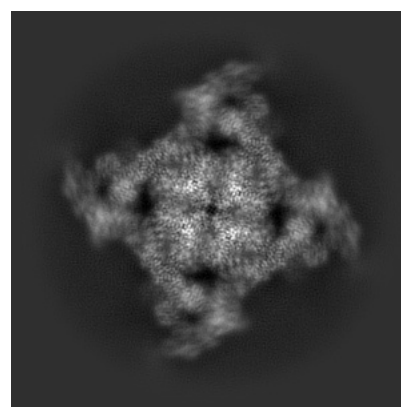
6.1.1 Primary map



X



Y

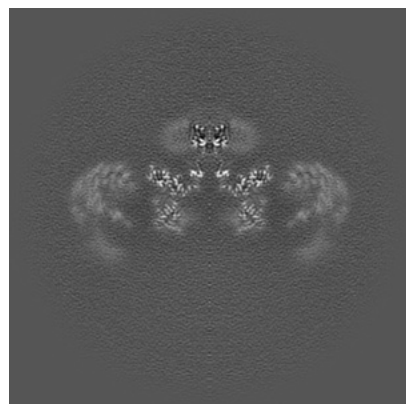


Z

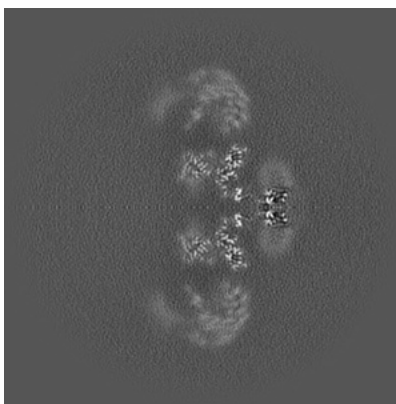
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

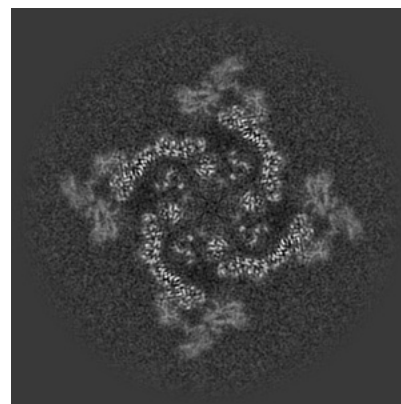
6.2.1 Primary map



X Index: 168



Y Index: 168

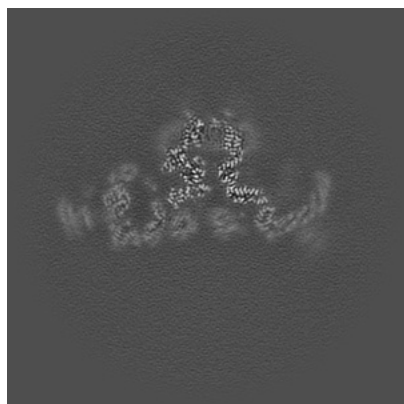


Z Index: 168

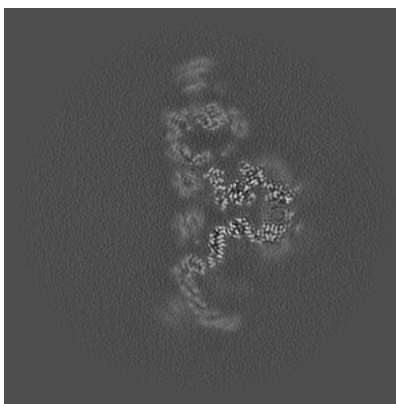
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

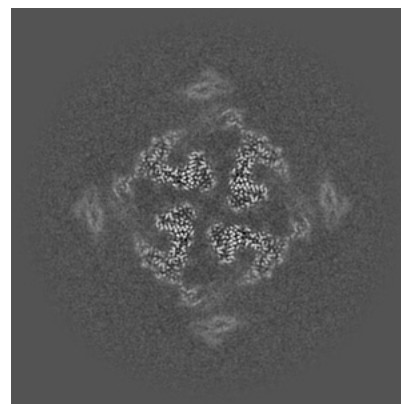
6.3.1 Primary map



X Index: 151



Y Index: 151

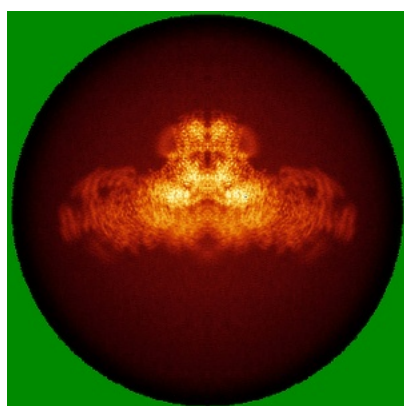


Z Index: 182

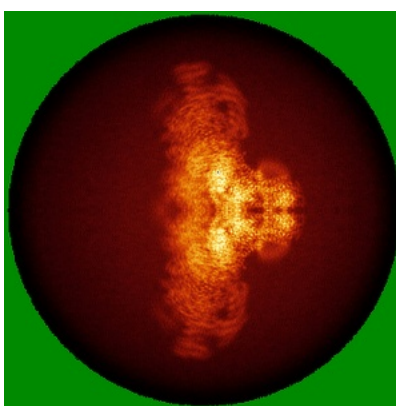
The images above show the largest variance slices of the map in three orthogonal directions.

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

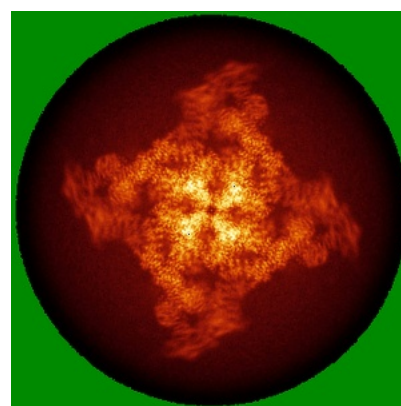
6.4.1 Primary map



X



Y

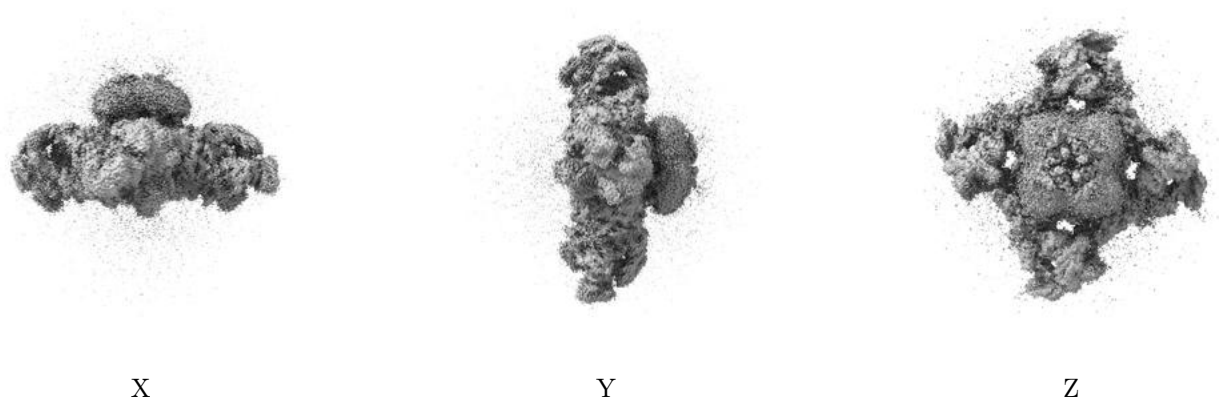


Z

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

6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



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

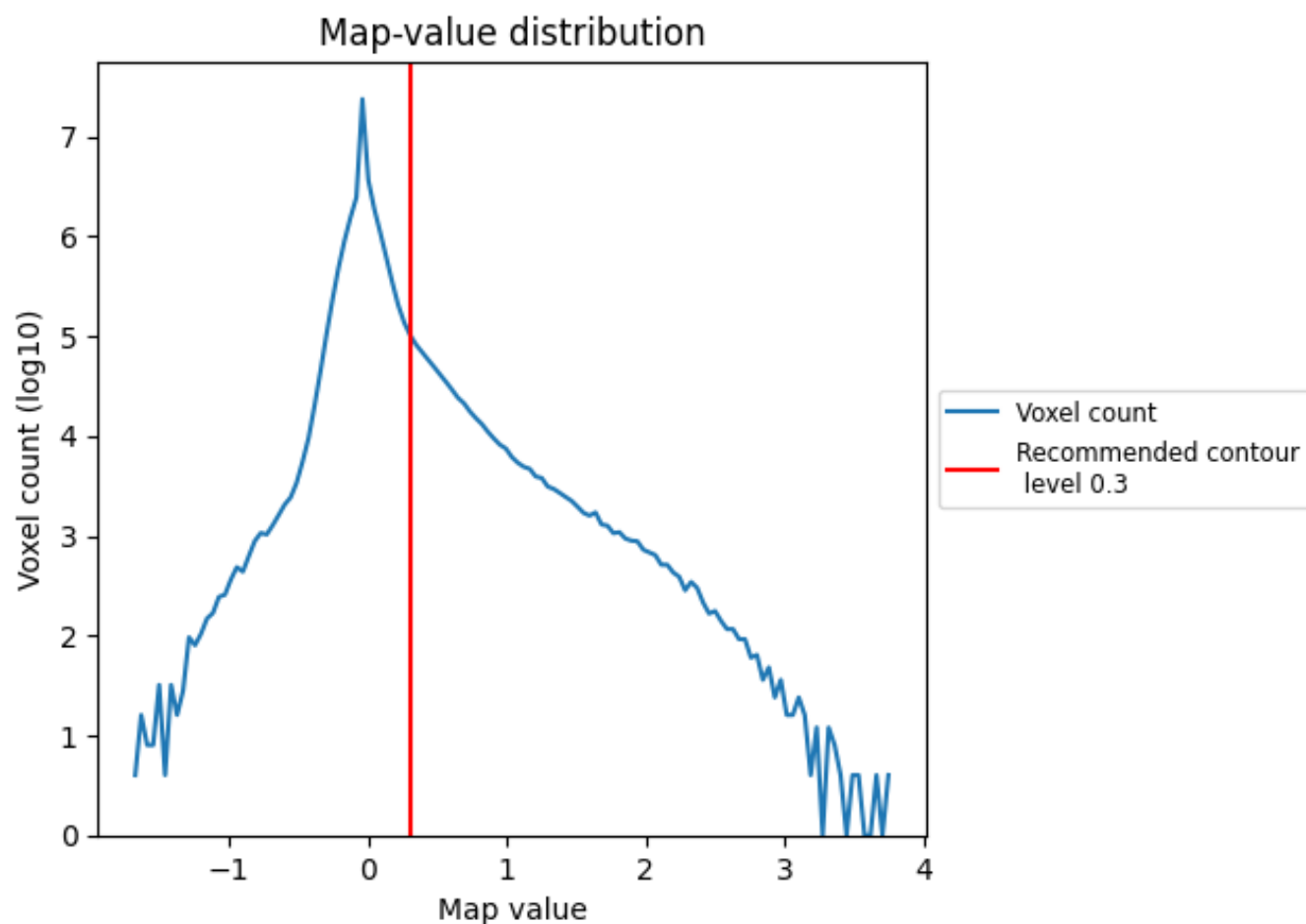
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

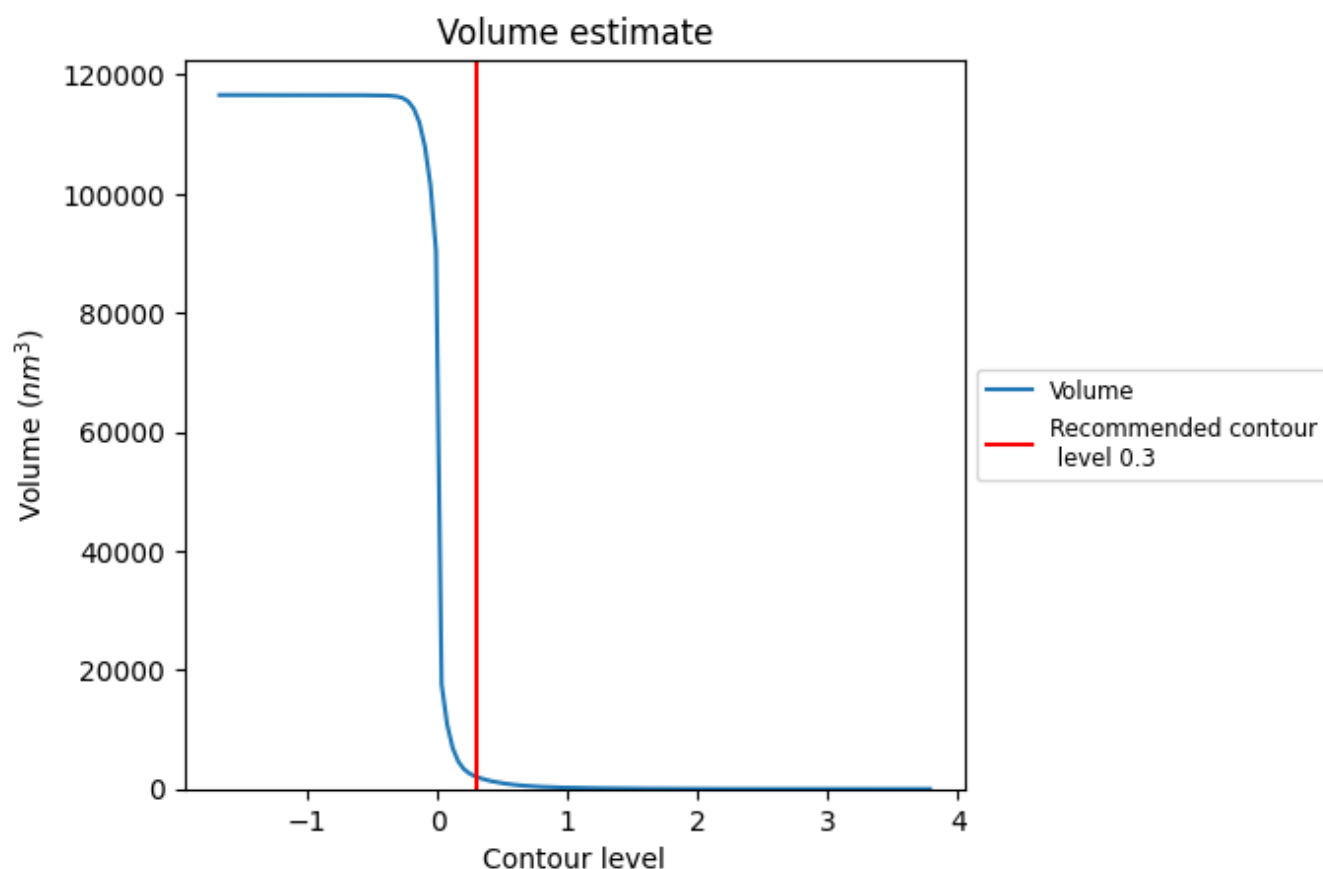
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

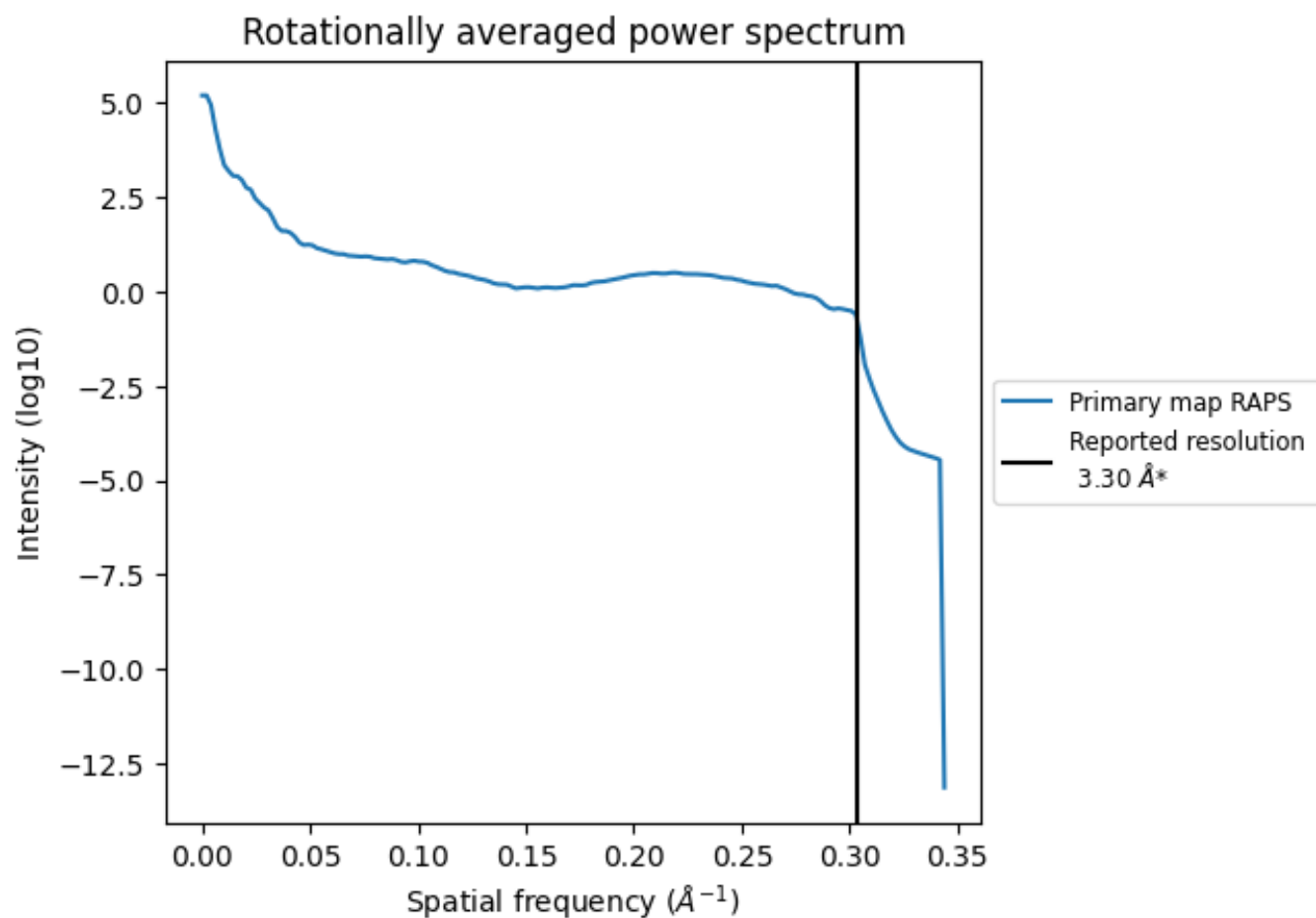
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 2061 nm^3 ; this corresponds to an approximate mass of 1861 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ



*Reported resolution corresponds to spatial frequency of 0.303 Å⁻¹

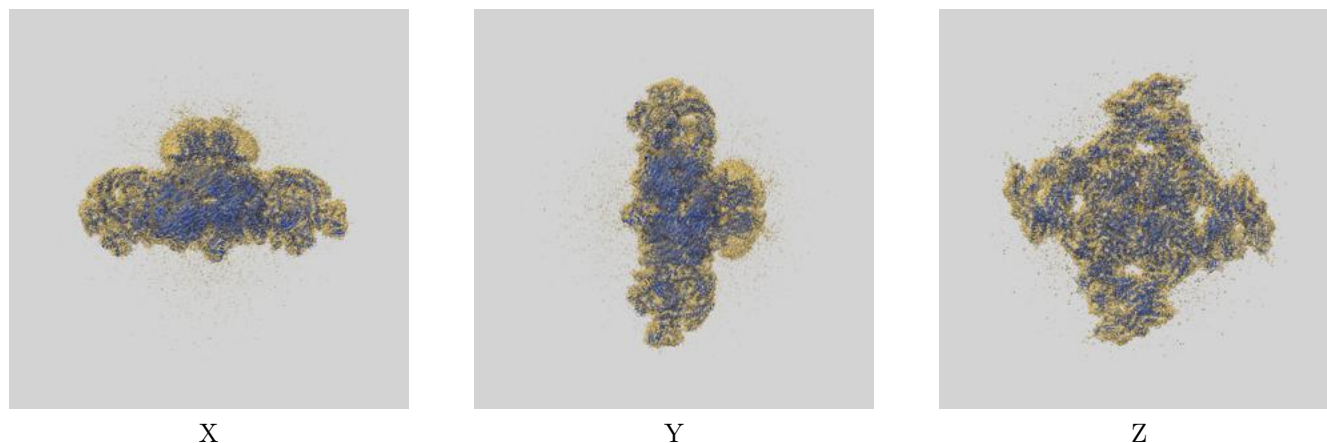
8 Fourier-Shell correlation

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

9 Map-model fit [i](#)

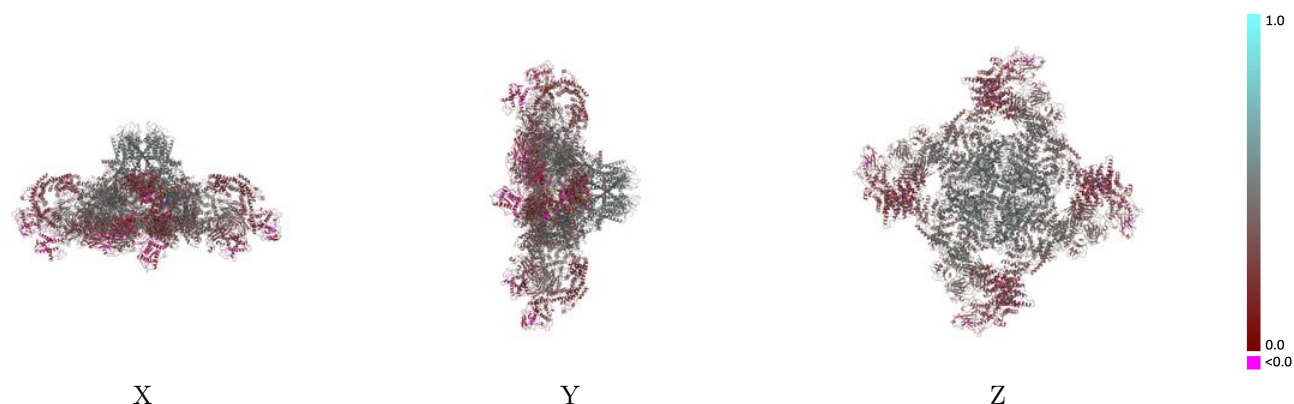
This section contains information regarding the fit between EMDB map EMD-53924 and PDB model 9RCW. Per-residue inclusion information can be found in section [3](#) on page [9](#).

9.1 Map-model overlay [i](#)



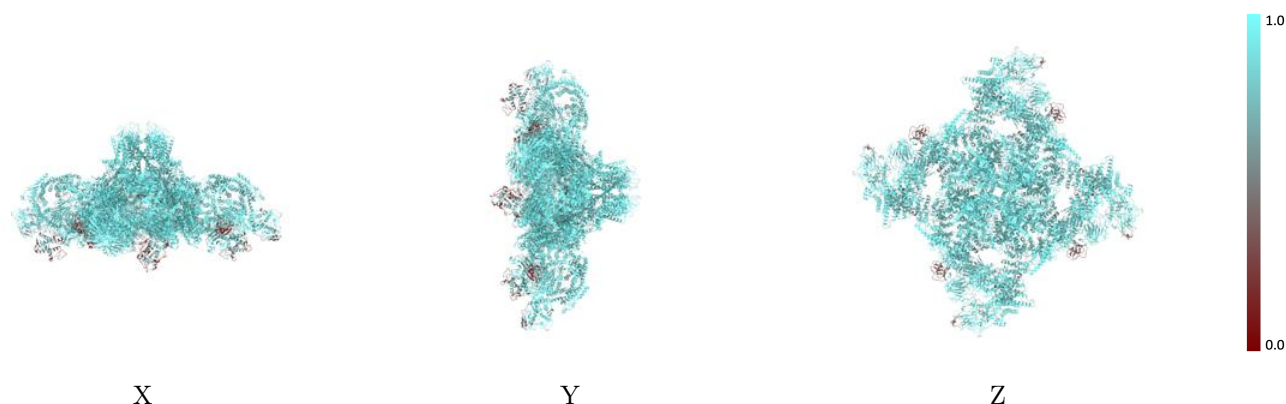
The images above show the 3D surface view of the map at the recommended contour level 0.3 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



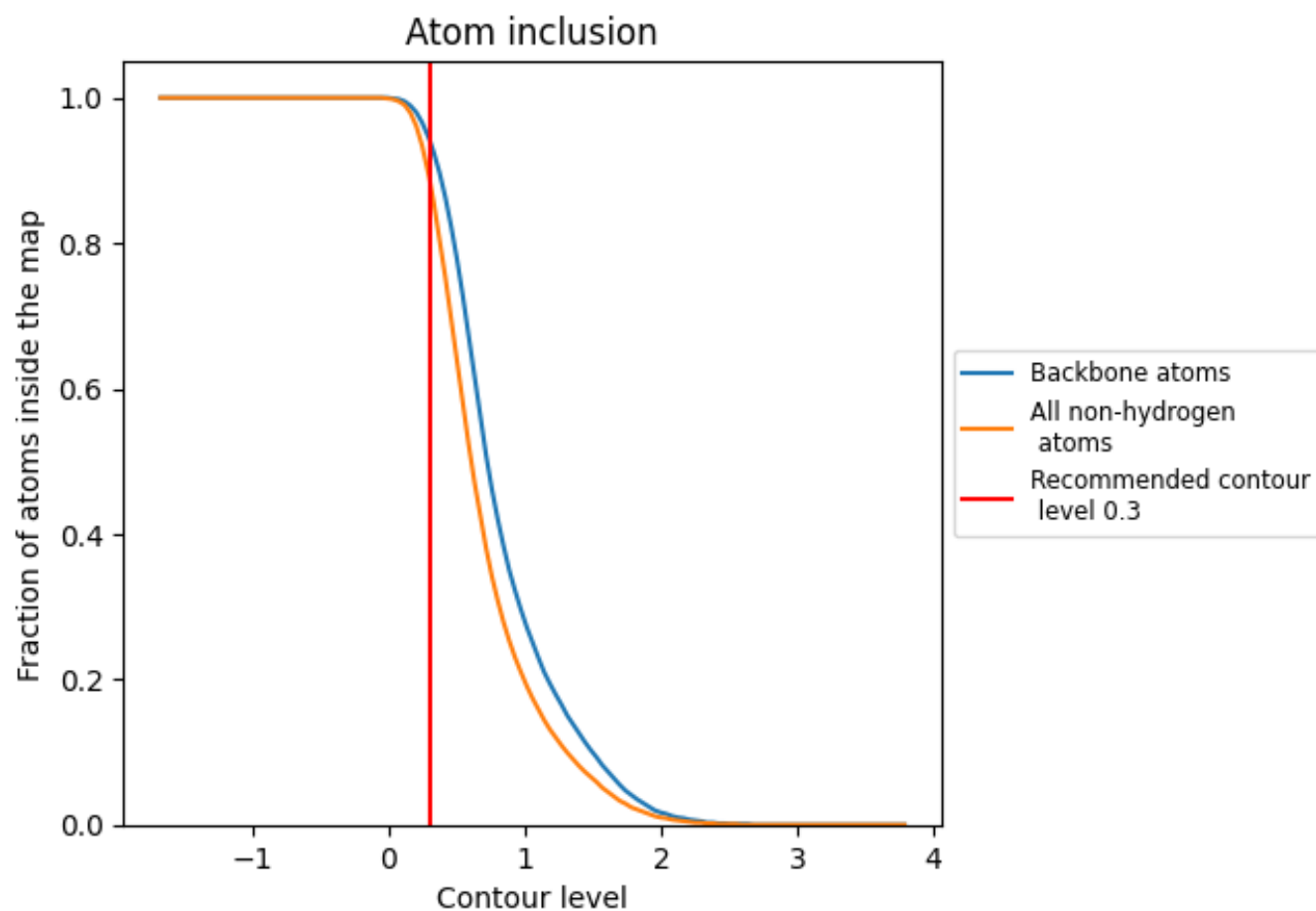
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



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

9.4 Atom inclusion [i](#)



At the recommended contour level, 94% of all backbone atoms, 89% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

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

Chain	Atom inclusion	Q-score
All	0.8900	0.3600
A	0.9070	0.3660
B	0.7750	0.1840
C	0.9060	0.3660
D	0.7670	0.1810
E	0.3450	0.2990
F	0.3450	0.2960
G	0.9070	0.3670
H	0.7810	0.1790
I	0.3450	0.3020
J	0.9070	0.3670
K	0.7730	0.1820
L	0.3470	0.3010

1.0

0.0

<0.0