



Full wwPDB EM Validation Report ⓘ

Mar 28, 2026 – 06:04 AM UTC

PDB ID : 8RS0 / pdb_00008rs0
EMDB ID : EMD-19472
Title : Structure of RyR1 in detergent in primed state in complex with nanobody and FKBP
Authors : Li, C.; Efremov, R.G.
Deposited on : 2024-01-24
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

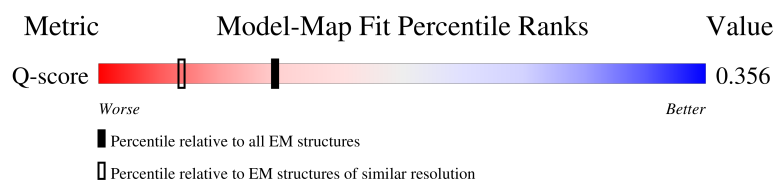
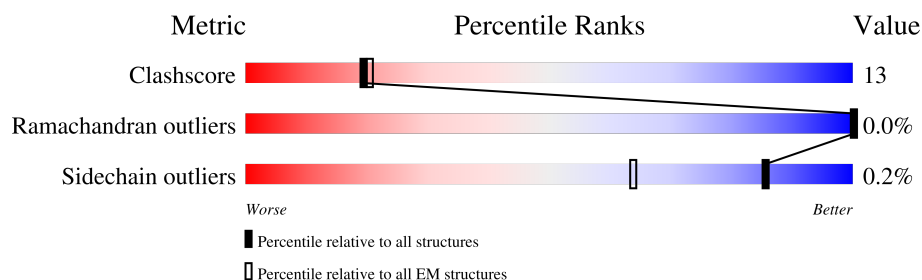
1 Overall quality at a glance

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.

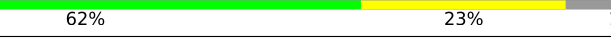
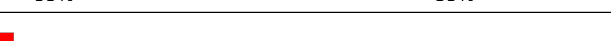
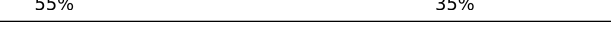


Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	15087 (2.80 - 3.80)

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	A	107	
1	D	107	
1	H	107	
1	I	107	

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Mol	Chain	Length	Quality of chain
2	B	5027	
2	E	5027	
2	G	5027	
2	J	5027	
3	C	137	
3	F	137	
3	K	137	
3	M	137	

2 Entry composition [i](#)

There are 7 unique types of molecules in this entry. The entry contains 143570 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 Peptidyl-prolyl cis-trans isomerase FKBP1B.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	107	Total	C	N	O	S	0	0
			816	514	144	154	4		
1	D	107	Total	C	N	O	S	0	0
			816	514	144	154	4		
1	H	107	Total	C	N	O	S	0	0
			816	514	144	154	4		
1	I	107	Total	C	N	O	S	0	0
			816	514	144	154	4		

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	100	ASP	GLY	conflict	UNP Q8HYX6
D	100	ASP	GLY	conflict	UNP Q8HYX6
H	100	ASP	GLY	conflict	UNP Q8HYX6
I	100	ASP	GLY	conflict	UNP Q8HYX6

- Molecule 2 is a protein called Ryanodine receptor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	4305	Total	C	N	O	S	1	0
			34043	21690	5866	6261	226		
2	E	4305	Total	C	N	O	S	1	0
			34043	21690	5866	6261	226		
2	G	4319	Total	C	N	O	S	1	0
			34149	21751	5887	6284	227		
2	J	4305	Total	C	N	O	S	1	0
			34043	21690	5866	6261	226		

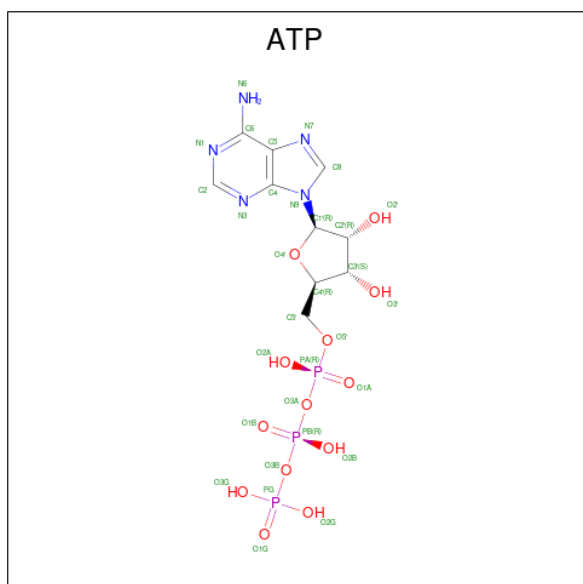
- Molecule 3 is a protein called Nanobody 9657.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	126	Total	C	N	O	S	0	0
			960	591	170	194	5		
3	F	126	Total	C	N	O	S	0	0
			960	591	170	194	5		
3	K	126	Total	C	N	O	S	0	0
			960	591	170	194	5		
3	M	126	Total	C	N	O	S	0	0
			960	591	170	194	5		

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

Mol	Chain	Residues	Atoms		AltConf
4	B	1	Total	Zn	0
			1	1	
4	E	1	Total	Zn	0
			1	1	
4	G	1	Total	Zn	0
			1	1	
4	J	1	Total	Zn	0
			1	1	

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



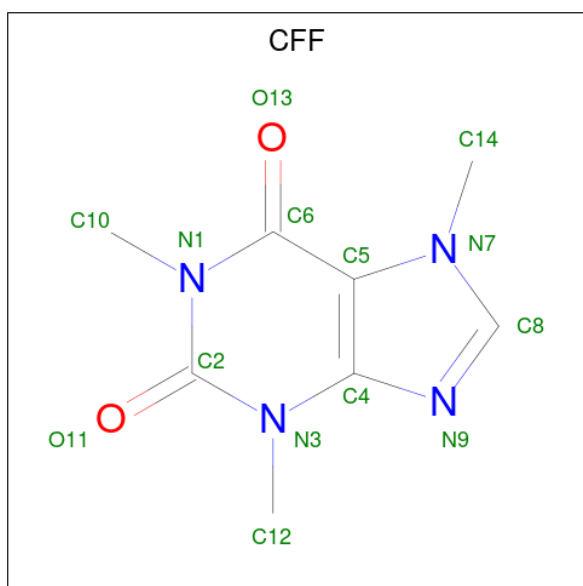
Mol	Chain	Residues	Atoms					AltConf
5	B	1	Total	C	N	O	P	0
			31	10	5	13	3	

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Mol	Chain	Residues	Atoms					AltConf
5	E	1	Total	C	N	O	P	0
			31	10	5	13	3	
5	G	1	Total	C	N	O	P	0
			31	10	5	13	3	
5	J	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	B	1	Total	C	N	O	0
			14	8	4	2	
6	E	1	Total	C	N	O	0
			14	8	4	2	
6	G	1	Total	C	N	O	0
			14	8	4	2	
6	J	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	B	1	Total	Ca	0
			1	1	

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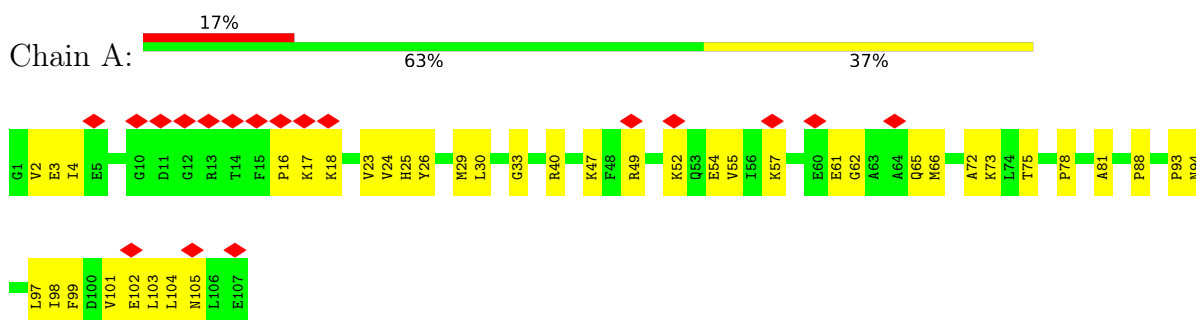
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Mol	Chain	Residues	Atoms		AltConf
7	E	1	Total 1	Ca 1	0
7	G	1	Total 1	Ca 1	0
7	J	1	Total 1	Ca 1	0

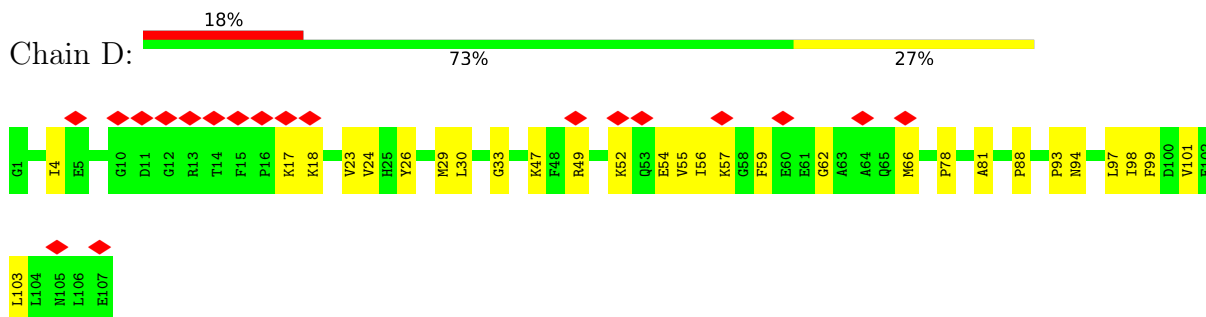
3 Residue-property plots [i](#)

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.

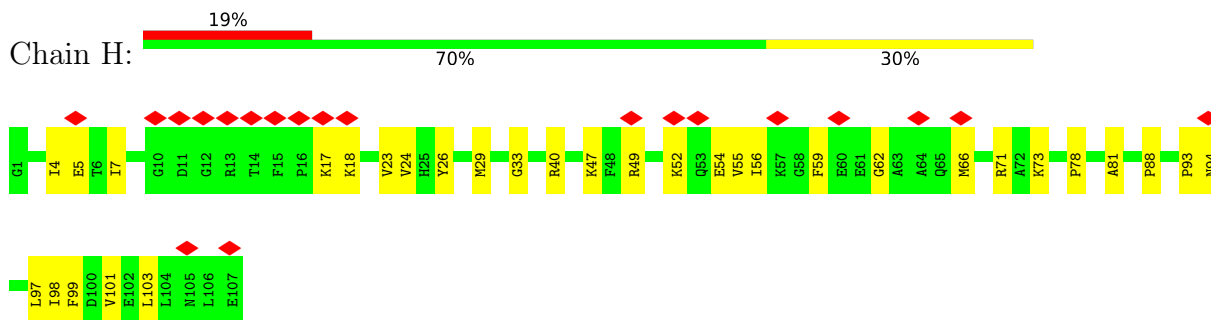
- Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B



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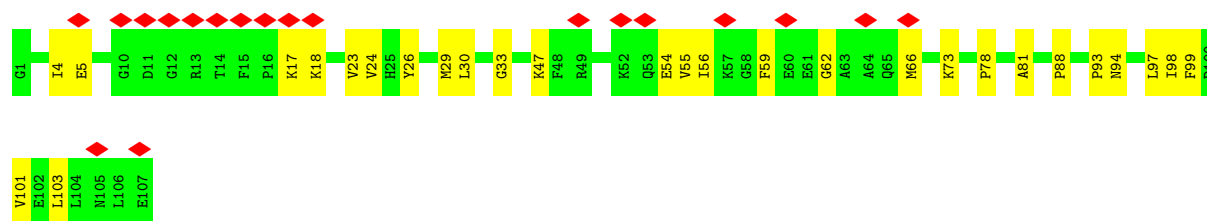


- Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B



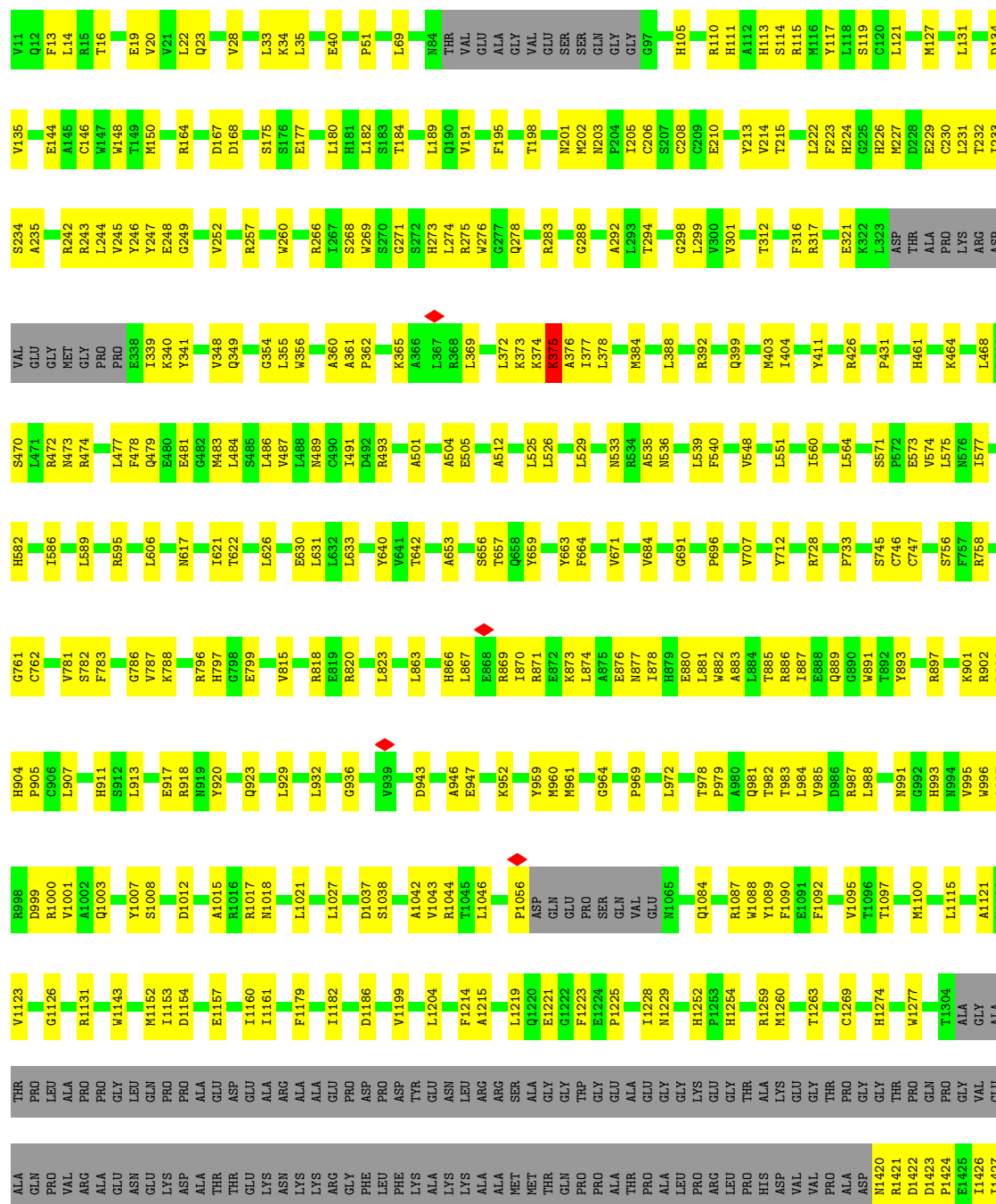
- Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B





• Molecule 2: Ryanodine receptor 1

Chain B: 62% 23% 14%



L1428	L1429	L1430	L1431	L1432	L1433	L1434	L1435	E1444	C1447	P1455	C1489	W1496	G1497	G1498	D1499	F1500	V1501	S1502	P1503	G1504	GLN	GLY	R1508	I1509	I1510	H1511	L1519	M1527	T1530	E1535	F1540	F1549	P1550	L1555	P1556	T1557	Q1569	I1572	A1578	L1581	L1584		



A2570	G2571	E2449	E2347	I2223	M2120	F2012	GLU	R1759	A1576	R1421	THR	L1115	H996
E2572	R2452	R2453	N2351	R2224	F2121	L2031	GLU	T1769	L1581	D1422	PRO	A1121	A997
E2573	I2453	I2454	V2352	F2225	S2122	L2045	LYS	S1770	L1584	D1423	GLN	Y1122	R998
R2574	R2457	R2458	V2353	N2228	L2123	LEU	ASP	L1771	R1584	P1424	GLY	V1123	R1000
A2576	L2460	L2461	R2355	V2229	R2126	GLU	GLU	R1772	C1591	E1426	VAL	G1126	V1001
I2577	L2463	L2464	L2357	T2230	Q2127	GLY	GLU	P1773	C1591	I1427	GLU	R1131	A1002
V2579	L2469	L2470	R2358	R2234	L2134	GLY	GLU	A1784	F1612	N1428	ALA	W1143	Q1003
M2582	L2472	L2473	R2359	F2235	L2138	GLU	GLU	A1785	F1613	N1429	GLN	W1152	Y1007
T2585	Q2475	Q2476	F2240	G2237	L2139	GLU	GLU	L1786	L1613	T1430	PRO	M1152	S1008
R2591	I2476	I2477	Y2142	PRO	Y2142	PRO	ASP	P1787	Q1614	T1431	ALA	I1153	D1012
G2592	L2376	L2377	P2146	GLU	P2146	GLU	ALA	ALA	V1615	Y1433	GLY	D1154	A1015
A2598	L2380	L2381	T2152	GLU	T2152	THR	GLU	VAL	R1619	Y1435	ASN	E1157	R1016
Q2599	E2381	E2382	M2153	GLU	M2153	GLU	LYS	ALA	R1623	E1444	PRO	Y1017	R1017
R2600	E2382	E2383	L2156	GLU	L2156	GLU	GLU	E1793	W1626	C1447	ALA	I1160	N1018
D2601	A2383	A2384	GLY	GLU	E2157	LEU	GLU	R1813	Q1629	P1455	THR	I1161	L1021
I2602	I2384	I2385	ARG	GLU	C2158	ARG	ALA	M1814	L1630	D1498	THR	L1027	L1027
E2603	R2385	R2386	LEU	GLU	L2159	LEU	PRO	L1815	Q1631	F1500	LYS	M1170	L1044
I2604	S2501	S2502	ARG	GLU	G2160	ARG	GLY	G1816	M1637	V1501	ASN	F1179	D1037
D2605	H2498	H2499	THR	GLU	Q2161	THR	GLY	E1817	A1638	S1502	LYS	I1182	S1038
L2613	L2501	L2502	VAL	GLU	I2162	VAL	GLU	R1827	L1639	G1497	LYS	I1042	A1042
I2614	E2513	E2514	ARG	GLU	R2163	ARG	GLU	F1836	E1643	D1499	GLY	V1043	V1043
P2616	Q2515	Q2516	LEU	GLU	S2164	LEU	GLU	V1845	D1658	V1500	PHE	R1044	R1044
L2619	F2517	F2518	LYS	GLU	L2165	LYS	GLU	L1849	L1689	P1501	LEU	V1199	T1045
L2623	L2518	L2519	LYS	GLU	S2166	LYS	GLU	V1859	V1673	S1503	PHE	L1046	L1046
L2626	L2520	L2521	GLU	GLU	Q2173	GLU	GLU	K1860	R1680	G1504	LYS	L1204	I1053
V2627	F2526	F2527	GLU	GLU	E2174	GLU	GLU	F1854	L1694	GLN	ALA	F1214	P1056
V2630	L2527	L2528	PRO	GLU	R2175	ARG	GLU	K1864	L1695	GLY	ALA	A1215	ASP
N2634	M2530	M2531	GLU	GLU	L2177	LEU	GLU	E1874	H1696	R1508	ALA	L1219	GLN
E2635	R2531	R2532	GLU	GLU	M2178	GLU	GLU	GLU	M1699	L1519	MET	Q1220	GLU
F2636	F2541	F2542	N2414	GLU	I2179	GLU	GLU	GLU	E1699	L1527	ALA	E1221	PRO
A2637	A2549	A2550	R2415	GLU	K2189	LYS	GLU	GLU	R1708	T1530	THR	F1223	SER
R2638	L2550	L2551	V2416	GLU	Y2192	LYS	GLU	GLU	L1715	E1535	GLY	P1225	GLN
M2639	L2552	L2553	H2417	GLU	M2198	GLU	GLU	GLU	I1718	F1540	PRO	I1228	VAL
P2640	R2551	R2552	L2418	GLU	T2206	GLU	GLU	GLU	R1727	P1550	LEU	N1229	GLU
L2644	R2552	R2553	I2422	GLU	T2207	GLU	GLU	GLU	L1735	F1549	ARG	H1252	GLY
Y2648	L2559	L2560	L2429	GLU	M2208	GLU	GLU	GLU	I1738	P1557	LEU	H1253	LYS
R2649	T2563	T2564	I2430	GLU	E2209	GLU	GLU	GLU	R1738	L1585	PRO	H1254	GLY
E2650	A2566	A2567	D2431	GLU	V2210	GLU	GLU	GLU	I1745	P1586	LEU	R1259	ALA
G2651	L2568	L2569	R2435	GLU	M2211	GLU	GLU	GLU	A1757	T1557	PRO	D1261	HIS
K2652	R2567	R2568	M2440	GLU	M2212	GLU	GLU	GLU	L1572	Q1569	VAL	G1262	GLY
Y2654	F2569	F2570	F2569	GLU	G2218	GLU	GLU	GLU	L1578	T1572	PRO	T1263	THR
					THR	D2109	GLU	GLU			ASP	C1269	GLY
					LYS	E2115	ASP	GLU			ALA	H1274	GLY
					GLU	L2116	I2006	GLU			N1420		





Frequency	Percentage
Daily	62%
Weekly	23%
Monthly	14%





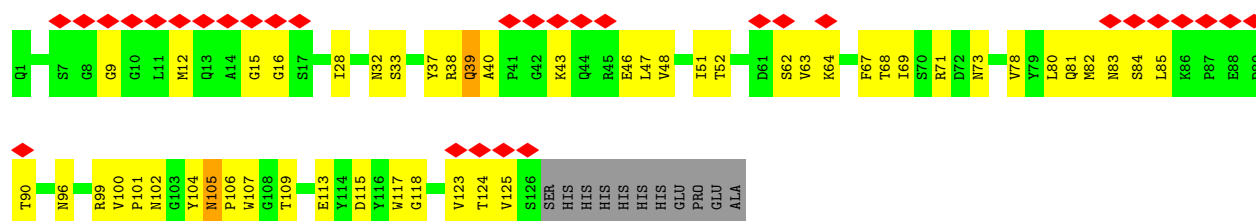
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R3540	S3474	R3367	S3100	L3003	T2912	THR	K2770	D2684	T2585	I2469	P2361
R3541	R3368	R3368	D3101	P3004	A2913	GLU	I2771	S2685	R2591	L2472	F2364
R3542	SER	Y3182	D3102	L3005	A2917	LYS	K2772	H2688	G2592	L2475	L2376
R3543	LYS	E3263	E3103	N3006	Q2924	LYS	N2773	Y2691	A2598	Q2475	T2380
R3544	ALA	E3265	E3104	N3007	Q2924	THR	N2774	Y2696	Q2599	L2476	E2361
R3545	LYS	I3272	K3105	Q3008	Q2924	ARG	N2775	Y2696	R2600	L2479	E2362
R3546	ALA	T3273	K3106	N3012	L2927	ILE	N2776	Y2696	D2601	L2479	E2361
R3547	ALA	T3274	V3107	H3013	L2927	SER	N2777	M2700	V2602	P2496	A2383
R3548	ASP	P3275	L3110	C3014	K2928	THR	N2778	C2702	E2604	D2497	L2384
R3549	ASP	P3276	L3111	G3029	Q2931	GLN	E2779	L2703	D2605	H2493	R2385
R3550	ALA	L3277	LEU	V3024	M2932	ALA	N2780	L2710	C2606	S2501	P2395
R3551	ALA	Y3280	GLY	G3029	M2932	THR	N2781	L2710	L2607	M2502	GLY
R3552	GLN	L3281	LYS	H3030	N2933	THR	D2782	P2711	L2610	V2503	VAL
R3553	SER	L3190	SER	A3031	Q2934	THR	E2783	S2718	L2610	L2506	ARG
R3554	GLN	G3193	GLN	K3034	V2935	ASP	E2784	K2725	L2614	L2506	ARG
R3555	GLY	A3195	THR	E3085	V2937	ARG	E2785	L2725	R2614	E2513	ARG
R3556	ASP	L3196	GLN	K3036	V2937	GLY	L2785	L2725	R2616	N2514	ARG
R3557	ASP	R3284	LYS	M3038	R2938	THR	E2786	L2725	L2619	Q2515	GLU
R3558	ASP	P3285	LYS	I3039	R2939	GLY	T2787	L2725	L2619	D2516	HIS
R3559	GLN	E3286	VAL	T3040	GLY	LYS	H2788	L2725	L2619	L2516	PHE
R3560	GLU	R3287	VAL	S3041	LEU	LYS	P2789	L2725	L2619	L2516	GLY
R3561	ARG	L3296	GLY	K3042	ASP	THR	E2790	L2725	L2619	L2516	GLY
R3562	THR	C3304	VAL	L3042	MET	ASP	L2791	L2725	L2619	L2516	GLY
R3563	LYS	L3312	GLY	F3043	GLU	THR	K2792	L2725	L2619	L2516	GLY
R3564	LYS	S3313	GLY	K3044	L2946	THR	P2793	L2725	L2619	L2516	GLY
R3565	ARG	S3314	GLY	K3045	D2947	THR	E2794	L2725	L2619	L2516	GLY
R3566	ARG	L3315	GLY	L3046	D2947	THR	E2795	L2725	L2619	L2516	GLY
R3567	ARG	L3316	GLY	L3046	D2947	THR	E2796	L2725	L2619	L2516	GLY
R3568	ARG	G3317	GLY	L3046	D2947	THR	E2797	L2725	L2619	L2516	GLY
R3569	ARG	S3318	GLY	L3046	D2947	THR	E2798	L2725	L2619	L2516	GLY
R3570	ARG	L3319	GLY	L3046	D2947	THR	E2799	L2725	L2619	L2516	GLY
R3571	ARG	L3320	GLY	L3046	D2947	THR	E2800	L2725	L2619	L2516	GLY
R3572	ARG	R3321	GLY	L3046	D2947	THR	E2801	L2725	L2619	L2516	GLY
R3573	ARG	L3322	GLY	L3046	D2947	THR	E2802	L2725	L2619	L2516	GLY
R3574	ARG	R3323	GLY	L3046	D2947	THR	E2803	L2725	L2619	L2516	GLY
R3575	ARG	S3324	GLY	L3046	D2947	THR	E2804	L2725	L2619	L2516	GLY
R3576	ARG	S3325	GLY	L3046	D2947	THR	E2805	L2725	L2619	L2516	GLY
R3577	ARG	L3326	GLY	L3046	D2947	THR	E2806	L2725	L2619	L2516	GLY
R3578	ARG	S3327	GLY	L3046	D2947	THR	E2807	L2725	L2619	L2516	GLY
R3579	ARG	A3228	GLY	L3046	D2947	THR	E2808	L2725	L2619	L2516	GLY
R3580	ARG	L3329	GLY	L3046	D2947	THR	E2809	L2725	L2619	L2516	GLY
R3581	ARG	S3330	GLY	L3046	D2947	THR	E2810	L2725	L2619	L2516	GLY
R3582	ARG	L3331	GLY	L3046	D2947	THR	E2811	L2725	L2619	L2516	GLY
R3583	ARG	R3332	GLY	L3046	D2947	THR	E2812	L2725	L2619	L2516	GLY
R3584	ARG	S3333	GLY	L3046	D2947	THR	E2813	L2725	L2619	L2516	GLY
R3585	ARG	L3334	GLY	L3046	D2947	THR	E2814	L2725	L2619	L2516	GLY
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R3625	ARG	R3373	GLY	L3046	D2947	THR	E2854	L2725	L2619	L2516	GLY
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R3657	ARG	L3391	GLY	L3046	D2947	THR	E2886	L2725	L2619	L2516	GLY
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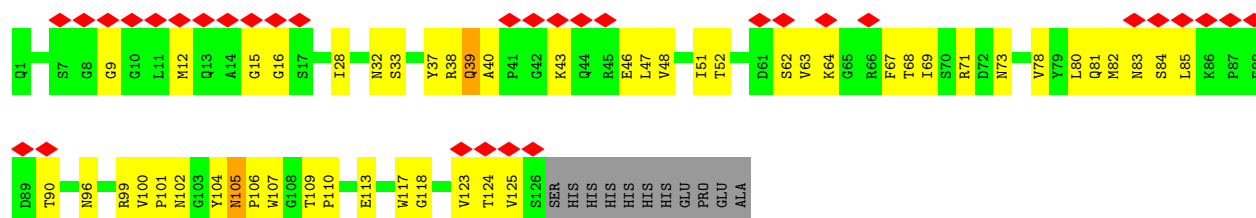
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V3394	W3285	M3201	LEU	C3014		SER	G2778	Y2696	R2591	Q2475	L2380	M2250	I2162
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	L3206	L3206	VAL	H3030	M2933	GLN	Y2781	P2702	Q2599	L2496	E2383	G2263	W2170
	Q3209	Q3209	SER	A3031	D2934	THR	E2783	L2703	R2600	P2496	A2384	G2264	Q2173
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	V3218	V3218	GLN	E3036	T2938	GLU	K2786	P2711	E2604	M2502	GLY	L2286	L2177
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	R3346	R3346	GLY	V3054	Q2962	S2868	X2802		K2638	M2530	GLU		Y2211
	M3347	M3347	THR	L3058	L2963	R2869	E2803		N2639	R2531	GLU		Y2212
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	K3475	K3475	ALA	E3104	F3004	T2912	E2830		F2683	L2582	L2357		Q2245
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Y4883	V4720	GLU	GLY	ARG	GLY	LEU	GLY	LEU	ARG	K4211	L4068	N3950	M3778	L3641	Q3554	SER
Y4886	V4724	ASP	GLY	LYS	ALA	LEU	GLY	LEU	LEU	Y4080	K4069	N3950	M3778	N3642	GLY	
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I4897	S4747	GLY	GLY	GLY	GLY	GLY	VAL	GLY	LEU	E4232	K4091	L3969	M3816	N3566	GLU	
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G4974	I4783	ASP	ASP	GLY	ASP	GLY	ASP	GLY	ARG	GLY	F4110	F3992	VAL	S3508	T3507	
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E4982	G4802	GLY	GLY	ASN	PHE	PRO	PRO	PRO	ARG	PRO	S4115	F3996	GLU	V3510	V3510	
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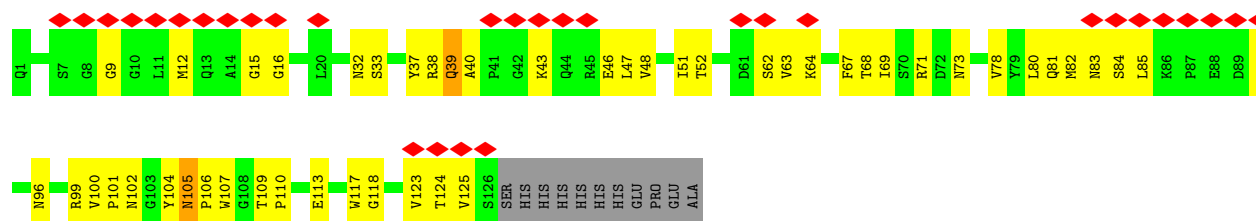
• Molecule 3: Nanobody 9657



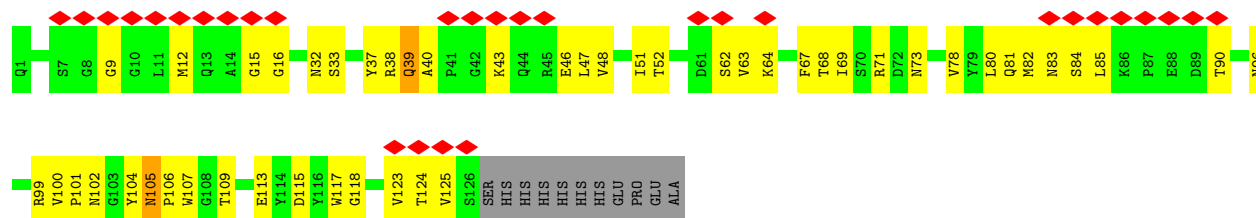
• Molecule 3: Nanobody 9657



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4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	145830	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	4.519	Depositor
Minimum map value	-0.106	Depositor
Average map value	0.057	Depositor
Map value standard deviation	0.125	Depositor
Recommended contour level	0.3	Depositor
Map size ($\text{\AA}$)	500.64, 500.64, 500.64	wwPDB
Map dimensions	336, 336, 336	wwPDB
Map angles ($^\circ$)	90.0, 90.0, 90.0	wwPDB
Pixel spacing ($\text{\AA}$)	1.49, 1.49, 1.49	Depositor

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.17	0/831	0.54	0/1118
1	D	0.18	0/831	0.56	0/1118
1	H	0.18	0/831	0.56	0/1118
1	I	0.18	0/831	0.56	0/1118
2	B	0.14	0/34814	0.33	3/47183 (0.0%)
2	E	0.14	0/34814	0.33	1/47183 (0.0%)
2	G	0.14	0/34921	0.33	1/47329 (0.0%)
2	J	0.13	0/34814	0.33	1/47183 (0.0%)
3	C	0.17	0/979	0.41	0/1329
3	F	0.16	0/979	0.41	0/1329
3	K	0.17	0/979	0.41	0/1329
3	M	0.16	0/979	0.41	0/1329
All	All	0.14	0/146603	0.34	6/198666 (0.0%)

There are no bond length outliers.

All (6) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	E	1503	PRO	N-CA-CB	6.24	110.19	103.33
2	J	1503	PRO	N-CA-CB	6.20	110.15	103.33
2	B	1503	PRO	N-CA-CB	6.16	110.11	103.33
2	G	1503	PRO	N-CA-CB	6.15	110.09	103.33
2	B	3247	ASP	N-CA-C	5.65	122.83	110.80
2	B	3245	VAL	N-CA-C	5.47	120.72	109.34

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	816	0	818	30	0
1	D	816	0	818	23	0
1	H	816	0	818	25	0
1	I	816	0	818	24	0
2	B	34043	0	33446	841	0
2	E	34043	0	33446	846	0
2	G	34149	0	33547	853	0
2	J	34043	0	33446	836	0
3	C	960	0	909	38	0
3	F	960	0	909	42	0
3	K	960	0	909	41	0
3	M	960	0	909	41	0
4	B	1	0	0	0	0
4	E	1	0	0	0	0
4	G	1	0	0	0	0
4	J	1	0	0	0	0
5	B	31	0	12	0	0
5	E	31	0	12	0	0
5	G	31	0	12	0	0
5	J	31	0	12	0	0
6	B	14	0	10	0	0
6	E	14	0	10	0	0
6	G	14	0	10	0	0
6	J	14	0	10	0	0
7	B	1	0	0	0	0
7	E	1	0	0	0	0
7	G	1	0	0	0	0
7	J	1	0	0	0	0
All	All	143570	0	140881	3586	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 13.

All (3586) 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)
2:B:4961:CYS:SG	2:B:4983:HIS:CE1	2.61	0.94
2:G:4961:CYS:SG	2:G:4983:HIS:CE1	2.60	0.93
2:E:4961:CYS:SG	2:E:4983:HIS:CE1	2.60	0.93
3:K:100:VAL:HG22	3:K:105:ASN:HD22	1.34	0.92
2:J:4961:CYS:SG	2:J:4983:HIS:CE1	2.60	0.92
3:M:100:VAL:HG22	3:M:105:ASN:HD22	1.33	0.92
2:B:3207:GLU:HB2	2:B:3246:LEU:HD22	1.51	0.92
2:B:3836:MET:HE1	2:B:3915:ILE:HG23	1.54	0.89
2:B:2515:GLN:HA	2:B:2568:LEU:HD21	1.54	0.89
3:C:100:VAL:HG22	3:C:105:ASN:HD22	1.33	0.89
3:F:100:VAL:HG22	3:F:105:ASN:HD22	1.34	0.89
2:E:3836:MET:HE1	2:E:3915:ILE:HG23	1.54	0.89
2:G:3836:MET:HE1	2:G:3915:ILE:HG23	1.54	0.88
2:G:5013:MET:HE1	2:G:5020:ASP:HB2	1.57	0.84
3:K:38:ARG:HH22	3:K:64:LYS:HG2	1.43	0.84
3:M:38:ARG:HH22	3:M:64:LYS:HG2	1.43	0.83
3:C:38:ARG:HH22	3:C:64:LYS:HG2	1.43	0.82
2:G:4207:MET:HE3	2:G:4208:PRO:HD2	1.60	0.82
2:J:4207:MET:HE3	2:J:4208:PRO:HD2	1.60	0.81
3:F:38:ARG:HH22	3:F:64:LYS:HG2	1.43	0.81
2:B:4207:MET:HE3	2:B:4208:PRO:HD2	1.60	0.81
2:E:4207:MET:HE3	2:E:4208:PRO:HD2	1.60	0.80
2:B:248:GLU:HB3	2:B:373:LYS:HD3	1.60	0.80
2:E:248:GLU:HA	2:E:372:LEU:HB3	1.65	0.78
2:G:248:GLU:HA	2:G:372:LEU:HB2	1.64	0.77
2:E:247:TYR:HD2	2:E:374:LYS:HB2	1.50	0.76
2:B:3277:LEU:HD13	2:B:3315:LEU:HD22	1.67	0.76
2:G:2974:ILE:HD12	2:G:3053:ARG:HG2	1.68	0.76
2:G:229:GLU:HA	2:G:249:GLY:HA3	1.68	0.76
2:J:2974:ILE:HD12	2:J:3053:ARG:HG2	1.68	0.76
2:E:1422:ASP:HB2	2:E:1427:ILE:HD11	1.68	0.76
2:B:229:GLU:HA	2:B:249:GLY:HA3	1.68	0.75
2:B:1422:ASP:HB2	2:B:1427:ILE:HD11	1.68	0.75
2:B:2974:ILE:HD12	2:B:3053:ARG:HG2	1.68	0.75
2:J:229:GLU:HA	2:J:249:GLY:HA3	1.68	0.75
2:G:1422:ASP:HB2	2:G:1427:ILE:HD11	1.68	0.75
2:E:2974:ILE:HD12	2:E:3053:ARG:HG2	1.68	0.74
2:B:3366:ARG:NH1	2:B:3437:MET:SD	2.60	0.74
2:B:891:TRP:HA	2:B:902:ARG:HB3	1.69	0.74
2:J:404:ILE:HD13	2:J:481:GLU:HG3	1.70	0.74
2:J:959:TYR:HB2	2:J:964:GLY:HA2	1.69	0.74
2:J:891:TRP:HA	2:J:902:ARG:HB3	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2867:LEU:HB2	2:B:2928:LYS:HZ3	1.53	0.74
2:J:248:GLU:HB3	2:J:373:LYS:HD3	1.69	0.74
2:G:3366:ARG:NH1	2:G:3437:MET:SD	2.60	0.74
2:E:229:GLU:HA	2:E:249:GLY:HA3	1.68	0.74
2:E:404:ILE:HD13	2:E:481:GLU:HG3	1.70	0.74
2:J:1422:ASP:HB2	2:J:1427:ILE:HD11	1.68	0.74
2:E:2867:LEU:HB2	2:E:2928:LYS:HZ3	1.53	0.73
2:J:2867:LEU:HB2	2:J:2928:LYS:HZ3	1.53	0.73
2:E:3366:ARG:NH1	2:E:3437:MET:SD	2.60	0.73
2:J:3836:MET:HE1	2:J:3915:ILE:HG23	1.68	0.73
2:B:959:TYR:HB2	2:B:964:GLY:HA2	1.69	0.73
2:G:959:TYR:HB2	2:G:964:GLY:HA2	1.69	0.73
2:G:2867:LEU:HB2	2:G:2928:LYS:HZ3	1.53	0.73
2:G:891:TRP:HA	2:G:902:ARG:HB3	1.69	0.73
2:J:3366:ARG:HE	2:J:3367:LYS:HD2	1.54	0.73
2:B:3366:ARG:HE	2:B:3367:LYS:HD2	1.54	0.73
2:G:404:ILE:HD13	2:G:481:GLU:HG3	1.70	0.73
2:E:4852:THR:HG21	2:E:4883:TYR:HA	1.71	0.72
2:G:4715:TYR:HE2	2:G:4717:ASP:HB3	1.53	0.72
2:J:3366:ARG:NH1	2:J:3437:MET:SD	2.60	0.72
2:B:4852:THR:HG21	2:B:4883:TYR:HA	1.71	0.72
2:E:959:TYR:HB2	2:E:964:GLY:HA2	1.69	0.72
2:J:913:LEU:HB3	2:J:917:GLU:HB2	1.72	0.72
2:E:913:LEU:HB3	2:E:917:GLU:HB2	1.72	0.72
2:G:3809:ASN:HB3	2:G:3812:VAL:HG22	1.71	0.72
2:B:247:TYR:HD2	2:B:374:LYS:HB2	1.55	0.72
2:E:891:TRP:HA	2:E:902:ARG:HB3	1.69	0.72
2:B:404:ILE:HD13	2:B:481:GLU:HG3	1.70	0.72
2:G:3320:LEU:HD12	2:G:3357:HIS:CD2	2.25	0.72
2:E:4715:TYR:HE2	2:E:4717:ASP:HB3	1.54	0.72
2:B:3273:THR:HA	2:B:3276:MET:HG2	1.72	0.72
2:J:3277:LEU:HD13	2:J:3315:LEU:HD22	1.71	0.72
2:E:3809:ASN:HB3	2:E:3812:VAL:HG22	1.71	0.71
2:G:4852:THR:HG21	2:G:4883:TYR:HA	1.71	0.71
2:E:3366:ARG:HE	2:E:3367:LYS:HD2	1.54	0.71
2:G:3273:THR:HA	2:G:3276:MET:HG2	1.72	0.71
2:J:3809:ASN:HB3	2:J:3812:VAL:HG22	1.71	0.71
2:J:4715:TYR:HE2	2:J:4717:ASP:HB3	1.55	0.71
2:E:4546:VAL:HG22	2:E:4550:LYS:HE3	1.72	0.70
2:G:2244:ARG:HD3	2:G:3860:ASN:HA	1.73	0.70
2:J:3273:THR:HA	2:J:3276:MET:HG2	1.72	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:913:LEU:HB3	2:B:917:GLU:HB2	1.72	0.70
2:B:3144:PHE:HB2	2:B:3196:ARG:HB3	1.73	0.70
2:B:3809:ASN:HB3	2:B:3812:VAL:HG22	1.71	0.70
2:G:913:LEU:HB3	2:G:917:GLU:HB2	1.72	0.70
2:G:1981:MET:HE2	2:G:1981:MET:HA	1.73	0.70
2:G:3366:ARG:HE	2:G:3367:LYS:HD2	1.54	0.70
2:E:3144:PHE:HB2	2:E:3196:ARG:HB3	1.73	0.70
2:E:3344:PRO:O	2:E:3348:ARG:NH2	2.25	0.70
2:J:3344:PRO:O	2:J:3348:ARG:NH2	2.25	0.70
2:B:4546:VAL:HG22	2:B:4550:LYS:HE3	1.72	0.70
2:J:4852:THR:HG21	2:J:4883:TYR:HA	1.71	0.70
2:G:3344:PRO:O	2:G:3348:ARG:NH2	2.25	0.70
2:G:4546:VAL:HG22	2:G:4550:LYS:HE3	1.72	0.70
2:E:3273:THR:HA	2:E:3276:MET:HG2	1.72	0.70
2:J:3250:MET:HE3	2:J:3315:LEU:HD21	1.74	0.70
2:B:3344:PRO:O	2:B:3348:ARG:NH2	2.25	0.70
2:B:4762:PRO:HD2	2:B:4766:THR:HG21	1.73	0.70
2:J:4762:PRO:HD2	2:J:4766:THR:HG21	1.73	0.70
2:G:3144:PHE:HB2	2:G:3196:ARG:HB3	1.73	0.69
2:J:4546:VAL:HG22	2:J:4550:LYS:HE3	1.72	0.69
2:B:399:GLN:O	2:B:403:MET:HG3	1.92	0.69
2:B:1981:MET:HE2	2:B:1981:MET:HA	1.73	0.69
2:B:640:TYR:HB3	2:B:1613:LEU:HD11	1.75	0.69
2:B:2321:ILE:HD11	2:B:2418:LEU:HB2	1.74	0.69
2:E:3308:THR:H	2:E:3311:HIS:CD2	2.09	0.69
2:E:4762:PRO:HD2	2:E:4766:THR:HG21	1.73	0.69
2:G:399:GLN:O	2:G:403:MET:HG3	1.92	0.69
2:G:640:TYR:HB3	2:G:1613:LEU:HD11	1.75	0.69
2:G:3870:ASN:HD21	2:G:3873:LYS:HB3	1.57	0.69
2:J:2871:LEU:HG	2:J:2927:LEU:HD21	1.74	0.69
2:E:2321:ILE:HD11	2:E:2418:LEU:HB2	1.74	0.69
2:E:2871:LEU:HG	2:E:2927:LEU:HD21	1.74	0.69
2:J:2788:HIS:HB3	2:J:2791:LEU:HB2	1.75	0.69
2:G:4897:ILE:HG13	2:G:4901:ILE:HD11	1.75	0.69
2:J:1981:MET:HE2	2:J:1981:MET:HA	1.74	0.69
2:E:4897:ILE:HG13	2:E:4901:ILE:HD11	1.75	0.69
2:J:3144:PHE:HB2	2:J:3196:ARG:HB3	1.73	0.69
2:B:3812:VAL:O	2:B:3816:MET:HG3	1.93	0.68
2:B:4176:PRO:O	2:B:4202:ARG:NH2	2.26	0.68
2:E:3812:VAL:O	2:E:3816:MET:HG3	1.93	0.68
2:G:2871:LEU:HG	2:G:2927:LEU:HD21	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:640:TYR:HB3	2:J:1613:LEU:HD11	1.75	0.68
2:B:2116:LEU:O	2:B:2120:MET:HG2	1.94	0.68
2:B:2871:LEU:HG	2:B:2927:LEU:HD21	1.74	0.68
2:G:4176:PRO:O	2:G:4202:ARG:NH2	2.26	0.68
2:E:399:GLN:O	2:E:403:MET:HG3	1.92	0.68
2:J:399:GLN:O	2:J:403:MET:HG3	1.92	0.68
2:B:4897:ILE:HG13	2:B:4901:ILE:HD11	1.75	0.68
2:E:640:TYR:HB3	2:E:1613:LEU:HD11	1.75	0.68
2:J:897:ARG:HD3	2:J:905:PRO:HD3	1.76	0.68
2:J:4897:ILE:HG13	2:J:4901:ILE:HD11	1.75	0.68
2:B:3077:ALA:O	2:B:3081:MET:HG2	1.94	0.68
3:F:71:ARG:NH1	3:F:73:ASN:OD1	2.26	0.68
2:E:3077:ALA:O	2:E:3081:MET:HG2	1.94	0.68
2:J:2116:LEU:O	2:J:2120:MET:HG2	1.94	0.68
2:B:1089:TYR:HD1	2:B:1152:MET:HG2	1.60	0.68
2:E:1981:MET:HE2	2:E:1981:MET:HA	1.73	0.68
2:G:2321:ILE:HD11	2:G:2418:LEU:HB2	1.74	0.68
2:B:2788:HIS:HB3	2:B:2791:LEU:HB2	1.75	0.67
2:E:2515:GLN:HA	2:E:2568:LEU:HD21	1.75	0.67
2:E:2788:HIS:HB3	2:E:2791:LEU:HB2	1.75	0.67
2:J:2321:ILE:HD11	2:J:2418:LEU:HB2	1.74	0.67
3:K:51:ILE:HG23	3:K:71:ARG:HD2	1.76	0.67
2:G:2116:LEU:O	2:G:2120:MET:HG2	1.94	0.67
2:G:4762:PRO:HD2	2:G:4766:THR:HG21	1.73	0.67
2:J:246:TYR:CG	2:J:373:LYS:HD2	2.30	0.67
2:J:2515:GLN:HA	2:J:2568:LEU:HD21	1.76	0.67
2:J:3262:ARG:HB2	2:J:3265:GLU:HG2	1.76	0.67
2:B:3250:MET:HE3	2:B:3315:LEU:HD21	1.77	0.67
2:B:4679:ARG:HE	2:B:5017:ARG:NH2	1.92	0.67
2:E:4176:PRO:O	2:E:4202:ARG:NH2	2.26	0.67
2:G:897:ARG:HD3	2:G:905:PRO:HD3	1.76	0.67
2:G:3812:VAL:O	2:G:3816:MET:HG3	1.93	0.67
2:J:3812:VAL:O	2:J:3816:MET:HG3	1.93	0.67
2:J:4176:PRO:O	2:J:4202:ARG:NH2	2.26	0.67
2:E:897:ARG:HD3	2:E:905:PRO:HD3	1.76	0.67
2:B:2967:MET:HE1	2:B:3045:LYS:HB3	1.77	0.67
2:G:3262:ARG:HB2	2:G:3265:GLU:HG2	1.76	0.67
2:J:2967:MET:HE1	2:J:3045:LYS:HB3	1.77	0.67
2:E:2116:LEU:O	2:E:2120:MET:HG2	1.94	0.67
3:M:51:ILE:HG23	3:M:71:ARG:HD2	1.76	0.67
2:E:20:VAL:HG11	2:E:202:MET:HE2	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:20:VAL:HG11	2:G:202:MET:HE2	1.77	0.67
2:G:1089:TYR:HD1	2:G:1152:MET:HG2	1.60	0.67
2:G:3077:ALA:O	2:G:3081:MET:HG2	1.94	0.67
3:M:71:ARG:NH1	3:M:73:ASN:OD1	2.26	0.67
2:E:1089:TYR:HD1	2:E:1152:MET:HG2	1.60	0.67
2:E:3253:ILE:HG23	2:E:3318:ASN:HD22	1.60	0.67
2:G:2788:HIS:HB3	2:G:2791:LEU:HB2	1.75	0.67
2:J:2513:GLU:N	2:J:2513:GLU:OE2	2.28	0.67
2:J:3077:ALA:O	2:J:3081:MET:HG2	1.94	0.67
2:G:2513:GLU:N	2:G:2513:GLU:OE2	2.29	0.66
3:K:71:ARG:NH1	3:K:73:ASN:OD1	2.26	0.66
2:E:2967:MET:HE1	2:E:3045:LYS:HB3	1.77	0.66
2:G:2967:MET:HE1	2:G:3045:LYS:HB3	1.77	0.66
3:C:51:ILE:HG23	3:C:71:ARG:HD2	1.76	0.66
2:E:110:ARG:HD3	2:E:115:ARG:HE	1.60	0.66
2:G:248:GLU:HB3	2:G:373:LYS:HD3	1.77	0.66
2:B:20:VAL:HG11	2:B:202:MET:HE2	1.77	0.66
2:E:3768:SER:HA	2:E:3771:HIS:CD2	2.31	0.66
2:J:110:ARG:HD3	2:J:115:ARG:HE	1.60	0.66
2:J:3433:GLU:HA	2:J:3436:ARG:HD2	1.78	0.66
2:B:3262:ARG:HB2	2:B:3265:GLU:HG2	1.76	0.66
2:G:3433:GLU:HA	2:G:3436:ARG:HD2	1.78	0.66
2:J:20:VAL:HG11	2:J:202:MET:HE2	1.77	0.66
2:J:3768:SER:HA	2:J:3771:HIS:CD2	2.31	0.66
2:B:3768:SER:HA	2:B:3771:HIS:CD2	2.31	0.66
2:G:3768:SER:HA	2:G:3771:HIS:CD2	2.31	0.66
2:B:2513:GLU:N	2:B:2513:GLU:OE2	2.29	0.66
2:G:1519:LEU:HD11	2:G:1572:ILE:HD13	1.78	0.66
2:B:897:ARG:HD3	2:B:905:PRO:HD3	1.76	0.66
2:J:247:TYR:HD2	2:J:374:LYS:HB2	1.60	0.66
1:H:66:MET:HE1	1:H:101:VAL:HG23	1.78	0.65
2:E:2513:GLU:N	2:E:2513:GLU:OE2	2.29	0.65
2:E:2566:ALA:HA	2:E:2569:PHE:HD2	1.59	0.65
2:G:246:TYR:CG	2:G:373:LYS:HD2	2.31	0.65
2:J:1519:LEU:HD11	2:J:1572:ILE:HD13	1.78	0.65
2:B:3031:ALA:O	2:B:3036:LYS:NZ	2.30	0.65
2:E:3262:ARG:HB2	2:E:3265:GLU:HG2	1.76	0.65
2:B:1519:LEU:HD11	2:B:1572:ILE:HD13	1.78	0.65
2:B:3194:LEU:HD13	2:B:3276:MET:SD	2.36	0.65
2:J:3194:LEU:HD13	2:J:3276:MET:SD	2.36	0.65
2:J:1089:TYR:HD1	2:J:1152:MET:HG2	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:110:ARG:HD3	2:G:115:ARG:HE	1.60	0.65
2:G:3194:LEU:HD13	2:G:3276:MET:SD	2.36	0.65
2:B:3435:PHE:HE2	2:B:3518:LEU:HA	1.62	0.65
2:E:3031:ALA:O	2:E:3036:LYS:NZ	2.30	0.65
2:E:3245:VAL:HG23	2:E:3248:ARG:H	1.61	0.65
2:E:3433:GLU:HA	2:E:3436:ARG:HD2	1.78	0.65
2:J:2263:ILE:HA	2:J:2330:ARG:HH22	1.62	0.65
3:F:51:ILE:HG23	3:F:71:ARG:HD2	1.76	0.65
2:E:3194:LEU:HD13	2:E:3276:MET:SD	2.36	0.65
2:E:3435:PHE:HE2	2:E:3518:LEU:HA	1.62	0.65
2:J:622:THR:HA	2:J:626:LEU:HD13	1.79	0.65
3:M:52:THR:HG21	3:M:102:ASN:HA	1.79	0.65
2:B:110:ARG:HD3	2:B:115:ARG:HE	1.60	0.65
2:B:3530:GLN:HG2	2:B:3534:MET:HE3	1.79	0.65
2:G:3031:ALA:O	2:G:3036:LYS:NZ	2.30	0.65
2:G:3530:GLN:HG2	2:G:3534:MET:HE3	1.79	0.65
2:J:3594:ARG:NH1	2:J:3594:ARG:HA	2.12	0.65
2:B:2347:GLU:OE1	2:B:2347:GLU:N	2.27	0.64
2:E:1519:LEU:HD11	2:E:1572:ILE:HD13	1.78	0.64
2:E:3594:ARG:NH1	2:E:3594:ARG:HA	2.12	0.64
2:B:3281:LEU:HD12	2:B:3312:LEU:HG	1.79	0.64
2:E:622:THR:HA	2:E:626:LEU:HD13	1.79	0.64
2:G:247:TYR:HD2	2:G:374:LYS:HB2	1.62	0.64
2:B:2902:HIS:HB3	2:B:2905:LEU:HG	1.79	0.64
2:B:3433:GLU:HA	2:B:3436:ARG:HD2	1.78	0.64
2:E:246:TYR:CG	2:E:373:LYS:HG3	2.33	0.64
2:E:2902:HIS:HB3	2:E:2905:LEU:HG	1.79	0.64
2:G:2263:ILE:HA	2:G:2330:ARG:HH22	1.62	0.64
2:J:2765:LYS:HZ2	2:J:2860:PRO:HA	1.62	0.64
2:B:3567:PRO:HB2	2:B:3570:ARG:HH21	1.62	0.64
2:G:3281:LEU:HD12	2:G:3312:LEU:HG	1.79	0.64
3:C:71:ARG:NH1	3:C:73:ASN:OD1	2.26	0.64
3:F:52:THR:HG21	3:F:102:ASN:HA	1.79	0.64
3:K:52:THR:HG21	3:K:102:ASN:HA	1.79	0.64
2:E:2347:GLU:OE1	2:E:2347:GLU:N	2.27	0.64
2:E:3530:GLN:HG2	2:E:3534:MET:HE3	1.79	0.64
2:J:3263:TYR:HE2	2:J:3334:TRP:HD1	1.46	0.64
2:B:3253:ILE:HG23	2:B:3318:ASN:HD22	1.61	0.64
2:E:3573:MET:HE2	2:E:3573:MET:HA	1.80	0.64
2:J:3031:ALA:O	2:J:3036:LYS:NZ	2.30	0.64
2:B:2518:LEU:HD23	2:B:2568:LEU:HD22	1.78	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:901:LYS:HD3	2:E:903:LEU:HD11	1.79	0.64
2:G:3236:VAL:HA	2:G:3239:MET:HE3	1.79	0.64
2:G:3435:PHE:HE2	2:G:3518:LEU:HA	1.62	0.64
2:J:3530:GLN:HG2	2:J:3534:MET:HE3	1.79	0.64
2:B:3594:ARG:NH1	2:B:3594:ARG:HA	2.12	0.64
2:E:3263:TYR:HE2	2:E:3334:TRP:HD1	1.46	0.64
2:G:622:THR:HA	2:G:626:LEU:HD13	1.79	0.64
2:J:3567:PRO:HB2	2:J:3570:ARG:HH21	1.62	0.64
2:B:901:LYS:HD3	2:B:903:LEU:HD11	1.80	0.64
2:E:2575:ARG:HG3	2:E:2578:MET:HG3	1.80	0.64
2:E:2977:LEU:HD11	2:E:2995:ILE:HD13	1.80	0.64
2:G:2566:ALA:HA	2:G:2569:PHE:HD2	1.63	0.64
2:G:3548:GLU:HG2	2:G:3552:PHE:CZ	2.33	0.64
2:B:2263:ILE:HA	2:B:2330:ARG:HH22	1.62	0.63
2:G:3472:ALA:HA	2:G:3475:LYS:HE2	1.80	0.63
2:J:3573:MET:HE2	2:J:3573:MET:HA	1.80	0.63
2:B:622:THR:HA	2:B:626:LEU:HD13	1.79	0.63
2:G:23:GLN:HE21	2:G:34:LYS:HB3	1.63	0.63
2:G:1087:ARG:NH1	2:G:1221:GLU:O	2.31	0.63
2:G:3594:ARG:NH1	2:G:3594:ARG:HA	2.12	0.63
2:J:985:VAL:HG22	2:J:1043:VAL:HG21	1.80	0.63
2:J:3245:VAL:HG23	2:J:3248:ARG:H	1.63	0.63
2:E:205:ILE:H	2:E:205:ILE:HD12	1.64	0.63
2:E:3548:GLU:HG2	2:E:3552:PHE:CZ	2.33	0.63
2:G:1229:ASN:HB3	2:G:1827:ARG:HG3	1.81	0.63
2:G:2630:VAL:HG12	2:G:2682:ILE:HD11	1.81	0.63
2:J:573:GLU:OE1	2:J:573:GLU:N	2.21	0.63
2:B:1087:ARG:NH1	2:B:1221:GLU:O	2.31	0.63
2:B:3263:TYR:HE2	2:B:3334:TRP:HD1	1.46	0.63
2:E:2630:VAL:HG12	2:E:2682:ILE:HD11	1.81	0.63
2:J:2630:VAL:HG12	2:J:2682:ILE:HD11	1.81	0.63
2:J:3253:ILE:HG23	2:J:3318:ASN:HD22	1.61	0.63
2:J:3435:PHE:HE2	2:J:3518:LEU:HA	1.62	0.63
2:J:3472:ALA:HA	2:J:3475:LYS:HE2	1.80	0.63
2:J:4087:LEU:HB3	2:J:4122:MET:HB3	1.81	0.63
2:B:23:GLN:HE21	2:B:34:LYS:HB3	1.63	0.63
2:B:1229:ASN:HB3	2:B:1827:ARG:HG3	1.81	0.63
2:B:2977:LEU:HD11	2:B:2995:ILE:HD13	1.80	0.63
2:B:3548:GLU:HG2	2:B:3552:PHE:CZ	2.33	0.63
2:E:985:VAL:HG22	2:E:1043:VAL:HG21	1.80	0.63
2:E:3434:LEU:HD23	2:E:3517:MET:HE1	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3567:PRO:HB2	2:G:3570:ARG:HH21	1.62	0.63
2:B:985:VAL:HG22	2:B:1043:VAL:HG21	1.80	0.63
2:B:3434:LEU:HD23	2:B:3517:MET:HE1	1.81	0.63
2:E:1087:ARG:NH1	2:E:1221:GLU:O	2.32	0.63
2:J:205:ILE:H	2:J:205:ILE:HD12	1.64	0.63
2:J:365:LYS:HE2	2:J:369:LEU:HD21	1.80	0.63
1:D:24:VAL:HG12	1:D:103:LEU:HA	1.81	0.63
2:B:205:ILE:H	2:B:205:ILE:HD12	1.64	0.63
2:B:4087:LEU:HB3	2:B:4122:MET:HB3	1.80	0.63
2:E:981:GLN:O	2:E:985:VAL:HG23	1.99	0.63
2:E:3472:ALA:HA	2:E:3475:LYS:HE2	1.80	0.63
2:E:3567:PRO:HB2	2:E:3570:ARG:HH21	1.62	0.63
2:J:3281:LEU:HD12	2:J:3312:LEU:HG	1.80	0.63
2:B:3236:VAL:HA	2:B:3239:MET:HE3	1.79	0.63
2:G:3590:GLU:O	2:G:3594:ARG:HG2	1.99	0.63
2:B:246:TYR:CG	2:B:373:LYS:HD2	2.34	0.63
2:B:981:GLN:O	2:B:985:VAL:HG23	1.99	0.63
2:B:2630:VAL:HG12	2:B:2682:ILE:HD11	1.81	0.63
2:E:2263:ILE:HA	2:E:2330:ARG:HH22	1.62	0.63
2:J:1087:ARG:NH1	2:J:1221:GLU:O	2.32	0.63
3:C:52:THR:HG21	3:C:102:ASN:HA	1.79	0.63
2:E:23:GLN:HE21	2:E:34:LYS:HB3	1.63	0.62
2:G:901:LYS:HD3	2:G:903:LEU:HD11	1.80	0.62
2:G:3245:VAL:HG23	2:G:3248:ARG:H	1.63	0.62
2:J:1229:ASN:HB3	2:J:1827:ARG:HG3	1.81	0.62
2:J:3236:VAL:HA	2:J:3239:MET:HE3	1.79	0.62
2:J:3590:GLU:O	2:J:3594:ARG:HG2	1.99	0.62
2:B:3573:MET:HE2	2:B:3573:MET:HA	1.80	0.62
2:E:3590:GLU:O	2:E:3594:ARG:HG2	1.99	0.62
2:G:2902:HIS:HB3	2:G:2905:LEU:HG	1.79	0.62
2:E:3236:VAL:HA	2:E:3239:MET:HE3	1.79	0.62
2:E:4087:LEU:HB3	2:E:4122:MET:HB3	1.81	0.62
2:G:3263:TYR:HE2	2:G:3334:TRP:HD1	1.46	0.62
2:J:2902:HIS:HB3	2:J:2905:LEU:HG	1.79	0.62
2:J:4218:ILE:HD13	2:J:4954:MET:HE2	1.82	0.62
2:B:2283:ASN:HB3	2:B:2286:LEU:HB2	1.82	0.62
2:B:4218:ILE:HD13	2:B:4954:MET:HE2	1.81	0.62
2:G:2765:LYS:HZ2	2:G:2860:PRO:HA	1.65	0.62
2:G:2977:LEU:HD11	2:G:2995:ILE:HD13	1.80	0.62
2:J:2977:LEU:HD11	2:J:2995:ILE:HD13	1.80	0.62
2:J:3548:GLU:HG2	2:J:3552:PHE:CZ	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:573:GLU:OE1	2:B:573:GLU:N	2.21	0.62
2:B:1447:CYS:HB3	2:B:1555:LEU:HB3	1.82	0.62
2:G:3573:MET:HE2	2:G:3573:MET:HA	1.80	0.62
2:J:3359:ILE:H	2:J:3359:ILE:HD12	1.65	0.62
2:B:2765:LYS:HZ2	2:B:2860:PRO:HA	1.65	0.62
2:B:3590:GLU:O	2:B:3594:ARG:HG2	1.99	0.62
2:E:2283:ASN:HB3	2:E:2286:LEU:HB2	1.82	0.62
2:G:985:VAL:HG22	2:G:1043:VAL:HG21	1.80	0.62
2:G:3434:LEU:HD23	2:G:3517:MET:HE1	1.81	0.62
2:J:901:LYS:HD3	2:J:903:LEU:HD11	1.80	0.62
2:B:3472:ALA:HA	2:B:3475:LYS:HE2	1.80	0.62
2:E:1229:ASN:HB3	2:E:1827:ARG:HG3	1.81	0.62
2:E:3568:SER:HA	2:E:3571:TRP:NE1	2.15	0.62
2:E:4090:LYS:HG2	2:E:4123:ILE:HD11	1.82	0.62
2:G:205:ILE:H	2:G:205:ILE:HD12	1.64	0.62
2:G:4091:LYS:HD3	2:G:4091:LYS:N	2.15	0.62
2:J:23:GLN:HE21	2:J:34:LYS:HB3	1.63	0.62
2:G:4087:LEU:HB3	2:G:4122:MET:HB3	1.80	0.62
2:J:4090:LYS:HG2	2:J:4123:ILE:HD11	1.82	0.62
1:H:93:PRO:O	1:H:94:ASN:ND2	2.33	0.62
2:E:3359:ILE:H	2:E:3359:ILE:HD12	1.65	0.62
2:J:952:LYS:H	2:J:969:PRO:HA	1.64	0.62
2:J:3511:VAL:HA	2:J:3515:LYS:HB2	1.81	0.62
1:D:66:MET:HE1	1:D:101:VAL:HG23	1.81	0.61
2:B:3054:VAL:HG11	2:B:3131:TYR:HB2	1.82	0.61
2:B:3511:VAL:HA	2:B:3515:LYS:HB2	1.81	0.61
2:E:3054:VAL:HG11	2:E:3131:TYR:HB2	1.82	0.61
2:J:3434:LEU:HD23	2:J:3517:MET:HE1	1.81	0.61
2:B:3350:ARG:HB2	2:B:3353:LEU:HD13	1.81	0.61
2:E:3190:LEU:O	2:E:3194:LEU:HG	2.00	0.61
2:G:3359:ILE:H	2:G:3359:ILE:HD12	1.65	0.61
2:G:3511:VAL:HA	2:G:3515:LYS:HB2	1.81	0.61
2:J:981:GLN:O	2:J:985:VAL:HG23	1.99	0.61
2:J:3568:SER:HA	2:J:3571:TRP:NE1	2.15	0.61
2:B:799:GLU:N	2:B:799:GLU:OE1	2.33	0.61
2:B:4848:VAL:O	2:B:4852:THR:HG23	2.00	0.61
2:G:2515:GLN:HA	2:G:2568:LEU:HD11	1.82	0.61
2:E:1447:CYS:HB3	2:E:1555:LEU:HB3	1.82	0.61
2:E:4091:LYS:HD3	2:E:4091:LYS:N	2.15	0.61
2:G:551:LEU:HD13	2:G:589:LEU:HD11	1.83	0.61
2:G:3190:LEU:O	2:G:3194:LEU:HG	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:17:LYS:HZ1	1:D:18:LYS:HG2	1.66	0.61
2:B:2570:ALA:HB2	2:B:2613:TYR:HB3	1.81	0.61
2:G:2283:ASN:HB3	2:G:2286:LEU:HB2	1.82	0.61
2:G:3384:LYS:HG3	2:G:3387:ALA:H	1.66	0.61
2:G:3568:SER:HA	2:G:3571:TRP:NE1	2.15	0.61
2:J:799:GLU:N	2:J:799:GLU:OE1	2.33	0.61
2:B:2639:MET:HE3	2:B:2640:PRO:HD3	1.83	0.61
2:J:3054:VAL:HG11	2:J:3131:TYR:HB2	1.82	0.61
2:E:3384:LYS:HG3	2:E:3387:ALA:H	1.66	0.61
2:G:2347:GLU:OE1	2:G:2347:GLU:N	2.27	0.61
2:J:3190:LEU:O	2:J:3194:LEU:HG	2.00	0.61
2:J:3384:LYS:HG3	2:J:3387:ALA:H	1.66	0.61
1:A:17:LYS:HZ2	1:A:18:LYS:HG2	1.66	0.61
2:B:551:LEU:HD13	2:B:589:LEU:HD11	1.83	0.61
2:B:2512:ILE:HD13	2:B:2517:PHE:CE2	2.35	0.61
2:B:3359:ILE:H	2:B:3359:ILE:HD12	1.65	0.61
2:B:3568:SER:HA	2:B:3571:TRP:NE1	2.15	0.61
2:E:799:GLU:OE1	2:E:799:GLU:N	2.33	0.61
2:E:2639:MET:HE3	2:E:2640:PRO:HD3	1.83	0.61
2:G:4218:ILE:HD13	2:G:4954:MET:HE2	1.82	0.61
2:B:548:VAL:HG21	2:B:582:HIS:HD2	1.66	0.61
2:E:2710:LEU:HD12	2:E:2711:PRO:HD2	1.83	0.61
2:G:799:GLU:N	2:G:799:GLU:OE1	2.33	0.61
2:G:981:GLN:O	2:G:985:VAL:HG23	1.99	0.61
2:G:4090:LYS:HG2	2:G:4123:ILE:HD11	1.82	0.61
2:J:4848:VAL:O	2:J:4852:THR:HG23	2.00	0.61
1:I:66:MET:HE1	1:I:101:VAL:HG23	1.82	0.61
2:E:2678:LEU:O	2:E:2682:ILE:HG12	2.01	0.61
2:E:3996:PHE:O	2:E:4000:MET:HG2	2.01	0.61
2:G:3350:ARG:HB2	2:G:3353:LEU:HD13	1.81	0.61
1:H:24:VAL:HG12	1:H:103:LEU:HA	1.82	0.60
1:I:24:VAL:HG12	1:I:103:LEU:HA	1.81	0.60
2:E:3350:ARG:HB2	2:E:3353:LEU:HD13	1.82	0.60
2:G:952:LYS:H	2:G:969:PRO:HA	1.64	0.60
2:G:3536:ALA:HB2	2:G:3553:LEU:HD11	1.83	0.60
2:G:4848:VAL:O	2:G:4852:THR:HG23	2.00	0.60
1:A:26:TYR:HB2	1:A:101:VAL:HG12	1.84	0.60
2:B:4849:TYR:O	2:B:4853:VAL:HG23	2.01	0.60
2:E:984:LEU:O	2:E:988:LEU:HD22	2.01	0.60
2:E:3511:VAL:HA	2:E:3515:LYS:HB2	1.81	0.60
2:E:4218:ILE:HD13	2:E:4954:MET:HE2	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:365:LYS:HE2	2:G:369:LEU:HD21	1.83	0.60
2:G:2678:LEU:O	2:G:2682:ILE:HG12	2.01	0.60
2:J:233:ILE:O	2:J:257:ARG:NH1	2.34	0.60
2:J:4867:GLU:OE1	2:J:4867:GLU:N	2.31	0.60
2:B:952:LYS:H	2:B:969:PRO:HA	1.64	0.60
2:B:3190:LEU:O	2:B:3194:LEU:HG	2.00	0.60
2:E:548:VAL:HG21	2:E:582:HIS:HD2	1.66	0.60
2:E:952:LYS:H	2:E:969:PRO:HA	1.64	0.60
2:G:993:HIS:CE1	2:G:1027:LEU:HD11	2.37	0.60
2:J:3350:ARG:HB2	2:J:3353:LEU:HD13	1.81	0.60
1:A:61:GLU:O	1:A:65:GLN:HG3	2.01	0.60
2:B:2710:LEU:HD12	2:B:2711:PRO:HD2	1.83	0.60
2:B:3536:ALA:HB2	2:B:3553:LEU:HD11	1.83	0.60
2:B:4090:LYS:HG2	2:B:4123:ILE:HD11	1.82	0.60
2:E:4848:VAL:O	2:E:4852:THR:HG23	2.00	0.60
2:G:3054:VAL:HG11	2:G:3131:TYR:HB2	1.82	0.60
2:J:548:VAL:HG21	2:J:582:HIS:HD2	1.66	0.60
2:J:2283:ASN:HB3	2:J:2286:LEU:HB2	1.82	0.60
2:J:2678:LEU:O	2:J:2682:ILE:HG12	2.01	0.60
1:H:17:LYS:HZ2	1:H:18:LYS:HG2	1.66	0.60
2:B:2678:LEU:O	2:B:2682:ILE:HG12	2.01	0.60
2:B:4091:LYS:HD3	2:B:4091:LYS:N	2.15	0.60
2:E:551:LEU:HD13	2:E:589:LEU:HD11	1.83	0.60
2:E:2333:ASP:HA	2:E:2336:ARG:HH11	1.65	0.60
2:G:3368:ARG:O	2:G:3372:VAL:HG23	2.01	0.60
2:J:1447:CYS:HB3	2:J:1555:LEU:HB3	1.82	0.60
2:J:3536:ALA:HB2	2:J:3553:LEU:HD11	1.84	0.60
2:J:4091:LYS:HD3	2:J:4091:LYS:N	2.15	0.60
2:B:993:HIS:CE1	2:B:1027:LEU:HD11	2.36	0.60
2:B:1944:GLU:HG2	2:B:2123:LEU:HD13	1.83	0.60
2:G:984:LEU:O	2:G:988:LEU:HD22	2.01	0.60
2:G:1735:ILE:HD11	2:G:2156:LEU:HD11	1.84	0.60
2:J:2639:MET:HE3	2:J:2640:PRO:HD3	1.83	0.60
2:J:2710:LEU:HD12	2:J:2711:PRO:HD2	1.83	0.60
1:A:23:VAL:HG12	1:A:47:LYS:HG2	1.84	0.60
1:H:23:VAL:HG12	1:H:47:LYS:HG2	1.84	0.60
2:B:233:ILE:O	2:B:257:ARG:NH1	2.34	0.60
2:B:2959:PHE:O	2:B:2963:LEU:HG	2.02	0.60
2:G:233:ILE:O	2:G:257:ARG:NH1	2.34	0.60
2:G:2639:MET:HE3	2:G:2640:PRO:HD3	1.83	0.60
2:G:3996:PHE:O	2:G:4000:MET:HG2	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:993:HIS:CE1	2:J:1027:LEU:HD11	2.37	0.60
3:F:38:ARG:NH2	3:F:64:LYS:HG2	2.16	0.60
1:I:23:VAL:HG12	1:I:47:LYS:HG2	1.84	0.60
2:B:991:ASN:O	2:B:995:VAL:HG23	2.02	0.60
2:E:233:ILE:O	2:E:257:ARG:NH1	2.34	0.60
2:B:3384:LYS:HG3	2:B:3387:ALA:H	1.66	0.60
2:B:4715:TYR:HE2	2:B:4717:ASP:HB3	1.67	0.60
2:E:993:HIS:CE1	2:E:1027:LEU:HD11	2.36	0.60
2:G:2333:ASP:HA	2:G:2336:ARG:HH11	1.65	0.60
2:G:3102:ASP:HA	2:G:3105:LYS:HE2	1.84	0.60
2:J:1115:LEU:HB3	2:J:1123:VAL:HG11	1.84	0.60
2:J:4849:TYR:O	2:J:4853:VAL:HG23	2.01	0.60
1:I:17:LYS:HZ2	1:I:18:LYS:HG2	1.66	0.60
2:E:1979:LEU:HD23	2:E:1982:ARG:HH12	1.67	0.60
2:J:551:LEU:HD13	2:J:589:LEU:HD11	1.83	0.60
2:J:1008:SER:HB2	2:J:1017:ARG:HE	1.67	0.60
2:E:3536:ALA:HB2	2:E:3553:LEU:HD11	1.84	0.59
2:G:2575:ARG:HG3	2:G:2578:MET:HG3	1.83	0.59
2:J:248:GLU:HA	2:J:372:LEU:HB2	1.82	0.59
2:J:991:ASN:O	2:J:995:VAL:HG23	2.02	0.59
2:J:2002:PRO:O	2:J:2006:ILE:HG12	2.02	0.59
2:J:2333:ASP:HA	2:J:2336:ARG:HH11	1.65	0.59
2:J:2959:PHE:O	2:J:2963:LEU:HG	2.02	0.59
2:J:3368:ARG:O	2:J:3372:VAL:HG23	2.01	0.59
2:J:3996:PHE:O	2:J:4000:MET:HG2	2.01	0.59
2:B:984:LEU:O	2:B:988:LEU:HD22	2.01	0.59
2:E:3368:ARG:O	2:E:3372:VAL:HG23	2.01	0.59
2:G:1008:SER:HB2	2:G:1017:ARG:HE	1.67	0.59
2:G:2002:PRO:O	2:G:2006:ILE:HG12	2.02	0.59
2:J:984:LEU:O	2:J:988:LEU:HD22	2.02	0.59
1:D:23:VAL:HG12	1:D:47:LYS:HG2	1.84	0.59
2:B:1860:LYS:HG2	2:B:1864:LYS:HE3	1.84	0.59
2:B:3368:ARG:O	2:B:3372:VAL:HG23	2.02	0.59
2:E:246:TYR:CD1	2:E:373:LYS:HG3	2.37	0.59
2:E:2002:PRO:O	2:E:2006:ILE:HG12	2.02	0.59
2:E:2175:GLU:O	2:E:2179:ILE:HG12	2.02	0.59
2:E:3549:VAL:O	2:E:3553:LEU:HD13	2.02	0.59
2:G:4715:TYR:CE2	2:G:4717:ASP:HB3	2.36	0.59
2:J:2212:VAL:HG22	2:J:2256:TYR:HE1	1.68	0.59
1:H:97:LEU:HB3	1:H:99:PHE:HE2	1.67	0.59
2:B:2962:GLN:OE1	2:B:2965:ARG:NH1	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3996:PHE:O	2:B:4000:MET:HG2	2.01	0.59
2:B:4681:LEU:HD12	2:B:4724:VAL:HG21	1.84	0.59
2:B:5017:ARG:HH11	2:B:5019:TRP:HZ2	1.49	0.59
2:E:2212:VAL:HG22	2:E:2256:TYR:HE1	1.68	0.59
2:E:3312:LEU:H	2:E:3312:LEU:HD12	1.67	0.59
2:J:2591:ARG:HA	2:J:2591:ARG:CZ	2.32	0.59
2:J:3549:VAL:O	2:J:3553:LEU:HD13	2.02	0.59
2:E:1008:SER:HB2	2:E:1017:ARG:HE	1.67	0.59
2:E:1944:GLU:HG2	2:E:2123:LEU:HD13	1.83	0.59
2:E:2591:ARG:HA	2:E:2591:ARG:CZ	2.33	0.59
2:J:2175:GLU:O	2:J:2179:ILE:HG12	2.02	0.59
2:B:235:ALA:O	2:B:242:ARG:NH2	2.36	0.59
2:B:1115:LEU:HB3	2:B:1123:VAL:HG11	1.84	0.59
2:B:1527:MET:HE3	2:B:1540:PHE:HB2	1.85	0.59
2:B:1979:LEU:HD23	2:B:1982:ARG:HH12	1.67	0.59
2:B:2333:ASP:HA	2:B:2336:ARG:HH11	1.65	0.59
2:G:991:ASN:O	2:G:995:VAL:HG23	2.02	0.59
2:G:1619:ARG:HA	2:G:1626:TRP:HA	1.85	0.59
2:G:4849:TYR:O	2:G:4853:VAL:HG23	2.01	0.59
2:J:3102:ASP:HA	2:J:3105:LYS:HE2	1.84	0.59
1:D:93:PRO:O	1:D:94:ASN:ND2	2.33	0.59
2:B:3246:LEU:HG	2:B:3247:ASP:H	1.66	0.59
2:E:3281:LEU:HD12	2:E:3312:LEU:HG	1.84	0.59
2:G:2710:LEU:HD12	2:G:2711:PRO:HD2	1.83	0.59
2:G:2962:GLN:OE1	2:G:2965:ARG:NH1	2.35	0.59
2:J:1735:ILE:HD11	2:J:2156:LEU:HD11	1.84	0.59
2:J:1979:LEU:HD23	2:J:1982:ARG:HH12	1.67	0.59
2:B:783:PHE:HB2	2:B:787:VAL:HG11	1.85	0.59
2:B:2002:PRO:O	2:B:2006:ILE:HG12	2.02	0.59
2:B:2175:GLU:O	2:B:2179:ILE:HG12	2.02	0.59
2:B:2591:ARG:HA	2:B:2591:ARG:CZ	2.32	0.59
2:B:3050:VAL:HG11	2:B:3068:LEU:HD11	1.85	0.59
2:B:4207:MET:HE3	2:B:4208:PRO:CD	2.32	0.59
2:E:783:PHE:HB2	2:E:787:VAL:HG11	1.85	0.59
2:E:991:ASN:O	2:E:995:VAL:HG23	2.02	0.59
2:G:1447:CYS:HB3	2:G:1555:LEU:HB3	1.82	0.59
2:G:1527:MET:HE3	2:G:1540:PHE:HB2	1.85	0.59
2:G:2591:ARG:HA	2:G:2591:ARG:CZ	2.32	0.59
3:K:38:ARG:NH2	3:K:64:LYS:HG2	2.16	0.59
2:B:1497:GLY:HA2	2:B:1500:PHE:HD2	1.68	0.59
2:B:2212:VAL:HG22	2:B:2256:TYR:HE1	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2518:LEU:CD2	2:B:2568:LEU:HD22	2.33	0.59
2:B:3102:ASP:HA	2:B:3105:LYS:HE2	1.84	0.59
2:G:548:VAL:HG21	2:G:582:HIS:HD2	1.66	0.59
2:J:1860:LYS:HG2	2:J:1864:LYS:HE3	1.84	0.59
2:J:1944:GLU:HG2	2:J:2123:LEU:HD13	1.83	0.59
2:J:2962:GLN:OE1	2:J:2965:ARG:NH1	2.36	0.59
2:B:3549:VAL:O	2:B:3553:LEU:HD13	2.02	0.59
2:E:1860:LYS:HG2	2:E:1864:LYS:HE3	1.84	0.59
2:E:2959:PHE:O	2:E:2963:LEU:HG	2.02	0.59
2:E:4849:TYR:O	2:E:4853:VAL:HG23	2.01	0.59
2:G:573:GLU:OE1	2:G:573:GLU:N	2.21	0.59
2:J:2347:GLU:OE1	2:J:2347:GLU:N	2.27	0.59
2:E:3050:VAL:HG11	2:E:3068:LEU:HD11	1.85	0.58
2:J:235:ALA:O	2:J:242:ARG:NH2	2.36	0.58
2:J:1527:MET:HE3	2:J:1540:PHE:HB2	1.85	0.58
2:E:1115:LEU:HB3	2:E:1123:VAL:HG11	1.84	0.58
2:G:1444:GLU:HG2	2:G:1557:THR:HG21	1.86	0.58
2:G:2175:GLU:O	2:G:2179:ILE:HG12	2.02	0.58
2:G:2212:VAL:HG22	2:G:2256:TYR:HE1	1.68	0.58
2:J:1619:ARG:HA	2:J:1626:TRP:HA	1.85	0.58
3:M:109:THR:O	3:M:113:GLU:HG2	2.03	0.58
2:B:2519:LEU:HD21	2:B:2572:THR:HG21	1.85	0.58
2:B:2563:THR:HG22	2:B:2606:CYS:HA	1.85	0.58
2:B:3312:LEU:H	2:B:3312:LEU:HD12	1.68	0.58
2:E:1735:ILE:HD11	2:E:2156:LEU:HD11	1.84	0.58
2:E:2703:LEU:HD12	2:E:3001:ILE:HD11	1.86	0.58
2:E:2962:GLN:OE1	2:E:2965:ARG:NH1	2.36	0.58
2:G:2959:PHE:O	2:G:2963:LEU:HG	2.02	0.58
2:E:1497:GLY:HA2	2:E:1500:PHE:HD2	1.68	0.58
2:E:4681:LEU:HD12	2:E:4724:VAL:HG21	1.84	0.58
2:G:1115:LEU:HB3	2:G:1123:VAL:HG11	1.84	0.58
2:G:3050:VAL:HG11	2:G:3068:LEU:HD11	1.85	0.58
2:J:3312:LEU:H	2:J:3312:LEU:HD12	1.68	0.58
2:B:1619:ARG:HA	2:B:1626:TRP:HA	1.85	0.58
2:E:1424:PRO:O	2:E:1428:LEU:HG	2.04	0.58
2:G:1944:GLU:HG2	2:G:2123:LEU:HD13	1.83	0.58
2:G:1979:LEU:HD23	2:G:1982:ARG:HH12	1.68	0.58
2:G:3253:ILE:HG23	2:G:3318:ASN:HD22	1.68	0.58
2:G:3549:VAL:O	2:G:3553:LEU:HD13	2.02	0.58
2:J:881:LEU:O	2:J:885:THR:HG23	2.04	0.58
2:J:2575:ARG:HG3	2:J:2578:MET:HG3	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:3050:VAL:HG11	2:J:3068:LEU:HD11	1.85	0.58
3:K:109:THR:O	3:K:113:GLU:HG2	2.03	0.58
2:B:1735:ILE:HD11	2:B:2156:LEU:HD11	1.84	0.58
2:B:2178:MET:HB2	2:B:2228:MET:HE1	1.86	0.58
2:B:2519:LEU:HA	2:B:2522:LEU:HD12	1.84	0.58
2:J:4681:LEU:HD12	2:J:4724:VAL:HG21	1.84	0.58
2:B:341:TYR:CZ	2:B:392:ARG:HB2	2.38	0.58
2:B:653:ALA:HB3	2:B:656:SER:HB3	1.86	0.58
2:B:2703:LEU:HD12	2:B:3001:ILE:HD11	1.86	0.58
2:E:881:LEU:O	2:E:885:THR:HG23	2.04	0.58
2:G:235:ALA:O	2:G:242:ARG:NH2	2.36	0.58
2:G:2285:GLU:CD	2:G:3860:ASN:HD21	2.12	0.58
2:J:341:TYR:CZ	2:J:392:ARG:HB2	2.38	0.58
3:C:109:THR:O	3:C:113:GLU:HG2	2.03	0.58
3:C:117:TRP:CD1	3:C:118:GLY:H	2.21	0.58
2:E:653:ALA:HB3	2:E:656:SER:HB3	1.86	0.58
2:G:2992:GLU:HB2	2:G:2996:LYS:HZ1	1.69	0.58
2:G:3349:ALA:HB1	2:G:3353:LEU:HD22	1.86	0.58
2:J:1497:GLY:HA2	2:J:1500:PHE:HD2	1.68	0.58
2:B:881:LEU:O	2:B:885:THR:HG23	2.04	0.58
2:E:1786:LEU:HD12	2:E:1787:PRO:HD2	1.86	0.58
2:G:783:PHE:HB2	2:G:787:VAL:HG11	1.85	0.58
2:G:1860:LYS:HG2	2:G:1864:LYS:HE3	1.84	0.58
2:G:3257:ALA:O	2:G:3325:ASN:ND2	2.37	0.58
2:J:2703:LEU:HD12	2:J:3001:ILE:HD11	1.86	0.58
2:J:3257:ALA:O	2:J:3325:ASN:ND2	2.37	0.58
3:F:109:THR:O	3:F:113:GLU:HG2	2.03	0.58
3:K:117:TRP:CD1	3:K:118:GLY:H	2.22	0.58
1:H:17:LYS:NZ	1:H:18:LYS:HG2	2.19	0.58
2:B:1008:SER:HB2	2:B:1017:ARG:HE	1.67	0.58
2:B:1444:GLU:HG2	2:B:1557:THR:HG21	1.86	0.58
2:B:1786:LEU:HD12	2:B:1787:PRO:HD2	1.86	0.58
2:E:110:ARG:NH2	2:E:117:TYR:OH	2.37	0.58
2:E:235:ALA:O	2:E:242:ARG:NH2	2.36	0.58
2:E:1527:MET:HE3	2:E:1540:PHE:HB2	1.85	0.58
2:J:110:ARG:NH2	2:J:117:TYR:OH	2.37	0.58
2:J:783:PHE:HB2	2:J:787:VAL:HG11	1.85	0.58
3:M:117:TRP:CD1	3:M:118:GLY:H	2.21	0.58
2:B:3349:ALA:HB1	2:B:3353:LEU:HD22	1.86	0.57
2:E:1444:GLU:HG2	2:E:1557:THR:HG21	1.86	0.57
2:E:1619:ARG:HA	2:E:1626:TRP:HA	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:3102:ASP:HA	2:E:3105:LYS:HE2	1.84	0.57
2:G:341:TYR:CZ	2:G:392:ARG:HB2	2.38	0.57
2:J:3347:SER:HB3	2:J:3348:ARG:NH2	2.19	0.57
3:C:38:ARG:NH2	3:C:64:LYS:HG2	2.16	0.57
2:B:13:PHE:HA	2:B:164:ARG:HA	1.86	0.57
2:B:2518:LEU:O	2:B:2522:LEU:HG	2.04	0.57
2:B:2566:ALA:HA	2:B:2569:PHE:HD2	1.69	0.57
2:E:341:TYR:CZ	2:E:392:ARG:HB2	2.38	0.57
2:G:13:PHE:HA	2:G:164:ARG:HA	1.86	0.57
2:G:881:LEU:O	2:G:885:THR:HG23	2.04	0.57
2:G:1424:PRO:O	2:G:1428:LEU:HG	2.04	0.57
2:G:2178:MET:HB2	2:G:2228:MET:HE1	1.86	0.57
2:J:653:ALA:HB3	2:J:656:SER:HB3	1.86	0.57
2:J:1424:PRO:O	2:J:1428:LEU:HG	2.04	0.57
3:F:117:TRP:CD1	3:F:118:GLY:H	2.21	0.57
2:E:882:TRP:CD1	3:F:106:PRO:HB3	2.40	0.57
2:E:3443:ILE:HG12	2:E:3605:HIS:HD2	1.70	0.57
2:G:2779:GLU:HG3	2:G:2792:ARG:HG2	1.86	0.57
2:G:3443:ILE:HG12	2:G:3605:HIS:HD2	1.70	0.57
2:J:1444:GLU:HG2	2:J:1557:THR:HG21	1.86	0.57
2:J:3110:LEU:HD13	2:J:3183:VAL:HG12	1.86	0.57
1:A:17:LYS:NZ	1:A:18:LYS:HG2	2.19	0.57
1:I:93:PRO:O	1:I:94:ASN:ND2	2.33	0.57
2:E:878:ILE:HG21	3:F:107:TRP:NE1	2.20	0.57
2:E:3347:SER:HB3	2:E:3348:ARG:NH2	2.19	0.57
2:G:1497:GLY:HA2	2:G:1500:PHE:HD2	1.68	0.57
2:G:1786:LEU:HD12	2:G:1787:PRO:HD2	1.86	0.57
2:G:3347:SER:HB3	2:G:3348:ARG:NH2	2.19	0.57
2:G:4681:LEU:HD12	2:G:4724:VAL:HG21	1.84	0.57
2:J:2779:GLU:HG3	2:J:2792:ARG:HG2	1.86	0.57
3:K:39:GLN:NE2	3:K:40:ALA:O	2.38	0.57
3:M:39:GLN:NE2	3:M:40:ALA:O	2.37	0.57
2:B:1424:PRO:O	2:B:1428:LEU:HG	2.04	0.57
2:G:4207:MET:HE3	2:G:4208:PRO:CD	2.32	0.57
2:B:2779:GLU:HG3	2:B:2792:ARG:HG2	1.86	0.57
2:B:3443:ILE:HG12	2:B:3605:HIS:HD2	1.70	0.57
2:E:13:PHE:HA	2:E:164:ARG:HA	1.86	0.57
2:E:2178:MET:HB2	2:E:2228:MET:HE1	1.86	0.57
2:G:224:HIS:HB3	2:G:229:GLU:HG3	1.86	0.57
2:B:248:GLU:HA	2:B:372:LEU:HB2	1.86	0.57
2:B:3257:ALA:O	2:B:3325:ASN:ND2	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:355:LEU:HD23	2:G:378:LEU:HB3	1.87	0.57
2:G:2703:LEU:HD12	2:G:3001:ILE:HD11	1.86	0.57
2:J:3443:ILE:HG12	2:J:3605:HIS:HD2	1.70	0.57
3:C:39:GLN:NE2	3:C:40:ALA:O	2.38	0.57
2:B:2766:TRP:O	2:B:2770:LYS:HG2	2.05	0.57
2:E:224:HIS:HB3	2:E:229:GLU:HG3	1.86	0.57
2:G:110:ARG:NH2	2:G:117:TYR:OH	2.37	0.57
2:G:653:ALA:HB3	2:G:656:SER:HB3	1.86	0.57
2:J:684:VAL:HG22	2:J:781:VAL:HG12	1.86	0.57
2:J:2572:THR:HG22	2:J:2575:ARG:HB3	1.87	0.57
2:J:3227:ARG:HB3	2:J:3232:LEU:HB2	1.87	0.57
2:J:3349:ALA:HB1	2:J:3353:LEU:HD22	1.86	0.57
2:J:4207:MET:HE3	2:J:4208:PRO:CD	2.32	0.57
2:B:3347:SER:HB3	2:B:3348:ARG:NH2	2.19	0.57
2:B:4999:ASP:HB2	2:B:5002:GLU:HG2	1.87	0.57
2:E:3227:ARG:HB3	2:E:3232:LEU:HB2	1.87	0.57
2:G:2634:ASN:OD1	2:G:2636:PHE:N	2.37	0.57
2:J:2178:MET:HB2	2:J:2228:MET:HE1	1.86	0.57
2:J:2992:GLU:HB2	2:J:2996:LYS:HZ1	1.70	0.57
2:B:210:GLU:HG3	2:B:213:TYR:HB2	1.87	0.57
2:B:244:LEU:HD13	2:B:375:LYS:HZ1	1.69	0.57
2:B:355:LEU:HD23	2:B:378:LEU:HB3	1.87	0.57
2:B:1927:LEU:HD23	2:B:1939:MET:HE1	1.87	0.57
2:E:3257:ALA:O	2:E:3325:ASN:ND2	2.37	0.57
2:E:3349:ALA:HB1	2:E:3353:LEU:HD22	1.86	0.57
2:J:2766:TRP:O	2:J:2770:LYS:HG2	2.05	0.57
3:F:39:GLN:NE2	3:F:40:ALA:O	2.38	0.57
2:B:2991:HIS:O	2:B:2995:ILE:HG13	2.06	0.56
2:B:3110:LEU:HD13	2:B:3183:VAL:HG12	1.86	0.56
2:E:2626:LEU:O	2:E:2630:VAL:HG23	2.05	0.56
2:E:4688:ILE:HG22	2:E:4689:THR:HG23	1.87	0.56
2:G:2766:TRP:O	2:G:2770:LYS:HG2	2.05	0.56
2:G:4999:ASP:HB2	2:G:5002:GLU:HG2	1.87	0.56
2:J:210:GLU:HG3	2:J:213:TYR:HB2	1.87	0.56
3:M:38:ARG:NH2	3:M:64:LYS:HG2	2.16	0.56
2:E:1927:LEU:HD23	2:E:1939:MET:HE1	1.87	0.56
2:G:633:LEU:HB3	2:G:1639:LEU:HD11	1.87	0.56
2:G:1947:CYS:SG	2:G:2127:GLN:NE2	2.77	0.56
2:J:224:HIS:HB3	2:J:229:GLU:HG3	1.86	0.56
1:D:97:LEU:HB3	1:D:99:PHE:HE2	1.70	0.56
1:I:17:LYS:NZ	1:I:18:LYS:HG2	2.19	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:633:LEU:HB3	2:B:1639:LEU:HD11	1.87	0.56
2:E:684:VAL:HG22	2:E:781:VAL:HG12	1.87	0.56
2:E:1225:PRO:HG2	2:E:1228:ILE:HD12	1.88	0.56
2:E:2766:TRP:O	2:E:2770:LYS:HG2	2.05	0.56
2:E:2779:GLU:HG3	2:E:2792:ARG:HG2	1.86	0.56
2:E:2991:HIS:O	2:E:2995:ILE:HG13	2.06	0.56
2:G:2575:ARG:HG3	2:G:2578:MET:CG	2.35	0.56
2:G:2626:LEU:O	2:G:2630:VAL:HG23	2.05	0.56
2:J:355:LEU:HD23	2:J:378:LEU:HB3	1.87	0.56
2:J:758:ARG:HH11	2:J:761:GLY:HA2	1.71	0.56
2:B:929:LEU:HA	2:B:932:LEU:HD12	1.87	0.56
2:B:4688:ILE:HG22	2:B:4689:THR:HG23	1.87	0.56
2:B:4978:HIS:ND1	2:B:4982:GLU:OE1	2.39	0.56
2:E:365:LYS:HE2	2:E:369:LEU:HD21	1.87	0.56
2:E:758:ARG:HH11	2:E:761:GLY:HA2	1.71	0.56
2:E:929:LEU:HA	2:E:932:LEU:HD12	1.87	0.56
2:E:2992:GLU:HB2	2:E:2996:LYS:HZ1	1.69	0.56
2:G:210:GLU:HG3	2:G:213:TYR:HB2	1.87	0.56
2:G:878:ILE:HG21	3:M:107:TRP:NE1	2.21	0.56
2:G:2991:HIS:O	2:G:2995:ILE:HG13	2.06	0.56
2:G:4978:HIS:ND1	2:G:4982:GLU:OE1	2.39	0.56
2:J:13:PHE:HA	2:J:164:ARG:HA	1.86	0.56
2:J:1947:CYS:SG	2:J:2127:GLN:NE2	2.77	0.56
1:A:54:GLU:OE2	1:A:54:GLU:N	2.27	0.56
2:B:1225:PRO:HG2	2:B:1228:ILE:HD12	1.87	0.56
2:E:4999:ASP:HB2	2:E:5002:GLU:HG2	1.87	0.56
2:G:758:ARG:HH11	2:G:761:GLY:HA2	1.71	0.56
2:G:3110:LEU:HD13	2:G:3183:VAL:HG12	1.86	0.56
2:J:1786:LEU:HD12	2:J:1787:PRO:HD2	1.86	0.56
2:J:3439:GLY:O	2:J:3443:ILE:HG13	2.06	0.56
2:B:224:HIS:HB3	2:B:229:GLU:HG3	1.86	0.56
2:B:684:VAL:HG22	2:B:781:VAL:HG12	1.87	0.56
2:B:1947:CYS:SG	2:B:2127:GLN:NE2	2.77	0.56
2:B:2626:LEU:O	2:B:2630:VAL:HG23	2.05	0.56
2:E:210:GLU:HG3	2:E:213:TYR:HB2	1.87	0.56
2:E:633:LEU:HB3	2:E:1639:LEU:HD11	1.87	0.56
2:E:4207:MET:HE3	2:E:4208:PRO:CD	2.32	0.56
2:E:4978:HIS:ND1	2:E:4982:GLU:OE1	2.39	0.56
2:G:4765:LEU:O	2:G:4769:MET:HE3	2.06	0.56
2:J:3547:GLU:O	2:J:3551:GLU:HG2	2.05	0.56
1:A:93:PRO:O	1:A:94:ASN:ND2	2.33	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2875:ALA:HB2	2:B:2927:LEU:HD22	1.88	0.56
2:B:4715:TYR:CE2	2:B:4717:ASP:HB3	2.39	0.56
2:G:4943:LEU:O	2:G:4947:GLN:HG2	2.06	0.56
2:J:1225:PRO:HG2	2:J:1228:ILE:HD12	1.88	0.56
2:J:4999:ASP:HB2	2:J:5002:GLU:HG2	1.87	0.56
1:D:17:LYS:NZ	1:D:18:LYS:HG2	2.19	0.56
2:B:365:LYS:HE2	2:B:369:LEU:HD21	1.88	0.56
2:E:2575:ARG:HG3	2:E:2578:MET:CG	2.36	0.56
2:G:2498:HIS:O	2:G:2502:MET:HG3	2.06	0.56
2:G:4553:ASN:O	2:G:4557:ARG:HG3	2.06	0.56
2:J:4943:LEU:O	2:J:4947:GLN:HG2	2.06	0.56
2:B:4765:LEU:O	2:B:4769:MET:HE3	2.06	0.56
2:E:355:LEU:HD23	2:E:378:LEU:HB3	1.87	0.56
2:E:3439:GLY:O	2:E:3443:ILE:HG13	2.06	0.56
2:E:3547:GLU:O	2:E:3551:GLU:HG2	2.05	0.56
2:G:684:VAL:HG22	2:G:781:VAL:HG12	1.87	0.56
2:G:3040:THR:HG21	2:G:3080:VAL:HG11	1.88	0.56
2:G:3547:GLU:O	2:G:3551:GLU:HG2	2.05	0.56
2:G:4122:MET:HA	2:G:4122:MET:HE3	1.88	0.56
2:J:2575:ARG:HG3	2:J:2578:MET:CG	2.36	0.56
2:B:110:ARG:NH2	2:B:117:TYR:OH	2.37	0.56
2:B:127:MET:SD	2:B:127:MET:N	2.73	0.56
2:B:3040:THR:HG21	2:B:3080:VAL:HG11	1.88	0.56
2:G:2875:ALA:HB2	2:G:2927:LEU:HD22	1.88	0.56
2:G:3227:ARG:HB3	2:G:3232:LEU:HB2	1.87	0.56
2:J:2626:LEU:O	2:J:2630:VAL:HG23	2.05	0.56
2:J:3079:THR:HA	2:J:3082:LYS:HG2	1.88	0.56
2:J:3725:TYR:O	2:J:3729:MET:HG3	2.06	0.56
2:J:4688:ILE:HG22	2:J:4689:THR:HG23	1.87	0.56
2:B:758:ARG:HH11	2:B:761:GLY:HA2	1.71	0.55
2:B:3245:VAL:HG23	2:B:3248:ARG:H	1.71	0.55
2:B:3355:HIS:ND1	2:B:3355:HIS:O	2.40	0.55
2:B:3547:GLU:O	2:B:3551:GLU:HG2	2.05	0.55
2:E:3040:THR:HG21	2:E:3080:VAL:HG11	1.88	0.55
2:E:3110:LEU:HD13	2:E:3183:VAL:HG12	1.86	0.55
2:E:3206:LEU:HB2	2:E:3280:TYR:CE2	2.41	0.55
2:E:5009:TYR:HA	2:E:5012:LYS:HE3	1.87	0.55
2:J:2991:HIS:O	2:J:2995:ILE:HG13	2.06	0.55
2:B:3227:ARG:HB3	2:B:3232:LEU:HB2	1.87	0.55
2:B:4553:ASN:O	2:B:4557:ARG:HG3	2.06	0.55
2:E:2572:THR:HA	2:E:2574:HIS:CE1	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3206:LEU:HB2	2:G:3280:TYR:HE2	1.72	0.55
2:G:3439:GLY:O	2:G:3443:ILE:HG13	2.06	0.55
2:J:633:LEU:HB3	2:J:1639:LEU:HD11	1.87	0.55
2:J:3040:THR:HG21	2:J:3080:VAL:HG11	1.88	0.55
2:B:1771:LEU:HD22	2:B:2153:MET:HE1	1.88	0.55
2:E:920:TYR:HE1	3:F:99:ARG:HE	1.55	0.55
2:E:3592:ILE:HG12	2:E:3595:ARG:HH21	1.72	0.55
2:G:4688:ILE:HG22	2:G:4689:THR:HG23	1.87	0.55
2:J:1771:LEU:HD22	2:J:2153:MET:HE1	1.88	0.55
2:J:4749:GLU:HG3	2:J:4753:HIS:CE1	2.42	0.55
2:J:4765:LEU:O	2:J:4769:MET:HE3	2.06	0.55
2:B:384:MET:N	2:B:384:MET:SD	2.79	0.55
2:B:3206:LEU:HB2	2:B:3280:TYR:CE2	2.41	0.55
2:B:3532:LEU:HD11	2:B:3560:GLN:HB3	1.89	0.55
2:E:4765:LEU:O	2:E:4769:MET:HE3	2.06	0.55
2:G:2418:LEU:O	2:G:2422:ILE:HG12	2.07	0.55
2:G:3312:LEU:H	2:G:3312:LEU:HD12	1.70	0.55
2:G:3532:LEU:HD11	2:G:3560:GLN:HB3	1.89	0.55
2:G:3725:TYR:O	2:G:3729:MET:HG3	2.06	0.55
2:J:878:ILE:HG21	3:K:107:TRP:NE1	2.20	0.55
2:J:2827:ARG:NH2	2:J:2935:TYR:OH	2.40	0.55
2:J:3355:HIS:ND1	2:J:3355:HIS:O	2.39	0.55
2:J:3532:LEU:HD11	2:J:3560:GLN:HB3	1.89	0.55
2:J:3534:MET:O	2:J:3538:THR:HG23	2.07	0.55
3:K:40:ALA:HB3	3:K:43:LYS:HB2	1.88	0.55
2:B:886:ARG:HH12	2:B:904:HIS:CE1	2.25	0.55
2:B:2498:HIS:O	2:B:2502:MET:HG3	2.06	0.55
2:B:4749:GLU:HG3	2:B:4753:HIS:CE1	2.42	0.55
2:E:384:MET:N	2:E:384:MET:SD	2.79	0.55
2:E:3532:LEU:HD11	2:E:3560:GLN:HB3	1.89	0.55
2:E:3725:TYR:O	2:E:3729:MET:HG3	2.06	0.55
2:G:1225:PRO:HG2	2:G:1228:ILE:HD12	1.88	0.55
2:G:1927:LEU:HD23	2:G:1939:MET:HE1	1.87	0.55
2:G:3507:THR:O	2:G:3511:VAL:HG13	2.07	0.55
2:J:929:LEU:HA	2:J:932:LEU:HD12	1.87	0.55
2:J:2623:LEU:O	2:J:2627:VAL:HG23	2.07	0.55
2:B:2992:GLU:HB2	2:B:2996:LYS:HZ1	1.70	0.55
2:E:2566:ALA:HA	2:E:2569:PHE:CD2	2.39	0.55
2:E:4943:LEU:O	2:E:4947:GLN:HG2	2.06	0.55
2:G:960:MET:SD	2:G:960:MET:N	2.75	0.55
2:G:1084:GLN:NE2	2:G:1186:ASP:O	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:4553:ASN:O	2:J:4557:ARG:HG3	2.06	0.55
2:E:127:MET:SD	2:E:127:MET:N	2.73	0.55
2:E:3079:THR:HA	2:E:3082:LYS:HG2	1.88	0.55
2:E:3355:HIS:ND1	2:E:3355:HIS:O	2.39	0.55
2:G:384:MET:N	2:G:384:MET:SD	2.79	0.55
2:G:929:LEU:HA	2:G:932:LEU:HD12	1.87	0.55
2:G:2827:ARG:NH2	2:G:2935:TYR:OH	2.40	0.55
2:G:3206:LEU:HB2	2:G:3280:TYR:CE2	2.41	0.55
2:J:1927:LEU:HD23	2:J:1939:MET:HE1	1.87	0.55
2:J:2875:ALA:HB2	2:J:2927:LEU:HD22	1.88	0.55
2:J:4978:HIS:ND1	2:J:4982:GLU:OE1	2.39	0.55
2:B:1087:ARG:HG2	2:B:1154:ASP:OD1	2.07	0.55
2:B:3507:THR:O	2:B:3511:VAL:HG13	2.06	0.55
2:B:4943:LEU:O	2:B:4947:GLN:HG2	2.06	0.55
2:E:1087:ARG:HG2	2:E:1154:ASP:OD1	2.07	0.55
2:E:4122:MET:HE3	2:E:4122:MET:HA	1.88	0.55
2:G:1087:ARG:HG2	2:G:1154:ASP:OD1	2.07	0.55
2:G:1259:ARG:NH1	2:G:1591:CYS:SG	2.80	0.55
2:G:2623:LEU:O	2:G:2627:VAL:HG23	2.07	0.55
2:J:384:MET:N	2:J:384:MET:SD	2.79	0.55
2:J:2498:HIS:O	2:J:2502:MET:HG3	2.06	0.55
2:J:3592:ILE:HG12	2:J:3595:ARG:HH21	1.72	0.55
1:A:97:LEU:HB3	1:A:99:PHE:HE2	1.72	0.55
2:B:4122:MET:HA	2:B:4122:MET:HE3	1.88	0.55
2:B:4572:ALA:O	2:B:4576:ILE:HG13	2.07	0.55
2:E:573:GLU:OE1	2:E:573:GLU:N	2.21	0.55
2:E:3207:GLU:HB2	2:E:3246:LEU:CD2	2.37	0.55
2:E:4715:TYR:CE2	2:E:4717:ASP:HB3	2.40	0.55
2:E:4749:GLU:HG3	2:E:4753:HIS:CE1	2.42	0.55
2:G:1940:CYS:O	2:G:1944:GLU:HG3	2.07	0.55
2:G:3079:THR:HA	2:G:3082:LYS:HG2	1.89	0.55
2:G:3355:HIS:ND1	2:G:3355:HIS:O	2.40	0.55
2:G:4867:GLU:OE1	2:G:4867:GLU:N	2.31	0.55
2:J:3206:LEU:HB2	2:J:3280:TYR:CE2	2.42	0.55
2:B:960:MET:HG2	2:B:961:MET:SD	2.47	0.55
2:B:2418:LEU:O	2:B:2422:ILE:HG12	2.07	0.55
2:B:3246:LEU:HG	2:B:3247:ASP:N	2.21	0.55
2:E:248:GLU:OE1	2:E:373:LYS:HE2	2.07	0.55
2:E:886:ARG:HH12	2:E:904:HIS:CE1	2.25	0.55
2:E:1084:GLN:NE2	2:E:1186:ASP:O	2.40	0.55
2:E:2498:HIS:O	2:E:2502:MET:HG3	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:3534:MET:O	2:E:3538:THR:HG23	2.07	0.55
2:E:3538:THR:O	2:E:3542:LEU:HG	2.07	0.55
2:E:4553:ASN:O	2:E:4557:ARG:HG3	2.06	0.55
2:G:1771:LEU:HD22	2:G:2153:MET:HE1	1.88	0.55
2:G:3534:MET:O	2:G:3538:THR:HG23	2.07	0.55
2:G:3538:THR:O	2:G:3542:LEU:HG	2.07	0.55
2:J:3206:LEU:HB2	2:J:3280:TYR:HE2	1.72	0.55
2:B:1259:ARG:NH1	2:B:1591:CYS:SG	2.80	0.54
2:B:2827:ARG:NH2	2:B:2935:TYR:OH	2.40	0.54
2:B:3592:ILE:HG12	2:B:3595:ARG:HH21	1.72	0.54
2:B:3725:TYR:O	2:B:3729:MET:HG3	2.06	0.54
2:E:504:ALA:HB2	2:E:512:ALA:HB2	1.89	0.54
2:E:2212:VAL:HG22	2:E:2256:TYR:CE1	2.43	0.54
2:E:3594:ARG:NH1	2:E:3597:GLN:OE1	2.34	0.54
2:G:886:ARG:HH12	2:G:904:HIS:CE1	2.25	0.54
2:G:4572:ALA:O	2:G:4576:ILE:HG13	2.07	0.54
2:J:1087:ARG:HG2	2:J:1154:ASP:OD1	2.07	0.54
2:J:2212:VAL:HG22	2:J:2256:TYR:CE1	2.43	0.54
2:J:3507:THR:O	2:J:3511:VAL:HG13	2.07	0.54
1:I:97:LEU:HB3	1:I:99:PHE:HE2	1.72	0.54
2:B:2518:LEU:HD22	2:B:2565:CYS:HB3	1.89	0.54
2:B:3538:THR:O	2:B:3542:LEU:HG	2.07	0.54
2:E:2875:ALA:HB2	2:E:2927:LEU:HD22	1.88	0.54
2:E:3194:LEU:HA	2:E:3197:LEU:HG	1.90	0.54
2:G:893:TYR:HA	2:G:904:HIS:HB3	1.89	0.54
2:J:1259:ARG:NH1	2:J:1591:CYS:SG	2.80	0.54
2:B:1699:GLU:HA	2:B:1814:MET:HE1	1.90	0.54
2:B:1940:CYS:O	2:B:1944:GLU:HG3	2.07	0.54
2:B:3206:LEU:HB2	2:B:3280:TYR:HE2	1.72	0.54
2:B:3439:GLY:O	2:B:3443:ILE:HG13	2.06	0.54
2:E:2418:LEU:O	2:E:2422:ILE:HG12	2.07	0.54
2:E:2452:ARG:NH2	2:J:177:GLU:OE2	2.41	0.54
2:E:2700:MET:HE3	2:E:2701:PRO:HD3	1.90	0.54
2:G:876:GLU:O	2:G:880:GLU:HG3	2.07	0.54
2:G:3277:LEU:HD13	2:G:3315:LEU:HD23	1.89	0.54
3:F:40:ALA:HB3	3:F:43:LYS:HB2	1.88	0.54
2:B:504:ALA:HB2	2:B:512:ALA:HB2	1.89	0.54
2:B:2610:LEU:O	2:B:2614:ILE:HG12	2.08	0.54
2:B:2998:PHE:HA	2:B:3002:LEU:HB2	1.90	0.54
2:B:3106:MET:N	2:B:3106:MET:SD	2.80	0.54
2:E:876:GLU:O	2:E:880:GLU:HG3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:2827:ARG:NH2	2:E:2935:TYR:OH	2.40	0.54
2:E:2998:PHE:HA	2:E:3002:LEU:HB2	1.90	0.54
2:G:1699:GLU:HA	2:G:1814:MET:HE1	1.90	0.54
2:G:3592:ILE:HG12	2:G:3595:ARG:HH21	1.72	0.54
2:G:4749:GLU:HG3	2:G:4753:HIS:CE1	2.42	0.54
2:J:1084:GLN:NE2	2:J:1186:ASP:O	2.40	0.54
2:J:3965:LEU:HA	2:J:3968:TYR:CD2	2.43	0.54
2:J:4572:ALA:O	2:J:4576:ILE:HG13	2.07	0.54
2:B:234:SER:HB2	2:B:242:ARG:HG2	1.89	0.54
2:B:2212:VAL:HG22	2:B:2256:TYR:CE1	2.43	0.54
2:E:1699:GLU:HA	2:E:1814:MET:HE1	1.89	0.54
2:E:1771:LEU:HD22	2:E:2153:MET:HE1	1.88	0.54
2:E:3507:THR:O	2:E:3511:VAL:HG13	2.06	0.54
2:G:1970:GLN:NE2	2:G:3641:LEU:O	2.37	0.54
2:G:2749:GLU:HG3	2:G:2752:ASP:HB2	1.90	0.54
2:J:426:ARG:HG3	2:J:431:PRO:HD3	1.90	0.54
2:J:920:TYR:HE1	3:K:99:ARG:HE	1.56	0.54
2:J:2998:PHE:HA	2:J:3002:LEU:HB2	1.90	0.54
2:J:3538:THR:O	2:J:3542:LEU:HG	2.07	0.54
2:B:2623:LEU:O	2:B:2627:VAL:HG23	2.07	0.54
2:B:2700:MET:HE3	2:B:2701:PRO:HD3	1.90	0.54
2:B:4867:GLU:OE1	2:B:4867:GLU:N	2.31	0.54
2:E:960:MET:HG2	2:E:961:MET:SD	2.48	0.54
2:J:960:MET:HG2	2:J:961:MET:SD	2.48	0.54
2:J:4122:MET:HA	2:J:4122:MET:HE3	1.88	0.54
2:B:3079:THR:HA	2:B:3082:LYS:HG2	1.89	0.54
2:E:1259:ARG:NH1	2:E:1591:CYS:SG	2.80	0.54
2:E:3445:TRP:CD1	2:E:3509:LEU:HG	2.43	0.54
2:G:177:GLU:OE2	2:J:2452:ARG:NH2	2.41	0.54
2:G:426:ARG:HG3	2:G:431:PRO:HD3	1.90	0.54
2:G:2123:LEU:O	2:G:2127:GLN:HG2	2.08	0.54
2:G:2238:TYR:O	2:G:2242:ILE:HG12	2.08	0.54
2:J:886:ARG:HH12	2:J:904:HIS:CE1	2.25	0.54
2:J:3445:TRP:CD1	2:J:3509:LEU:HG	2.43	0.54
2:G:960:MET:HG2	2:G:961:MET:SD	2.47	0.54
2:J:877:ASN:O	2:J:881:LEU:HD22	2.08	0.54
2:J:2123:LEU:O	2:J:2127:GLN:HG2	2.08	0.54
2:J:3194:LEU:HA	2:J:3197:LEU:HG	1.90	0.54
2:B:470:SER:HA	2:B:473:ASN:HD21	1.73	0.54
2:B:2749:GLU:HG3	2:B:2752:ASP:HB2	1.90	0.54
2:E:2238:TYR:O	2:E:2242:ILE:HG12	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:2312:MET:SD	2:E:2312:MET:N	2.79	0.54
2:E:3938:SER:O	2:E:4002:LYS:NZ	2.41	0.54
2:G:470:SER:HA	2:G:473:ASN:HD21	1.73	0.54
2:G:2312:MET:SD	2:G:2312:MET:N	2.79	0.54
2:G:3938:SER:O	2:G:4002:LYS:NZ	2.41	0.54
2:J:1699:GLU:HA	2:J:1814:MET:HE1	1.90	0.54
2:J:2634:ASN:OD1	2:J:2636:PHE:N	2.37	0.54
2:J:2700:MET:HE3	2:J:2701:PRO:HD3	1.90	0.54
3:C:40:ALA:HB3	3:C:43:LYS:HB2	1.88	0.54
3:M:40:ALA:HB3	3:M:43:LYS:HB2	1.89	0.54
2:B:1084:GLN:NE2	2:B:1186:ASP:O	2.40	0.54
2:B:2479:LEU:HD23	2:B:2479:LEU:H	1.73	0.54
2:E:877:ASN:O	2:E:881:LEU:HD22	2.08	0.54
2:E:2623:LEU:O	2:E:2627:VAL:HG23	2.07	0.54
2:E:4573:ILE:HG23	2:E:4643:LEU:HD11	1.91	0.54
2:J:3106:MET:N	2:J:3106:MET:SD	2.80	0.54
2:J:4063:ASP:HB2	2:J:4067:LYS:HE3	1.90	0.54
2:B:876:GLU:O	2:B:880:GLU:HG3	2.07	0.53
2:B:877:ASN:O	2:B:881:LEU:HD22	2.08	0.53
2:B:893:TYR:HA	2:B:904:HIS:HB3	1.89	0.53
2:B:2238:TYR:O	2:B:2242:ILE:HG12	2.08	0.53
2:B:3194:LEU:HA	2:B:3197:LEU:HG	1.90	0.53
2:E:2527:LEU:HA	2:E:2530:MET:HG2	1.90	0.53
2:E:2765:LYS:HZ2	2:E:2860:PRO:HA	1.73	0.53
2:G:2637:ALA:C	2:G:2640:PRO:HD2	2.33	0.53
2:J:2238:TYR:O	2:J:2242:ILE:HG12	2.08	0.53
2:J:3280:TYR:HE1	2:J:3284:TRP:HD1	1.56	0.53
2:B:3280:TYR:CE1	2:B:3284:TRP:HD1	2.27	0.53
2:E:2637:ALA:C	2:E:2640:PRO:HD2	2.33	0.53
2:E:3201:MET:SD	2:E:3203:VAL:HG12	2.48	0.53
2:G:234:SER:HB2	2:G:242:ARG:HG2	1.90	0.53
2:G:877:ASN:O	2:G:881:LEU:HD22	2.08	0.53
2:G:2138:LEU:HD11	2:G:3662:ILE:HD12	1.90	0.53
2:G:3106:MET:N	2:G:3106:MET:SD	2.80	0.53
2:J:2418:LEU:O	2:J:2422:ILE:HG12	2.07	0.53
2:J:2749:GLU:HG3	2:J:2752:ASP:HB2	1.90	0.53
2:B:3201:MET:SD	2:B:3203:VAL:HG12	2.48	0.53
2:E:2123:LEU:O	2:E:2127:GLN:HG2	2.08	0.53
2:E:3093:ARG:O	2:E:3097:GLU:HG2	2.09	0.53
2:E:3106:MET:N	2:E:3106:MET:SD	2.80	0.53
2:E:3376:GLU:OE2	2:E:3380:ARG:NH2	2.39	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:3514:LEU:HD13	2:E:3602:VAL:HG13	1.91	0.53
2:E:4572:ALA:O	2:E:4576:ILE:HG13	2.07	0.53
2:G:2700:MET:HE3	2:G:2701:PRO:HD3	1.90	0.53
2:G:3201:MET:SD	2:G:3203:VAL:HG12	2.48	0.53
2:J:234:SER:HB2	2:J:242:ARG:HG2	1.90	0.53
2:J:2637:ALA:C	2:J:2640:PRO:HD2	2.33	0.53
2:B:206:CYS:HB2	2:B:271:GLY:HA3	1.90	0.53
2:B:426:ARG:HG3	2:B:431:PRO:HD3	1.90	0.53
2:B:999:ASP:O	2:B:1003:GLN:HG2	2.09	0.53
2:B:2518:LEU:HD21	2:B:2569:PHE:CE2	2.43	0.53
2:E:893:TYR:HA	2:E:904:HIS:HB3	1.89	0.53
2:E:999:ASP:O	2:E:1003:GLN:HG2	2.09	0.53
2:E:4063:ASP:HB2	2:E:4067:LYS:HE3	1.90	0.53
2:E:4867:GLU:OE1	2:E:4867:GLU:N	2.31	0.53
2:G:2527:LEU:HA	2:G:2530:MET:HG2	1.90	0.53
2:G:2736:ASP:OD1	2:G:2736:ASP:N	2.42	0.53
2:G:4573:ILE:HG23	2:G:4643:LEU:HD11	1.91	0.53
2:J:876:GLU:O	2:J:880:GLU:HG3	2.07	0.53
2:J:999:ASP:O	2:J:1003:GLN:HG2	2.09	0.53
2:J:3093:ARG:O	2:J:3097:GLU:HG2	2.09	0.53
2:B:2452:ARG:NH2	2:E:177:GLU:OE2	2.41	0.53
2:E:206:CYS:HB2	2:E:271:GLY:HA3	1.91	0.53
2:E:1947:CYS:SG	2:E:2127:GLN:NE2	2.77	0.53
2:E:2531:ARG:NH1	2:E:2585:THR:HB	2.24	0.53
2:E:2749:GLU:HG3	2:E:2752:ASP:HB2	1.90	0.53
2:G:3376:GLU:OE2	2:G:3380:ARG:NH2	2.39	0.53
2:G:3445:TRP:CD1	2:G:3509:LEU:HG	2.43	0.53
2:J:206:CYS:HB2	2:J:271:GLY:HA3	1.91	0.53
2:J:504:ALA:HB2	2:J:512:ALA:HB2	1.89	0.53
2:J:2792:ARG:NH2	2:J:2798:SER:OG	2.41	0.53
2:E:1569:GLN:HB2	2:E:1572:ILE:HD12	1.91	0.53
2:E:3147:ILE:HG23	2:E:3152:PHE:HB2	1.91	0.53
2:G:206:CYS:HB2	2:G:271:GLY:HA3	1.90	0.53
2:G:2531:ARG:NH1	2:G:2585:THR:HB	2.24	0.53
2:G:3194:LEU:HA	2:G:3197:LEU:HG	1.90	0.53
2:J:470:SER:HA	2:J:473:ASN:HD21	1.73	0.53
2:J:1940:CYS:O	2:J:1944:GLU:HG3	2.07	0.53
2:J:2527:LEU:HA	2:J:2530:MET:HG2	1.90	0.53
2:J:3162:GLN:HG2	2:J:3218:VAL:HG13	1.90	0.53
1:I:54:GLU:OE2	1:I:54:GLU:N	2.27	0.53
2:B:960:MET:SD	2:B:960:MET:N	2.75	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1569:GLN:HB2	2:B:1572:ILE:HD12	1.91	0.53
2:B:3376:GLU:OE2	2:B:3380:ARG:NH2	2.39	0.53
2:E:3206:LEU:HB2	2:E:3280:TYR:HE2	1.72	0.53
2:E:3835:LEU:HD22	2:E:3880:PHE:HZ	1.74	0.53
2:E:3844:LEU:HD21	2:E:3936:TYR:HB2	1.90	0.53
2:E:4677:LEU:HD23	2:E:4711:PHE:HE1	1.72	0.53
2:G:999:ASP:O	2:G:1003:GLN:HG2	2.09	0.53
2:G:2998:PHE:HA	2:G:3002:LEU:HB2	1.90	0.53
2:J:3938:SER:O	2:J:4002:LYS:NZ	2.41	0.53
3:M:62:SER:O	3:M:62:SER:OG	2.24	0.53
2:B:1623:ARG:HH11	2:B:1623:ARG:HA	1.74	0.53
2:B:2123:LEU:O	2:B:2127:GLN:HG2	2.08	0.53
2:B:2637:ALA:C	2:B:2640:PRO:HD2	2.33	0.53
2:B:3445:TRP:CD1	2:B:3509:LEU:HG	2.43	0.53
2:B:3534:MET:O	2:B:3538:THR:HG23	2.07	0.53
2:E:234:SER:HB2	2:E:242:ARG:HG2	1.89	0.53
2:E:1940:CYS:O	2:E:1944:GLU:HG3	2.07	0.53
2:E:2616:PRO:HA	2:E:2619:LEU:HD12	1.90	0.53
2:G:1569:GLN:HB2	2:G:1572:ILE:HD12	1.91	0.53
2:G:1708:ARG:NH1	2:G:1836:PHE:O	2.42	0.53
2:G:2479:LEU:HD23	2:G:2479:LEU:H	1.73	0.53
2:G:2566:ALA:HA	2:G:2569:PHE:CD2	2.42	0.53
2:G:3280:TYR:CE1	2:G:3284:TRP:HD1	2.27	0.53
2:B:3008:GLN:O	2:B:3012:ASN:ND2	2.42	0.53
2:B:3938:SER:O	2:B:4002:LYS:NZ	2.41	0.53
2:E:426:ARG:HG3	2:E:431:PRO:HD3	1.90	0.53
2:E:470:SER:HA	2:E:473:ASN:HD21	1.73	0.53
2:E:3008:GLN:O	2:E:3012:ASN:ND2	2.42	0.53
2:G:504:ALA:HB2	2:G:512:ALA:HB2	1.89	0.53
2:J:671:VAL:HG22	2:J:787:VAL:HG23	1.91	0.53
2:J:1708:ARG:NH1	2:J:1836:PHE:O	2.42	0.53
2:J:1970:GLN:NE2	2:J:3641:LEU:O	2.37	0.53
2:J:3201:MET:SD	2:J:3203:VAL:HG12	2.48	0.53
2:B:3835:LEU:HD22	2:B:3880:PHE:HZ	1.74	0.53
2:E:2479:LEU:HD23	2:E:2479:LEU:H	1.73	0.53
2:E:3280:TYR:CE1	2:E:3284:TRP:HD1	2.27	0.53
2:G:2212:VAL:HG22	2:G:2256:TYR:CE1	2.43	0.53
2:J:1569:GLN:HB2	2:J:1572:ILE:HD12	1.91	0.53
2:J:2531:ARG:NH1	2:J:2585:THR:HB	2.24	0.53
2:J:3008:GLN:O	2:J:3012:ASN:ND2	2.42	0.53
2:B:2138:LEU:HD11	2:B:3662:ILE:HD12	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3162:GLN:HG2	2:B:3218:VAL:HG13	1.90	0.52
2:B:3844:LEU:HD21	2:B:3936:TYR:HB2	1.90	0.52
2:E:3182:TYR:HA	2:E:3185:LYS:HE3	1.91	0.52
2:G:3008:GLN:O	2:G:3012:ASN:ND2	2.42	0.52
2:G:3076:ASP:O	2:G:3080:VAL:HG23	2.08	0.52
2:G:4104:THR:O	2:G:4108:ILE:HG12	2.09	0.52
2:J:3182:TYR:HA	2:J:3185:LYS:HE3	1.91	0.52
2:J:3280:TYR:CE1	2:J:3284:TRP:HD1	2.27	0.52
2:B:961:MET:HA	2:B:961:MET:HE3	1.91	0.52
2:B:2531:ARG:NH1	2:B:2585:THR:HB	2.24	0.52
2:B:3147:ILE:HG23	2:B:3152:PHE:HB2	1.91	0.52
2:B:4104:THR:O	2:B:4108:ILE:HG12	2.09	0.52
2:G:1854:PHE:HD1	2:G:1858:ASP:HB3	1.74	0.52
2:G:3093:ARG:O	2:G:3097:GLU:HG2	2.09	0.52
2:G:3891:LEU:HB3	2:G:3899:PHE:CE1	2.45	0.52
3:K:85:LEU:HD13	3:K:125:VAL:HG13	1.91	0.52
2:B:2245:GLN:HG2	2:B:2248:ARG:HH12	1.74	0.52
2:B:3891:LEU:HB3	2:B:3899:PHE:CE1	2.45	0.52
2:E:728:ARG:NH2	2:E:1489:CYS:SG	2.83	0.52
2:E:961:MET:HA	2:E:961:MET:HE3	1.91	0.52
2:E:1623:ARG:HH11	2:E:1623:ARG:HA	1.74	0.52
2:E:3532:LEU:HD12	2:E:3532:LEU:H	1.74	0.52
2:E:4104:THR:O	2:E:4108:ILE:HG12	2.09	0.52
2:G:3835:LEU:HD22	2:G:3880:PHE:HZ	1.74	0.52
2:J:874:LEU:O	2:J:878:ILE:HG12	2.09	0.52
2:J:1727:ARG:NH2	2:J:1773:PRO:O	2.43	0.52
2:J:2265:LEU:HD12	2:J:2265:LEU:H	1.74	0.52
2:J:3076:ASP:O	2:J:3080:VAL:HG23	2.09	0.52
2:B:671:VAL:HG22	2:B:787:VAL:HG23	1.91	0.52
2:B:2312:MET:SD	2:B:2312:MET:N	2.79	0.52
2:B:3076:ASP:O	2:B:3080:VAL:HG23	2.09	0.52
2:B:3215:ALA:HA	2:B:3220:THR:HG21	1.91	0.52
2:E:2245:GLN:HG2	2:E:2248:ARG:HH12	1.73	0.52
2:E:3475:LYS:HD3	2:E:3516:LYS:NZ	2.25	0.52
3:C:85:LEU:HD13	3:C:125:VAL:HG13	1.91	0.52
2:B:40:GLU:O	2:B:114:SER:OG	2.28	0.52
2:B:3093:ARG:O	2:B:3097:GLU:HG2	2.09	0.52
2:E:2619:LEU:O	2:E:2623:LEU:HG	2.09	0.52
2:E:2634:ASN:OD1	2:E:2636:PHE:N	2.37	0.52
2:E:3923:LEU:HB2	2:E:3961:VAL:HG11	1.92	0.52
2:G:2245:GLN:HG2	2:G:2248:ARG:HH12	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:728:ARG:NH2	2:J:1489:CYS:SG	2.83	0.52
2:J:1854:PHE:HD1	2:J:1858:ASP:HB3	1.74	0.52
2:J:2479:LEU:HD23	2:J:2479:LEU:H	1.74	0.52
2:J:3514:LEU:HD13	2:J:3602:VAL:HG13	1.91	0.52
2:J:4573:ILE:HG23	2:J:4643:LEU:HD11	1.91	0.52
2:B:874:LEU:O	2:B:878:ILE:HG12	2.09	0.52
2:B:2336:ARG:HG2	2:B:2435:ARG:HD3	1.92	0.52
2:B:2960:LEU:HD23	2:B:2963:LEU:HD12	1.92	0.52
2:B:3049:LEU:HA	2:B:3053:ARG:HH21	1.75	0.52
2:B:3280:TYR:HE1	2:B:3284:TRP:HD1	1.56	0.52
2:B:4063:ASP:HB2	2:B:4067:LYS:HE3	1.90	0.52
2:B:4069:LYS:NZ	2:B:4130:ASN:OD1	2.37	0.52
2:B:4573:ILE:HG23	2:B:4643:LEU:HD11	1.91	0.52
2:E:3162:GLN:HG2	2:E:3218:VAL:HG13	1.90	0.52
2:E:3891:LEU:HB3	2:E:3899:PHE:CE1	2.45	0.52
2:G:1727:ARG:NH2	2:G:1773:PRO:O	2.43	0.52
2:J:3532:LEU:H	2:J:3532:LEU:HD12	1.74	0.52
2:J:3825:GLU:H	2:J:3825:GLU:CD	2.17	0.52
2:J:3844:LEU:HD21	2:J:3936:TYR:HB2	1.90	0.52
2:B:1708:ARG:NH1	2:B:1836:PHE:O	2.42	0.52
2:B:2364:PHE:HD1	2:B:2429:LEU:HD21	1.75	0.52
2:B:2527:LEU:HA	2:B:2530:MET:HG2	1.90	0.52
2:B:2634:ASN:OD1	2:B:2636:PHE:N	2.37	0.52
2:E:3207:GLU:HB2	2:E:3246:LEU:HD22	1.91	0.52
2:E:3363:GLY:O	2:E:3367:LYS:HG2	2.10	0.52
2:G:40:GLU:O	2:G:114:SER:OG	2.28	0.52
2:G:2189:LYS:HA	2:G:2192:TYR:CZ	2.45	0.52
2:G:2336:ARG:HG2	2:G:2435:ARG:HD3	1.92	0.52
2:G:3049:LEU:HA	2:G:3053:ARG:HH21	1.75	0.52
2:G:3162:GLN:HG2	2:G:3218:VAL:HG13	1.90	0.52
2:G:4063:ASP:HB2	2:G:4067:LYS:HE3	1.90	0.52
2:J:246:TYR:CB	2:J:373:LYS:HD2	2.40	0.52
2:J:882:TRP:CD1	3:K:106:PRO:HB3	2.45	0.52
2:J:893:TYR:HA	2:J:904:HIS:HB3	1.90	0.52
2:J:2245:GLN:HG2	2:J:2248:ARG:HH12	1.74	0.52
2:J:3475:LYS:HD3	2:J:3516:LYS:NZ	2.25	0.52
2:B:3195:ALA:HB2	2:B:3275:PRO:HB3	1.92	0.52
2:E:2792:ARG:NH2	2:E:2798:SER:OG	2.41	0.52
2:E:3076:ASP:O	2:E:3080:VAL:HG23	2.09	0.52
2:E:3209:GLN:CD	2:E:3209:GLN:H	2.18	0.52
2:G:671:VAL:HG22	2:G:787:VAL:HG23	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3514:LEU:HD13	2:G:3602:VAL:HG13	1.91	0.52
2:G:3844:LEU:HD21	2:G:3936:TYR:HB2	1.90	0.52
2:J:1623:ARG:HA	2:J:1623:ARG:HH11	1.74	0.52
2:J:3835:LEU:HD22	2:J:3880:PHE:HZ	1.74	0.52
2:J:3891:LEU:HB3	2:J:3899:PHE:CE1	2.45	0.52
2:B:3209:GLN:CD	2:B:3209:GLN:H	2.18	0.52
2:E:571:SER:HB2	2:E:574:VAL:HG22	1.92	0.52
2:G:874:LEU:O	2:G:878:ILE:HG12	2.09	0.52
2:G:3754:GLU:O	2:G:3758:MET:HG3	2.10	0.52
2:J:878:ILE:HG13	3:K:107:TRP:HZ2	1.75	0.52
2:J:3147:ILE:HG23	2:J:3152:PHE:HB2	1.91	0.52
1:I:26:TYR:HB2	1:I:101:VAL:HG12	1.92	0.52
2:B:1727:ARG:NH2	2:B:1773:PRO:O	2.43	0.52
2:B:2970:SER:HA	2:B:2973:PHE:CZ	2.45	0.52
2:E:1854:PHE:HD1	2:E:1858:ASP:HB3	1.74	0.52
2:E:2336:ARG:HG2	2:E:2435:ARG:HD3	1.92	0.52
2:E:3962:PHE:O	2:E:3966:THR:HG23	2.09	0.52
2:G:2960:LEU:HD23	2:G:2963:LEU:HD12	1.92	0.52
2:G:4798:MET:HA	2:G:4798:MET:HE3	1.92	0.52
2:J:4039:MET:HE2	2:J:4039:MET:HA	1.92	0.52
2:J:4104:THR:O	2:J:4108:ILE:HG12	2.09	0.52
2:J:4715:TYR:CE2	2:J:4717:ASP:HB3	2.40	0.52
2:B:177:GLU:OE2	2:G:2452:ARG:NH2	2.41	0.51
2:B:1970:GLN:NE2	2:B:3641:LEU:O	2.37	0.51
2:B:3363:GLY:O	2:B:3367:LYS:HG2	2.10	0.51
2:E:671:VAL:HG22	2:E:787:VAL:HG23	1.91	0.51
2:E:2138:LEU:HD11	2:E:3662:ILE:HD12	1.90	0.51
2:E:2265:LEU:HD12	2:E:2265:LEU:H	1.74	0.51
2:E:2559:LEU:O	2:E:2563:THR:HG23	2.10	0.51
2:E:2736:ASP:OD1	2:E:2736:ASP:N	2.42	0.51
2:E:3215:ALA:HA	2:E:3220:THR:HG21	1.91	0.51
2:G:728:ARG:NH2	2:G:1489:CYS:SG	2.83	0.51
2:G:2265:LEU:H	2:G:2265:LEU:HD12	1.74	0.51
2:G:2992:GLU:HB2	2:G:2996:LYS:NZ	2.25	0.51
2:G:3147:ILE:HG23	2:G:3152:PHE:HB2	1.91	0.51
2:G:3195:ALA:HB2	2:G:3275:PRO:HB3	1.92	0.51
2:G:3209:GLN:CD	2:G:3209:GLN:H	2.18	0.51
2:G:3280:TYR:HE1	2:G:3284:TRP:HD1	1.56	0.51
2:G:4039:MET:HE2	2:G:4039:MET:HA	1.92	0.51
2:J:2138:LEU:HD11	2:J:3662:ILE:HD12	1.90	0.51
2:J:2440:MET:HA	2:J:2440:MET:HE3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:4798:MET:HA	2:J:4798:MET:HE3	1.92	0.51
2:B:246:TYR:CB	2:B:373:LYS:HD2	2.40	0.51
2:B:2440:MET:HA	2:B:2440:MET:HE3	1.93	0.51
2:B:3754:GLU:O	2:B:3758:MET:HG3	2.10	0.51
2:B:3825:GLU:H	2:B:3825:GLU:CD	2.17	0.51
2:E:874:LEU:O	2:E:878:ILE:HG12	2.09	0.51
2:E:3825:GLU:H	2:E:3825:GLU:CD	2.17	0.51
2:G:1623:ARG:HA	2:G:1623:ARG:HH11	1.74	0.51
2:G:2970:SER:HA	2:G:2973:PHE:CZ	2.45	0.51
2:G:3594:ARG:NH1	2:G:3597:GLN:OE1	2.34	0.51
2:J:210:GLU:HG2	2:J:273:HIS:CE1	2.46	0.51
2:J:4856:PHE:O	2:J:4860:ARG:NH2	2.39	0.51
2:B:728:ARG:NH2	2:B:1489:CYS:SG	2.83	0.51
2:B:2759:ALA:HB2	2:B:2810:LYS:HZ1	1.75	0.51
2:B:3475:LYS:HD3	2:B:3516:LYS:NZ	2.25	0.51
2:B:3532:LEU:H	2:B:3532:LEU:HD12	1.74	0.51
2:E:210:GLU:HG2	2:E:273:HIS:CE1	2.46	0.51
2:E:2440:MET:HA	2:E:2440:MET:HE3	1.92	0.51
2:E:3535:LEU:HD12	2:E:3539:ARG:HH12	1.76	0.51
2:G:3182:TYR:HA	2:G:3185:LYS:HE3	1.91	0.51
2:J:2336:ARG:HG2	2:J:2435:ARG:HD3	1.92	0.51
2:J:3225:ARG:O	2:J:3229:ILE:HG23	2.11	0.51
3:K:12:MET:HG2	3:K:16:GLY:HA3	1.93	0.51
2:B:231:LEU:O	2:B:260:TRP:NE1	2.40	0.51
2:B:2792:ARG:NH2	2:B:2798:SER:OG	2.41	0.51
2:B:4039:MET:HE2	2:B:4039:MET:HA	1.92	0.51
2:B:4630:TYR:HE1	2:E:4860:ARG:HH22	1.58	0.51
2:E:470:SER:HA	2:E:473:ASN:ND2	2.26	0.51
2:E:1708:ARG:NH1	2:E:1836:PHE:O	2.42	0.51
2:E:1727:ARG:NH2	2:E:1773:PRO:O	2.43	0.51
2:E:2364:PHE:HD1	2:E:2429:LEU:HD21	1.75	0.51
2:G:210:GLU:HG2	2:G:273:HIS:CE1	2.46	0.51
2:G:2619:LEU:O	2:G:2623:LEU:HG	2.09	0.51
2:G:3532:LEU:H	2:G:3532:LEU:HD12	1.75	0.51
2:G:3535:LEU:O	2:G:3539:ARG:HG2	2.11	0.51
2:G:3825:GLU:H	2:G:3825:GLU:CD	2.17	0.51
2:J:470:SER:HA	2:J:473:ASN:ND2	2.26	0.51
2:J:2559:LEU:O	2:J:2563:THR:HG23	2.11	0.51
2:J:2992:GLU:HB2	2:J:2996:LYS:NZ	2.25	0.51
2:J:3049:LEU:HA	2:J:3053:ARG:HH21	1.75	0.51
2:J:3535:LEU:O	2:J:3539:ARG:HG2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:F:85:LEU:HD13	3:F:125:VAL:HG13	1.91	0.51
2:B:2644:LEU:HD12	2:B:2648:TYR:HE2	1.76	0.51
2:E:3042:LEU:O	2:E:3046:LEU:HG	2.11	0.51
2:E:3049:LEU:HA	2:E:3053:ARG:HH21	1.75	0.51
2:E:3529:ASP:O	2:E:3533:ILE:HG13	2.11	0.51
2:G:2616:PRO:HA	2:G:2619:LEU:HD12	1.91	0.51
2:G:2644:LEU:HD12	2:G:2648:TYR:HE2	1.76	0.51
2:G:3219:TYR:HE1	2:G:3234:ASN:HA	1.76	0.51
2:J:3363:GLY:O	2:J:3367:LYS:HG2	2.10	0.51
2:J:3754:GLU:O	2:J:3758:MET:HG3	2.10	0.51
3:C:12:MET:HG2	3:C:16:GLY:HA3	1.93	0.51
3:F:12:MET:HG2	3:F:16:GLY:HA3	1.93	0.51
2:B:2189:LYS:HA	2:B:2192:TYR:CZ	2.45	0.51
2:B:3225:ARG:O	2:B:3229:ILE:HG23	2.11	0.51
2:E:878:ILE:HG13	3:F:107:TRP:HZ2	1.74	0.51
2:E:2970:SER:HA	2:E:2973:PHE:CZ	2.45	0.51
2:G:365:LYS:O	2:G:369:LEU:HG	2.10	0.51
2:G:920:TYR:O	2:G:923:GLN:HG2	2.11	0.51
2:G:920:TYR:HE1	3:M:99:ARG:HE	1.59	0.51
2:G:961:MET:HA	2:G:961:MET:HE3	1.91	0.51
2:G:2440:MET:HA	2:G:2440:MET:HE3	1.92	0.51
2:G:2559:LEU:O	2:G:2563:THR:HG23	2.11	0.51
2:G:4860:ARG:HH22	2:J:4630:TYR:HE1	1.58	0.51
2:J:3529:ASP:O	2:J:3533:ILE:HG13	2.11	0.51
2:J:4569:LEU:HD21	2:J:4649:LEU:HD23	1.93	0.51
2:E:3093:ARG:HA	2:E:3096:PHE:CD1	2.46	0.51
2:E:4039:MET:HE2	2:E:4039:MET:HA	1.92	0.51
2:G:470:SER:HA	2:G:473:ASN:ND2	2.26	0.51
2:G:2364:PHE:HD1	2:G:2429:LEU:HD21	1.75	0.51
3:F:15:GLY:H	3:F:85:LEU:HB2	1.74	0.51
2:B:1000:ARG:HH12	3:C:115:ASP:H	1.59	0.51
2:B:1854:PHE:HD1	2:B:1858:ASP:HB3	1.74	0.51
2:B:3042:LEU:O	2:B:3046:LEU:HG	2.11	0.51
2:B:3182:TYR:HA	2:B:3185:LYS:HE3	1.91	0.51
2:E:3535:LEU:O	2:E:3539:ARG:HG2	2.11	0.51
2:G:878:ILE:HG13	3:M:107:TRP:HZ2	1.75	0.51
2:G:2682:ILE:HB	2:G:2703:LEU:HD21	1.93	0.51
2:G:3215:ALA:HA	2:G:3220:THR:HG21	1.91	0.51
2:G:3475:LYS:HD3	2:G:3516:LYS:NZ	2.25	0.51
2:J:243:ARG:HA	2:J:301:VAL:HG22	1.93	0.51
2:J:920:TYR:O	2:J:923:GLN:HG2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:961:MET:HA	2:J:961:MET:HE3	1.91	0.51
2:J:2189:LYS:HA	2:J:2192:TYR:CZ	2.45	0.51
2:J:2960:LEU:HD23	2:J:2963:LEU:HD12	1.92	0.51
2:J:3215:ALA:HA	2:J:3220:THR:HG21	1.91	0.51
2:J:3535:LEU:HD12	2:J:3539:ARG:HH12	1.76	0.51
3:C:90:THR:HG23	3:C:124:THR:HA	1.93	0.51
3:M:90:THR:HG23	3:M:124:THR:HA	1.93	0.51
1:D:97:LEU:HB3	1:D:99:PHE:CE2	2.46	0.51
1:H:54:GLU:OE2	1:H:54:GLU:N	2.27	0.51
1:I:26:TYR:CB	1:I:101:VAL:HG12	2.41	0.51
2:B:3644:LEU:HD11	2:B:3648:ARG:HD2	1.93	0.51
2:B:4231:MET:HE3	2:B:5022:PHE:HB3	1.93	0.51
2:B:4856:PHE:O	2:B:4860:ARG:NH2	2.39	0.51
2:E:2572:THR:HG22	2:E:2575:ARG:HB3	1.93	0.51
2:E:3280:TYR:HE1	2:E:3284:TRP:HD1	1.56	0.51
2:G:3042:LEU:O	2:G:3046:LEU:HG	2.11	0.51
2:J:246:TYR:HE1	2:J:375:LYS:HG2	1.76	0.51
3:M:12:MET:HG2	3:M:16:GLY:HA3	1.93	0.51
3:M:15:GLY:H	3:M:85:LEU:HB2	1.74	0.51
2:B:243:ARG:HA	2:B:301:VAL:HG22	1.93	0.51
2:B:2265:LEU:HD12	2:B:2265:LEU:H	1.74	0.51
2:B:3514:LEU:HD13	2:B:3602:VAL:HG13	1.91	0.51
2:B:3535:LEU:O	2:B:3539:ARG:HG2	2.11	0.51
2:E:3225:ARG:O	2:E:3229:ILE:HG23	2.11	0.51
2:E:4231:MET:HE3	2:E:5022:PHE:HB3	1.93	0.51
2:G:233:ILE:HG12	2:G:234:SER:H	1.76	0.51
2:G:571:SER:HB2	2:G:574:VAL:HG22	1.92	0.51
2:G:882:TRP:CD1	3:M:106:PRO:HB3	2.46	0.51
2:G:3698:LEU:O	2:G:3702:VAL:HG12	2.11	0.51
2:G:3969:ILE:O	2:G:3970:GLN:C	2.54	0.51
2:J:40:GLU:O	2:J:114:SER:OG	2.28	0.51
2:J:4671:PHE:HD1	2:J:4714:ASN:O	1.94	0.51
3:K:90:THR:HG23	3:K:124:THR:HA	1.93	0.51
2:B:571:SER:HB2	2:B:574:VAL:HG22	1.92	0.50
2:B:3535:LEU:HD12	2:B:3539:ARG:HH12	1.76	0.50
2:B:3594:ARG:NH1	2:B:3597:GLN:OE1	2.34	0.50
2:E:40:GLU:O	2:E:114:SER:OG	2.28	0.50
2:E:243:ARG:HA	2:E:301:VAL:HG22	1.93	0.50
2:E:246:TYR:HE1	2:E:375:LYS:HG2	1.76	0.50
2:E:479:GLN:HE21	2:E:539:LEU:HD11	1.77	0.50
2:E:4189:ARG:HB3	2:E:5031:GLN:HE22	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:2614:ILE:O	2:G:2650:ARG:NH1	2.41	0.50
2:G:3225:ARG:O	2:G:3229:ILE:HG23	2.11	0.50
2:G:3363:GLY:O	2:G:3367:LYS:HG2	2.10	0.50
2:G:3644:LEU:HD11	2:G:3648:ARG:HD2	1.93	0.50
2:J:2582:MET:HA	2:J:2585:THR:HG22	1.93	0.50
2:J:3195:ALA:HB2	2:J:3275:PRO:HB3	1.92	0.50
2:B:210:GLU:HG2	2:B:273:HIS:CE1	2.46	0.50
2:B:2736:ASP:OD1	2:B:2736:ASP:N	2.42	0.50
2:B:3246:LEU:CG	2:B:3247:ASP:H	2.24	0.50
2:B:3698:LEU:O	2:B:3702:VAL:HG12	2.11	0.50
2:B:5013:MET:HE1	2:B:5021:PHE:HB3	1.94	0.50
2:E:2208:MET:O	2:E:2212:VAL:HG23	2.12	0.50
2:E:2582:MET:HA	2:E:2585:THR:HG22	1.93	0.50
2:E:2960:LEU:HD23	2:E:2963:LEU:HD12	1.92	0.50
2:E:4720:VAL:HG13	2:E:4721:LYS:H	1.76	0.50
2:G:3002:LEU:O	2:G:3006:ILE:HG22	2.12	0.50
2:J:233:ILE:HG12	2:J:234:SER:H	1.76	0.50
2:J:365:LYS:O	2:J:369:LEU:HG	2.10	0.50
2:J:2566:ALA:HA	2:J:2569:PHE:HD2	1.76	0.50
2:J:2759:ALA:HB2	2:J:2810:LYS:HZ1	1.76	0.50
3:K:15:GLY:H	3:K:85:LEU:HB2	1.74	0.50
3:M:85:LEU:HD13	3:M:125:VAL:HG13	1.91	0.50
2:B:920:TYR:O	2:B:923:GLN:HG2	2.11	0.50
2:B:3969:ILE:O	2:B:3970:GLN:C	2.55	0.50
2:B:4860:ARG:HH22	2:G:4630:TYR:HE1	1.58	0.50
2:E:2644:LEU:HD12	2:E:2648:TYR:HE2	1.76	0.50
2:E:3002:LEU:O	2:E:3006:ILE:HG22	2.12	0.50
2:E:3195:ALA:HB2	2:E:3275:PRO:HB3	1.92	0.50
2:E:3698:LEU:O	2:E:3702:VAL:HG12	2.11	0.50
2:E:4798:MET:HA	2:E:4798:MET:HE3	1.92	0.50
2:G:243:ARG:HA	2:G:301:VAL:HG22	1.93	0.50
2:G:3535:LEU:HD12	2:G:3539:ARG:HH12	1.76	0.50
2:G:3923:LEU:HB2	2:G:3961:VAL:HG11	1.92	0.50
2:G:4569:LEU:HD21	2:G:4649:LEU:HD23	1.93	0.50
2:J:3042:LEU:O	2:J:3046:LEU:HG	2.11	0.50
2:J:4189:ARG:HB3	2:J:5031:GLN:HE22	1.77	0.50
2:B:2992:GLU:HB2	2:B:2996:LYS:NZ	2.25	0.50
2:B:3034:LYS:O	2:B:3037:GLU:HG3	2.12	0.50
2:B:3219:TYR:HE1	2:B:3234:ASN:HA	1.76	0.50
2:B:3923:LEU:HB2	2:B:3961:VAL:HG11	1.93	0.50
2:B:4189:ARG:HB3	2:B:5031:GLN:HE22	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:878:ILE:HG13	3:F:107:TRP:CZ2	2.45	0.50
2:E:2189:LYS:HA	2:E:2192:TYR:CZ	2.45	0.50
2:E:2992:GLU:HB2	2:E:2996:LYS:NZ	2.25	0.50
2:E:3141:THR:HA	2:E:3144:PHE:CD2	2.47	0.50
2:E:3219:TYR:HE1	2:E:3234:ASN:HA	1.76	0.50
2:E:3969:ILE:O	2:E:3970:GLN:C	2.55	0.50
2:G:479:GLN:HE21	2:G:539:LEU:HD11	1.76	0.50
2:G:1423:ASP:O	2:G:1427:ILE:HG12	2.12	0.50
2:G:3529:ASP:O	2:G:3533:ILE:HG13	2.11	0.50
2:G:3965:LEU:HA	2:G:3968:TYR:CD2	2.46	0.50
2:G:4231:MET:HE3	2:G:5022:PHE:HB3	1.93	0.50
2:G:4545:GLU:O	2:G:4549:VAL:HG13	2.11	0.50
2:J:1423:ASP:O	2:J:1427:ILE:HG12	2.12	0.50
2:J:2109:ASP:HA	2:J:3694:LYS:HD2	1.93	0.50
2:J:2970:SER:HA	2:J:2973:PHE:CZ	2.45	0.50
2:J:3209:GLN:CD	2:J:3209:GLN:H	2.18	0.50
2:J:3227:ARG:HG2	2:J:3232:LEU:HD12	1.93	0.50
2:J:4545:GLU:O	2:J:4549:VAL:HG13	2.12	0.50
3:F:90:THR:HG23	3:F:124:THR:HA	1.93	0.50
1:D:54:GLU:OE2	1:D:54:GLU:N	2.27	0.50
2:B:470:SER:HA	2:B:473:ASN:ND2	2.26	0.50
2:B:479:GLN:HE21	2:B:539:LEU:HD11	1.76	0.50
2:B:1423:ASP:O	2:B:1427:ILE:HG12	2.12	0.50
2:B:3093:ARG:HA	2:B:3096:PHE:CD1	2.46	0.50
2:E:233:ILE:HG12	2:E:234:SER:H	1.76	0.50
2:E:3276:MET:HA	2:E:3276:MET:HE3	1.94	0.50
2:E:3644:LEU:HD11	2:E:3648:ARG:HD2	1.93	0.50
2:E:4545:GLU:O	2:E:4549:VAL:HG13	2.12	0.50
2:G:2109:ASP:HA	2:G:3694:LYS:HD2	1.93	0.50
2:G:2759:ALA:HB2	2:G:2810:LYS:HZ1	1.76	0.50
2:G:3227:ARG:HG2	2:G:3232:LEU:HD12	1.93	0.50
2:J:479:GLN:HE21	2:J:539:LEU:HD11	1.76	0.50
2:J:571:SER:HB2	2:J:574:VAL:HG22	1.92	0.50
2:J:2165:LEU:HD13	2:J:2178:MET:HG2	1.94	0.50
2:J:3698:LEU:O	2:J:3702:VAL:HG12	2.11	0.50
2:J:4231:MET:HE3	2:J:5022:PHE:HB3	1.93	0.50
2:B:2208:MET:O	2:B:2212:VAL:HG23	2.12	0.50
2:B:2635:GLU:HG3	2:B:2636:PHE:CD2	2.47	0.50
2:B:2682:ILE:HB	2:B:2703:LEU:HD21	1.93	0.50
2:B:3966:THR:HG23	2:B:4026:MET:HA	1.92	0.50
2:E:920:TYR:O	2:E:923:GLN:HG2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1970:GLN:NE2	2:E:3641:LEU:O	2.37	0.50
2:G:866:HIS:HE1	2:G:870:ILE:HD12	1.77	0.50
2:G:2635:GLU:HG3	2:G:2636:PHE:CD2	2.47	0.50
2:G:3093:ARG:HA	2:G:3096:PHE:CD1	2.46	0.50
2:G:3141:THR:HA	2:G:3144:PHE:CD2	2.47	0.50
2:J:2380:ILE:O	2:J:2384:ILE:HG13	2.12	0.50
2:J:2457:LEU:HA	2:J:2460:LEU:HD12	1.94	0.50
2:J:3376:GLU:OE2	2:J:3380:ARG:NH2	2.39	0.50
2:B:2208:MET:HE1	2:B:2250:MET:HE1	1.94	0.50
2:B:2576:ALA:HA	2:B:2579:VAL:HB	1.93	0.50
2:B:2879:ALA:HA	2:B:2882:TYR:CD2	2.47	0.50
2:B:3180:ASN:O	2:B:3184:GLU:HG2	2.12	0.50
2:B:4096:ALA:O	2:B:4100:GLN:HG2	2.12	0.50
2:E:1087:ARG:HB3	2:E:1223:PHE:HA	1.94	0.50
2:E:3180:ASN:O	2:E:3184:GLU:HG2	2.12	0.50
2:E:3754:GLU:O	2:E:3758:MET:HG3	2.10	0.50
2:G:246:TYR:HE1	2:G:375:LYS:HG2	1.76	0.50
2:G:2165:LEU:HD13	2:G:2178:MET:HG2	1.93	0.50
2:G:4189:ARG:HB3	2:G:5031:GLN:HE22	1.77	0.50
2:J:127:MET:SD	2:J:127:MET:N	2.73	0.50
2:J:2208:MET:O	2:J:2212:VAL:HG23	2.12	0.50
2:J:2572:THR:HA	2:J:2574:HIS:CE1	2.46	0.50
2:J:2644:LEU:HD12	2:J:2648:TYR:HE2	1.76	0.50
2:J:4105:GLY:O	2:J:4109:GLN:HG2	2.12	0.50
1:D:26:TYR:CB	1:D:101:VAL:HG12	2.42	0.50
2:B:526:LEU:HD11	2:B:540:PHE:HZ	1.77	0.50
2:B:866:HIS:HE1	2:B:870:ILE:HD12	1.76	0.50
2:B:3651:ASN:O	2:B:3655:GLU:HG2	2.12	0.50
2:B:4798:MET:HA	2:B:4798:MET:HE3	1.92	0.50
2:E:121:LEU:N	2:E:134:ASP:O	2.45	0.50
2:E:365:LYS:O	2:E:369:LEU:HG	2.12	0.50
2:E:501:ALA:O	2:E:505:GLU:HG2	2.12	0.50
2:E:823:LEU:HD11	2:E:1626:TRP:HB3	1.94	0.50
2:E:2635:GLU:HG3	2:E:2636:PHE:CD2	2.47	0.50
2:E:3246:LEU:HD23	2:E:3247:ASP:H	1.77	0.50
2:G:2211:MET:HA	2:G:2214:VAL:HG12	1.94	0.50
2:G:2573:GLU:HB2	2:G:2615:ARG:NH2	2.27	0.50
2:G:2788:HIS:NE2	2:G:2805:TYR:OH	2.38	0.50
2:J:526:LEU:HD11	2:J:540:PHE:HZ	1.76	0.50
2:J:2635:GLU:HG3	2:J:2636:PHE:CD2	2.47	0.50
2:J:3093:ARG:HA	2:J:3096:PHE:CD1	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:3093:ARG:HA	2:J:3096:PHE:HD1	1.77	0.50
2:J:3276:MET:HA	2:J:3276:MET:HE3	1.94	0.50
2:B:2568:LEU:C	2:B:2568:LEU:HD23	2.37	0.50
2:B:3093:ARG:HA	2:B:3096:PHE:HD1	1.77	0.50
2:B:3276:MET:HA	2:B:3276:MET:HE3	1.94	0.50
2:B:3529:ASP:O	2:B:3533:ILE:HG13	2.11	0.50
2:G:2208:MET:HE1	2:G:2250:MET:HE1	1.94	0.50
2:G:2582:MET:HA	2:G:2585:THR:HG22	1.94	0.50
2:G:3180:ASN:O	2:G:3184:GLU:HG2	2.12	0.50
2:J:231:LEU:O	2:J:260:TRP:NE1	2.40	0.50
2:J:1619:ARG:HB3	2:J:1626:TRP:CD2	2.47	0.50
2:J:2364:PHE:HD1	2:J:2429:LEU:HD21	1.75	0.50
2:J:3002:LEU:O	2:J:3006:ILE:HG22	2.12	0.50
2:B:233:ILE:HG12	2:B:234:SER:H	1.76	0.49
2:B:2165:LEU:HD13	2:B:2178:MET:HG2	1.94	0.49
2:B:2211:MET:HA	2:B:2214:VAL:HG12	1.94	0.49
2:B:2415:ARG:HA	2:B:2415:ARG:HH11	1.77	0.49
2:B:2457:LEU:HA	2:B:2460:LEU:HD12	1.94	0.49
2:B:3002:LEU:O	2:B:3006:ILE:HG22	2.12	0.49
2:E:2165:LEU:HD13	2:E:2178:MET:HG2	1.94	0.49
2:E:2879:ALA:HA	2:E:2882:TYR:CD2	2.47	0.49
2:E:3034:LYS:O	2:E:3037:GLU:HG3	2.12	0.49
2:E:3227:ARG:HG2	2:E:3232:LEU:HD12	1.93	0.49
2:E:3406:TYR:HD2	2:E:3464:ILE:HG21	1.77	0.49
2:G:2380:ILE:O	2:G:2384:ILE:HG13	2.12	0.49
2:G:4105:GLY:O	2:G:4109:GLN:HG2	2.12	0.49
2:J:3277:LEU:HB3	2:J:3315:LEU:HD13	1.94	0.49
1:H:97:LEU:HB3	1:H:99:PHE:CE2	2.46	0.49
2:B:3970:GLN:HE21	2:B:5004:THR:HA	1.77	0.49
2:E:3475:LYS:HD3	2:E:3516:LYS:HZ1	1.76	0.49
2:G:501:ALA:O	2:G:505:GLU:HG2	2.12	0.49
2:G:1619:ARG:HB3	2:G:1626:TRP:CD2	2.47	0.49
2:G:2572:THR:HG22	2:G:2575:ARG:HB3	1.94	0.49
2:G:3034:LYS:O	2:G:3037:GLU:HG3	2.12	0.49
2:G:3780:LEU:HD22	2:G:3820:LEU:HD21	1.95	0.49
2:J:2230:THR:O	2:J:2234:ARG:HG3	2.12	0.49
2:J:3034:LYS:O	2:J:3037:GLU:HG3	2.12	0.49
2:J:3219:TYR:HE1	2:J:3234:ASN:HA	1.76	0.49
3:M:37:TYR:HE1	3:M:96:ASN:HB3	1.78	0.49
2:B:3227:ARG:HG2	2:B:3232:LEU:HD12	1.93	0.49
2:B:4569:LEU:HD21	2:B:4649:LEU:HD23	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:815:VAL:O	2:E:1007:TYR:OH	2.30	0.49
2:E:3438:VAL:HB	2:E:3513:THR:HG22	1.94	0.49
2:E:3651:ASN:O	2:E:3655:GLU:HG2	2.12	0.49
2:E:4843:LEU:O	2:E:4847:VAL:HG22	2.13	0.49
2:G:374:LYS:O	2:G:375:LYS:C	2.53	0.49
2:G:526:LEU:HD11	2:G:540:PHE:HZ	1.76	0.49
2:G:1215:ALA:HA	2:G:1219:LEU:HB3	1.94	0.49
2:G:1260:MET:O	2:G:1263:THR:OG1	2.31	0.49
2:G:2415:ARG:HA	2:G:2415:ARG:HH11	1.77	0.49
2:G:2751:LEU:O	2:G:2755:ILE:HG12	2.13	0.49
2:G:3093:ARG:HA	2:G:3096:PHE:HD1	1.77	0.49
2:G:3531:ASP:O	2:G:3535:LEU:HD23	2.12	0.49
2:J:148:TRP:CZ3	2:J:180:LEU:HG	2.48	0.49
2:J:501:ALA:O	2:J:505:GLU:HG2	2.11	0.49
2:J:823:LEU:HD11	2:J:1626:TRP:HB3	1.94	0.49
2:J:2415:ARG:HA	2:J:2415:ARG:HH11	1.77	0.49
2:J:3438:VAL:HB	2:J:3513:THR:HG22	1.94	0.49
3:C:15:GLY:H	3:C:85:LEU:HB2	1.74	0.49
3:M:63:VAL:O	3:M:63:VAL:HG12	2.13	0.49
2:B:223:PHE:HA	2:B:230:CYS:HA	1.95	0.49
2:B:823:LEU:HD11	2:B:1626:TRP:HB3	1.94	0.49
2:B:1087:ARG:HB3	2:B:1223:PHE:HA	1.94	0.49
2:B:2751:LEU:O	2:B:2755:ILE:HG12	2.13	0.49
2:E:1423:ASP:O	2:E:1427:ILE:HG12	2.12	0.49
2:E:2208:MET:HE1	2:E:2250:MET:HE1	1.94	0.49
2:E:2211:MET:HA	2:E:2214:VAL:HG12	1.94	0.49
2:E:2614:ILE:O	2:E:2650:ARG:NH1	2.41	0.49
2:E:3093:ARG:HA	2:E:3096:PHE:HD1	1.77	0.49
2:E:3531:ASP:O	2:E:3535:LEU:HD23	2.12	0.49
2:E:4569:LEU:HD21	2:E:4649:LEU:HD23	1.93	0.49
2:E:4630:TYR:HE1	2:J:4860:ARG:HH22	1.59	0.49
2:G:2691:TYR:HA	2:G:2696:TYR:CE1	2.47	0.49
2:G:4843:LEU:O	2:G:4847:VAL:HG22	2.13	0.49
2:J:866:HIS:HE1	2:J:870:ILE:HD12	1.77	0.49
2:J:2879:ALA:HA	2:J:2882:TYR:CD2	2.47	0.49
3:F:63:VAL:HG12	3:F:63:VAL:O	2.13	0.49
2:B:501:ALA:O	2:B:505:GLU:HG2	2.12	0.49
2:B:1215:ALA:HA	2:B:1219:LEU:HB3	1.94	0.49
2:B:2567:PRO:HA	2:B:2613:TYR:CD1	2.48	0.49
2:B:3141:THR:HA	2:B:3144:PHE:CD2	2.47	0.49
2:B:4545:GLU:O	2:B:4549:VAL:HG13	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1619:ARG:HB3	2:E:1626:TRP:CD2	2.47	0.49
2:E:2380:ILE:O	2:E:2384:ILE:HG13	2.12	0.49
2:E:2475:GLN:NE2	2:E:2476:ILE:O	2.46	0.49
2:E:2682:ILE:HB	2:E:2703:LEU:HD21	1.93	0.49
2:E:2751:LEU:O	2:E:2755:ILE:HG12	2.13	0.49
2:E:3970:GLN:HE21	2:E:5004:THR:HA	1.78	0.49
2:E:4096:ALA:O	2:E:4100:GLN:HG2	2.12	0.49
2:G:2208:MET:O	2:G:2212:VAL:HG23	2.12	0.49
2:G:2496:PRO:HG3	2:G:2550:LEU:HD23	1.94	0.49
2:G:3651:ASN:O	2:G:3655:GLU:HG2	2.12	0.49
2:J:2211:MET:HA	2:J:2214:VAL:HG12	1.94	0.49
2:J:2431:ASP:HB2	2:J:2501:SER:HB2	1.95	0.49
2:J:3180:ASN:O	2:J:3184:GLU:HG2	2.12	0.49
2:J:3780:LEU:HD22	2:J:3820:LEU:HD21	1.95	0.49
2:B:2496:PRO:HG3	2:B:2550:LEU:HD23	1.94	0.49
2:E:2109:ASP:HA	2:E:3694:LYS:HD2	1.93	0.49
2:E:2415:ARG:HA	2:E:2415:ARG:HH11	1.77	0.49
2:E:2869:ARG:HH22	2:E:2946:LEU:HA	1.78	0.49
2:E:2881:ASN:HA	2:E:2884:ASN:ND2	2.28	0.49
2:G:2869:ARG:HH22	2:G:2946:LEU:HA	1.78	0.49
2:G:2881:ASN:HA	2:G:2884:ASN:ND2	2.28	0.49
2:G:3276:MET:HE3	2:G:3276:MET:HA	1.94	0.49
2:G:3406:TYR:HD2	2:G:3464:ILE:HG21	1.77	0.49
2:G:3438:VAL:HB	2:G:3513:THR:HG22	1.95	0.49
2:J:1087:ARG:HB3	2:J:1223:PHE:HA	1.94	0.49
2:J:3141:THR:HA	2:J:3144:PHE:CD2	2.47	0.49
2:J:3644:LEU:HD11	2:J:3648:ARG:HD2	1.93	0.49
2:J:3970:GLN:NE2	2:J:5004:THR:HA	2.28	0.49
3:K:82:MET:HG3	3:K:84:SER:O	2.13	0.49
1:A:24:VAL:HG12	1:A:103:LEU:HA	1.93	0.49
2:B:349:GLN:HE21	2:B:354:GLY:HA2	1.78	0.49
2:B:3438:VAL:HB	2:B:3513:THR:HG22	1.95	0.49
2:B:3531:ASP:O	2:B:3535:LEU:HD23	2.12	0.49
2:E:148:TRP:CZ3	2:E:180:LEU:HG	2.48	0.49
2:E:866:HIS:HE1	2:E:870:ILE:HD12	1.76	0.49
2:E:4105:GLY:O	2:E:4109:GLN:HG2	2.12	0.49
2:G:148:TRP:CZ3	2:G:180:LEU:HG	2.48	0.49
2:G:2376:LEU:O	2:G:2380:ILE:HG12	2.13	0.49
2:G:2475:GLN:NE2	2:G:2476:ILE:O	2.46	0.49
2:G:2792:ARG:NH2	2:G:2798:SER:OG	2.41	0.49
2:G:3437:MET:HE2	2:G:3437:MET:HA	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3970:GLN:HE21	2:G:5004:THR:HA	1.78	0.49
2:G:4118:ASP:OD1	2:G:4119:GLU:N	2.46	0.49
2:G:4802:GLY:HA2	2:G:4808:PHE:HB2	1.95	0.49
2:J:1260:MET:O	2:J:1263:THR:OG1	2.31	0.49
2:J:2376:LEU:O	2:J:2380:ILE:HG12	2.13	0.49
2:J:2881:ASN:HA	2:J:2884:ASN:ND2	2.28	0.49
2:J:2970:SER:O	2:J:2974:ILE:HG23	2.13	0.49
2:J:3406:TYR:HD2	2:J:3464:ILE:HG21	1.77	0.49
2:J:3651:ASN:O	2:J:3655:GLU:HG2	2.12	0.49
2:J:4096:ALA:O	2:J:4100:GLN:HG2	2.12	0.49
2:J:4677:LEU:HD23	2:J:4711:PHE:HE1	1.77	0.49
1:H:26:TYR:CB	1:H:101:VAL:HG12	2.43	0.49
2:B:2109:ASP:HA	2:B:3694:LYS:HD2	1.93	0.49
2:B:2747:ILE:HG21	2:B:2814:LYS:HE3	1.95	0.49
2:B:3406:TYR:HD2	2:B:3464:ILE:HG21	1.77	0.49
2:E:2747:ILE:HG21	2:E:2814:LYS:HE3	1.95	0.49
2:E:3051:ARG:NH2	2:E:3098:SER:O	2.46	0.49
2:G:2431:ASP:HB2	2:G:2501:SER:HB2	1.95	0.49
2:G:2457:LEU:HA	2:G:2460:LEU:HD12	1.94	0.49
2:G:2747:ILE:HG21	2:G:2814:LYS:HE3	1.95	0.49
2:G:2879:ALA:HA	2:G:2882:TYR:CD2	2.47	0.49
2:J:878:ILE:HG13	3:K:107:TRP:CZ2	2.47	0.49
2:J:1215:ALA:HA	2:J:1219:LEU:HB3	1.94	0.49
2:J:2619:LEU:O	2:J:2623:LEU:HG	2.13	0.49
2:J:2751:LEU:O	2:J:2755:ILE:HG12	2.13	0.49
2:J:3531:ASP:O	2:J:3535:LEU:HD23	2.12	0.49
2:J:3971:GLY:O	2:J:3972:PRO:C	2.56	0.49
2:J:4843:LEU:O	2:J:4847:VAL:HG22	2.13	0.49
2:J:5009:TYR:HA	2:J:5012:LYS:HE3	1.94	0.49
3:K:37:TYR:HE1	3:K:96:ASN:HB3	1.77	0.49
1:A:78:PRO:HA	1:A:81:ALA:HB3	1.94	0.49
2:B:121:LEU:N	2:B:134:ASP:O	2.45	0.49
2:B:2475:GLN:NE2	2:B:2476:ILE:O	2.46	0.49
2:B:2691:TYR:HA	2:B:2696:TYR:CE1	2.47	0.49
2:B:2881:ASN:HA	2:B:2884:ASN:ND2	2.28	0.49
2:B:3051:ARG:NH2	2:B:3098:SER:O	2.46	0.49
2:E:208:CYS:H	2:E:269:TRP:HH2	1.61	0.49
2:E:882:TRP:CD2	3:F:106:PRO:HG3	2.47	0.49
2:G:371:VAL:CG1	2:G:373:LYS:HG2	2.43	0.49
2:G:863:LEU:HD22	2:G:867:LEU:HD21	1.95	0.49
2:G:1530:THR:HG23	2:G:1535:GLU:H	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:2230:THR:O	2:G:2234:ARG:HG3	2.12	0.49
2:G:2973:PHE:CD1	2:G:2995:ILE:HG12	2.48	0.49
2:J:1095:VAL:HB	2:J:1199:VAL:HG23	1.95	0.49
2:J:2475:GLN:NE2	2:J:2476:ILE:O	2.46	0.49
1:H:78:PRO:HA	1:H:81:ALA:HB3	1.94	0.49
2:B:148:TRP:CZ3	2:B:180:LEU:HG	2.48	0.49
2:B:1154:ASP:HB3	2:B:1157:GLU:HB2	1.95	0.49
2:B:1619:ARG:HB3	2:B:1626:TRP:CD2	2.47	0.49
2:B:2230:THR:O	2:B:2234:ARG:HG3	2.12	0.49
2:B:3437:MET:HA	2:B:3437:MET:HE2	1.95	0.49
2:E:526:LEU:HD11	2:E:540:PHE:HZ	1.77	0.49
2:E:1260:MET:O	2:E:1263:THR:OG1	2.31	0.49
2:E:3078:ARG:O	2:E:3082:LYS:HG2	2.13	0.49
2:E:3307:VAL:HA	2:E:3311:HIS:CE1	2.47	0.49
2:E:3316:LEU:HD21	2:E:3345:ILE:HG13	1.95	0.49
2:G:3246:LEU:HD12	2:G:3249:LEU:HD12	1.95	0.49
2:G:3573:MET:SD	2:G:3577:ARG:NH2	2.86	0.49
2:J:349:GLN:HE21	2:J:354:GLY:HA2	1.78	0.49
2:J:2970:SER:HA	2:J:2973:PHE:CE2	2.48	0.49
2:J:3437:MET:HA	2:J:3437:MET:HE2	1.95	0.49
2:B:208:CYS:H	2:B:269:TRP:HH2	1.61	0.48
2:B:863:LEU:HD22	2:B:867:LEU:HD21	1.95	0.48
2:B:1530:THR:HG23	2:B:1535:GLU:H	1.78	0.48
2:B:2376:LEU:O	2:B:2380:ILE:HG12	2.13	0.48
2:B:2558:VAL:O	2:B:2562:ILE:HG12	2.14	0.48
2:B:2725:LYS:HZ1	2:B:2737:PRO:HA	1.76	0.48
2:B:2970:SER:HA	2:B:2973:PHE:CE2	2.48	0.48
2:E:349:GLN:HE21	2:E:354:GLY:HA2	1.78	0.48
2:E:2230:THR:O	2:E:2234:ARG:HG3	2.12	0.48
2:E:2431:ASP:HB2	2:E:2501:SER:HB2	1.95	0.48
2:E:2457:LEU:HA	2:E:2460:LEU:HD12	1.94	0.48
2:E:3206:LEU:HD13	2:E:3246:LEU:N	2.28	0.48
2:E:4651:THR:HG21	2:E:4803:HIS:CD2	2.48	0.48
2:J:1530:THR:HG23	2:J:1535:GLU:H	1.78	0.48
2:J:2747:ILE:HG21	2:J:2814:LYS:HE3	1.95	0.48
2:J:3078:ARG:O	2:J:3082:LYS:HG2	2.13	0.48
2:J:4802:GLY:HA2	2:J:4808:PHE:HB2	1.95	0.48
1:D:78:PRO:HA	1:D:81:ALA:HB3	1.94	0.48
2:B:4105:GLY:O	2:B:4109:GLN:HG2	2.12	0.48
2:B:4651:THR:HG21	2:B:4803:HIS:CD2	2.48	0.48
2:E:3573:MET:SD	2:E:3577:ARG:NH2	2.86	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:3780:LEU:HD22	2:E:3820:LEU:HD21	1.95	0.48
2:G:823:LEU:HD11	2:G:1626:TRP:HB3	1.94	0.48
2:G:870:ILE:O	2:G:874:LEU:HG	2.13	0.48
2:G:1095:VAL:HB	2:G:1199:VAL:HG23	1.95	0.48
2:J:2616:PRO:HA	2:J:2619:LEU:HD12	1.94	0.48
2:J:2691:TYR:HA	2:J:2696:TYR:CE1	2.47	0.48
2:J:2973:PHE:CD1	2:J:2995:ILE:HG12	2.48	0.48
2:B:2869:ARG:HH22	2:B:2946:LEU:HA	1.78	0.48
2:B:3315:LEU:O	2:B:3319:ILE:HG13	2.14	0.48
2:E:223:PHE:HA	2:E:230:CYS:HA	1.95	0.48
2:E:4118:ASP:OD1	2:E:4119:GLU:N	2.46	0.48
2:J:870:ILE:O	2:J:874:LEU:HG	2.13	0.48
2:J:2682:ILE:HB	2:J:2703:LEU:HD21	1.93	0.48
2:J:2869:ARG:HH22	2:J:2946:LEU:HA	1.78	0.48
2:J:3051:ARG:NH2	2:J:3098:SER:O	2.46	0.48
2:J:3262:ARG:N	2:J:3262:ARG:HD2	2.28	0.48
3:C:63:VAL:O	3:C:63:VAL:HG12	2.13	0.48
3:K:63:VAL:O	3:K:63:VAL:HG12	2.13	0.48
3:M:82:MET:HG3	3:M:84:SER:O	2.13	0.48
1:A:4:ILE:HD11	1:A:62:GLY:HA2	1.96	0.48
1:I:78:PRO:HA	1:I:81:ALA:HB3	1.94	0.48
2:B:733:PRO:HG2	2:B:762:CYS:HB3	1.96	0.48
2:B:1095:VAL:HB	2:B:1199:VAL:HG23	1.95	0.48
2:B:2973:PHE:CD1	2:B:2995:ILE:HG12	2.48	0.48
2:B:3573:MET:SD	2:B:3577:ARG:NH2	2.86	0.48
2:G:1087:ARG:HB3	2:G:1223:PHE:HA	1.94	0.48
2:G:2158:CYS:O	2:G:2162:ILE:HG13	2.14	0.48
2:G:3475:LYS:HZ1	2:G:3511:VAL:HG21	1.76	0.48
2:J:2208:MET:HE1	2:J:2250:MET:HE1	1.94	0.48
2:J:2788:HIS:NE2	2:J:2805:TYR:OH	2.38	0.48
2:J:4651:THR:HG21	2:J:4803:HIS:CD2	2.48	0.48
3:C:37:TYR:HE1	3:C:96:ASN:HB3	1.78	0.48
1:A:4:ILE:HG13	1:A:65:GLN:NE2	2.28	0.48
1:D:4:ILE:HD11	1:D:62:GLY:HA2	1.96	0.48
1:I:4:ILE:HD11	1:I:62:GLY:HA2	1.96	0.48
2:B:28:VAL:HG12	2:B:33:LEU:HD23	1.96	0.48
2:B:1735:ILE:HG22	2:B:2142:TYR:HB3	1.95	0.48
2:B:3078:ARG:O	2:B:3082:LYS:HG2	2.13	0.48
2:E:299:LEU:HD21	2:E:377:ILE:HA	1.96	0.48
2:E:1154:ASP:HB3	2:E:1157:GLU:HB2	1.95	0.48
2:E:1623:ARG:HA	2:E:1623:ARG:NH1	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:2970:SER:HA	2:E:2973:PHE:CE2	2.48	0.48
2:E:3262:ARG:N	2:E:3262:ARG:HD2	2.28	0.48
2:G:121:LEU:N	2:G:134:ASP:O	2.45	0.48
2:G:299:LEU:HD21	2:G:377:ILE:HA	1.96	0.48
2:G:2870[B]:GLU:CD	2:G:2870[B]:GLU:H	2.22	0.48
2:J:863:LEU:HD22	2:J:867:LEU:HD21	1.95	0.48
2:J:2158:CYS:O	2:J:2162:ILE:HG13	2.14	0.48
2:J:2496:PRO:HG3	2:J:2550:LEU:HD23	1.93	0.48
3:C:82:MET:HG3	3:C:84:SER:O	2.13	0.48
3:F:37:TYR:HE1	3:F:96:ASN:HB3	1.77	0.48
1:H:4:ILE:HD11	1:H:62:GLY:HA2	1.96	0.48
2:B:2799:GLU:O	2:B:2803:GLU:HG2	2.14	0.48
2:B:3475:LYS:HD3	2:B:3516:LYS:HZ1	1.79	0.48
2:B:3780:LEU:HD22	2:B:3820:LEU:HD21	1.95	0.48
2:E:1426:ILE:HA	2:E:1429:ASN:OD1	2.13	0.48
2:E:2158:CYS:O	2:E:2162:ILE:HG13	2.14	0.48
2:E:2496:PRO:HG3	2:E:2550:LEU:HD23	1.94	0.48
2:E:2691:TYR:HA	2:E:2696:TYR:CE1	2.47	0.48
2:E:2799:GLU:O	2:E:2803:GLU:HG2	2.14	0.48
2:E:2970:SER:O	2:E:2974:ILE:HG23	2.13	0.48
2:E:2973:PHE:CD1	2:E:2995:ILE:HG12	2.48	0.48
2:E:3437:MET:HA	2:E:3437:MET:HE2	1.95	0.48
2:E:4802:GLY:HA2	2:E:4808:PHE:HB2	1.95	0.48
2:G:1154:ASP:HB3	2:G:1157:GLU:HB2	1.95	0.48
2:G:1623:ARG:HA	2:G:1623:ARG:NH1	2.28	0.48
2:G:2970:SER:HA	2:G:2973:PHE:CE2	2.48	0.48
2:G:3051:ARG:NH2	2:G:3098:SER:O	2.46	0.48
2:G:4096:ALA:O	2:G:4100:GLN:HG2	2.12	0.48
2:J:4118:ASP:OD1	2:J:4119:GLU:N	2.46	0.48
2:B:870:ILE:O	2:B:874:LEU:HG	2.14	0.48
2:B:1260:MET:O	2:B:1263:THR:OG1	2.31	0.48
2:B:2626:LEU:HD22	2:B:2640:PRO:HB3	1.95	0.48
2:B:3704:HIS:O	2:B:3708:THR:HG23	2.14	0.48
2:B:4118:ASP:OD1	2:B:4119:GLU:N	2.46	0.48
2:E:369:LEU:HB3	2:E:371:VAL:HG23	1.96	0.48
2:E:3704:HIS:O	2:E:3708:THR:HG23	2.14	0.48
2:G:28:VAL:HG12	2:G:33:LEU:HD23	1.96	0.48
2:G:1735:ILE:HG22	2:G:2142:TYR:HB3	1.95	0.48
2:G:3262:ARG:N	2:G:3262:ARG:HD2	2.28	0.48
2:J:208:CYS:H	2:J:269:TRP:HH2	1.61	0.48
2:B:2431:ASP:HB2	2:B:2501:SER:HB2	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2562:ILE:HG23	2:B:2569:PHE:CE2	2.48	0.48
2:B:2870[B]:GLU:H	2:B:2870[B]:GLU:CD	2.22	0.48
2:B:2970:SER:O	2:B:2974:ILE:HG23	2.13	0.48
2:B:3991:GLY:O	2:B:3995:VAL:HG23	2.13	0.48
2:B:4780:PHE:HA	2:B:4783:ILE:HG22	1.94	0.48
2:B:4843:LEU:O	2:B:4847:VAL:HG22	2.13	0.48
2:E:3354:LEU:HG	2:E:3359:ILE:HD11	1.96	0.48
2:E:3366:ARG:NE	2:E:3367:LYS:HD2	2.26	0.48
2:G:223:PHE:HA	2:G:230:CYS:HA	1.95	0.48
2:G:2626:LEU:HD22	2:G:2640:PRO:HB3	1.96	0.48
2:G:3078:ARG:O	2:G:3082:LYS:HG2	2.13	0.48
2:G:4780:PHE:HA	2:G:4783:ILE:HG22	1.94	0.48
2:J:2376:LEU:HD12	2:J:2376:LEU:H	1.79	0.48
2:J:2566:ALA:HA	2:J:2569:PHE:CD2	2.49	0.48
2:J:3320:LEU:HD23	2:J:3320:LEU:HA	1.74	0.48
3:F:82:MET:HG3	3:F:84:SER:O	2.13	0.48
2:B:2380:ILE:O	2:B:2384:ILE:HG13	2.12	0.48
2:B:3166:TYR:CE1	2:B:3239:MET:HG3	2.49	0.48
2:B:3475:LYS:HZ1	2:B:3511:VAL:HG21	1.77	0.48
2:E:215:THR:HG22	2:E:273:HIS:HA	1.96	0.48
2:E:1215:ALA:HA	2:E:1219:LEU:HB3	1.94	0.48
2:E:2870[B]:GLU:H	2:E:2870[B]:GLU:CD	2.22	0.48
2:E:3281:LEU:O	2:E:3285:TRP:HB2	2.14	0.48
2:G:1426:ILE:HA	2:G:1429:ASN:OD1	2.13	0.48
2:G:2531:ARG:HH12	2:G:2585:THR:HB	1.79	0.48
2:G:2970:SER:O	2:G:2974:ILE:HG23	2.13	0.48
2:G:3704:HIS:O	2:G:3708:THR:HG23	2.14	0.48
2:J:1426:ILE:HA	2:J:1429:ASN:OD1	2.13	0.48
2:J:2736:ASP:OD1	2:J:2736:ASP:N	2.42	0.48
2:J:2870[B]:GLU:H	2:J:2870[B]:GLU:CD	2.22	0.48
2:J:3353:LEU:HG	2:J:3357:HIS:CE1	2.49	0.48
2:J:3573:MET:SD	2:J:3577:ARG:NH2	2.86	0.48
2:J:3991:GLY:O	2:J:3995:VAL:HG23	2.13	0.48
2:J:4097:MET:HE2	2:J:4097:MET:N	2.29	0.48
3:C:62:SER:O	3:C:62:SER:OG	2.24	0.48
2:B:299:LEU:HD21	2:B:377:ILE:HA	1.96	0.48
2:B:582:HIS:O	2:B:586:ILE:HG13	2.14	0.48
2:B:1089:TYR:CD1	2:B:1152:MET:HG2	2.45	0.48
2:B:1420:ASN:OD1	2:B:1421:ARG:N	2.47	0.48
2:B:2158:CYS:O	2:B:2162:ILE:HG13	2.14	0.48
2:B:3353:LEU:HG	2:B:3357:HIS:CE1	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:2376:LEU:O	2:E:2380:ILE:HG12	2.13	0.48
2:E:4097:MET:HE2	2:E:4097:MET:N	2.29	0.48
2:G:2134:LEU:O	2:G:2138:LEU:HG	2.14	0.48
2:G:4651:THR:HG21	2:G:4803:HIS:CD2	2.48	0.48
2:G:4679:ARG:HH21	2:G:5017:ARG:CZ	2.26	0.48
2:J:215:THR:HG22	2:J:273:HIS:HA	1.96	0.48
2:J:1623:ARG:HA	2:J:1623:ARG:NH1	2.28	0.48
2:J:3281:LEU:O	2:J:3285:TRP:HB2	2.14	0.48
2:B:215:THR:HG22	2:B:273:HIS:HA	1.96	0.47
2:B:1426:ILE:HA	2:B:1429:ASN:OD1	2.13	0.47
2:B:3044:CYS:SG	2:B:3092:LEU:HB2	2.54	0.47
2:B:3514:LEU:HD12	2:B:3606:LEU:HB2	1.96	0.47
2:B:4679:ARG:NH1	2:B:4715:TYR:OH	2.46	0.47
2:E:630:GLU:HG3	2:E:631:LEU:HD23	1.96	0.47
2:E:3166:TYR:CE1	2:E:3239:MET:HG3	2.49	0.47
2:E:3313:ASN:OD1	2:E:3353:LEU:HD11	2.14	0.47
2:E:4069:LYS:NZ	2:E:4130:ASN:OD1	2.37	0.47
2:G:208:CYS:H	2:G:269:TRP:HH2	1.61	0.47
2:G:582:HIS:O	2:G:586:ILE:HG13	2.14	0.47
2:G:659:TYR:HB2	2:G:1017:ARG:HH22	1.79	0.47
2:G:2869:ARG:NH2	2:G:2947:ASP:H	2.12	0.47
2:G:3729:MET:HE1	2:G:3778:MET:HE1	1.96	0.47
2:J:121:LEU:N	2:J:134:ASP:O	2.45	0.47
2:J:1089:TYR:CD1	2:J:1152:MET:HG2	2.45	0.47
2:J:1154:ASP:HB3	2:J:1157:GLU:HB2	1.95	0.47
2:J:3166:TYR:CE1	2:J:3239:MET:HG3	2.49	0.47
1:I:17:LYS:HG3	1:I:18:LYS:H	1.79	0.47
2:B:630:GLU:HG3	2:B:631:LEU:HD23	1.96	0.47
2:B:3051:ARG:NH2	2:B:3102:ASP:HB2	2.30	0.47
2:B:3443:ILE:HG12	2:B:3605:HIS:CD2	2.49	0.47
2:E:404:ILE:HG23	2:E:483:MET:SD	2.54	0.47
2:E:659:TYR:HB2	2:E:1017:ARG:HH22	1.80	0.47
2:E:3044:CYS:SG	2:E:3092:LEU:HB2	2.54	0.47
2:E:3514:LEU:HD12	2:E:3606:LEU:HB2	1.96	0.47
2:E:4749:GLU:HG3	2:E:4753:HIS:NE2	2.29	0.47
2:E:4780:PHE:HA	2:E:4783:ILE:HG22	1.94	0.47
2:G:349:GLN:HE21	2:G:354:GLY:HA2	1.78	0.47
2:G:3044:CYS:SG	2:G:3092:LEU:HB2	2.54	0.47
2:G:3222:LYS:HD2	2:G:3226:GLU:CD	2.39	0.47
2:G:4069:LYS:NZ	2:G:4130:ASN:OD1	2.37	0.47
2:J:111:HIS:CE1	2:J:113:HIS:HB3	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:4780:PHE:HA	2:J:4783:ILE:HG22	1.94	0.47
1:A:17:LYS:HG3	1:A:18:LYS:H	1.79	0.47
2:B:3354:LEU:HG	2:B:3359:ILE:HD11	1.96	0.47
2:B:3970:GLN:NE2	2:B:5004:THR:HA	2.30	0.47
2:E:283:ARG:HE	2:E:288:GLY:HA2	1.80	0.47
2:E:2376:LEU:HD12	2:E:2376:LEU:H	1.79	0.47
2:E:3970:GLN:NE2	2:E:5004:THR:HA	2.29	0.47
2:G:1274:HIS:HB3	2:G:1277:TRP:HB2	1.97	0.47
2:G:3166:TYR:CE1	2:G:3239:MET:HG3	2.49	0.47
2:G:3991:GLY:O	2:G:3995:VAL:HG23	2.13	0.47
2:J:299:LEU:HD21	2:J:377:ILE:HA	1.96	0.47
2:J:747:CYS:SG	2:J:756:SER:HB2	2.55	0.47
2:J:3222:LYS:HD2	2:J:3226:GLU:CD	2.39	0.47
2:J:3729:MET:HE1	2:J:3778:MET:HE1	1.96	0.47
1:D:17:LYS:HG3	1:D:18:LYS:H	1.79	0.47
1:H:17:LYS:HG3	1:H:18:LYS:H	1.79	0.47
2:B:2134:LEU:O	2:B:2138:LEU:HG	2.14	0.47
2:B:2673:HIS:CE1	2:B:2910:THR:HA	2.50	0.47
2:B:2869:ARG:NH2	2:B:2947:ASP:H	2.12	0.47
2:B:3222:LYS:HD2	2:B:3226:GLU:CD	2.39	0.47
2:B:3262:ARG:N	2:B:3262:ARG:HD2	2.28	0.47
2:B:3313:ASN:OD1	2:B:3353:LEU:HD11	2.15	0.47
2:E:2788:HIS:NE2	2:E:2805:TYR:OH	2.38	0.47
2:E:3640:PRO:HG2	2:E:3643:ASN:HB2	1.96	0.47
2:G:747:CYS:SG	2:G:756:SER:HB2	2.55	0.47
2:G:818:ARG:NH1	2:G:1027:LEU:O	2.44	0.47
2:G:3970:GLN:NE2	2:G:5004:THR:HA	2.29	0.47
2:J:1735:ILE:HG22	2:J:2142:TYR:HB3	1.95	0.47
2:J:2134:LEU:O	2:J:2138:LEU:HG	2.14	0.47
2:J:3044:CYS:SG	2:J:3092:LEU:HB2	2.54	0.47
3:K:71:ARG:HB3	3:K:78:VAL:HG22	1.97	0.47
1:D:26:TYR:HB2	1:D:101:VAL:HG12	1.96	0.47
2:B:3729:MET:HE1	2:B:3778:MET:HE1	1.96	0.47
2:B:4749:GLU:HG3	2:B:4753:HIS:NE2	2.29	0.47
2:B:4802:GLY:HA2	2:B:4808:PHE:HB2	1.95	0.47
2:E:582:HIS:O	2:E:586:ILE:HG13	2.14	0.47
2:E:863:LEU:HD22	2:E:867:LEU:HD21	1.95	0.47
2:E:1530:THR:HG23	2:E:1535:GLU:H	1.78	0.47
2:E:2806:ARG:O	2:E:2810:LYS:HG2	2.14	0.47
2:E:3729:MET:HE1	2:E:3778:MET:HE1	1.96	0.47
2:G:111:HIS:CE1	2:G:113:HIS:HB3	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1089:TYR:CD1	2:G:1152:MET:HG2	2.45	0.47
2:G:3353:LEU:HG	2:G:3357:HIS:CE1	2.49	0.47
2:J:223:PHE:HA	2:J:230:CYS:HA	1.95	0.47
2:J:2614:ILE:O	2:J:2650:ARG:NH1	2.41	0.47
2:J:2626:LEU:HD22	2:J:2640:PRO:HB3	1.95	0.47
2:E:747:CYS:SG	2:E:756:SER:HB2	2.55	0.47
2:E:870:ILE:O	2:E:874:LEU:HG	2.13	0.47
2:E:1095:VAL:HB	2:E:1199:VAL:HG23	1.95	0.47
2:E:1274:HIS:HB3	2:E:1277:TRP:HB2	1.97	0.47
2:E:1813:ARG:O	2:E:1817:GLU:HG2	2.15	0.47
2:E:1939:MET:HE2	2:E:1939:MET:HB3	1.68	0.47
2:E:2134:LEU:O	2:E:2138:LEU:HG	2.14	0.47
2:E:2515:GLN:CA	2:E:2568:LEU:HD21	2.44	0.47
2:E:2531:ARG:HH12	2:E:2585:THR:HB	1.79	0.47
2:G:2673:HIS:CE1	2:G:2910:THR:HA	2.50	0.47
2:G:2799:GLU:O	2:G:2803:GLU:HG2	2.14	0.47
2:G:2806:ARG:O	2:G:2810:LYS:HG2	2.14	0.47
2:G:4097:MET:HE2	2:G:4097:MET:N	2.29	0.47
2:J:404:ILE:HG23	2:J:483:MET:SD	2.54	0.47
2:J:487:VAL:O	2:J:491:ILE:HG13	2.15	0.47
2:J:582:HIS:O	2:J:586:ILE:HG13	2.14	0.47
2:J:863:LEU:HD13	2:J:867:LEU:HD21	1.97	0.47
2:J:3051:ARG:NH2	2:J:3102:ASP:HB2	2.30	0.47
2:J:3704:HIS:O	2:J:3708:THR:HG23	2.14	0.47
2:J:4181:ILE:HG22	2:J:4987:ASN:HB3	1.97	0.47
3:F:71:ARG:HB3	3:F:78:VAL:HG22	1.96	0.47
2:B:365:LYS:O	2:B:369:LEU:HG	2.14	0.47
2:B:404:ILE:HG23	2:B:483:MET:SD	2.54	0.47
2:B:1274:HIS:HB3	2:B:1277:TRP:HB2	1.97	0.47
2:B:1623:ARG:HA	2:B:1623:ARG:NH1	2.28	0.47
2:B:2353:VAL:O	2:B:2357:LEU:HG	2.15	0.47
2:B:2782:ASP:N	2:B:2782:ASP:OD1	2.47	0.47
2:B:3280:TYR:HE1	2:B:3284:TRP:CD1	2.33	0.47
2:E:111:HIS:CE1	2:E:113:HIS:HB3	2.50	0.47
2:E:2673:HIS:CE1	2:E:2910:THR:HA	2.50	0.47
2:E:2869:ARG:NH2	2:E:2947:ASP:H	2.12	0.47
2:E:3316:LEU:HD11	2:E:3345:ILE:HG23	1.95	0.47
2:E:3353:LEU:HG	2:E:3357:HIS:CE1	2.49	0.47
2:E:3991:GLY:O	2:E:3995:VAL:HG23	2.14	0.47
2:G:283:ARG:HE	2:G:288:GLY:HA2	1.79	0.47
2:G:733:PRO:HG2	2:G:762:CYS:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3354:LEU:HG	2:G:3359:ILE:HD11	1.96	0.47
2:G:3640:PRO:HG2	2:G:3643:ASN:HB2	1.96	0.47
2:G:4211:LYS:O	2:G:4215:ARG:HG3	2.15	0.47
2:J:28:VAL:HG12	2:J:33:LEU:HD23	1.96	0.47
2:J:246:TYR:CD1	2:J:373:LYS:HB3	2.50	0.47
2:J:799:GLU:OE1	2:J:1623:ARG:NH1	2.48	0.47
2:J:1420:ASN:OD1	2:J:1421:ARG:N	2.47	0.47
2:J:2806:ARG:O	2:J:2810:LYS:HG2	2.14	0.47
2:J:2869:ARG:NH2	2:J:2947:ASP:H	2.12	0.47
2:J:3280:TYR:HE1	2:J:3284:TRP:CD1	2.33	0.47
2:J:4211:LYS:O	2:J:4215:ARG:HG3	2.15	0.47
2:B:283:ARG:HE	2:B:288:GLY:HA2	1.79	0.47
2:B:2518:LEU:HD21	2:B:2569:PHE:CZ	2.49	0.47
2:B:3965:LEU:HA	2:B:3968:TYR:CD2	2.50	0.47
2:B:4097:MET:HE2	2:B:4097:MET:N	2.29	0.47
2:E:20:VAL:HG12	2:E:22:LEU:H	1.80	0.47
2:E:733:PRO:HG2	2:E:762:CYS:HB3	1.96	0.47
2:E:1420:ASN:OD1	2:E:1421:ARG:N	2.47	0.47
2:E:1735:ILE:HG22	2:E:2142:TYR:HB3	1.95	0.47
2:E:2626:LEU:HD22	2:E:2640:PRO:HB3	1.95	0.47
2:E:2718:SER:OG	2:E:2909:ASP:O	2.25	0.47
2:E:3412:LEU:O	2:E:3416:VAL:HG12	2.15	0.47
2:G:20:VAL:HG12	2:G:22:LEU:H	1.80	0.47
2:G:1420:ASN:OD1	2:G:1421:ARG:N	2.47	0.47
2:G:2225:PHE:O	2:G:2229:VAL:HG23	2.15	0.47
2:G:2592:GLY:O	2:G:2600:ARG:NH1	2.48	0.47
2:J:733:PRO:HG2	2:J:762:CYS:HB3	1.96	0.47
2:J:3313:ASN:OD1	2:J:3353:LEU:HD11	2.14	0.47
2:J:4749:GLU:HG3	2:J:4753:HIS:NE2	2.29	0.47
2:B:878:ILE:HG21	3:C:107:TRP:NE1	2.30	0.47
2:B:2292:GLU:H	2:B:2292:GLU:CD	2.21	0.47
2:B:3197:LEU:O	2:B:3201:MET:HB3	2.15	0.47
2:B:3281:LEU:O	2:B:3285:TRP:HB2	2.14	0.47
2:G:2725:LYS:HZ1	2:G:2737:PRO:HA	1.79	0.47
2:G:3281:LEU:O	2:G:3285:TRP:HB2	2.14	0.47
2:J:2469:ILE:HA	2:J:2472:LEU:HG	1.97	0.47
2:J:2531:ARG:HH12	2:J:2585:THR:HB	1.79	0.47
2:J:3412:LEU:O	2:J:3416:VAL:HG12	2.15	0.47
2:B:487:VAL:O	2:B:491:ILE:HG13	2.15	0.47
2:B:747:CYS:SG	2:B:756:SER:HB2	2.55	0.47
2:B:2806:ARG:O	2:B:2810:LYS:HG2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3003:LEU:HB2	2:B:3004:PRO:HD3	1.97	0.47
2:B:3366:ARG:NE	2:B:3367:LYS:HD2	2.26	0.47
2:B:4181:ILE:HG22	2:B:4987:ASN:HB3	1.97	0.47
2:E:317:ARG:NH2	2:E:321:GLU:O	2.48	0.47
2:E:863:LEU:HD13	2:E:867:LEU:HD21	1.97	0.47
2:E:3222:LYS:HD2	2:E:3226:GLU:CD	2.39	0.47
2:E:3443:ILE:HG12	2:E:3605:HIS:CD2	2.50	0.47
2:G:215:THR:HG22	2:G:273:HIS:HA	1.96	0.47
2:G:1745:ILE:HD11	2:G:1769:THR:HG23	1.97	0.47
2:G:2809:ILE:H	2:G:2809:ILE:HD12	1.80	0.47
2:G:2958:GLY:O	2:G:2962:GLN:HG2	2.15	0.47
2:G:3051:ARG:NH2	2:G:3102:ASP:HB2	2.30	0.47
2:G:3316:LEU:HD21	2:G:3345:ILE:HG13	1.97	0.47
2:G:3475:LYS:HD3	2:G:3516:LYS:HZ1	1.80	0.47
2:J:3475:LYS:HZ1	2:J:3511:VAL:HG21	1.78	0.47
2:B:2225:PHE:O	2:B:2229:VAL:HG23	2.15	0.46
2:E:2576:ALA:HA	2:E:2579:VAL:HB	1.96	0.46
2:G:317:ARG:NH2	2:G:321:GLU:O	2.48	0.46
2:G:487:VAL:O	2:G:491:ILE:HG13	2.15	0.46
2:G:2152:THR:O	2:G:2156:LEU:HG	2.16	0.46
2:J:2152:THR:O	2:J:2156:LEU:HG	2.16	0.46
2:J:3246:LEU:HD13	2:J:3280:TYR:CD2	2.49	0.46
2:J:3246:LEU:HD12	2:J:3249:LEU:HD12	1.97	0.46
2:J:3346:VAL:HG21	2:J:3411:LEU:HB3	1.96	0.46
2:B:111:HIS:CE1	2:B:113:HIS:HB3	2.50	0.46
2:B:659:TYR:HB2	2:B:1017:ARG:HH22	1.79	0.46
2:B:2592:GLY:O	2:B:2600:ARG:NH1	2.48	0.46
2:E:28:VAL:HG12	2:E:33:LEU:HD23	1.96	0.46
2:E:642:THR:HG21	2:E:1615:VAL:HG21	1.98	0.46
2:E:799:GLU:OE1	2:E:1623:ARG:NH1	2.48	0.46
2:E:3043:PHE:CD1	2:E:3043:PHE:C	2.93	0.46
2:G:2469:ILE:HA	2:G:2472:LEU:HG	1.97	0.46
2:G:3197:LEU:O	2:G:3201:MET:HB3	2.15	0.46
2:G:3412:LEU:O	2:G:3416:VAL:HG12	2.15	0.46
2:J:1813:ARG:O	2:J:1817:GLU:HG2	2.15	0.46
2:J:3443:ILE:HG12	2:J:3605:HIS:CD2	2.49	0.46
2:J:4675:LYS:HG3	2:J:4715:TYR:HE1	1.80	0.46
1:I:97:LEU:HB3	1:I:99:PHE:CE2	2.51	0.46
2:B:213:TYR:HA	2:B:340:LYS:HA	1.98	0.46
2:B:642:THR:HG21	2:B:1615:VAL:HG21	1.98	0.46
2:B:2652:TRP:CD1	2:B:2652:TRP:C	2.93	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:487:VAL:O	2:E:491:ILE:HG13	2.15	0.46
2:E:2652:TRP:CD1	2:E:2652:TRP:C	2.93	0.46
2:E:2782:ASP:N	2:E:2782:ASP:OD1	2.47	0.46
2:E:4675:LYS:HG3	2:E:4715:TYR:HE1	1.80	0.46
2:G:213:TYR:HA	2:G:340:LYS:HA	1.97	0.46
2:G:799:GLU:OE1	2:G:1623:ARG:NH1	2.48	0.46
2:G:2294:ASP:O	2:G:2298:VAL:HG12	2.16	0.46
2:G:2376:LEU:H	2:G:2376:LEU:HD12	1.79	0.46
2:G:4181:ILE:HG22	2:G:4987:ASN:HB3	1.97	0.46
2:J:1042:ALA:O	2:J:1046:LEU:HG	2.16	0.46
2:J:2294:ASP:O	2:J:2298:VAL:HG12	2.16	0.46
2:J:2353:VAL:O	2:J:2357:LEU:HG	2.15	0.46
2:J:2652:TRP:CD1	2:J:2652:TRP:C	2.93	0.46
2:J:3003:LEU:HB2	2:J:3004:PRO:HD3	1.97	0.46
2:J:3354:LEU:HG	2:J:3359:ILE:HD11	1.96	0.46
2:B:3043:PHE:CD1	2:B:3043:PHE:C	2.93	0.46
2:B:4240:ASP:O	2:B:4244:GLU:HG3	2.16	0.46
2:E:2102:VAL:HG13	2:E:2120:MET:HB2	1.97	0.46
2:E:2104:ARG:O	2:E:2108:GLU:HG2	2.16	0.46
2:E:2152:THR:O	2:E:2156:LEU:HG	2.16	0.46
2:E:2765:LYS:HD3	2:E:2765:LYS:HA	1.67	0.46
2:E:3002:LEU:HD23	2:E:3002:LEU:HA	1.81	0.46
2:E:3346:VAL:HG21	2:E:3411:LEU:HB3	1.96	0.46
2:G:19:GLU:HB3	2:G:205:ILE:HD13	1.98	0.46
2:G:863:LEU:HD13	2:G:867:LEU:HD21	1.97	0.46
2:G:1042:ALA:O	2:G:1046:LEU:HG	2.16	0.46
2:G:1669:LEU:O	2:G:1673:VAL:HG22	2.16	0.46
2:G:1813:ARG:O	2:G:1817:GLU:HG2	2.15	0.46
2:G:1964:ARG:HB3	2:G:1968:LYS:NZ	2.30	0.46
2:G:2782:ASP:N	2:G:2782:ASP:OD1	2.47	0.46
2:G:4749:GLU:HG3	2:G:4753:HIS:NE2	2.29	0.46
2:J:283:ARG:HE	2:J:288:GLY:HA2	1.79	0.46
2:J:1153:ILE:HG13	2:J:1160:ILE:HG12	1.97	0.46
2:J:1669:LEU:O	2:J:1673:VAL:HG22	2.16	0.46
2:J:2225:PHE:O	2:J:2229:VAL:HG23	2.15	0.46
2:J:2328:GLY:HA2	2:J:2331:TYR:HD2	1.81	0.46
2:J:2673:HIS:CE1	2:J:2910:THR:HA	2.50	0.46
2:J:2867:LEU:HB2	2:J:2928:LYS:NZ	2.29	0.46
2:B:882:TRP:O	2:B:885:THR:OG1	2.28	0.46
2:B:1153:ILE:HG13	2:B:1160:ILE:HG12	1.97	0.46
2:B:2328:GLY:HA2	2:B:2331:TYR:HD2	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3412:LEU:O	2:B:3416:VAL:HG12	2.15	0.46
2:B:3640:PRO:HG2	2:B:3643:ASN:HB2	1.96	0.46
2:B:4160:LEU:O	2:B:4164:LEU:HG	2.16	0.46
2:B:4211:LYS:O	2:B:4215:ARG:HG3	2.15	0.46
2:E:1669:LEU:O	2:E:1673:VAL:HG22	2.16	0.46
2:E:1745:ILE:HD11	2:E:1769:THR:HG23	1.97	0.46
2:E:2294:ASP:O	2:E:2298:VAL:HG12	2.16	0.46
2:E:2515:GLN:O	2:E:2519:LEU:HG	2.14	0.46
2:E:3051:ARG:NH2	2:E:3102:ASP:HB2	2.30	0.46
2:E:4160:LEU:O	2:E:4164:LEU:HG	2.16	0.46
2:E:4204:GLN:O	2:E:4207:MET:HB2	2.16	0.46
2:G:630:GLU:HG3	2:G:631:LEU:HD23	1.96	0.46
2:G:3514:LEU:HD12	2:G:3606:LEU:HB2	1.96	0.46
2:G:4152:GLU:OE1	2:G:4194:TYR:OH	2.29	0.46
2:G:4160:LEU:O	2:G:4164:LEU:HG	2.16	0.46
2:G:4679:ARG:NH1	2:G:4715:TYR:OH	2.49	0.46
2:J:630:GLU:HG3	2:J:631:LEU:HD23	1.96	0.46
2:J:2312:MET:SD	2:J:2312:MET:N	2.79	0.46
2:J:2592:GLY:O	2:J:2600:ARG:NH1	2.48	0.46
2:J:3428:ASN:O	2:J:3432:GLU:HG2	2.16	0.46
1:A:55:VAL:HA	2:B:1784:ALA:HA	1.97	0.46
2:B:247:TYR:CD2	2:B:374:LYS:HB2	2.44	0.46
2:B:317:ARG:NH2	2:B:321:GLU:O	2.48	0.46
2:B:2958:GLY:O	2:B:2962:GLN:HG2	2.15	0.46
2:E:1153:ILE:HG13	2:E:1160:ILE:HG12	1.97	0.46
2:E:1964:ARG:HB3	2:E:1968:LYS:NZ	2.30	0.46
2:E:3548:GLU:HG2	2:E:3552:PHE:CE2	2.51	0.46
2:G:246:TYR:CB	2:G:373:LYS:HD2	2.45	0.46
2:G:478:PHE:HD2	2:G:483:MET:HG3	1.81	0.46
2:G:2328:GLY:HA2	2:G:2331:TYR:HD2	1.81	0.46
2:G:2353:VAL:O	2:G:2357:LEU:HG	2.15	0.46
2:G:2599:GLN:O	2:G:2603:ILE:HG13	2.16	0.46
2:G:4240:ASP:O	2:G:4244:GLU:HG3	2.16	0.46
2:J:642:THR:HG21	2:J:1615:VAL:HG21	1.98	0.46
2:J:1274:HIS:HB3	2:J:1277:TRP:HB2	1.97	0.46
2:J:3197:LEU:O	2:J:3201:MET:HB3	2.15	0.46
2:J:3514:LEU:HD12	2:J:3606:LEU:HB2	1.96	0.46
2:J:4160:LEU:O	2:J:4164:LEU:HG	2.16	0.46
2:B:248:GLU:HA	2:B:372:LEU:CB	2.46	0.46
2:B:799:GLU:OE1	2:B:1623:ARG:NH1	2.48	0.46
2:B:996:TRP:HE1	2:B:1000:ARG:HD2	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1745:ILE:HD11	2:B:1769:THR:HG23	1.97	0.46
2:B:1813:ARG:O	2:B:1817:GLU:HG2	2.15	0.46
2:B:1964:ARG:HB3	2:B:1968:LYS:NZ	2.30	0.46
2:B:2376:LEU:HD12	2:B:2376:LEU:H	1.79	0.46
2:B:2531:ARG:HH12	2:B:2585:THR:HB	1.79	0.46
2:B:2696:TYR:HE2	2:B:2997:PHE:HA	1.81	0.46
2:E:996:TRP:HE1	2:E:1000:ARG:HD2	1.81	0.46
2:E:2469:ILE:HA	2:E:2472:LEU:HG	1.97	0.46
2:G:863:LEU:HD13	2:G:867:LEU:HD11	1.98	0.46
2:G:2292:GLU:H	2:G:2292:GLU:CD	2.21	0.46
2:G:3428:ASN:O	2:G:3432:GLU:HG2	2.16	0.46
2:J:20:VAL:HG12	2:J:22:LEU:H	1.80	0.46
2:J:659:TYR:HB2	2:J:1017:ARG:HH22	1.79	0.46
2:J:2799:GLU:O	2:J:2803:GLU:HG2	2.14	0.46
2:J:2881:ASN:HA	2:J:2884:ASN:HD21	1.81	0.46
2:J:2958:GLY:O	2:J:2962:GLN:HG2	2.15	0.46
2:J:3366:ARG:NE	2:J:3367:LYS:HD2	2.26	0.46
2:J:3405:LEU:HD13	2:J:3451:PHE:HZ	1.81	0.46
3:K:38:ARG:HD3	3:K:48:VAL:HG22	1.98	0.46
2:B:19:GLU:HB3	2:B:205:ILE:HD13	1.98	0.46
2:B:20:VAL:HG12	2:B:22:LEU:H	1.80	0.46
2:B:316:PHE:HE2	2:B:348:VAL:HG22	1.81	0.46
2:B:478:PHE:HD2	2:B:483:MET:HG3	1.81	0.46
2:B:696:PRO:HG2	2:B:1612:PHE:HE2	1.81	0.46
2:B:820:ARG:HG2	2:B:820:ARG:HH11	1.81	0.46
2:B:1042:ALA:O	2:B:1046:LEU:HG	2.16	0.46
2:B:2152:THR:O	2:B:2156:LEU:HG	2.16	0.46
2:B:3346:VAL:HG21	2:B:3411:LEU:HB3	1.96	0.46
2:E:882:TRP:O	2:E:885:THR:OG1	2.28	0.46
2:E:1260:MET:HB2	2:E:1269:CYS:SG	2.56	0.46
2:E:2599:GLN:O	2:E:2603:ILE:HG13	2.16	0.46
2:E:3277:LEU:HD13	2:E:3315:LEU:HD13	1.96	0.46
2:E:3475:LYS:HZ1	2:E:3511:VAL:HG21	1.80	0.46
2:G:404:ILE:HG23	2:G:483:MET:SD	2.54	0.46
2:G:642:THR:HG21	2:G:1615:VAL:HG21	1.98	0.46
2:G:2104:ARG:O	2:G:2108:GLU:HG2	2.16	0.46
2:G:2198:MET:HE2	2:G:2198:MET:N	2.31	0.46
2:G:3757:GLU:O	2:G:3761:GLN:HG2	2.16	0.46
2:J:317:ARG:NH2	2:J:321:GLU:O	2.48	0.46
2:J:478:PHE:HD2	2:J:483:MET:HG3	1.81	0.46
2:J:1964:ARG:HB3	2:J:1968:LYS:NZ	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:3342:ALA:HA	2:J:3345:ILE:HG22	1.98	0.46
2:J:3548:GLU:HG2	2:J:3552:PHE:CE2	2.51	0.46
2:J:3757:GLU:O	2:J:3761:GLN:HG2	2.16	0.46
3:C:71:ARG:HB3	3:C:78:VAL:HG22	1.97	0.46
1:H:55:VAL:HA	2:G:1784:ALA:HA	1.97	0.46
1:H:88:PRO:HB2	2:G:1680:ARG:HH12	1.81	0.46
2:B:863:LEU:HD13	2:B:867:LEU:HD11	1.98	0.46
2:B:1260:MET:HB2	2:B:1269:CYS:SG	2.56	0.46
2:E:2225:PHE:O	2:E:2229:VAL:HG23	2.15	0.46
2:E:2353:VAL:O	2:E:2357:LEU:HG	2.15	0.46
2:E:2696:TYR:HE2	2:E:2997:PHE:HA	1.81	0.46
2:E:2809:ILE:H	2:E:2809:ILE:HD12	1.80	0.46
2:E:2881:ASN:HA	2:E:2884:ASN:HD21	1.81	0.46
2:E:2958:GLY:O	2:E:2962:GLN:HG2	2.15	0.46
2:E:3405:LEU:HD13	2:E:3451:PHE:HZ	1.81	0.46
2:G:231:LEU:O	2:G:260:TRP:NE1	2.40	0.46
2:G:316:PHE:HE2	2:G:348:VAL:HG22	1.81	0.46
2:G:1498:GLY:HA2	2:G:1501:VAL:HG12	1.98	0.46
2:G:3003:LEU:HB2	2:G:3004:PRO:HD3	1.97	0.46
2:G:3346:VAL:HG21	2:G:3411:LEU:HB3	1.96	0.46
2:J:960:MET:SD	2:J:960:MET:N	2.75	0.46
2:J:1745:ILE:HD11	2:J:1769:THR:HG23	1.97	0.46
2:J:2292:GLU:H	2:J:2292:GLU:CD	2.22	0.46
2:J:2809:ILE:H	2:J:2809:ILE:HD12	1.80	0.46
2:J:3173:TYR:CG	2:J:3243:ILE:HG12	2.51	0.46
2:J:3639:THR:N	2:J:3640:PRO:HD2	2.31	0.46
2:B:4238:CYS:O	2:B:4242:ILE:HG13	2.16	0.46
2:E:231:LEU:O	2:E:260:TRP:NE1	2.40	0.46
2:E:3197:LEU:O	2:E:3201:MET:HB3	2.15	0.46
2:E:3342:ALA:HA	2:E:3345:ILE:HG22	1.98	0.46
2:E:4112:LEU:HD12	2:E:4112:LEU:HA	1.84	0.46
2:E:4181:ILE:HG22	2:E:4987:ASN:HB3	1.97	0.46
2:E:4856:PHE:O	2:E:4860:ARG:NH2	2.39	0.46
2:G:797:HIS:HA	2:G:1619:ARG:HH22	1.81	0.46
2:G:2607:LEU:HD23	2:G:2607:LEU:HA	1.83	0.46
2:G:3137:LEU:HB3	2:G:3138:PRO:HD3	1.98	0.46
2:G:3313:ASN:OD1	2:G:3353:LEU:HD11	2.14	0.46
2:G:3443:ILE:HG12	2:G:3605:HIS:CD2	2.49	0.46
2:J:2688:HIS:ND1	2:J:2688:HIS:N	2.63	0.46
2:J:3640:PRO:HG2	2:J:3643:ASN:HB2	1.96	0.46
2:J:4240:ASP:O	2:J:4244:GLU:HG3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:62:SER:O	3:K:62:SER:OG	2.24	0.46
3:M:71:ARG:HB3	3:M:78:VAL:HG22	1.96	0.46
2:B:1669:LEU:O	2:B:1673:VAL:HG22	2.16	0.45
2:B:2104:ARG:O	2:B:2108:GLU:HG2	2.16	0.45
2:B:3034:LYS:O	2:B:3038:MET:HG2	2.16	0.45
2:B:3342:ALA:HA	2:B:3345:ILE:HG22	1.98	0.45
2:E:210:GLU:H	2:E:273:HIS:CE1	2.34	0.45
2:E:818:ARG:NH1	2:E:1027:LEU:O	2.44	0.45
2:E:863:LEU:HD13	2:E:867:LEU:HD11	1.98	0.45
2:E:1042:ALA:O	2:E:1046:LEU:HG	2.16	0.45
2:E:2592:GLY:O	2:E:2600:ARG:NH1	2.48	0.45
2:E:3003:LEU:HB2	2:E:3004:PRO:HD3	1.97	0.45
2:E:4240:ASP:O	2:E:4244:GLU:HG3	2.16	0.45
2:E:4735:GLU:O	2:E:4739:GLU:HG2	2.17	0.45
2:G:820:ARG:HG2	2:G:820:ARG:HH11	1.81	0.45
2:G:873:LYS:NZ	2:G:947:GLU:OE1	2.48	0.45
2:G:2652:TRP:C	2:G:2652:TRP:CD1	2.93	0.45
2:G:3276:MET:O	2:G:3280:TYR:HB2	2.16	0.45
2:G:3280:TYR:HE1	2:G:3284:TRP:CD1	2.33	0.45
2:G:3554:GLN:O	2:G:3557:LEU:HD23	2.16	0.45
2:G:3639:THR:N	2:G:3640:PRO:HD2	2.31	0.45
2:J:210:GLU:H	2:J:273:HIS:CE1	2.34	0.45
2:J:818:ARG:NH1	2:J:1027:LEU:O	2.44	0.45
2:J:1260:MET:HB2	2:J:1269:CYS:SG	2.56	0.45
2:B:210:GLU:H	2:B:273:HIS:CE1	2.35	0.45
2:B:2240:CYS:SG	2:B:2250:MET:HG3	2.57	0.45
2:B:2294:ASP:O	2:B:2298:VAL:HG12	2.16	0.45
2:B:2463:LEU:HD11	2:B:2506:LEU:HD13	1.98	0.45
2:B:2469:ILE:HA	2:B:2472:LEU:HG	1.97	0.45
2:B:2809:ILE:H	2:B:2809:ILE:HD12	1.80	0.45
2:B:2881:ASN:HA	2:B:2884:ASN:HD21	1.81	0.45
2:B:4651:THR:HG21	2:B:4803:HIS:NE2	2.31	0.45
2:E:3157:ILE:HG22	2:E:3162:GLN:OE1	2.16	0.45
2:G:996:TRP:HE1	2:G:1000:ARG:HD2	1.81	0.45
2:G:1153:ILE:HG13	2:G:1160:ILE:HG12	1.97	0.45
2:G:2463:LEU:HD11	2:G:2506:LEU:HD13	1.98	0.45
2:G:2765:LYS:HA	2:G:2765:LYS:HD3	1.67	0.45
2:G:4856:PHE:O	2:G:4860:ARG:NH2	2.39	0.45
2:J:863:LEU:HD13	2:J:867:LEU:HD11	1.98	0.45
2:J:2104:ARG:O	2:J:2108:GLU:HG2	2.16	0.45
2:J:2198:MET:HE2	2:J:2198:MET:N	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:2463:LEU:HD11	2:J:2506:LEU:HD13	1.98	0.45
2:J:3034:LYS:O	2:J:3038:MET:HG2	2.16	0.45
2:J:3157:ILE:HG22	2:J:3162:GLN:OE1	2.16	0.45
2:J:3244:PRO:HB2	2:J:3248:ARG:HB3	1.98	0.45
2:J:4090:LYS:HG3	2:J:4121:GLU:HB3	1.98	0.45
2:J:4204:GLN:O	2:J:4207:MET:HB2	2.16	0.45
1:H:29:MET:SD	1:H:33:GLY:HA2	2.57	0.45
2:B:292:ALA:HB2	2:B:312:THR:HG22	1.98	0.45
2:B:818:ARG:NH1	2:B:1027:LEU:O	2.44	0.45
2:B:1939:MET:HE2	2:B:1939:MET:HB3	1.68	0.45
2:B:4204:GLN:O	2:B:4207:MET:HB2	2.16	0.45
2:E:372:LEU:HG	2:E:374:LYS:NZ	2.32	0.45
2:E:1089:TYR:CD1	2:E:1152:MET:HG2	2.45	0.45
2:E:3757:GLU:O	2:E:3761:GLN:HG2	2.16	0.45
2:G:878:ILE:HG13	3:M:107:TRP:CZ2	2.50	0.45
2:G:3405:LEU:HD13	2:G:3451:PHE:HZ	1.81	0.45
2:G:3887:PHE:O	2:G:3891:LEU:HG	2.17	0.45
2:G:4238:CYS:O	2:G:4242:ILE:HG13	2.16	0.45
2:J:213:TYR:HA	2:J:340:LYS:HA	1.97	0.45
2:J:2725:LYS:HZ1	2:J:2737:PRO:HA	1.81	0.45
2:J:3107:VAL:HG12	2:J:3175:LEU:HD11	1.98	0.45
2:J:3140:LEU:HD12	2:J:3140:LEU:O	2.16	0.45
2:J:3887:PHE:O	2:J:3891:LEU:HG	2.17	0.45
3:C:9:GLY:HA3	3:C:123:VAL:HG22	1.99	0.45
1:D:57:LYS:HE2	1:D:57:LYS:HB2	1.75	0.45
2:B:2566:ALA:HA	2:B:2569:PHE:CD2	2.49	0.45
2:B:2599:GLN:O	2:B:2603:ILE:HG13	2.16	0.45
2:B:3137:LEU:HB3	2:B:3138:PRO:HD3	1.98	0.45
2:B:3548:GLU:HG2	2:B:3552:PHE:CE2	2.51	0.45
2:B:3554:GLN:O	2:B:3557:LEU:HD23	2.16	0.45
2:B:4152:GLU:OE1	2:B:4194:TYR:OH	2.29	0.45
2:B:4696:ASP:O	2:B:4700:GLN:HG2	2.17	0.45
2:E:213:TYR:HA	2:E:340:LYS:HA	1.97	0.45
2:E:820:ARG:HH11	2:E:820:ARG:HG2	1.81	0.45
2:E:2463:LEU:HD11	2:E:2506:LEU:HD13	1.99	0.45
2:E:3034:LYS:O	2:E:3038:MET:HG2	2.16	0.45
2:E:3140:LEU:HD12	2:E:3140:LEU:O	2.16	0.45
2:E:4211:LYS:O	2:E:4215:ARG:HG3	2.15	0.45
2:G:3342:ALA:HA	2:G:3345:ILE:HG22	1.98	0.45
2:G:4204:GLN:O	2:G:4207:MET:HB2	2.16	0.45
2:G:4675:LYS:HG3	2:G:4715:TYR:HE1	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:2240:CYS:SG	2:J:2250:MET:HG3	2.57	0.45
2:J:2696:TYR:HE2	2:J:2997:PHE:HA	1.81	0.45
2:J:2782:ASP:N	2:J:2782:ASP:OD1	2.47	0.45
2:J:3276:MET:O	2:J:3280:TYR:HB2	2.16	0.45
2:J:3927:GLN:HB2	2:J:3992:PHE:CE2	2.52	0.45
1:D:29:MET:SD	1:D:33:GLY:HA2	2.57	0.45
1:I:29:MET:SD	1:I:33:GLY:HA2	2.57	0.45
2:B:863:LEU:HD13	2:B:867:LEU:HD21	1.97	0.45
2:B:1455:PRO:HG3	2:B:1549:PHE:HE1	1.82	0.45
2:B:3140:LEU:HD12	2:B:3140:LEU:O	2.16	0.45
2:B:3276:MET:O	2:B:3280:TYR:HB2	2.16	0.45
2:B:3757:GLU:O	2:B:3761:GLN:HG2	2.16	0.45
2:B:4048:LEU:HD22	2:B:4055:VAL:HG21	1.99	0.45
2:B:4090:LYS:HG3	2:B:4121:GLU:HB3	1.98	0.45
2:B:4735:GLU:O	2:B:4739:GLU:HG2	2.17	0.45
2:B:4744:ASP:HB3	2:B:4747:SER:HB3	1.99	0.45
2:E:3194:LEU:HD21	2:E:3272:ILE:HG23	1.98	0.45
2:E:3887:PHE:O	2:E:3891:LEU:HG	2.17	0.45
2:E:3927:GLN:HB2	2:E:3992:PHE:CE2	2.52	0.45
2:G:226:HIS:CD2	2:G:226:HIS:N	2.85	0.45
2:G:1260:MET:HB2	2:G:1269:CYS:SG	2.56	0.45
2:G:2515:GLN:CA	2:G:2568:LEU:HD11	2.46	0.45
2:J:292:ALA:HB2	2:J:312:THR:HG22	1.98	0.45
2:J:3104:GLU:HA	2:J:3107:VAL:HG22	1.98	0.45
2:J:4651:THR:HG21	2:J:4803:HIS:NE2	2.31	0.45
3:C:38:ARG:HD3	3:C:48:VAL:HG22	1.98	0.45
2:B:1179:PHE:HB2	2:B:1182:ILE:HD11	1.98	0.45
2:B:2102:VAL:HG13	2:B:2120:MET:HB2	1.97	0.45
2:B:3405:LEU:HG	2:B:3409:TYR:CE1	2.51	0.45
2:B:4232:GLU:HG2	2:B:5019:TRP:NE1	2.32	0.45
2:E:226:HIS:CD2	2:E:226:HIS:N	2.85	0.45
2:E:573:GLU:O	2:E:577:ILE:HG22	2.17	0.45
2:E:2240:CYS:SG	2:E:2250:MET:HG3	2.57	0.45
2:E:2688:HIS:ND1	2:E:2688:HIS:N	2.63	0.45
2:E:4720:VAL:O	2:E:4723:LYS:N	2.50	0.45
2:G:2102:VAL:HG13	2:G:2120:MET:HB2	1.97	0.45
2:G:2236:LEU:HD22	2:G:2250:MET:SD	2.57	0.45
2:G:2240:CYS:SG	2:G:2250:MET:HG3	2.57	0.45
2:G:2299:VAL:HG12	2:G:2360:LYS:HD2	1.99	0.45
2:G:2881:ASN:HA	2:G:2884:ASN:HD21	1.81	0.45
2:J:696:PRO:HG2	2:J:1612:PHE:HE2	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:2262:GLY:O	2:J:2266:GLY:N	2.47	0.45
2:J:3475:LYS:HD3	2:J:3516:LYS:HZ1	1.80	0.45
2:J:4115:SER:HB2	2:J:4123:ILE:HG21	1.98	0.45
2:J:4238:CYS:O	2:J:4242:ILE:HG13	2.16	0.45
1:D:55:VAL:HA	2:E:1784:ALA:HA	1.99	0.45
2:B:873:LYS:NZ	2:B:947:GLU:OE1	2.49	0.45
2:B:1694:LEU:HD11	2:B:1718:ILE:HD11	1.99	0.45
2:B:3428:ASN:O	2:B:3432:GLU:HG2	2.16	0.45
2:B:3639:THR:N	2:B:3640:PRO:HD2	2.31	0.45
2:E:276:TRP:CE2	2:E:339:ILE:HG12	2.52	0.45
2:E:1455:PRO:HG3	2:E:1549:PHE:HE1	1.82	0.45
2:E:4048:LEU:HD22	2:E:4055:VAL:HG21	1.99	0.45
2:E:4232:GLU:HG2	2:E:5019:TRP:NE1	2.32	0.45
2:E:4238:CYS:O	2:E:4242:ILE:HG13	2.16	0.45
2:G:993:HIS:HE1	2:G:1027:LEU:HD11	1.78	0.45
2:G:1455:PRO:HG3	2:G:1549:PHE:HE1	1.82	0.45
2:G:2503:VAL:HG21	2:G:2526:PHE:HZ	1.82	0.45
2:G:3034:LYS:O	2:G:3038:MET:HG2	2.16	0.45
2:G:3107:VAL:HG12	2:G:3175:LEU:HD11	1.98	0.45
2:G:3316:LEU:HD11	2:G:3345:ILE:HG23	1.99	0.45
2:J:276:TRP:CE2	2:J:339:ILE:HG12	2.52	0.45
2:J:316:PHE:HE2	2:J:348:VAL:HG22	1.81	0.45
2:J:797:HIS:HA	2:J:1619:ARG:HH22	1.81	0.45
2:J:3405:LEU:HG	2:J:3409:TYR:CE1	2.51	0.45
3:C:68:THR:OG1	3:C:81:GLN:HB3	2.17	0.45
2:B:1214:PHE:CZ	2:B:1225:PRO:HD3	2.52	0.45
2:B:1498:GLY:HA2	2:B:1501:VAL:HG12	1.98	0.45
2:B:2619:LEU:O	2:B:2623:LEU:HG	2.17	0.45
2:B:2725:LYS:NZ	2:B:2736:ASP:O	2.50	0.45
2:E:2012:PHE:CZ	2:E:2031:LEU:HD23	2.52	0.45
2:E:2691:TYR:CD2	2:E:2996:LYS:HD2	2.52	0.45
2:E:2725:LYS:HZ1	2:E:2737:PRO:HA	1.81	0.45
2:E:3104:GLU:HA	2:E:3107:VAL:HG22	1.98	0.45
2:E:3137:LEU:HB3	2:E:3138:PRO:HD3	1.98	0.45
2:E:3280:TYR:HE1	2:E:3284:TRP:CD1	2.33	0.45
2:E:3639:THR:N	2:E:3640:PRO:HD2	2.31	0.45
2:E:4696:ASP:O	2:E:4700:GLN:HG2	2.17	0.45
2:G:210:GLU:H	2:G:273:HIS:CE1	2.35	0.45
2:G:246:TYR:CD1	2:G:373:LYS:HB3	2.51	0.45
2:G:484:LEU:HD11	2:G:540:PHE:HE1	1.82	0.45
2:G:551:LEU:HD23	2:G:560:ILE:HG13	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1179:PHE:HB2	2:G:1182:ILE:HD11	1.99	0.45
2:G:2575:ARG:HH11	2:G:2577:ILE:HG23	1.82	0.45
2:G:4696:ASP:O	2:G:4700:GLN:HG2	2.17	0.45
2:J:484:LEU:HD11	2:J:540:PHE:HE1	1.82	0.45
2:J:551:LEU:HD23	2:J:560:ILE:HG13	1.99	0.45
2:J:1435:TYR:CZ	2:J:1550:PRO:HB3	2.52	0.45
2:J:1575:LEU:HD23	2:J:1575:LEU:HA	1.82	0.45
2:J:2157:GLU:O	2:J:2161:GLN:HG3	2.17	0.45
2:J:2299:VAL:HG12	2:J:2360:LYS:HD2	1.98	0.45
2:J:2599:GLN:O	2:J:2603:ILE:HG13	2.16	0.45
2:J:3377:GLU:HA	2:J:3380:ARG:HG2	1.99	0.45
3:K:68:THR:OG1	3:K:81:GLN:HB3	2.17	0.45
1:A:29:MET:SD	1:A:33:GLY:HA2	2.57	0.45
2:B:35:LEU:HG	2:B:51:PRO:HA	1.98	0.45
2:B:1930:LYS:HD2	2:B:1931:LEU:N	2.32	0.45
2:B:2198:MET:HE2	2:B:2198:MET:N	2.31	0.45
2:B:2654:TYR:HB2	2:B:2661:TRP:HE3	1.82	0.45
2:B:2691:TYR:CD2	2:B:2996:LYS:HD2	2.52	0.45
2:E:478:PHE:HD2	2:E:483:MET:HG3	1.81	0.45
2:E:2198:MET:HE2	2:E:2198:MET:N	2.31	0.45
2:E:2236:LEU:HD22	2:E:2250:MET:SD	2.57	0.45
2:E:3276:MET:O	2:E:3280:TYR:HB2	2.16	0.45
2:E:3428:ASN:O	2:E:3432:GLU:HG2	2.16	0.45
2:E:4090:LYS:HG3	2:E:4121:GLU:HB3	1.98	0.45
2:E:4115:SER:HB2	2:E:4123:ILE:HG21	1.98	0.45
2:E:4651:THR:HG21	2:E:4803:HIS:NE2	2.31	0.45
2:E:4671:PHE:HD1	2:E:4714:ASN:O	2.00	0.45
2:E:4744:ASP:HB3	2:E:4747:SER:HB3	1.99	0.45
2:E:4959:PHE:CD1	2:E:4985:LEU:HD11	2.52	0.45
2:G:489:ASN:OD1	2:G:493:ARG:NH1	2.50	0.45
2:G:2157:GLU:O	2:G:2161:GLN:HG3	2.17	0.45
2:G:3024:VAL:HG13	2:G:3029:GLY:HA2	1.99	0.45
2:G:3377:GLU:HA	2:G:3380:ARG:HG2	1.99	0.45
2:G:3405:LEU:HG	2:G:3409:TYR:CE1	2.52	0.45
2:G:3754:GLU:HG3	2:G:4719:PHE:CZ	2.52	0.45
2:J:35:LEU:HG	2:J:51:PRO:HA	1.98	0.45
2:J:993:HIS:HE1	2:J:1027:LEU:HD11	1.79	0.45
2:J:996:TRP:HE1	2:J:1000:ARG:HD2	1.81	0.45
2:J:1455:PRO:HG3	2:J:1549:PHE:HE1	1.82	0.45
2:J:2102:VAL:HG13	2:J:2120:MET:HB2	1.97	0.45
2:J:3137:LEU:HB3	2:J:3138:PRO:HD3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:3194:LEU:HD21	2:J:3272:ILE:HG23	1.98	0.45
2:J:4152:GLU:OE1	2:J:4194:TYR:OH	2.29	0.45
3:M:38:ARG:HD3	3:M:48:VAL:HG22	1.98	0.45
2:B:184:THR:HG22	2:B:189:LEU:HD13	1.99	0.45
2:B:797:HIS:HA	2:B:1619:ARG:HH22	1.82	0.45
2:B:876:GLU:HA	2:B:876:GLU:OE1	2.17	0.45
2:B:2688:HIS:ND1	2:B:2688:HIS:N	2.63	0.45
2:B:2960:LEU:HD13	2:B:3038:MET:HG3	1.99	0.45
2:E:19:GLU:HB3	2:E:205:ILE:HD13	1.98	0.45
2:E:1694:LEU:HD11	2:E:1718:ILE:HD11	1.99	0.45
2:E:2328:GLY:HA2	2:E:2331:TYR:HD2	1.81	0.45
2:E:3965:LEU:HA	2:E:3968:TYR:CD2	2.52	0.45
2:G:276:TRP:CE2	2:G:339:ILE:HG12	2.51	0.45
2:G:2691:TYR:CD2	2:G:2996:LYS:HD2	2.52	0.45
2:G:2696:TYR:HE2	2:G:2997:PHE:HA	1.81	0.45
2:G:4090:LYS:HG3	2:G:4121:GLU:HB3	1.98	0.45
2:G:4651:THR:HG21	2:G:4803:HIS:NE2	2.31	0.45
2:J:573:GLU:O	2:J:577:ILE:HG22	2.17	0.45
2:J:820:ARG:HG2	2:J:820:ARG:HH11	1.81	0.45
2:J:1214:PHE:CZ	2:J:1225:PRO:HD3	2.52	0.45
2:J:2549:ALA:HA	2:J:2552:ARG:NH1	2.32	0.45
2:J:2672:LEU:HD12	2:J:2672:LEU:HA	1.81	0.45
2:J:2725:LYS:NZ	2:J:2736:ASP:O	2.50	0.45
2:J:2924:GLN:O	2:J:2928:LYS:HG2	2.17	0.45
2:J:3024:VAL:HG13	2:J:3029:GLY:HA2	1.99	0.45
2:J:3316:LEU:HD11	2:J:3345:ILE:HG23	1.99	0.45
2:J:3554:GLN:O	2:J:3557:LEU:HD23	2.16	0.45
3:C:69:ILE:HB	3:C:80:LEU:HD13	1.99	0.45
3:F:38:ARG:HD3	3:F:48:VAL:HG22	1.98	0.45
1:H:5:GLU:HB2	1:H:73:LYS:HE2	1.99	0.44
2:B:1815:LEU:HD22	2:B:1845:VAL:HG21	1.99	0.44
2:E:489:ASN:OD1	2:E:493:ARG:NH1	2.50	0.44
2:E:797:HIS:HA	2:E:1619:ARG:HH22	1.81	0.44
2:E:876:GLU:OE1	2:E:876:GLU:HA	2.17	0.44
2:E:2570:ALA:HA	2:E:2613:TYR:O	2.17	0.44
2:E:2725:LYS:NZ	2:E:2736:ASP:O	2.50	0.44
2:E:3377:GLU:HA	2:E:3380:ARG:HG2	1.99	0.44
2:E:4021:LYS:O	2:E:4025:VAL:HG23	2.17	0.44
2:E:4679:ARG:NH1	2:E:4715:TYR:OH	2.50	0.44
2:G:127:MET:SD	2:G:127:MET:N	2.73	0.44
2:G:292:ALA:HB2	2:G:312:THR:HG22	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1214:PHE:CZ	2:G:1225:PRO:HD3	2.52	0.44
2:G:3104:GLU:HA	2:G:3107:VAL:HG22	1.98	0.44
2:G:3140:LEU:HD12	2:G:3140:LEU:O	2.16	0.44
2:G:3865:VAL:HG22	2:G:3867:ASN:H	1.81	0.44
2:G:4048:LEU:HD22	2:G:4055:VAL:HG21	1.99	0.44
2:J:1498:GLY:HA2	2:J:1501:VAL:HG12	1.98	0.44
2:J:2880:GLU:HB2	2:J:2908:TYR:CD2	2.52	0.44
3:F:68:THR:OG1	3:F:81:GLN:HB3	2.17	0.44
3:M:9:GLY:HA3	3:M:123:VAL:HG22	1.99	0.44
1:A:24:VAL:HG12	1:A:102:GLU:O	2.17	0.44
2:B:489:ASN:OD1	2:B:493:ARG:NH1	2.50	0.44
2:B:2012:PHE:CZ	2:B:2031:LEU:HD23	2.52	0.44
2:B:2604:GLU:HG2	2:B:2639:MET:HG3	2.00	0.44
2:B:2639:MET:HE3	2:B:2640:PRO:CD	2.47	0.44
2:B:3107:VAL:HG12	2:B:3175:LEU:HD11	1.98	0.44
2:B:3194:LEU:HD21	2:B:3272:ILE:HG23	1.98	0.44
2:E:525:LEU:O	2:E:529:LEU:HG	2.17	0.44
2:E:1018:ASN:OD1	2:E:1021:LEU:N	2.51	0.44
2:E:1435:TYR:CZ	2:E:1550:PRO:HB3	2.52	0.44
2:E:1930:LYS:HD2	2:E:1931:LEU:N	2.32	0.44
2:E:2549:ALA:HA	2:E:2552:ARG:NH1	2.32	0.44
2:E:2654:TYR:HB2	2:E:2661:TRP:HE3	1.82	0.44
2:E:2924:GLN:O	2:E:2928:LYS:HG2	2.17	0.44
2:E:3397:GLU:O	2:E:3400:VAL:HG12	2.18	0.44
2:E:3405:LEU:HG	2:E:3409:TYR:CE1	2.51	0.44
2:G:35:LEU:HG	2:G:51:PRO:HA	1.98	0.44
2:G:2262:GLY:O	2:G:2266:GLY:N	2.47	0.44
2:G:2858:GLN:HB2	2:G:2859:PRO:HD3	2.00	0.44
2:G:3157:ILE:HG22	2:G:3162:GLN:OE1	2.17	0.44
2:G:3548:GLU:HG2	2:G:3552:PHE:CE2	2.51	0.44
2:G:5017:ARG:NH1	2:G:5019:TRP:HZ2	2.15	0.44
2:J:1694:LEU:HD11	2:J:1718:ILE:HD11	1.99	0.44
2:J:4232:GLU:HG2	2:J:5019:TRP:NE1	2.32	0.44
3:K:69:ILE:HB	3:K:80:LEU:HD13	1.99	0.44
2:B:276:TRP:CE2	2:B:339:ILE:HG12	2.52	0.44
2:B:551:LEU:HD23	2:B:560:ILE:HG13	1.99	0.44
2:B:1092:PHE:HE2	2:B:1100:MET:HE3	1.82	0.44
2:B:3887:PHE:O	2:B:3891:LEU:HG	2.17	0.44
2:E:2880:GLU:HB2	2:E:2908:TYR:CD2	2.53	0.44
2:G:696:PRO:HG2	2:G:1612:PHE:HE2	1.81	0.44
2:G:1694:LEU:HD11	2:G:1718:ILE:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1930:LYS:HD2	2:G:1931:LEU:N	2.32	0.44
2:G:2138:LEU:HD12	2:G:3658:LYS:HG3	1.99	0.44
2:G:3567:PRO:O	2:G:3570:ARG:HB3	2.17	0.44
2:G:3731:LYS:NZ	2:G:3735:LEU:HD21	2.32	0.44
2:G:4115:SER:HB2	2:G:4123:ILE:HG21	1.98	0.44
2:J:3051:ARG:HH22	2:J:3102:ASP:HB2	1.83	0.44
3:M:68:THR:OG1	3:M:81:GLN:HB3	2.17	0.44
2:B:3024:VAL:HG13	2:B:3029:GLY:HA2	1.99	0.44
2:B:3377:GLU:HA	2:B:3380:ARG:HG2	1.99	0.44
2:B:3405:LEU:HD13	2:B:3451:PHE:HZ	1.81	0.44
2:B:3927:GLN:HB2	2:B:3992:PHE:CE2	2.52	0.44
2:B:4115:SER:HB2	2:B:4123:ILE:HG21	1.98	0.44
2:B:4652:LEU:O	2:B:4656:LEU:HG	2.18	0.44
2:E:696:PRO:HG2	2:E:1612:PHE:HE2	1.81	0.44
2:E:2157:GLU:O	2:E:2161:GLN:HG3	2.17	0.44
2:E:2960:LEU:HD13	2:E:3038:MET:HG3	2.00	0.44
2:E:4064:MET:HE1	2:E:4110:PHE:CD2	2.53	0.44
2:G:184:THR:HG22	2:G:189:LEU:HD13	1.99	0.44
2:G:3194:LEU:HD21	2:G:3272:ILE:HG23	1.98	0.44
2:G:3366:ARG:NE	2:G:3367:LYS:HD2	2.26	0.44
2:G:3927:GLN:HB2	2:G:3992:PHE:CE2	2.52	0.44
2:G:5012:LYS:HE2	2:G:5016:GLU:OE2	2.16	0.44
2:J:525:LEU:O	2:J:529:LEU:HG	2.17	0.44
2:J:889:GLN:C	2:J:891:TRP:H	2.26	0.44
2:J:4696:ASP:O	2:J:4700:GLN:HG2	2.16	0.44
1:H:98:ILE:HD12	1:H:98:ILE:N	2.33	0.44
2:B:573:GLU:O	2:B:577:ILE:HG22	2.17	0.44
2:B:2503:VAL:HG21	2:B:2526:PHE:HZ	1.82	0.44
2:B:3157:ILE:HG22	2:B:3162:GLN:OE1	2.17	0.44
2:B:4021:LYS:O	2:B:4025:VAL:HG23	2.18	0.44
2:B:4959:PHE:CD1	2:B:4985:LEU:HD11	2.52	0.44
2:E:292:ALA:HB2	2:E:312:THR:HG22	1.98	0.44
2:E:316:PHE:HE2	2:E:348:VAL:HG22	1.81	0.44
2:E:1092:PHE:HE2	2:E:1100:MET:HE3	1.82	0.44
2:E:2672:LEU:HD12	2:E:2672:LEU:HA	1.81	0.44
2:E:3107:VAL:HG12	2:E:3175:LEU:HD11	1.98	0.44
2:E:3874:VAL:HG21	2:E:3950:ASN:ND2	2.33	0.44
2:E:4021:LYS:HD3	2:E:4138:ASP:HB3	2.00	0.44
2:E:4911:LEU:HD23	2:E:4911:LEU:HA	1.85	0.44
2:G:573:GLU:O	2:G:577:ILE:HG22	2.17	0.44
2:G:876:GLU:OE1	2:G:876:GLU:HA	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:972:LEU:HB2	2:G:1044:ARG:HE	1.83	0.44
2:G:2012:PHE:CZ	2:G:2031:LEU:HD23	2.52	0.44
2:G:2639:MET:HE3	2:G:2640:PRO:CD	2.47	0.44
2:G:4021:LYS:O	2:G:4025:VAL:HG23	2.18	0.44
2:J:2330:ARG:HE	2:J:2330:ARG:HB2	1.68	0.44
2:J:2503:VAL:HG21	2:J:2526:PHE:HZ	1.82	0.44
2:J:3014:CYS:SG	2:J:3074:SER:HB3	2.58	0.44
2:J:3537:LYS:HE2	2:J:3537:LYS:HB3	1.85	0.44
2:J:3731:LYS:NZ	2:J:3735:LEU:HD21	2.32	0.44
2:J:3754:GLU:HG3	2:J:4719:PHE:CZ	2.53	0.44
2:J:4735:GLU:O	2:J:4739:GLU:HG2	2.17	0.44
2:J:4959:PHE:CD1	2:J:4985:LEU:HD11	2.52	0.44
1:A:26:TYR:CB	1:A:101:VAL:HG12	2.46	0.44
1:I:98:ILE:N	1:I:98:ILE:HD12	2.32	0.44
2:B:2236:LEU:HD22	2:B:2250:MET:SD	2.57	0.44
2:B:2768:PHE:O	2:B:2772:GLN:HG2	2.18	0.44
2:B:3397:GLU:O	2:B:3400:VAL:HG12	2.18	0.44
2:E:1214:PHE:CZ	2:E:1225:PRO:HD3	2.52	0.44
2:E:2138:LEU:HD12	2:E:3658:LYS:HG3	1.99	0.44
2:E:2449:GLU:O	2:E:2453:ILE:HG12	2.17	0.44
2:G:525:LEU:O	2:G:529:LEU:HG	2.17	0.44
2:G:887:ILE:HD13	2:G:959:TYR:HB3	2.00	0.44
2:G:889:GLN:C	2:G:891:TRP:H	2.26	0.44
2:G:2359:ARG:HD3	2:G:2359:ARG:HA	1.82	0.44
2:G:3043:PHE:CD1	2:G:3043:PHE:C	2.93	0.44
2:G:3051:ARG:HH22	2:G:3102:ASP:HB2	1.83	0.44
2:G:4064:MET:HE1	2:G:4110:PHE:CD2	2.53	0.44
2:J:135:VAL:HG21	2:J:191:VAL:HG22	2.00	0.44
2:J:371:VAL:HG12	2:J:373:LYS:HG2	1.98	0.44
2:J:371:VAL:CG1	2:J:373:LYS:HG2	2.47	0.44
2:J:882:TRP:CD2	3:K:106:PRO:HG3	2.52	0.44
2:J:2012:PHE:CZ	2:J:2031:LEU:HD23	2.52	0.44
2:J:2236:LEU:HD22	2:J:2250:MET:SD	2.57	0.44
2:J:3244:PRO:HG2	2:J:3249:LEU:HD23	1.98	0.44
2:J:3644:LEU:HD12	2:J:3645:PRO:HD2	1.99	0.44
2:J:4048:LEU:HD22	2:J:4055:VAL:HG21	1.99	0.44
2:J:4698:LYS:HE3	2:J:4698:LYS:HB2	1.84	0.44
2:J:4744:ASP:HB3	2:J:4747:SER:HB3	1.99	0.44
2:B:474:ARG:O	2:B:478:PHE:HD1	2.01	0.44
2:B:920:TYR:HE1	3:C:99:ARG:HE	1.65	0.44
2:B:2115:GLU:H	2:B:2115:GLU:CD	2.26	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2575:ARG:O	2:B:2579:VAL:HG23	2.17	0.44
2:B:2880:GLU:HB2	2:B:2908:TYR:CD2	2.53	0.44
2:B:3092:LEU:O	2:B:3095:PHE:HB3	2.18	0.44
2:B:3731:LYS:NZ	2:B:3735:LEU:HD21	2.32	0.44
2:B:4064:MET:HE1	2:B:4110:PHE:CD2	2.53	0.44
2:E:35:LEU:HG	2:E:51:PRO:HA	1.98	0.44
2:E:2563:THR:HG22	2:E:2606:CYS:HA	2.00	0.44
2:E:3014:CYS:SG	2:E:3074:SER:HB3	2.58	0.44
2:E:3989:VAL:HG13	2:E:4023:MET:HE2	2.00	0.44
2:G:2880:GLU:HB2	2:G:2908:TYR:CD2	2.53	0.44
2:G:3014:CYS:SG	2:G:3074:SER:HB3	2.58	0.44
2:G:3246:LEU:HD13	2:G:3280:TYR:CD2	2.53	0.44
2:J:882:TRP:CZ2	3:K:104:TYR:HB2	2.53	0.44
2:J:3284:TRP:CZ3	2:J:3287:ARG:HD3	2.53	0.44
2:J:3874:VAL:HG21	2:J:3950:ASN:ND2	2.33	0.44
3:F:9:GLY:HA3	3:F:123:VAL:HG22	1.99	0.44
2:B:1018:ASN:OD1	2:B:1021:LEU:N	2.51	0.44
2:B:2157:GLU:O	2:B:2161:GLN:HG3	2.17	0.44
2:B:2788:HIS:NE2	2:B:2805:TYR:OH	2.38	0.44
2:E:1815:LEU:HD22	2:E:1845:VAL:HG21	1.99	0.44
2:E:2503:VAL:HG21	2:E:2526:PHE:HZ	1.82	0.44
2:E:2518:LEU:HD21	2:E:2569:PHE:CZ	2.52	0.44
2:E:2639:MET:HE3	2:E:2640:PRO:CD	2.47	0.44
2:G:1092:PHE:HE2	2:G:1100:MET:HE3	1.82	0.44
2:G:2688:HIS:ND1	2:G:2688:HIS:N	2.63	0.44
2:G:2768:PHE:O	2:G:2772:GLN:HG2	2.18	0.44
2:G:2960:LEU:HD13	2:G:3038:MET:HG3	2.00	0.44
2:G:3284:TRP:CZ3	2:G:3287:ARG:HD3	2.53	0.44
2:G:4652:LEU:O	2:G:4656:LEU:HG	2.18	0.44
2:G:4735:GLU:O	2:G:4739:GLU:HG2	2.17	0.44
2:G:4817:ALA:HA	2:G:4823:LEU:HB3	2.00	0.44
2:J:19:GLU:HB3	2:J:205:ILE:HD13	1.98	0.44
2:J:489:ASN:OD1	2:J:493:ARG:NH1	2.50	0.44
2:J:873:LYS:NZ	2:J:947:GLU:OE1	2.48	0.44
2:J:2691:TYR:CD2	2:J:2996:LYS:HD2	2.52	0.44
2:J:4652:LEU:O	2:J:4656:LEU:HG	2.18	0.44
1:H:56:ILE:HG13	1:H:59:PHE:HB2	2.00	0.44
1:I:56:ILE:HG13	1:I:59:PHE:HB2	2.00	0.44
2:B:226:HIS:CD2	2:B:226:HIS:N	2.85	0.44
2:B:2777:TYR:HB2	2:B:2791:LEU:O	2.18	0.44
2:B:2924:GLN:O	2:B:2928:LYS:HG2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3874:VAL:HG21	2:B:3950:ASN:ND2	2.33	0.44
2:B:3987:ASP:OD2	2:E:162:LYS:NZ	2.49	0.44
2:B:3989:VAL:HG13	2:B:4023:MET:HE2	2.00	0.44
2:B:3996:PHE:HZ	2:B:4019:LEU:HG	1.83	0.44
2:E:2607:LEU:HD23	2:E:2607:LEU:HA	1.83	0.44
2:E:2768:PHE:O	2:E:2772:GLN:HG2	2.18	0.44
2:E:3098:SER:O	2:E:3101:GLU:HG3	2.18	0.44
2:G:135:VAL:HG21	2:G:191:VAL:HG22	2.00	0.44
2:G:227:MET:HA	2:G:227:MET:HE3	2.00	0.44
2:G:1435:TYR:CZ	2:G:1550:PRO:HB3	2.52	0.44
2:G:4671:PHE:HD1	2:G:4714:ASN:O	2.01	0.44
2:J:1433:TYR:CE1	2:J:1578:ALA:HB2	2.53	0.44
2:J:2960:LEU:HD13	2:J:3038:MET:HG3	1.99	0.44
2:J:4021:LYS:O	2:J:4025:VAL:HG23	2.18	0.44
2:J:4064:MET:HE1	2:J:4110:PHE:CD2	2.53	0.44
2:J:4069:LYS:NZ	2:J:4130:ASN:OD1	2.37	0.44
2:B:2858:GLN:HB2	2:B:2859:PRO:HD3	2.00	0.43
2:B:3567:PRO:O	2:B:3570:ARG:HB3	2.17	0.43
2:E:551:LEU:HD23	2:E:560:ILE:HG13	1.99	0.43
2:E:1179:PHE:HB2	2:E:1182:ILE:HD11	1.99	0.43
2:E:1433:TYR:CE1	2:E:1578:ALA:HB2	2.53	0.43
2:E:1498:GLY:HA2	2:E:1501:VAL:HG12	1.98	0.43
2:E:2115:GLU:H	2:E:2115:GLU:CD	2.26	0.43
2:G:1121:ALA:HB1	2:G:1123:VAL:HG13	2.01	0.43
2:G:3996:PHE:HZ	2:G:4019:LEU:HG	1.83	0.43
2:G:4744:ASP:HB3	2:G:4747:SER:HB3	1.98	0.43
2:G:4959:PHE:CD1	2:G:4985:LEU:HD11	2.52	0.43
2:J:1092:PHE:HE2	2:J:1100:MET:HE3	1.82	0.43
2:J:1815:LEU:HD22	2:J:1845:VAL:HG21	1.99	0.43
2:J:1930:LYS:HD2	2:J:1931:LEU:N	2.32	0.43
2:J:2639:MET:HE3	2:J:2640:PRO:CD	2.47	0.43
2:J:2684:ASP:OD1	2:J:2685:SER:N	2.51	0.43
2:J:2858:GLN:HB2	2:J:2859:PRO:HD3	2.00	0.43
2:J:3567:PRO:O	2:J:3570:ARG:HB3	2.17	0.43
3:K:32:ASN:ND2	3:K:101:PRO:HB3	2.33	0.43
3:M:69:ILE:HB	3:M:80:LEU:HD13	1.99	0.43
1:D:56:ILE:HG13	1:D:59:PHE:HB2	2.00	0.43
2:B:887:ILE:HD13	2:B:959:TYR:HB3	2.00	0.43
2:B:889:GLN:C	2:B:891:TRP:H	2.26	0.43
2:B:2262:GLY:O	2:B:2266:GLY:N	2.47	0.43
2:B:3014:CYS:SG	2:B:3074:SER:HB3	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3414:ARG:NH2	2:B:3474:SER:O	2.51	0.43
2:E:3458:PHE:CE2	2:E:3464:ILE:HG13	2.54	0.43
2:E:3554:GLN:O	2:E:3557:LEU:HD23	2.16	0.43
2:E:4642:ALA:O	2:E:4646:LEU:HD23	2.18	0.43
2:G:663:TYR:CE1	2:G:745:SER:HB3	2.53	0.43
2:G:1000:ARG:NH2	2:G:1003:GLN:HG3	2.34	0.43
2:G:2563:THR:HG22	2:G:2606:CYS:HA	2.00	0.43
2:G:2725:LYS:NZ	2:G:2736:ASP:O	2.50	0.43
2:G:3092:LEU:O	2:G:3095:PHE:HB3	2.18	0.43
2:G:4698:LYS:HE3	2:G:4698:LYS:HB2	1.84	0.43
2:J:201:ASN:ND2	2:J:203:ASN:HD21	2.17	0.43
2:J:3594:ARG:NH1	2:J:3597:GLN:OE1	2.34	0.43
2:B:1426:ILE:O	2:B:1430:THR:HB	2.18	0.43
2:B:2138:LEU:HD12	2:B:3658:LYS:HG3	1.99	0.43
2:B:3458:PHE:CE2	2:B:3464:ILE:HG13	2.54	0.43
2:E:201:ASN:ND2	2:E:203:ASN:HD21	2.17	0.43
2:E:889:GLN:C	2:E:891:TRP:H	2.26	0.43
2:E:972:LEU:HB2	2:E:1044:ARG:HE	1.83	0.43
2:E:1738:LEU:HB2	2:E:2146:PRO:HD3	2.00	0.43
2:E:2604:GLU:HG2	2:E:2639:MET:HG3	2.00	0.43
2:E:2777:TYR:HB2	2:E:2791:LEU:O	2.18	0.43
2:E:3024:VAL:HG13	2:E:3029:GLY:HA2	1.99	0.43
2:E:3284:TRP:CZ3	2:E:3287:ARG:HD3	2.53	0.43
2:E:3644:LEU:HD12	2:E:3645:PRO:HD2	1.99	0.43
2:E:3731:LYS:NZ	2:E:3735:LEU:HD21	2.32	0.43
2:G:882:TRP:CD2	3:M:106:PRO:HG3	2.53	0.43
2:G:2654:TYR:HB2	2:G:2661:TRP:HE3	1.82	0.43
2:G:2768:PHE:HA	2:G:2771:ILE:HG22	2.00	0.43
2:G:3414:ARG:NH2	2:G:3474:SER:O	2.51	0.43
2:G:3874:VAL:HG21	2:G:3950:ASN:ND2	2.33	0.43
2:J:227:MET:HA	2:J:227:MET:HE3	2.00	0.43
2:J:876:GLU:HA	2:J:876:GLU:OE1	2.17	0.43
2:J:1581:LEU:HD12	2:J:1584:ARG:HE	1.84	0.43
2:J:2449:GLU:O	2:J:2453:ILE:HG12	2.17	0.43
2:J:3996:PHE:HZ	2:J:4019:LEU:HG	1.83	0.43
3:C:32:ASN:OD1	3:C:33:SER:N	2.51	0.43
3:M:32:ASN:ND2	3:M:101:PRO:HB3	2.33	0.43
1:I:5:GLU:HB2	1:I:73:LYS:HE2	2.01	0.43
2:B:1000:ARG:NH2	2:B:1003:GLN:HG3	2.33	0.43
2:B:2449:GLU:O	2:B:2453:ILE:HG12	2.17	0.43
2:B:2878:LEU:HG	2:B:2882:TYR:CZ	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3098:SER:O	2:B:3101:GLU:HG3	2.18	0.43
2:B:3284:TRP:CZ3	2:B:3287:ARG:HD3	2.53	0.43
2:B:3644:LEU:HD12	2:B:3645:PRO:HD2	1.99	0.43
2:B:4677:LEU:HD23	2:B:4711:PHE:HE1	1.84	0.43
2:E:2684:ASP:OD1	2:E:2685:SER:N	2.51	0.43
2:E:3567:PRO:O	2:E:3570:ARG:HB3	2.17	0.43
2:G:144:GLU:HG3	2:G:175:SER:HB2	2.01	0.43
2:G:1426:ILE:O	2:G:1430:THR:HB	2.18	0.43
2:G:2449:GLU:O	2:G:2453:ILE:HG12	2.17	0.43
2:G:2573:GLU:HB2	2:G:2615:ARG:HH21	1.82	0.43
2:G:2777:TYR:HB2	2:G:2791:LEU:O	2.18	0.43
2:G:2924:GLN:O	2:G:2928:LYS:HG2	2.17	0.43
2:G:2967:MET:CE	2:G:3045:LYS:HB3	2.48	0.43
2:G:2971:GLN:HA	2:G:2974:ILE:HG12	2.00	0.43
2:G:3644:LEU:HD12	2:G:3645:PRO:HD2	1.99	0.43
2:J:663:TYR:CE1	2:J:745:SER:HB3	2.53	0.43
2:J:1000:ARG:NH2	2:J:1003:GLN:HG3	2.33	0.43
2:J:3043:PHE:CD1	2:J:3043:PHE:C	2.93	0.43
2:J:3397:GLU:O	2:J:3400:VAL:HG12	2.18	0.43
2:J:3414:ARG:NH2	2:J:3474:SER:O	2.51	0.43
2:J:4021:LYS:HD3	2:J:4138:ASP:HB3	2.00	0.43
3:F:62:SER:O	3:F:62:SER:OG	2.24	0.43
3:F:69:ILE:HB	3:F:80:LEU:HD13	1.99	0.43
3:K:85:LEU:HD23	3:K:85:LEU:HA	1.92	0.43
2:B:135:VAL:HG21	2:B:191:VAL:HG22	2.00	0.43
2:B:484:LEU:HD11	2:B:540:PHE:HE1	1.82	0.43
2:B:1097:THR:HG23	2:B:1143:TRP:CD1	2.54	0.43
2:B:1435:TYR:CZ	2:B:1550:PRO:HB3	2.52	0.43
2:B:2299:VAL:HG12	2:B:2360:LYS:HD2	1.98	0.43
2:B:2318:TYR:HA	2:B:2395:PRO:HA	2.01	0.43
2:B:2549:ALA:HA	2:B:2552:ARG:NH1	2.33	0.43
2:B:2575:ARG:HG3	2:B:2578:MET:HG3	2.00	0.43
2:B:3222:LYS:HB3	2:B:3226:GLU:HB3	2.00	0.43
2:B:4911:LEU:HD23	2:B:4911:LEU:HA	1.85	0.43
2:E:184:THR:HG22	2:E:189:LEU:HD13	1.99	0.43
2:E:663:TYR:CE1	2:E:745:SER:HB3	2.53	0.43
2:E:1012:ASP:HB3	2:E:1015:ALA:HB3	2.00	0.43
2:E:1575:LEU:HD23	2:E:1575:LEU:HA	1.82	0.43
2:E:2299:VAL:HG12	2:E:2360:LYS:HD2	1.99	0.43
2:E:3051:ARG:HH22	2:E:3102:ASP:HB2	1.83	0.43
2:G:232:THR:HG21	2:G:252:VAL:HG11	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1433:TYR:CE1	2:G:1578:ALA:HB2	2.53	0.43
2:G:2604:GLU:HG2	2:G:2639:MET:HG3	2.00	0.43
2:G:2635:GLU:HG3	2:G:2636:PHE:HD2	1.83	0.43
2:G:4642:ALA:O	2:G:4646:LEU:HD23	2.18	0.43
2:J:232:THR:HG21	2:J:252:VAL:HG11	2.01	0.43
2:J:1012:ASP:HB3	2:J:1015:ALA:HB3	2.00	0.43
2:J:1179:PHE:HB2	2:J:1182:ILE:HD11	1.98	0.43
2:J:2318:TYR:HA	2:J:2395:PRO:HA	2.01	0.43
2:J:2768:PHE:O	2:J:2772:GLN:HG2	2.18	0.43
2:J:4112:LEU:HD12	2:J:4112:LEU:HA	1.84	0.43
3:C:64:LYS:N	3:C:64:LYS:HD2	2.33	0.43
3:K:9:GLY:HA3	3:K:123:VAL:HG22	1.99	0.43
3:M:46:GLU:HG3	3:M:62:SER:HB2	2.00	0.43
3:M:64:LYS:HD2	3:M:64:LYS:N	2.33	0.43
2:B:144:GLU:HG3	2:B:175:SER:HB2	2.00	0.43
2:B:972:LEU:HB2	2:B:1044:ARG:HE	1.83	0.43
2:B:1012:ASP:HB3	2:B:1015:ALA:HB3	2.00	0.43
2:B:1121:ALA:HB1	2:B:1123:VAL:HG13	2.00	0.43
2:B:1433:TYR:CE1	2:B:1578:ALA:HB2	2.53	0.43
2:B:1738:LEU:HB2	2:B:2146:PRO:HD3	2.00	0.43
2:B:2515:GLN:O	2:B:2519:LEU:HG	2.19	0.43
2:B:3104:GLU:HA	2:B:3107:VAL:HG22	1.99	0.43
2:B:4720:VAL:O	2:B:4724:VAL:HG23	2.19	0.43
2:E:221:ARG:HE	2:E:258:SER:HG	1.64	0.43
2:E:484:LEU:HD11	2:E:540:PHE:HE1	1.82	0.43
2:E:978:THR:O	2:E:982:THR:HG23	2.19	0.43
2:E:993:HIS:HE1	2:E:1027:LEU:HD11	1.78	0.43
2:E:2318:TYR:HA	2:E:2395:PRO:HA	2.01	0.43
2:E:2573:GLU:HA	2:E:2576:ALA:HB2	1.99	0.43
2:E:3996:PHE:HZ	2:E:4019:LEU:HG	1.83	0.43
2:G:201:ASN:ND2	2:G:203:ASN:HD21	2.17	0.43
2:G:1496:TRP:CE2	2:G:1498:GLY:HA3	2.54	0.43
2:G:1815:LEU:HD22	2:G:1845:VAL:HG21	1.99	0.43
2:G:2223:ILE:HG21	2:G:2229:VAL:HG21	2.00	0.43
2:G:2867:LEU:HD23	2:G:2868:SER:O	2.18	0.43
2:J:245:VAL:HG13	2:J:376:ALA:HB3	2.01	0.43
2:J:2138:LEU:HD12	2:J:3658:LYS:HG3	1.99	0.43
2:J:2223:ILE:HG21	2:J:2229:VAL:HG21	2.01	0.43
3:F:64:LYS:N	3:F:64:LYS:HD2	2.33	0.43
2:B:119:SER:HA	2:B:146:CYS:HA	2.00	0.43
2:B:227:MET:HA	2:B:227:MET:HE3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2684:ASP:OD1	2:B:2685:SER:N	2.51	0.43
2:B:2768:PHE:HA	2:B:2771:ILE:HG22	2.00	0.43
2:B:3245:VAL:O	2:B:3246:LEU:C	2.60	0.43
2:B:3417:ASP:OD1	2:B:3516:LYS:HG2	2.19	0.43
2:E:144:GLU:HG3	2:E:175:SER:HB2	2.01	0.43
2:E:2878:LEU:HG	2:E:2882:TYR:CZ	2.53	0.43
2:E:4652:LEU:O	2:E:4656:LEU:HG	2.18	0.43
2:G:878:ILE:HG21	3:M:107:TRP:HE1	1.83	0.43
2:G:1097:THR:HG23	2:G:1143:TRP:CD1	2.54	0.43
2:G:2115:GLU:CD	2:G:2115:GLU:H	2.26	0.43
2:G:2318:TYR:HA	2:G:2395:PRO:HA	2.01	0.43
2:G:2878:LEU:HG	2:G:2882:TYR:CZ	2.53	0.43
2:G:4021:LYS:HD3	2:G:4138:ASP:HB3	2.00	0.43
2:G:4879:MET:HE3	2:G:4879:MET:HB3	1.86	0.43
2:J:184:THR:HG22	2:J:189:LEU:HD13	1.99	0.43
2:J:1115:LEU:HD23	2:J:1123:VAL:HG11	2.01	0.43
2:J:2589:LEU:HD23	2:J:2589:LEU:HA	1.87	0.43
2:J:2635:GLU:HG3	2:J:2636:PHE:HD2	1.83	0.43
2:J:2654:TYR:HB2	2:J:2661:TRP:HE3	1.82	0.43
2:J:2768:PHE:HA	2:J:2771:ILE:HG22	2.00	0.43
2:J:2878:LEU:HG	2:J:2882:TYR:CZ	2.53	0.43
2:J:3206:LEU:HD13	2:J:3246:LEU:N	2.34	0.43
2:J:3458:PHE:CE2	2:J:3464:ILE:HG13	2.54	0.43
2:J:3989:VAL:HG13	2:J:4023:MET:HE2	2.00	0.43
2:J:4888:TYR:O	2:J:4892:ARG:HD3	2.19	0.43
3:C:47:LEU:O	3:C:62:SER:HB3	2.19	0.43
1:I:55:VAL:HA	2:J:1784:ALA:HA	2.00	0.43
2:B:525:LEU:O	2:B:529:LEU:HG	2.17	0.43
2:B:663:TYR:CE1	2:B:745:SER:HB3	2.53	0.43
2:B:867:LEU:O	2:B:871:ARG:HB3	2.19	0.43
2:B:2672:LEU:HD12	2:B:2672:LEU:HA	1.81	0.43
2:B:4642:ALA:O	2:B:4646:LEU:HD23	2.19	0.43
2:E:245:VAL:HG13	2:E:376:ALA:HB3	2.01	0.43
2:E:2858:GLN:HB2	2:E:2859:PRO:HD3	1.99	0.43
2:E:3354:LEU:HD11	2:E:3434:LEU:HD22	2.01	0.43
2:E:3414:ARG:NH2	2:E:3474:SER:O	2.51	0.43
2:G:882:TRP:CZ2	3:M:104:TYR:HB2	2.54	0.43
2:G:2003:GLN:NE2	2:G:3863:GLY:HA3	2.34	0.43
2:G:2549:ALA:HA	2:G:2552:ARG:NH1	2.32	0.43
2:G:2575:ARG:NH1	2:G:2577:ILE:HG23	2.34	0.43
2:G:3354:LEU:HD11	2:G:3434:LEU:HD22	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3458:PHE:CE2	2:G:3464:ILE:HG13	2.54	0.43
2:J:867:LEU:O	2:J:871:ARG:HB3	2.19	0.43
2:J:1496:TRP:CE2	2:J:1498:GLY:HA3	2.54	0.43
2:J:2867:LEU:HD23	2:J:2868:SER:O	2.18	0.43
2:J:2971:GLN:HA	2:J:2974:ILE:HG12	2.00	0.43
2:J:3098:SER:O	2:J:3101:GLU:HG3	2.18	0.43
2:J:3222:LYS:HB3	2:J:3226:GLU:HB3	2.00	0.43
2:J:4817:ALA:HA	2:J:4823:LEU:HB3	2.00	0.43
1:D:98:ILE:N	1:D:98:ILE:HD12	2.34	0.43
1:H:7:ILE:HD12	1:H:71:ARG:HG2	2.01	0.43
2:B:131:LEU:HD13	2:B:195:PHE:HD2	1.84	0.43
2:B:1694:LEU:HD13	2:B:1715:LEU:HD12	2.01	0.43
2:B:1931:LEU:HD22	2:B:1935:VAL:HG11	2.00	0.43
2:B:2206:THR:O	2:B:2210:VAL:HG23	2.19	0.43
2:B:2967:MET:CE	2:B:3045:LYS:HB3	2.48	0.43
2:B:2996:LYS:O	2:B:3000:LYS:HG2	2.19	0.43
2:B:4021:LYS:HD3	2:B:4138:ASP:HB3	2.00	0.43
2:B:4846:VAL:O	2:B:4850:LEU:HG	2.19	0.43
2:E:135:VAL:HG21	2:E:191:VAL:HG22	2.00	0.43
2:E:474:ARG:O	2:E:478:PHE:HD1	2.01	0.43
2:E:1121:ALA:HB1	2:E:1123:VAL:HG13	2.00	0.43
2:E:1426:ILE:O	2:E:1430:THR:HB	2.18	0.43
2:E:1581:LEU:HD12	2:E:1584:ARG:HE	1.84	0.43
2:E:3367:LYS:O	2:E:3371:LYS:HG2	2.19	0.43
2:E:3754:GLU:HG3	2:E:4719:PHE:CZ	2.54	0.43
2:G:796:ARG:HD3	2:G:1619:ARG:HH12	1.84	0.43
2:G:1012:ASP:HB3	2:G:1015:ALA:HB3	2.00	0.43
2:G:1115:LEU:HD23	2:G:1123:VAL:HG11	2.01	0.43
2:G:3346:VAL:HB	2:G:3411:LEU:HD22	2.01	0.43
2:G:3397:GLU:O	2:G:3400:VAL:HG12	2.18	0.43
2:G:4064:MET:HE1	2:G:4110:PHE:HD2	1.84	0.43
2:J:1152:MET:HE2	2:J:1161:ILE:HB	2.01	0.43
2:J:2563:THR:HG22	2:J:2606:CYS:HA	2.00	0.43
2:J:3511:VAL:HG12	2:J:3515:LYS:HD2	2.01	0.43
2:J:4679:ARG:NH1	2:J:4715:TYR:OH	2.51	0.43
3:C:32:ASN:ND2	3:C:101:PRO:HB3	2.33	0.43
3:M:32:ASN:OD1	3:M:33:SER:N	2.51	0.43
1:A:88:PRO:HB2	2:B:1680:ARG:HH12	1.84	0.43
2:B:294:THR:N	2:B:298:GLY:O	2.39	0.43
2:B:878:ILE:HG13	3:C:107:TRP:HZ2	1.84	0.43
2:B:3511:VAL:HG12	2:B:3515:LYS:HD2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:232:THR:HG21	2:E:252:VAL:HG11	2.01	0.43
2:E:786:GLY:H	2:E:1631:GLN:HA	1.84	0.43
2:E:873:LYS:NZ	2:E:947:GLU:OE1	2.48	0.43
2:E:3222:LYS:HB3	2:E:3226:GLU:HB3	2.00	0.43
2:E:3878:ASP:OD1	2:E:3878:ASP:N	2.52	0.43
2:E:4817:ALA:HA	2:E:4823:LEU:HB3	2.00	0.43
2:G:474:ARG:O	2:G:478:PHE:HD1	2.01	0.43
2:G:1152:MET:HE2	2:G:1161:ILE:HB	2.01	0.43
2:G:2159:LEU:O	2:G:2163:ARG:HG3	2.19	0.43
2:G:2515:GLN:O	2:G:2519:LEU:HG	2.19	0.43
2:G:2684:ASP:OD1	2:G:2685:SER:N	2.51	0.43
2:G:3511:VAL:HG12	2:G:3515:LYS:HD2	2.01	0.43
2:G:4677:LEU:HD23	2:G:4711:PHE:HE1	1.84	0.43
2:G:4888:TYR:O	2:G:4892:ARG:HD3	2.18	0.43
2:J:707:VAL:HG23	2:J:782:SER:OG	2.19	0.43
2:J:815:VAL:O	2:J:1007:TYR:OH	2.30	0.43
2:J:887:ILE:HD13	2:J:959:TYR:HB3	2.00	0.43
2:J:979:PRO:O	2:J:983:THR:HG23	2.19	0.43
2:J:1018:ASN:OD1	2:J:1021:LEU:N	2.51	0.43
2:J:1738:LEU:HB2	2:J:2146:PRO:HD3	2.00	0.43
2:J:2604:GLU:HG2	2:J:2639:MET:HG3	2.00	0.43
2:J:3354:LEU:HD11	2:J:3434:LEU:HD22	2.01	0.43
3:F:32:ASN:OD1	3:F:33:SER:N	2.51	0.43
3:F:46:GLU:HG3	3:F:62:SER:HB2	2.00	0.43
3:F:47:LEU:O	3:F:62:SER:HB3	2.19	0.43
3:K:64:LYS:N	3:K:64:LYS:HD2	2.33	0.43
2:B:232:THR:HG21	2:B:252:VAL:HG11	2.01	0.42
2:B:993:HIS:HE1	2:B:1027:LEU:HD11	1.78	0.42
2:B:2618:MET:SD	2:B:2618:MET:N	2.91	0.42
2:B:3051:ARG:HH22	2:B:3102:ASP:HB2	1.83	0.42
2:B:3346:VAL:HB	2:B:3411:LEU:HD22	2.01	0.42
2:B:3354:LEU:HD11	2:B:3434:LEU:HD22	2.01	0.42
2:E:227:MET:HA	2:E:227:MET:HE3	2.00	0.42
2:E:887:ILE:HD13	2:E:959:TYR:HB3	2.00	0.42
2:E:1432:THR:HG23	2:E:1572:ILE:HG23	2.01	0.42
2:E:2867:LEU:HD23	2:E:2868:SER:O	2.18	0.42
2:E:4846:VAL:O	2:E:4850:LEU:HG	2.19	0.42
2:G:786:GLY:H	2:G:1631:GLN:HA	1.84	0.42
2:G:1018:ASN:OD1	2:G:1021:LEU:N	2.51	0.42
2:G:2206:THR:O	2:G:2210:VAL:HG23	2.19	0.42
2:G:2230:THR:HG22	2:G:2234:ARG:HH11	1.83	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3367:LYS:O	2:G:3371:LYS:HG2	2.19	0.42
2:G:4232:GLU:HG2	2:G:5019:TRP:NE1	2.34	0.42
2:G:4818:MET:N	2:G:4818:MET:SD	2.92	0.42
2:J:595:ARG:HH22	2:J:1643:GLU:CD	2.27	0.42
2:J:978:THR:O	2:J:982:THR:HG23	2.19	0.42
2:J:1097:THR:HG23	2:J:1143:TRP:CD1	2.54	0.42
2:J:2515:GLN:O	2:J:2519:LEU:HG	2.19	0.42
2:J:2777:TYR:HB2	2:J:2791:LEU:O	2.18	0.42
2:J:3521:GLY:HA2	2:J:3524:MET:SD	2.59	0.42
2:J:4642:ALA:O	2:J:4646:LEU:HD23	2.19	0.42
3:K:47:LEU:O	3:K:62:SER:HB3	2.19	0.42
2:B:815:VAL:O	2:B:1007:TYR:OH	2.30	0.42
2:B:1432:THR:HG23	2:B:1572:ILE:HG23	2.01	0.42
2:B:4014:LYS:HG2	2:B:4135:PRO:HB3	2.01	0.42
2:B:4805:ASN:HB3	2:B:4808:PHE:CD2	2.54	0.42
2:E:248:GLU:O	2:E:372:LEU:HD23	2.19	0.42
2:E:424:LYS:HE2	2:E:424:LYS:HB2	1.92	0.42
2:E:468:LEU:O	2:E:472:ARG:HG2	2.19	0.42
2:E:979:PRO:O	2:E:983:THR:HG23	2.19	0.42
2:E:2768:PHE:HA	2:E:2771:ILE:HG22	2.00	0.42
2:E:3511:VAL:HG12	2:E:3515:LYS:HD2	2.01	0.42
2:G:1694:LEU:HD13	2:G:1715:LEU:HD12	2.01	0.42
2:G:3098:SER:O	2:G:3101:GLU:HG3	2.18	0.42
2:G:3157:ILE:HG23	2:G:3165:CYS:SG	2.59	0.42
2:J:144:GLU:HG3	2:J:175:SER:HB2	2.01	0.42
2:J:275:ARG:HB3	2:J:278:GLN:HB2	2.01	0.42
2:J:2115:GLU:H	2:J:2115:GLU:CD	2.26	0.42
2:J:3367:LYS:O	2:J:3371:LYS:HG2	2.19	0.42
2:J:4818:MET:N	2:J:4818:MET:SD	2.92	0.42
2:J:5013:MET:HE1	2:J:5021:PHE:HB3	2.01	0.42
2:B:978:THR:O	2:B:982:THR:HG23	2.19	0.42
2:B:979:PRO:O	2:B:983:THR:HG23	2.19	0.42
2:B:2654:TYR:HB2	2:B:2661:TRP:CE3	2.55	0.42
2:B:2867:LEU:HD23	2:B:2868:SER:O	2.18	0.42
2:E:349:GLN:HB2	2:E:356:TRP:CZ3	2.54	0.42
2:E:2765:LYS:NZ	2:E:2860:PRO:HA	2.34	0.42
2:E:2971:GLN:HA	2:E:2974:ILE:HG12	2.00	0.42
2:E:3092:LEU:O	2:E:3095:PHE:HB3	2.18	0.42
2:E:4064:MET:HE1	2:E:4110:PHE:HD2	1.84	0.42
2:E:4818:MET:N	2:E:4818:MET:SD	2.92	0.42
2:G:131:LEU:HD13	2:G:195:PHE:HD2	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:978:THR:O	2:G:982:THR:HG23	2.19	0.42
2:G:2312:MET:CE	2:G:2312:MET:H	2.32	0.42
2:G:2359:ARG:O	2:G:2361:PRO:HD3	2.19	0.42
2:G:2575:ARG:O	2:G:2578:MET:HG3	2.19	0.42
2:G:3206:LEU:HD13	2:G:3245:VAL:C	2.45	0.42
2:G:3521:GLY:HA2	2:G:3524:MET:SD	2.60	0.42
2:J:2159:LEU:O	2:J:2163:ARG:HG3	2.19	0.42
2:J:4064:MET:HE1	2:J:4110:PHE:HD2	1.84	0.42
1:D:88:PRO:HB2	2:E:1680:ARG:HH12	1.84	0.42
2:B:182:LEU:HD13	2:B:198:THR:HG21	2.02	0.42
2:B:535:ALA:O	2:B:539:LEU:HG	2.19	0.42
2:B:707:VAL:HG23	2:B:782:SER:OG	2.19	0.42
2:B:1581:LEU:HD12	2:B:1584:ARG:HE	1.84	0.42
2:B:2312:MET:H	2:B:2312:MET:CE	2.32	0.42
2:B:2359:ARG:O	2:B:2361:PRO:HD3	2.19	0.42
2:E:371:VAL:HG12	2:E:373:LYS:H	1.85	0.42
2:E:372:LEU:HD12	2:E:372:LEU:HA	1.81	0.42
2:E:548:VAL:HA	2:E:551:LEU:HG	2.02	0.42
2:E:707:VAL:HG23	2:E:782:SER:OG	2.19	0.42
2:E:2654:TYR:HB2	2:E:2661:TRP:CE3	2.55	0.42
2:E:2790:MET:O	2:E:2792:ARG:NE	2.52	0.42
2:E:4888:TYR:O	2:E:4892:ARG:HD3	2.18	0.42
2:G:275:ARG:HB3	2:G:278:GLN:HB2	2.01	0.42
2:G:548:VAL:HA	2:G:551:LEU:HG	2.02	0.42
2:G:3222:LYS:HB3	2:G:3226:GLU:HB3	2.00	0.42
2:G:3989:VAL:HG13	2:G:4023:MET:HE2	2.00	0.42
2:G:4232:GLU:HG2	2:G:5019:TRP:HE1	1.84	0.42
2:J:226:HIS:CD2	2:J:226:HIS:N	2.85	0.42
2:J:535:ALA:O	2:J:539:LEU:HG	2.19	0.42
2:J:1931:LEU:HD22	2:J:1935:VAL:HG11	2.00	0.42
2:J:2206:THR:O	2:J:2210:VAL:HG23	2.19	0.42
2:J:2351:ASN:O	2:J:2355:ARG:HG3	2.19	0.42
2:J:2578:MET:HE2	2:J:2578:MET:HB2	1.95	0.42
3:K:46:GLU:HG3	3:K:62:SER:HB2	2.00	0.42
3:M:63:VAL:HA	3:M:67:PHE:HE2	1.85	0.42
1:A:66:MET:HE2	1:A:72:ALA:HB3	2.00	0.42
2:B:468:LEU:O	2:B:472:ARG:HG2	2.19	0.42
2:B:2159:LEU:O	2:B:2163:ARG:HG3	2.19	0.42
2:B:2971:GLN:HA	2:B:2974:ILE:HG12	2.00	0.42
2:B:3316:LEU:HD11	2:B:3345:ILE:HG23	2.01	0.42
2:B:3367:LYS:O	2:B:3371:LYS:HG2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:4818:MET:N	2:B:4818:MET:SD	2.92	0.42
2:B:4888:TYR:O	2:B:4892:ARG:HD3	2.18	0.42
2:E:14:LEU:HD13	2:E:202:MET:HG2	2.02	0.42
2:E:943:ASP:HB2	2:E:946:ALA:HB3	2.02	0.42
2:E:1000:ARG:NH2	2:E:1003:GLN:HG3	2.33	0.42
2:E:1261:ASP:OD1	2:E:1261:ASP:N	2.53	0.42
2:E:1931:LEU:HD22	2:E:1935:VAL:HG11	2.00	0.42
2:E:2351:ASN:O	2:E:2355:ARG:HG3	2.20	0.42
2:G:707:VAL:HG23	2:G:782:SER:OG	2.19	0.42
2:G:867:LEU:O	2:G:871:ARG:HB3	2.19	0.42
2:G:1738:LEU:HB2	2:G:2146:PRO:HD3	2.00	0.42
2:G:1757:ALA:O	2:G:1759:ARG:HD2	2.20	0.42
2:G:2515:GLN:O	2:G:2516:ASP:C	2.62	0.42
2:G:2541:PHE:N	2:G:2541:PHE:CD1	2.87	0.42
2:G:2801:ASP:HA	2:G:2804:ILE:HG12	2.01	0.42
2:J:548:VAL:HG21	2:J:582:HIS:CD2	2.52	0.42
2:J:972:LEU:HB2	2:J:1044:ARG:HE	1.83	0.42
2:J:1757:ALA:O	2:J:1759:ARG:HD2	2.20	0.42
2:J:1939:MET:HB3	2:J:1939:MET:HE2	1.68	0.42
2:J:3007:ASN:OD1	2:J:3070:ILE:HG13	2.19	0.42
2:J:3092:LEU:O	2:J:3095:PHE:HB3	2.18	0.42
3:F:32:ASN:ND2	3:F:101:PRO:HB3	2.33	0.42
1:H:17:LYS:HG3	1:H:18:LYS:N	2.35	0.42
2:B:201:ASN:ND2	2:B:203:ASN:HD21	2.17	0.42
2:B:943:ASP:HB2	2:B:946:ALA:HB3	2.02	0.42
2:B:1496:TRP:CE2	2:B:1498:GLY:HA3	2.54	0.42
2:B:1927:LEU:CD2	2:B:1939:MET:HE1	2.50	0.42
2:B:2718:SER:OG	2:B:2909:ASP:O	2.25	0.42
2:B:2725:LYS:HE3	2:B:2735:PHE:CE1	2.55	0.42
2:B:2902:HIS:CG	2:B:2903:PRO:HD2	2.55	0.42
2:B:3157:ILE:HG23	2:B:3165:CYS:SG	2.59	0.42
2:B:3343:GLN:HB3	2:B:3344:PRO:HD3	2.02	0.42
2:B:4817:ALA:HA	2:B:4823:LEU:HB3	2.00	0.42
2:E:131:LEU:HD13	2:E:195:PHE:HD2	1.84	0.42
2:E:182:LEU:HD13	2:E:198:THR:HG21	2.02	0.42
2:E:535:ALA:O	2:E:539:LEU:HG	2.19	0.42
2:E:657:THR:HB	2:E:1021:LEU:HG	2.02	0.42
2:E:1115:LEU:HD23	2:E:1123:VAL:HG11	2.01	0.42
2:E:2165:LEU:HD11	2:E:2177:LEU:HB3	2.02	0.42
2:E:2173:GLN:O	2:E:2177:LEU:HD23	2.20	0.42
2:E:2223:ILE:HG21	2:E:2229:VAL:HG21	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:2359:ARG:O	2:E:2361:PRO:HD3	2.19	0.42
2:E:2640:PRO:O	2:E:2644:LEU:HD23	2.20	0.42
2:E:3417:ASP:OD1	2:E:3516:LYS:HG2	2.19	0.42
2:E:4852:THR:HG22	2:E:4886:HIS:CG	2.55	0.42
2:G:595:ARG:HH22	2:G:1643:GLU:CD	2.27	0.42
2:G:1432:THR:HG23	2:G:1572:ILE:HG23	2.02	0.42
2:J:131:LEU:HD13	2:J:195:PHE:HD2	1.84	0.42
2:J:468:LEU:O	2:J:472:ARG:HG2	2.19	0.42
2:J:474:ARG:O	2:J:478:PHE:HD1	2.01	0.42
2:J:943:ASP:HB2	2:J:946:ALA:HB3	2.02	0.42
2:J:1426:ILE:O	2:J:1430:THR:HB	2.19	0.42
2:J:1432:THR:HG23	2:J:1572:ILE:HG23	2.01	0.42
2:J:2996:LYS:O	2:J:3000:LYS:HG2	2.19	0.42
2:J:4060:LYS:HA	2:J:4063:ASP:OD2	2.20	0.42
2:J:4805:ASN:HB3	2:J:4808:PHE:CD2	2.54	0.42
2:J:4852:THR:HG22	2:J:4886:HIS:CG	2.55	0.42
3:F:83:ASN:OD1	3:F:83:ASN:N	2.53	0.42
3:K:32:ASN:OD1	3:K:33:SER:N	2.51	0.42
1:I:17:LYS:HG3	1:I:18:LYS:N	2.35	0.42
2:B:14:LEU:HD13	2:B:202:MET:HG2	2.02	0.42
2:B:786:GLY:H	2:B:1631:GLN:HA	1.84	0.42
2:B:796:ARG:HD3	2:B:1619:ARG:HH12	1.84	0.42
2:B:2173:GLN:O	2:B:2177:LEU:HD23	2.20	0.42
2:B:2598:ALA:O	2:B:2602:VAL:HG23	2.20	0.42
2:B:2640:PRO:O	2:B:2644:LEU:HD23	2.20	0.42
2:B:4064:MET:HE1	2:B:4110:PHE:HD2	1.84	0.42
2:E:867:LEU:O	2:E:871:ARG:HB3	2.19	0.42
2:E:1496:TRP:CE2	2:E:1498:GLY:HA3	2.54	0.42
2:E:2725:LYS:HE3	2:E:2735:PHE:CE1	2.55	0.42
2:E:3154:ASP:OD1	2:E:3154:ASP:N	2.53	0.42
2:G:245:VAL:HG13	2:G:376:ALA:HB3	2.01	0.42
2:G:2640:PRO:O	2:G:2644:LEU:HD23	2.20	0.42
2:G:2996:LYS:O	2:G:3000:LYS:HG2	2.19	0.42
2:J:119:SER:HA	2:J:146:CYS:HA	2.00	0.42
2:J:461:HIS:HA	2:J:464:LYS:HE3	2.02	0.42
2:J:551:LEU:HD11	2:J:564:LEU:HD22	2.02	0.42
2:J:2312:MET:H	2:J:2312:MET:CE	2.31	0.42
2:J:2541:PHE:N	2:J:2541:PHE:CD1	2.87	0.42
2:J:3538:THR:OG1	2:J:3539:ARG:NH1	2.53	0.42
1:A:98:ILE:N	1:A:98:ILE:HD12	2.34	0.42
2:B:144:GLU:OE2	2:G:2452:ARG:HD2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:245:VAL:HG13	2:B:376:ALA:HB3	2.01	0.42
2:B:883:ALA:O	2:B:887:ILE:HG13	2.20	0.42
2:B:2664:PHE:CD1	2:B:2664:PHE:N	2.88	0.42
2:B:3002:LEU:HD23	2:B:3002:LEU:HA	1.81	0.42
2:B:3250:MET:HE1	2:B:3281:LEU:HD21	2.02	0.42
2:B:3567:PRO:CB	2:B:3570:ARG:HH21	2.32	0.42
2:B:3735:LEU:O	2:B:3740:GLU:N	2.53	0.42
2:B:4677:LEU:HD12	2:B:4677:LEU:HA	1.91	0.42
2:E:1097:THR:HG23	2:E:1143:TRP:CD1	2.54	0.42
2:E:1694:LEU:HD13	2:E:1715:LEU:HD12	2.01	0.42
2:E:2122:SER:O	2:E:2126:ARG:HG3	2.20	0.42
2:E:2159:LEU:O	2:E:2163:ARG:HG3	2.19	0.42
2:E:2206:THR:O	2:E:2210:VAL:HG23	2.19	0.42
2:E:2312:MET:H	2:E:2312:MET:CE	2.32	0.42
2:E:2996:LYS:O	2:E:3000:LYS:HG2	2.19	0.42
2:E:3343:GLN:HB3	2:E:3344:PRO:HD3	2.02	0.42
2:E:3346:VAL:HB	2:E:3411:LEU:HD22	2.01	0.42
2:E:4655:PHE:O	2:E:4659:ILE:HG12	2.20	0.42
2:G:266:ARG:NE	2:G:268:SER:O	2.53	0.42
2:G:1931:LEU:HD22	2:G:1935:VAL:HG11	2.00	0.42
2:G:2330:ARG:HE	2:G:2330:ARG:HB2	1.68	0.42
2:G:2351:ASN:O	2:G:2355:ARG:HG3	2.19	0.42
2:G:3078:ARG:HG2	2:G:3152:PHE:CE1	2.55	0.42
2:J:349:GLN:HB2	2:J:356:TRP:CZ3	2.54	0.42
2:J:464:LYS:HE3	2:J:464:LYS:HB3	1.93	0.42
2:J:657:THR:HB	2:J:1021:LEU:HG	2.02	0.42
2:J:786:GLY:H	2:J:1631:GLN:HA	1.84	0.42
2:J:2359:ARG:O	2:J:2361:PRO:HD3	2.19	0.42
2:J:3771:HIS:CG	2:J:3812:VAL:HG12	2.55	0.42
2:J:3878:ASP:N	2:J:3878:ASP:OD1	2.52	0.42
3:C:46:GLU:HG3	3:C:62:SER:HB2	2.00	0.42
3:F:85:LEU:HD23	3:F:85:LEU:HA	1.92	0.42
2:B:266:ARG:NE	2:B:268:SER:O	2.53	0.42
2:B:349:GLN:HB2	2:B:356:TRP:CZ3	2.54	0.42
2:B:464:LYS:O	2:B:468:LEU:HG	2.20	0.42
2:B:911:HIS:HE1	2:B:918:ARG:NE	2.18	0.42
2:B:1115:LEU:HD23	2:B:1123:VAL:HG11	2.01	0.42
2:B:3136:LEU:O	2:B:3140:LEU:HB3	2.20	0.42
2:B:3521:GLY:HA2	2:B:3524:MET:SD	2.59	0.42
2:B:3771:HIS:CG	2:B:3812:VAL:HG12	2.55	0.42
2:B:3893:GLU:HA	2:B:3967:GLU:OE2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:4852:THR:HG22	2:B:4886:HIS:CG	2.55	0.42
2:E:119:SER:HA	2:E:146:CYS:HA	2.00	0.42
2:E:551:LEU:HD11	2:E:564:LEU:HD22	2.02	0.42
2:E:1037:ASP:OD1	2:E:1038:SER:N	2.52	0.42
2:E:1152:MET:HE2	2:E:1161:ILE:HB	2.01	0.42
2:E:2230:THR:HG22	2:E:2234:ARG:HH11	1.83	0.42
2:E:2311:PRO:O	2:E:2314:LEU:HG	2.20	0.42
2:E:3007:ASN:OD1	2:E:3070:ILE:HG13	2.19	0.42
2:E:3157:ILE:HG23	2:E:3165:CYS:SG	2.59	0.42
2:E:3320:LEU:HD23	2:E:3320:LEU:HA	1.74	0.42
2:E:4805:ASN:HB3	2:E:4808:PHE:CD2	2.54	0.42
2:E:4852:THR:HG21	2:E:4883:TYR:HD1	1.85	0.42
2:G:119:SER:HA	2:G:146:CYS:HA	2.00	0.42
2:G:883:ALA:O	2:G:887:ILE:HG13	2.20	0.42
2:G:3069:HIS:CD2	2:G:3139:VAL:HA	2.55	0.42
2:G:3546:ASP:O	2:G:3550:ARG:HG3	2.19	0.42
2:G:3878:ASP:N	2:G:3878:ASP:OD1	2.52	0.42
2:G:4928:LEU:HD23	2:G:4928:LEU:HA	1.89	0.42
2:J:411:TYR:HB2	2:J:486:LEU:HD21	2.02	0.42
2:J:2230:THR:HG22	2:J:2234:ARG:HH11	1.83	0.42
2:J:2725:LYS:HE3	2:J:2735:PHE:CE1	2.55	0.42
2:J:3257:ALA:HB1	2:J:3321:ARG:HB3	2.02	0.42
2:J:3316:LEU:HD21	2:J:3345:ILE:HG13	2.02	0.42
2:J:3546:ASP:O	2:J:3550:ARG:HG3	2.19	0.42
2:J:4846:VAL:O	2:J:4850:LEU:HG	2.19	0.42
3:K:83:ASN:OD1	3:K:83:ASN:N	2.53	0.42
3:K:104:TYR:HD1	3:K:106:PRO:HD3	1.85	0.42
3:M:47:LEU:O	3:M:62:SER:HB3	2.19	0.42
1:A:40:ARG:H	1:A:40:ARG:HG2	1.72	0.42
1:A:104:LEU:O	1:A:105:ASN:C	2.62	0.42
2:B:167:ASP:OD1	2:B:168:ASP:N	2.53	0.42
2:B:548:VAL:HA	2:B:551:LEU:HG	2.02	0.42
2:B:984:LEU:HA	2:B:987:ARG:NH1	2.35	0.42
2:B:1152:MET:HE2	2:B:1161:ILE:HB	2.01	0.42
2:B:2223:ILE:HG21	2:B:2229:VAL:HG21	2.01	0.42
2:B:2351:ASN:O	2:B:2355:ARG:HG3	2.20	0.42
2:B:2559:LEU:O	2:B:2563:THR:HG23	2.20	0.42
2:B:2635:GLU:HG3	2:B:2636:PHE:HD2	1.84	0.42
2:B:2737:PRO:HB2	2:B:2884:ASN:HB2	2.02	0.42
2:B:3172:ILE:HD11	2:B:3190:LEU:HB3	2.02	0.42
2:B:3535:LEU:CD1	2:B:3539:ARG:HH12	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:4687:TYR:HE1	2:B:4692:PRO:HG3	1.85	0.42
2:E:167:ASP:OD1	2:E:168:ASP:N	2.53	0.42
2:E:266:ARG:NE	2:E:268:SER:O	2.53	0.42
2:E:595:ARG:HH22	2:E:1643:GLU:CD	2.28	0.42
2:E:788:LYS:HG2	2:E:1629:GLN:HB2	2.02	0.42
2:E:984:LEU:HA	2:E:987:ARG:NH1	2.35	0.42
2:E:1757:ALA:O	2:E:1759:ARG:HD2	2.20	0.42
2:E:2801:ASP:HA	2:E:2804:ILE:HG12	2.01	0.42
2:E:2905:LEU:HD23	2:E:2905:LEU:HA	1.93	0.42
2:E:3246:LEU:HA	2:E:3249:LEU:HG	2.02	0.42
2:E:3735:LEU:O	2:E:3740:GLU:N	2.53	0.42
2:E:4687:TYR:HE1	2:E:4692:PRO:HG3	1.85	0.42
2:G:461:HIS:HA	2:G:464:LYS:HE3	2.02	0.42
2:G:468:LEU:O	2:G:472:ARG:HG2	2.19	0.42
2:G:535:ALA:O	2:G:539:LEU:HG	2.20	0.42
2:G:3007:ASN:OD1	2:G:3070:ILE:HG13	2.19	0.42
2:G:3049:LEU:HA	2:G:3053:ARG:NH2	2.35	0.42
2:G:3206:LEU:HD13	2:G:3246:LEU:N	2.35	0.42
2:G:4014:LYS:HG2	2:G:4135:PRO:HB3	2.01	0.42
2:G:4852:THR:HG22	2:G:4886:HIS:CG	2.55	0.42
2:J:548:VAL:HA	2:J:551:LEU:HG	2.02	0.42
2:J:883:ALA:O	2:J:887:ILE:HG13	2.20	0.42
2:J:2598:ALA:O	2:J:2602:VAL:HG23	2.20	0.42
2:J:3069:HIS:CD2	2:J:3139:VAL:HA	2.55	0.42
2:J:3731:LYS:HZ2	2:J:3735:LEU:HD21	1.85	0.42
2:J:4687:TYR:HE1	2:J:4692:PRO:HG3	1.85	0.42
2:J:4773:VAL:O	2:J:4777:ILE:HG13	2.20	0.42
1:I:73:LYS:HE2	1:I:73:LYS:HB3	1.92	0.41
2:B:214:VAL:HG13	2:B:274:LEU:HB2	2.02	0.41
2:B:664:PHE:CE1	2:B:746:CYS:HB2	2.55	0.41
2:B:1088:TRP:HB2	2:B:1153:ILE:HG22	2.02	0.41
2:B:2122:SER:O	2:B:2126:ARG:HG3	2.20	0.41
2:B:3186:LEU:HG	2:B:3190:LEU:HD21	2.02	0.41
2:B:3878:ASP:OD1	2:B:3878:ASP:N	2.52	0.41
2:B:4968:PHE:O	2:B:4974:GLY:HA3	2.20	0.41
2:E:461:HIS:HA	2:E:464:LYS:HE3	2.02	0.41
2:E:796:ARG:HD3	2:E:1619:ARG:HH12	1.84	0.41
2:E:2452:ARG:HD2	2:J:144:GLU:OE2	2.19	0.41
2:E:2902:HIS:CG	2:E:2903:PRO:HD2	2.55	0.41
2:E:3078:ARG:HG2	2:E:3152:PHE:CE1	2.55	0.41
2:E:3257:ALA:HB1	2:E:3321:ARG:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:3538:THR:OG1	2:E:3539:ARG:NH1	2.53	0.41
2:E:3546:ASP:O	2:E:3550:ARG:HG3	2.19	0.41
2:E:3771:HIS:CG	2:E:3812:VAL:HG12	2.55	0.41
2:E:4038:GLY:O	2:E:4042:ARG:NE	2.46	0.41
2:E:4720:VAL:O	2:E:4721:LYS:C	2.62	0.41
2:G:943:ASP:HB2	2:G:946:ALA:HB3	2.02	0.41
2:G:997:ALA:O	2:G:1001:VAL:HG23	2.20	0.41
2:G:1261:ASP:N	2:G:1261:ASP:OD1	2.53	0.41
2:G:2122:SER:O	2:G:2126:ARG:HG3	2.20	0.41
2:G:2654:TYR:HB2	2:G:2661:TRP:CE3	2.55	0.41
2:G:2725:LYS:HE3	2:G:2735:PHE:CE1	2.55	0.41
2:G:2867:LEU:HB2	2:G:2928:LYS:NZ	2.29	0.41
2:G:3172:ILE:HD11	2:G:3190:LEU:HB3	2.02	0.41
2:G:4041:ALA:O	2:G:4045:VAL:HG23	2.20	0.41
2:G:4060:LYS:HA	2:G:4063:ASP:OD2	2.20	0.41
2:J:464:LYS:O	2:J:468:LEU:HG	2.20	0.41
2:J:1090:PHE:HB2	2:J:1204:LEU:HA	2.02	0.41
2:J:3049:LEU:HA	2:J:3053:ARG:NH2	2.35	0.41
2:J:3078:ARG:HG2	2:J:3152:PHE:CE1	2.55	0.41
2:J:3157:ILE:HG23	2:J:3165:CYS:SG	2.59	0.41
2:J:3316:LEU:HD13	2:J:3316:LEU:HA	1.95	0.41
2:J:3346:VAL:HB	2:J:3411:LEU:HD22	2.01	0.41
2:J:4655:PHE:O	2:J:4659:ILE:HG12	2.20	0.41
1:A:2:VAL:HA	1:A:75:THR:O	2.20	0.41
2:B:1037:ASP:OD1	2:B:1038:SER:N	2.52	0.41
2:B:2230:THR:HG22	2:B:2234:ARG:HH11	1.83	0.41
2:B:3007:ASN:OD1	2:B:3070:ILE:HG13	2.19	0.41
2:B:3257:ALA:HB1	2:B:3321:ARG:HB3	2.02	0.41
2:E:688:LEU:HD12	2:E:688:LEU:HA	1.87	0.41
2:E:911:HIS:HB2	2:E:913:LEU:HG	2.02	0.41
2:E:2598:ALA:O	2:E:2602:VAL:HG23	2.20	0.41
2:G:979:PRO:O	2:G:983:THR:HG23	2.19	0.41
2:G:1581:LEU:HD12	2:G:1584:ARG:HE	1.83	0.41
2:G:1939:MET:HE2	2:G:1939:MET:HB3	1.68	0.41
2:G:3735:LEU:O	2:G:3740:GLU:N	2.53	0.41
2:G:4546:VAL:HA	2:G:4549:VAL:HG22	2.02	0.41
2:G:4805:ASN:HB3	2:G:4808:PHE:CD2	2.54	0.41
2:J:221:ARG:HE	2:J:258:SER:HG	1.63	0.41
2:J:266:ARG:NE	2:J:268:SER:O	2.53	0.41
2:J:796:ARG:HD3	2:J:1619:ARG:HH12	1.84	0.41
2:J:1230:MET:HE2	2:J:1230:MET:HB3	1.91	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:2522:LEU:HD11	2:J:2569:PHE:CE1	2.54	0.41
2:J:2801:ASP:HA	2:J:2804:ILE:HG12	2.01	0.41
3:C:104:TYR:HD1	3:C:106:PRO:HD3	1.85	0.41
3:K:63:VAL:HA	3:K:67:PHE:HE2	1.85	0.41
2:B:361:ALA:O	2:B:362:PRO:C	2.63	0.41
2:B:461:HIS:HA	2:B:464:LYS:HE3	2.02	0.41
2:B:911:HIS:HB2	2:B:913:LEU:HG	2.02	0.41
2:B:2867:LEU:HB2	2:B:2928:LYS:NZ	2.28	0.41
2:B:3069:HIS:CD2	2:B:3139:VAL:HA	2.55	0.41
2:E:214:VAL:HG13	2:E:274:LEU:HB2	2.02	0.41
2:E:575:LEU:HD13	2:E:606:LEU:HA	2.02	0.41
2:E:2123:LEU:HD12	2:E:2123:LEU:HA	1.91	0.41
2:E:2515:GLN:O	2:E:2516:ASP:C	2.64	0.41
2:E:3069:HIS:CD2	2:E:3139:VAL:HA	2.55	0.41
2:E:3683:GLN:O	2:E:3687:GLU:HB2	2.21	0.41
2:E:4014:LYS:HG2	2:E:4135:PRO:HB3	2.01	0.41
2:E:4026:MET:HE3	2:E:4026:MET:HB3	1.99	0.41
2:E:4041:ALA:O	2:E:4045:VAL:HG23	2.20	0.41
2:G:144:GLU:OE2	2:J:2452:ARG:HD2	2.19	0.41
2:G:182:LEU:HD13	2:G:198:THR:HG21	2.02	0.41
2:G:1037:ASP:OD1	2:G:1038:SER:N	2.52	0.41
2:G:2664:PHE:CD1	2:G:2664:PHE:N	2.88	0.41
2:G:2737:PRO:HB2	2:G:2884:ASN:HB2	2.02	0.41
2:G:3257:ALA:HB1	2:G:3321:ARG:HB3	2.02	0.41
2:G:3417:ASP:OD1	2:G:3516:LYS:HG2	2.19	0.41
2:G:4687:TYR:HE1	2:G:4692:PRO:HG3	1.85	0.41
2:J:167:ASP:OD1	2:J:168:ASP:N	2.53	0.41
2:J:182:LEU:HD13	2:J:198:THR:HG21	2.02	0.41
2:J:788:LYS:HG2	2:J:1629:GLN:HB2	2.02	0.41
2:J:1121:ALA:HB1	2:J:1123:VAL:HG13	2.00	0.41
2:J:1694:LEU:HD13	2:J:1715:LEU:HD12	2.01	0.41
2:J:2640:PRO:O	2:J:2644:LEU:HD23	2.20	0.41
2:J:2758:PHE:O	2:J:2762:THR:HG23	2.21	0.41
2:J:2902:HIS:CG	2:J:2903:PRO:HD2	2.55	0.41
2:J:3417:ASP:OD1	2:J:3516:LYS:HG2	2.19	0.41
2:J:3592:ILE:HG12	2:J:3595:ARG:NH2	2.35	0.41
2:J:4014:LYS:HG2	2:J:4135:PRO:HB3	2.01	0.41
2:J:4017:LEU:HD22	2:J:4139:ILE:HG21	2.03	0.41
3:C:28:ILE:HD12	3:C:28:ILE:HA	1.93	0.41
3:F:63:VAL:HA	3:F:67:PHE:HE2	1.85	0.41
1:I:88:PRO:HB2	2:J:1680:ARG:HH12	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2250:MET:HA	2:B:2250:MET:HE3	2.02	0.41
2:B:3078:ARG:HG2	2:B:3152:PHE:CE1	2.55	0.41
2:B:3546:ASP:O	2:B:3550:ARG:HG3	2.19	0.41
2:B:4060:LYS:HA	2:B:4063:ASP:OD2	2.20	0.41
2:B:4655:PHE:O	2:B:4659:ILE:HG12	2.20	0.41
2:B:4773:VAL:O	2:B:4777:ILE:HG13	2.20	0.41
2:B:4928:LEU:HD23	2:B:4928:LEU:HA	1.89	0.41
2:E:882:TRP:CZ2	3:F:104:TYR:HB2	2.55	0.41
2:E:911:HIS:HE1	2:E:918:ARG:NE	2.18	0.41
2:E:936:GLY:HA3	2:E:1056:PRO:HB3	2.01	0.41
2:E:937:CYS:HB3	2:E:1053:ILE:HB	2.02	0.41
2:E:3206:LEU:HD13	2:E:3245:VAL:C	2.45	0.41
2:E:3521:GLY:HA2	2:E:3524:MET:SD	2.60	0.41
2:E:4060:LYS:HA	2:E:4063:ASP:OD2	2.20	0.41
2:E:4698:LYS:HE3	2:E:4698:LYS:HB2	1.84	0.41
2:G:14:LEU:HD13	2:G:202:MET:HG2	2.02	0.41
2:G:904:HIS:CD2	2:G:907:LEU:H	2.39	0.41
2:G:984:LEU:HA	2:G:987:ARG:NH1	2.35	0.41
2:G:2173:GLN:O	2:G:2177:LEU:HD23	2.20	0.41
2:G:2598:ALA:O	2:G:2602:VAL:HG23	2.20	0.41
2:G:2902:HIS:CG	2:G:2903:PRO:HD2	2.55	0.41
2:G:4232:GLU:HG2	2:G:5019:TRP:CD1	2.56	0.41
2:G:4773:VAL:O	2:G:4777:ILE:HG13	2.20	0.41
2:G:4851:TYR:HD1	2:G:4916:PHE:CE1	2.39	0.41
2:G:4968:PHE:O	2:G:4974:GLY:HA3	2.20	0.41
2:J:984:LEU:HA	2:J:987:ARG:NH1	2.35	0.41
2:J:997:ALA:O	2:J:1001:VAL:HG23	2.20	0.41
2:J:2173:GLN:O	2:J:2177:LEU:HD23	2.20	0.41
2:J:2737:PRO:HB2	2:J:2884:ASN:HB2	2.02	0.41
2:J:4852:THR:HG21	2:J:4883:TYR:HD1	1.85	0.41
3:M:104:TYR:HD1	3:M:106:PRO:HD3	1.85	0.41
2:B:657:THR:HB	2:B:1021:LEU:HG	2.02	0.41
2:B:904:HIS:CD2	2:B:907:LEU:H	2.39	0.41
2:B:2452:ARG:HD2	2:E:144:GLU:OE2	2.19	0.41
2:B:2589:LEU:HD23	2:B:2589:LEU:HA	1.87	0.41
2:B:2615:ARG:HD2	2:B:2664:PHE:HA	2.01	0.41
2:B:3193:CYS:O	2:B:3197:LEU:HG	2.21	0.41
2:B:3683:GLN:O	2:B:3687:GLU:HB2	2.21	0.41
2:E:866:HIS:ND1	2:E:870:ILE:HB	2.36	0.41
2:E:1088:TRP:HB2	2:E:1153:ILE:HG22	2.02	0.41
2:E:1849:LEU:HG	2:E:1945:TYR:CE2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:2737:PRO:HB2	2:E:2884:ASN:HB2	2.02	0.41
2:E:4968:PHE:O	2:E:4974:GLY:HA3	2.20	0.41
2:G:162:LYS:NZ	2:J:3987:ASP:OD2	2.49	0.41
2:G:167:ASP:OD1	2:G:168:ASP:N	2.53	0.41
2:G:349:GLN:HB2	2:G:356:TRP:CZ3	2.54	0.41
2:G:371:VAL:HG11	2:G:373:LYS:HG2	2.02	0.41
2:G:464:LYS:O	2:G:468:LEU:HG	2.20	0.41
2:G:657:THR:HB	2:G:1021:LEU:HG	2.02	0.41
2:G:911:HIS:HE1	2:G:918:ARG:NE	2.18	0.41
2:G:1088:TRP:HB2	2:G:1153:ILE:HG22	2.02	0.41
2:G:1090:PHE:HB2	2:G:1204:LEU:HA	2.02	0.41
2:G:2340:PHE:HB2	2:G:2435:ARG:HE	1.86	0.41
2:G:2382:GLU:HA	2:G:2385:ARG:NE	2.36	0.41
2:G:2718:SER:OG	2:G:2909:ASP:O	2.25	0.41
2:G:2790:MET:O	2:G:2792:ARG:NE	2.52	0.41
2:G:2947:ASP:OD1	2:G:2947:ASP:N	2.54	0.41
2:G:3173:TYR:CG	2:G:3243:ILE:HG12	2.56	0.41
2:G:3193:CYS:O	2:G:3197:LEU:HG	2.21	0.41
2:G:3250:MET:HE1	2:G:3281:LEU:HD21	2.02	0.41
2:G:3343:GLN:HB3	2:G:3344:PRO:HD3	2.02	0.41
2:G:3535:LEU:CD1	2:G:3539:ARG:HH12	2.33	0.41
2:G:3567:PRO:CB	2:G:3570:ARG:HH21	2.32	0.41
2:G:3771:HIS:CG	2:G:3812:VAL:HG12	2.55	0.41
2:J:102:LEU:HD21	2:J:105:HIS:CE1	2.56	0.41
2:J:214:VAL:HG13	2:J:274:LEU:HB2	2.02	0.41
2:J:3172:ILE:HD11	2:J:3190:LEU:HB3	2.02	0.41
2:J:3179:LYS:HE3	2:J:3179:LYS:HB3	1.95	0.41
2:J:3391:GLU:HA	2:J:3394:VAL:HG22	2.03	0.41
2:J:4027:LEU:O	2:J:4028:LEU:C	2.63	0.41
3:F:104:TYR:HD1	3:F:106:PRO:HD3	1.85	0.41
1:A:73:LYS:HB3	1:A:73:LYS:HE2	1.86	0.41
2:B:575:LEU:HD13	2:B:606:LEU:HA	2.02	0.41
2:B:997:ALA:O	2:B:1001:VAL:HG23	2.20	0.41
2:B:1637:MET:HG3	2:B:1696:HIS:ND1	2.36	0.41
2:B:2519:LEU:HD11	2:B:2572:THR:HG23	2.03	0.41
2:B:3049:LEU:HA	2:B:3053:ARG:NH2	2.35	0.41
2:E:705:ASN:N	2:E:705:ASN:HD22	2.19	0.41
2:E:997:ALA:O	2:E:1001:VAL:HG23	2.20	0.41
2:E:2479:LEU:HD22	2:E:2541:PHE:HZ	1.86	0.41
2:G:222:LEU:HB3	2:G:388:LEU:HD12	2.02	0.41
2:G:575:LEU:HD13	2:G:606:LEU:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1000:ARG:HH12	3:M:115:ASP:H	1.69	0.41
2:G:2311:PRO:O	2:G:2314:LEU:HG	2.20	0.41
2:G:3354:LEU:HD13	2:G:3415:TYR:HE2	1.86	0.41
2:J:473:ASN:O	2:J:477:LEU:HG	2.21	0.41
2:J:575:LEU:HD13	2:J:606:LEU:HA	2.02	0.41
2:J:904:HIS:CD2	2:J:907:LEU:H	2.39	0.41
2:J:2311:PRO:O	2:J:2314:LEU:HG	2.20	0.41
2:J:2368:LEU:HD23	2:J:2368:LEU:HA	1.88	0.41
2:J:4851:TYR:HD1	2:J:4916:PHE:CE1	2.39	0.41
2:B:222:LEU:HB3	2:B:388:LEU:HD12	2.02	0.41
2:B:473:ASN:O	2:B:477:LEU:HG	2.21	0.41
2:B:595:ARG:HH22	2:B:1643:GLU:CD	2.27	0.41
2:B:1757:ALA:O	2:B:1759:ARG:HD2	2.20	0.41
2:B:1849:LEU:HG	2:B:1945:TYR:CE2	2.56	0.41
2:B:2382:GLU:HA	2:B:2385:ARG:NE	2.35	0.41
2:B:4041:ALA:O	2:B:4045:VAL:HG23	2.20	0.41
2:E:102:LEU:HD21	2:E:105:HIS:CE1	2.56	0.41
2:E:275:ARG:HB3	2:E:278:GLN:HB2	2.01	0.41
2:E:898:ASP:O	2:E:902:ARG:N	2.54	0.41
2:E:1090:PHE:HB2	2:E:1204:LEU:HA	2.02	0.41
2:E:1658:ASP:N	2:E:1658:ASP:OD1	2.54	0.41
2:E:2262:GLY:O	2:E:2266:GLY:N	2.47	0.41
2:E:3186:LEU:HG	2:E:3190:LEU:HD21	2.02	0.41
2:E:3567:PRO:CB	2:E:3570:ARG:HH21	2.32	0.41
2:G:162:LYS:HG3	2:J:3984:ARG:HH22	1.86	0.41
2:G:788:LYS:HG2	2:G:1629:GLN:HB2	2.02	0.41
2:G:2165:LEU:HD11	2:G:2177:LEU:HB3	2.02	0.41
2:G:2575:ARG:NH1	2:G:2578:MET:HB3	2.36	0.41
2:G:3100:SER:HB3	2:G:3167:ARG:HE	1.85	0.41
2:G:3186:LEU:HG	2:G:3190:LEU:HD21	2.02	0.41
2:G:3316:LEU:O	2:G:3320:LEU:HG	2.20	0.41
2:G:4017:LEU:HD22	2:G:4139:ILE:HG21	2.03	0.41
2:G:4846:VAL:O	2:G:4850:LEU:HG	2.19	0.41
2:J:14:LEU:HD13	2:J:202:MET:HG2	2.02	0.41
2:J:222:LEU:HB3	2:J:388:LEU:HD12	2.02	0.41
2:J:878:ILE:HG21	3:K:107:TRP:HE1	1.85	0.41
2:J:936:GLY:HA3	2:J:1056:PRO:HB3	2.02	0.41
2:J:1126:GLY:HA3	2:J:1143:TRP:CE3	2.56	0.41
2:J:2414:ASN:HB2	2:J:2417:HIS:CE1	2.56	0.41
2:J:2672:LEU:HD11	2:J:2711:PRO:HD2	2.03	0.41
2:J:4546:VAL:HA	2:J:4549:VAL:HG22	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:83:ASN:OD1	3:C:83:ASN:N	2.53	0.41
1:H:88:PRO:HB2	2:G:1680:ARG:NH1	2.36	0.41
2:B:232:THR:OG1	2:B:248:GLU:HG2	2.21	0.41
2:B:360:ALA:O	2:B:361:ALA:C	2.62	0.41
2:B:2311:PRO:O	2:B:2314:LEU:HG	2.20	0.41
2:B:2758:PHE:O	2:B:2762:THR:HG23	2.21	0.41
2:B:2765:LYS:HD3	2:B:2765:LYS:HA	1.67	0.41
2:B:2871:LEU:HD11	2:B:2927:LEU:HD11	2.03	0.41
2:B:3552:PHE:HA	2:B:3555:ASN:OD1	2.21	0.41
2:B:4026:MET:HE3	2:B:4026:MET:HB3	1.99	0.41
2:B:4879:MET:HE3	2:B:4879:MET:HB3	1.86	0.41
2:E:411:TYR:HB2	2:E:486:LEU:HD21	2.02	0.41
2:E:664:PHE:CE1	2:E:746:CYS:HB2	2.56	0.41
2:E:883:ALA:O	2:E:887:ILE:HG13	2.20	0.41
2:E:2414:ASN:HB2	2:E:2417:HIS:CE1	2.56	0.41
2:E:2758:PHE:O	2:E:2762:THR:HG23	2.20	0.41
2:E:2871:LEU:HD11	2:E:2927:LEU:HD11	2.03	0.41
2:E:2967:MET:CE	2:E:3045:LYS:HB3	2.48	0.41
2:E:3347:SER:HB2	2:E:3414:ARG:HG3	2.03	0.41
2:G:473:ASN:O	2:G:477:LEU:HG	2.21	0.41
2:G:866:HIS:CD2	2:G:869:ARG:HH21	2.39	0.41
2:G:1126:GLY:HA3	2:G:1143:TRP:CE3	2.56	0.41
2:G:2285:GLU:H	2:G:2285:GLU:HG2	1.69	0.41
2:G:2522:LEU:HD11	2:G:2569:PHE:CE1	2.55	0.41
2:G:2672:LEU:HD12	2:G:2672:LEU:HA	1.81	0.41
2:G:3347:SER:HB2	2:G:3414:ARG:HG3	2.03	0.41
2:G:3545:THR:O	2:G:3549:VAL:HG13	2.21	0.41
2:G:3592:ILE:HG12	2:G:3595:ARG:NH2	2.35	0.41
2:G:3592:ILE:HA	2:G:3595:ARG:HE	1.86	0.41
2:G:3809:ASN:HB3	2:G:3812:VAL:CG2	2.48	0.41
2:J:1849:LEU:HG	2:J:1945:TYR:CE2	2.56	0.41
2:J:1927:LEU:CD2	2:J:1939:MET:HE1	2.50	0.41
2:J:2359:ARG:HD3	2:J:2359:ARG:HA	1.82	0.41
2:J:2479:LEU:HD22	2:J:2541:PHE:HZ	1.86	0.41
2:J:2654:TYR:HB2	2:J:2661:TRP:CE3	2.55	0.41
1:A:17:LYS:HG3	1:A:18:LYS:N	2.35	0.41
2:B:275:ARG:HB3	2:B:278:GLN:HB2	2.02	0.41
2:B:551:LEU:HD11	2:B:564:LEU:HD22	2.02	0.41
2:B:866:HIS:CD2	2:B:869:ARG:HH21	2.39	0.41
2:B:1090:PHE:HB2	2:B:1204:LEU:HA	2.02	0.41
2:B:2165:LEU:HD11	2:B:2177:LEU:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2419:GLY:O	2:B:2423:MET:HG2	2.21	0.41
2:B:2617:SER:OG	2:B:2618:MET:SD	2.76	0.41
2:B:2790:MET:O	2:B:2792:ARG:NE	2.52	0.41
2:B:3354:LEU:HD13	2:B:3415:TYR:HE2	1.86	0.41
2:B:3835:LEU:HD22	2:B:3880:PHE:CZ	2.56	0.41
2:B:4852:THR:HG21	2:B:4883:TYR:HD1	1.85	0.41
2:E:1126:GLY:HA3	2:E:1143:TRP:CE3	2.56	0.41
2:E:1637:MET:HG3	2:E:1696:HIS:ND1	2.36	0.41
2:E:2382:GLU:HA	2:E:2385:ARG:NE	2.36	0.41
2:E:2664:PHE:N	2:E:2664:PHE:CD1	2.88	0.41
2:E:3214:ASN:HB2	2:E:3304:CYS:HB3	2.02	0.41
2:E:3391:GLU:HA	2:E:3394:VAL:HG22	2.03	0.41
2:E:4027:LEU:O	2:E:4028:LEU:C	2.63	0.41
2:E:4773:VAL:O	2:E:4777:ILE:HG13	2.20	0.41
2:E:4851:TYR:HD1	2:E:4916:PHE:CE1	2.39	0.41
2:E:4992:LEU:HD13	2:E:5014:TYR:CZ	2.56	0.41
2:G:214:VAL:HG13	2:G:274:LEU:HB2	2.02	0.41
2:G:548:VAL:HG21	2:G:582:HIS:CD2	2.52	0.41
2:G:551:LEU:HD11	2:G:564:LEU:HD22	2.02	0.41
2:G:810:PRO:HB2	2:G:812:HIS:HD1	1.86	0.41
2:G:1637:MET:HG3	2:G:1696:HIS:ND1	2.36	0.41
2:G:1849:LEU:HG	2:G:1945:TYR:CE2	2.56	0.41
2:G:1927:LEU:CD2	2:G:1939:MET:HE1	2.50	0.41
2:G:1931:LEU:HD13	2:G:1935:VAL:HG12	2.03	0.41
2:G:2331:TYR:O	2:G:2335:LEU:HG	2.21	0.41
2:G:2414:ASN:HB2	2:G:2417:HIS:CE1	2.56	0.41
2:G:2672:LEU:HD11	2:G:2711:PRO:HD2	2.03	0.41
2:G:2912:THR:OG1	2:G:2913:ALA:N	2.54	0.41
2:G:3214:ASN:HB2	2:G:3304:CYS:HB3	2.02	0.41
2:G:3316:LEU:HD13	2:G:3316:LEU:HA	1.92	0.41
2:G:3391:GLU:HA	2:G:3394:VAL:HG22	2.03	0.41
2:G:3683:GLN:O	2:G:3687:GLU:HB2	2.21	0.41
2:G:4852:THR:HG21	2:G:4883:TYR:HD1	1.85	0.41
2:J:911:HIS:HE1	2:J:918:ARG:NE	2.18	0.41
2:J:911:HIS:HB2	2:J:913:LEU:HG	2.02	0.41
2:J:1252:HIS:CE1	2:J:1254:HIS:HB2	2.56	0.41
2:J:2122:SER:O	2:J:2126:ARG:HG3	2.20	0.41
2:J:2165:LEU:HD11	2:J:2177:LEU:HB3	2.02	0.41
2:J:2515:GLN:CA	2:J:2568:LEU:HD21	2.48	0.41
2:J:2566:ALA:O	2:J:2569:PHE:HB2	2.21	0.41
2:J:2664:PHE:CD1	2:J:2664:PHE:N	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:2947:ASP:OD1	2:J:2947:ASP:N	2.54	0.41
2:J:3343:GLN:HB3	2:J:3344:PRO:HD3	2.02	0.41
2:J:3354:LEU:HD13	2:J:3415:TYR:HE2	1.86	0.41
2:J:3552:PHE:HA	2:J:3555:ASN:OD1	2.21	0.41
2:J:3683:GLN:O	2:J:3687:GLU:HB2	2.21	0.41
2:J:4041:ALA:O	2:J:4045:VAL:HG23	2.20	0.41
2:J:4968:PHE:O	2:J:4974:GLY:HA3	2.20	0.41
3:C:63:VAL:HA	3:C:67:PHE:HE2	1.85	0.41
3:C:85:LEU:HD23	3:C:85:LEU:HA	1.92	0.41
3:C:101:PRO:O	3:C:104:TYR:N	2.48	0.41
3:F:109:THR:OG1	3:F:110:PRO:HD3	2.21	0.41
3:M:101:PRO:O	3:M:104:TYR:N	2.48	0.41
1:D:17:LYS:HG3	1:D:18:LYS:N	2.35	0.41
1:D:49:ARG:HB2	1:D:52:LYS:HG2	2.03	0.41
1:I:88:PRO:HB2	2:J:1680:ARG:NH1	2.36	0.41
2:B:214:VAL:HA	2:B:341:TYR:CD2	2.56	0.41
2:B:411:TYR:HB2	2:B:486:LEU:HD21	2.02	0.41
2:B:866:HIS:ND1	2:B:870:ILE:HB	2.36	0.41
2:B:1126:GLY:HA3	2:B:1143:TRP:CE3	2.56	0.41
2:B:2562:ILE:HG23	2:B:2569:PHE:CZ	2.56	0.41
2:E:222:LEU:HB3	2:E:388:LEU:HD12	2.02	0.41
2:E:464:LYS:O	2:E:468:LEU:HG	2.20	0.41
2:E:691:GLY:HA3	2:E:712:TYR:CD1	2.56	0.41
2:E:866:HIS:CD2	2:E:869:ARG:HH21	2.39	0.41
2:E:878:ILE:HG21	3:F:107:TRP:CE2	2.55	0.41
2:E:1131:ARG:HB2	2:E:1179:PHE:CZ	2.56	0.41
2:E:3100:SER:HB3	2:E:3167:ARG:HE	1.85	0.41
2:E:3193:CYS:O	2:E:3197:LEU:HG	2.21	0.41
2:E:3893:GLU:HA	2:E:3967:GLU:OE2	2.21	0.41
2:E:4017:LEU:HD22	2:E:4139:ILE:HG21	2.03	0.41
2:G:102:LEU:HD21	2:G:105:HIS:CE1	2.56	0.41
2:G:424:LYS:HE2	2:G:424:LYS:HB2	1.92	0.41
2:G:911:HIS:HB2	2:G:913:LEU:HG	2.02	0.41
2:G:3106:MET:HE2	2:G:3129:LEU:HA	2.03	0.41
2:G:3552:PHE:HA	2:G:3555:ASN:OD1	2.21	0.41
2:J:575:LEU:HA	2:J:578:ILE:HG12	2.03	0.41
2:J:937:CYS:HB3	2:J:1053:ILE:HB	2.02	0.41
2:J:2340:PHE:HB2	2:J:2435:ARG:HE	1.86	0.41
2:J:3137:LEU:HD12	2:J:3137:LEU:HA	1.91	0.41
2:J:3535:LEU:CD1	2:J:3539:ARG:HH12	2.33	0.41
2:J:4666:VAL:O	2:J:4670:ILE:HG12	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:49:ARG:HB2	1:H:52:LYS:HG2	2.03	0.40
1:I:29:MET:HG3	1:I:30:LEU:O	2.21	0.40
2:B:533:ASN:HB3	2:B:536:ASN:HB2	2.04	0.40
2:B:691:GLY:HA3	2:B:712:TYR:CD1	2.56	0.40
2:B:788:LYS:HG2	2:B:1629:GLN:HB2	2.02	0.40
2:B:2479:LEU:HD22	2:B:2541:PHE:HZ	1.86	0.40
2:B:2801:ASP:HA	2:B:2804:ILE:HG12	2.01	0.40
2:B:2947:ASP:OD1	2:B:2947:ASP:N	2.54	0.40
2:B:3173:TYR:CG	2:B:3243:ILE:HG12	2.56	0.40
2:B:3277:LEU:HB3	2:B:3315:LEU:HD13	2.03	0.40
2:B:3354:LEU:HD13	2:B:3415:TYR:CE2	2.57	0.40
2:B:3592:ILE:HA	2:B:3595:ARG:HE	1.86	0.40
2:B:4851:TYR:HD1	2:B:4916:PHE:CE1	2.39	0.40
2:E:105:HIS:O	2:E:150:MET:HG2	2.22	0.40
2:E:232:THR:OG1	2:E:248:GLU:HG2	2.21	0.40
2:E:294:THR:N	2:E:298:GLY:O	2.39	0.40
2:E:473:ASN:O	2:E:477:LEU:HG	2.21	0.40
2:E:2575:ARG:NH1	2:E:2577:ILE:HG23	2.36	0.40
2:E:2947:ASP:OD1	2:E:2947:ASP:N	2.54	0.40
2:E:3106:MET:HE2	2:E:3129:LEU:HA	2.03	0.40
2:E:3535:LEU:CD1	2:E:3539:ARG:HH12	2.33	0.40
2:G:2419:GLY:O	2:G:2423:MET:HG2	2.21	0.40
2:G:2566:ALA:O	2:G:2569:PHE:HB2	2.21	0.40
2:G:3136:LEU:O	2:G:3140:LEU:HB3	2.20	0.40
2:G:3471:THR:O	2:G:3475:LYS:HG3	2.21	0.40
2:J:866:HIS:ND1	2:J:870:ILE:HB	2.36	0.40
2:J:1131:ARG:HB2	2:J:1179:PHE:CZ	2.56	0.40
2:J:2382:GLU:HA	2:J:2385:ARG:NE	2.35	0.40
2:J:2871:LEU:HD11	2:J:2927:LEU:HD11	2.03	0.40
2:J:3193:CYS:O	2:J:3197:LEU:HG	2.21	0.40
2:J:3592:ILE:HA	2:J:3595:ARG:HE	1.86	0.40
3:F:28:ILE:HD12	3:F:28:ILE:HA	1.93	0.40
1:A:49:ARG:HB2	1:A:52:LYS:HG2	2.03	0.40
1:A:57:LYS:HB2	1:A:57:LYS:HE2	1.75	0.40
1:H:26:TYR:HB2	1:H:101:VAL:HG12	2.03	0.40
2:B:936:GLY:HA3	2:B:1056:PRO:HB3	2.01	0.40
2:B:1252:HIS:CE1	2:B:1254:HIS:HB2	2.56	0.40
2:B:1733:GLU:HG2	2:B:2201:LEU:HD23	2.03	0.40
2:B:2359:ARG:HD3	2:B:2359:ARG:HA	1.82	0.40
2:B:3100:SER:HB3	2:B:3167:ARG:HE	1.85	0.40
2:B:3137:LEU:HD12	2:B:3137:LEU:HA	1.91	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:4546:VAL:HA	2:B:4549:VAL:HG22	2.03	0.40
2:B:4898:GLY:HA2	2:B:4901:ILE:HD12	2.03	0.40
2:E:361:ALA:O	2:E:362:PRO:C	2.64	0.40
2:E:664:PHE:HB3	2:E:811:CYS:SG	2.62	0.40
2:E:3173:TYR:CG	2:E:3243:ILE:HG12	2.56	0.40
2:E:3354:LEU:HD13	2:E:3415:TYR:HE2	1.86	0.40
2:E:4666:VAL:O	2:E:4670:ILE:HG12	2.21	0.40
2:E:4928:LEU:HA	2:E:4928:LEU:HD23	1.89	0.40
2:G:16:THR:HA	2:G:69:LEU:HD22	2.04	0.40
2:G:664:PHE:CE1	2:G:746:CYS:HB2	2.55	0.40
2:G:4655:PHE:O	2:G:4659:ILE:HG12	2.20	0.40
2:G:4847:VAL:O	2:G:4851:TYR:HD2	2.04	0.40
2:G:4898:GLY:HA2	2:G:4901:ILE:HD12	2.03	0.40
2:J:1637:MET:HG3	2:J:1696:HIS:ND1	2.36	0.40
2:J:2912:THR:OG1	2:J:2913:ALA:N	2.54	0.40
2:J:3985:LEU:O	2:J:3989:VAL:HG23	2.21	0.40
3:K:109:THR:OG1	3:K:110:PRO:HD3	2.21	0.40
1:A:16:PRO:HG3	1:A:103:LEU:HD21	2.03	0.40
1:H:40:ARG:H	1:H:40:ARG:HG2	1.72	0.40
2:B:105:HIS:O	2:B:150:MET:HG2	2.22	0.40
2:B:617:ASN:O	2:B:621:ILE:HG13	2.22	0.40
2:B:2352:VAL:O	2:B:2356:LEU:HG	2.22	0.40
2:B:2414:ASN:HB2	2:B:2417:HIS:CE1	2.56	0.40
2:B:3106:MET:HE2	2:B:3129:LEU:HA	2.04	0.40
2:B:3214:ASN:HB2	2:B:3304:CYS:HB3	2.03	0.40
2:B:3347:SER:HB2	2:B:3414:ARG:HG3	2.03	0.40
2:E:548:VAL:HG21	2:E:582:HIS:CD2	2.52	0.40
2:E:904:HIS:CD2	2:E:907:LEU:H	2.39	0.40
2:E:960:MET:SD	2:E:960:MET:N	2.75	0.40
2:E:1927:LEU:CD2	2:E:1939:MET:HE1	2.50	0.40
2:E:2331:TYR:O	2:E:2335:LEU:HG	2.21	0.40
2:E:2575:ARG:O	2:E:2578:MET:HG3	2.21	0.40
2:E:3136:LEU:O	2:E:3140:LEU:HB3	2.20	0.40
2:E:3552:PHE:HA	2:E:3555:ASN:OD1	2.21	0.40
2:G:411:TYR:HB2	2:G:486:LEU:HD21	2.02	0.40
2:G:898:ASP:O	2:G:902:ARG:N	2.54	0.40
2:G:936:GLY:HA3	2:G:1056:PRO:HB3	2.01	0.40
2:G:937:CYS:HB3	2:G:1053:ILE:HB	2.02	0.40
2:G:2310:CYS:SG	2:G:2313:LEU:HB2	2.62	0.40
2:G:2758:PHE:O	2:G:2762:THR:HG23	2.20	0.40
2:G:3246:LEU:HD22	2:G:3280:TYR:CE2	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:4020:GLN:O	2:G:4024:VAL:HG23	2.21	0.40
2:J:866:HIS:CD2	2:J:869:ARG:HH21	2.39	0.40
2:J:2575:ARG:NH1	2:J:2577:ILE:HG23	2.37	0.40
2:J:3137:LEU:O	2:J:3141:THR:OG1	2.37	0.40
2:J:3186:LEU:HG	2:J:3190:LEU:HD21	2.02	0.40
2:J:3347:SER:HB2	2:J:3414:ARG:HG3	2.03	0.40
2:J:3545:THR:O	2:J:3549:VAL:HG13	2.21	0.40
2:J:3992:PHE:HB2	2:J:4023:MET:HE1	2.03	0.40
1:A:29:MET:HG3	1:A:30:LEU:O	2.21	0.40
2:B:1509:ILE:HG22	2:B:1511:HIS:H	1.86	0.40
2:B:2340:PHE:HB2	2:B:2435:ARG:HE	1.86	0.40
2:B:2765:LYS:NZ	2:B:2860:PRO:HA	2.34	0.40
2:B:3462:ASN:HB2	2:B:3464:ILE:HG12	2.04	0.40
2:B:4020:GLN:O	2:B:4024:VAL:HG23	2.21	0.40
2:B:4666:VAL:O	2:B:4670:ILE:HG12	2.22	0.40
2:E:1252:HIS:CE1	2:E:1254:HIS:HB2	2.56	0.40
2:E:2250:MET:HA	2:E:2250:MET:HE3	2.02	0.40
2:E:3285:TRP:CD1	2:E:3312:LEU:HD11	2.56	0.40
2:E:3992:PHE:HB2	2:E:4023:MET:HE1	2.03	0.40
2:G:573:GLU:H	2:G:573:GLU:CD	2.20	0.40
2:G:2479:LEU:HD22	2:G:2541:PHE:HZ	1.86	0.40
2:G:4048:LEU:HD23	2:G:4048:LEU:HA	1.88	0.40
2:J:2331:TYR:O	2:J:2335:LEU:HG	2.21	0.40
2:J:3462:ASN:HB2	2:J:3464:ILE:HG12	2.04	0.40
2:J:3471:THR:O	2:J:3475:LYS:HG3	2.21	0.40
2:J:3892:CYS:SG	2:J:3903:LEU:HD12	2.62	0.40
3:M:83:ASN:OD1	3:M:83:ASN:N	2.53	0.40
1:A:3:GLU:HB2	1:A:75:THR:HB	2.02	0.40
1:D:29:MET:HG3	1:D:30:LEU:O	2.21	0.40
2:B:16:THR:HA	2:B:69:LEU:HD22	2.04	0.40
2:B:1131:ARG:HB2	2:B:1179:PHE:CZ	2.56	0.40
2:B:1931:LEU:HD13	2:B:1935:VAL:HG12	2.03	0.40
2:B:2541:PHE:N	2:B:2541:PHE:CD1	2.87	0.40
2:E:2626:LEU:CD2	2:E:2640:PRO:HB3	2.51	0.40
2:E:2867:LEU:HB2	2:E:2928:LYS:NZ	2.29	0.40
2:E:3835:LEU:HD22	2:E:3880:PHE:CZ	2.56	0.40
2:E:3892:CYS:SG	2:E:3903:LEU:HD12	2.62	0.40
2:E:4631:PHE:CE2	2:E:4633:GLU:HB2	2.57	0.40
2:E:4845:ALA:HA	2:E:4887:MET:HE1	2.03	0.40
2:G:866:HIS:ND1	2:G:870:ILE:HB	2.36	0.40
2:G:1436:SER:OG	2:G:1565:GLU:HB2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1815:LEU:O	2:G:1819:VAL:HG23	2.22	0.40
2:G:2582:MET:HE1	2:G:2610:LEU:HD21	2.04	0.40
2:G:2871:LEU:HD11	2:G:2927:LEU:HD11	2.03	0.40
2:G:3154:ASP:OD1	2:G:3154:ASP:N	2.53	0.40
2:G:3992:PHE:HB2	2:G:4023:MET:HE1	2.03	0.40
2:J:105:HIS:O	2:J:150:MET:HG2	2.22	0.40
2:J:424:LYS:HE2	2:J:424:LYS:HB2	1.92	0.40
2:J:1088:TRP:HB2	2:J:1153:ILE:HG22	2.03	0.40
2:J:1733:GLU:HG2	2:J:2201:LEU:HD23	2.03	0.40
2:J:2170:MET:HE2	2:J:2170:MET:HB2	1.85	0.40
2:J:2310:CYS:SG	2:J:2313:LEU:HB2	2.62	0.40
2:J:2419:GLY:O	2:J:2423:MET:HG2	2.21	0.40
2:J:2575:ARG:NH1	2:J:2578:MET:HB3	2.37	0.40
2:J:2575:ARG:O	2:J:2578:MET:HG3	2.21	0.40
2:J:3214:ASN:HB2	2:J:3304:CYS:HB3	2.02	0.40
2:J:3893:GLU:HA	2:J:3967:GLU:OE2	2.21	0.40
2:J:4631:PHE:CE2	2:J:4633:GLU:HB2	2.57	0.40
2:J:4847:VAL:O	2:J:4851:TYR:HD2	2.04	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	A	105/107 (98%)	100 (95%)	5 (5%)	0	100	100
1	D	105/107 (98%)	103 (98%)	2 (2%)	0	100	100
1	H	105/107 (98%)	101 (96%)	4 (4%)	0	100	100
1	I	105/107 (98%)	103 (98%)	2 (2%)	0	100	100
2	B	4264/5027 (85%)	4160 (98%)	103 (2%)	1 (0%)	100	100
2	E	4264/5027 (85%)	4162 (98%)	102 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	G	4280/5027 (85%)	4175 (98%)	105 (2%)	0	100	100
2	J	4264/5027 (85%)	4161 (98%)	103 (2%)	0	100	100
3	C	124/137 (90%)	116 (94%)	8 (6%)	0	100	100
3	F	124/137 (90%)	116 (94%)	8 (6%)	0	100	100
3	K	124/137 (90%)	116 (94%)	8 (6%)	0	100	100
3	M	124/137 (90%)	116 (94%)	8 (6%)	0	100	100
All	All	17988/21084 (85%)	17529 (97%)	458 (2%)	1 (0%)	100	100

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
2	B	375	LYS

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	A	87/88 (99%)	86 (99%)	1 (1%)	65	76
1	D	87/88 (99%)	87 (100%)	0	100	100
1	H	87/88 (99%)	87 (100%)	0	100	100
1	I	87/88 (99%)	87 (100%)	0	100	100
2	B	3662/4270 (86%)	3658 (100%)	4 (0%)	88	90
2	E	3662/4270 (86%)	3656 (100%)	6 (0%)	87	88
2	G	3674/4270 (86%)	3670 (100%)	4 (0%)	88	90
2	J	3662/4270 (86%)	3658 (100%)	4 (0%)	88	90
3	C	103/114 (90%)	101 (98%)	2 (2%)	50	68
3	F	103/114 (90%)	101 (98%)	2 (2%)	50	68
3	K	103/114 (90%)	101 (98%)	2 (2%)	50	68
3	M	103/114 (90%)	101 (98%)	2 (2%)	50	68

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
All	All	15420/17888 (86%)	15393 (100%)	27 (0%)	85 88

All (27) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	25	HIS
2	B	375	LYS
2	B	2688	HIS
2	B	3966	THR
2	B	4080	TYR
2	E	870	ILE
2	E	1170	MET
2	E	2520	HIS
2	E	2688	HIS
2	E	4080	TYR
2	E	4720	VAL
2	G	2688	HIS
2	G	3315	LEU
2	G	4080	TYR
2	G	4720	VAL
2	J	2688	HIS
2	J	4080	TYR
2	J	4720	VAL
2	J	5014	TYR
3	C	39	GLN
3	C	105	ASN
3	F	39	GLN
3	F	105	ASN
3	K	39	GLN
3	K	105	ASN
3	M	39	GLN
3	M	105	ASN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (101) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	65	GLN
2	B	23	GLN
2	B	138	GLN
2	B	203	ASN
2	B	273	HIS

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Mol	Chain	Res	Type
2	B	461	HIS
2	B	479	GLN
2	B	866	HIS
2	B	879	HIS
2	B	1274	HIS
2	B	1300	HIS
2	B	1629	GLN
2	B	2283	ASN
2	B	2772	GLN
2	B	2991	HIS
2	B	3008	GLN
2	B	3311	HIS
2	B	3318	ASN
2	B	3422	HIS
2	B	3605	HIS
2	B	3914	ASN
2	B	3970	GLN
2	B	4133	GLN
2	B	4864	ASN
2	E	23	GLN
2	E	138	GLN
2	E	203	ASN
2	E	273	HIS
2	E	866	HIS
2	E	879	HIS
2	E	1300	HIS
2	E	2283	ASN
2	E	2574	HIS
2	E	2772	GLN
2	E	2991	HIS
2	E	3008	GLN
2	E	3311	HIS
2	E	3318	ASN
2	E	3422	HIS
2	E	3605	HIS
2	E	3914	ASN
2	E	3970	GLN
2	E	4020	GLN
2	E	4133	GLN
2	E	4714	ASN
2	E	4864	ASN
2	G	23	GLN

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Mol	Chain	Res	Type
2	G	138	GLN
2	G	203	ASN
2	G	273	HIS
2	G	866	HIS
2	G	879	HIS
2	G	1274	HIS
2	G	1300	HIS
2	G	1629	GLN
2	G	1928	GLN
2	G	2283	ASN
2	G	2574	HIS
2	G	2772	GLN
2	G	2881	ASN
2	G	2991	HIS
2	G	3008	GLN
2	G	3311	HIS
2	G	3318	ASN
2	G	3422	HIS
2	G	3449	HIS
2	G	3605	HIS
2	G	3860	ASN
2	G	3870	ASN
2	G	3914	ASN
2	G	3970	GLN
2	G	4133	GLN
2	G	4864	ASN
2	J	23	GLN
2	J	138	GLN
2	J	203	ASN
2	J	273	HIS
2	J	479	GLN
2	J	866	HIS
2	J	879	HIS
2	J	1274	HIS
2	J	1300	HIS
2	J	1629	GLN
2	J	1928	GLN
2	J	2283	ASN
2	J	2772	GLN
2	J	2991	HIS
2	J	3008	GLN
2	J	3311	HIS

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Mol	Chain	Res	Type
2	J	3318	ASN
2	J	3422	HIS
2	J	3449	HIS
2	J	3605	HIS
2	J	3970	GLN
2	J	4020	GLN
2	J	4133	GLN
2	J	4864	ASN
3	C	105	ASN
3	F	105	ASN
3	K	105	ASN
3	M	105	ASN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 16 ligands modelled in this entry, 8 are monoatomic - leaving 8 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	$\# Z > 2$
5	ATP	B	5102	-	32,33,33	0.28	0	48,52,52	0.37	0
5	ATP	G	5102	-	32,33,33	0.28	0	48,52,52	0.37	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
6	CFF	B	5103	-	15,15,15	1.66	4 (26%)	23,23,23	1.75	6 (26%)
5	ATP	E	5102	-	32,33,33	0.28	0	48,52,52	0.37	0
6	CFF	E	5103	-	15,15,15	1.66	4 (26%)	23,23,23	1.78	6 (26%)
6	CFF	J	5103	-	15,15,15	1.66	4 (26%)	23,23,23	1.78	6 (26%)
6	CFF	G	5103	-	15,15,15	1.66	4 (26%)	23,23,23	1.79	8 (34%)
5	ATP	J	5102	-	32,33,33	0.28	0	48,52,52	0.37	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
5	ATP	B	5102	-	-	8/22/38/38	0/3/3/3
5	ATP	G	5102	-	-	8/22/38/38	0/3/3/3
6	CFF	B	5103	-	-	-	0/2/2/2
5	ATP	E	5102	-	-	8/22/38/38	0/3/3/3
6	CFF	E	5103	-	-	-	0/2/2/2
6	CFF	J	5103	-	-	-	0/2/2/2
6	CFF	G	5103	-	-	-	0/2/2/2
5	ATP	J	5102	-	-	8/22/38/38	0/3/3/3

All (16) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	J	5103	CFF	C4-N3	-2.95	1.33	1.38
6	E	5103	CFF	C4-N3	-2.94	1.33	1.38
6	G	5103	CFF	C4-N3	-2.92	1.33	1.38
6	E	5103	CFF	C5-N7	-2.92	1.33	1.38
6	G	5103	CFF	C5-N7	-2.92	1.33	1.38
6	J	5103	CFF	C5-N7	-2.91	1.33	1.38
6	B	5103	CFF	C4-N3	-2.91	1.33	1.38
6	B	5103	CFF	C5-N7	-2.85	1.33	1.38
6	B	5103	CFF	C5-C4	2.67	1.45	1.37
6	J	5103	CFF	C5-C4	2.64	1.45	1.37
6	G	5103	CFF	C5-C4	2.63	1.45	1.37
6	E	5103	CFF	C5-C4	2.63	1.45	1.37
6	G	5103	CFF	C5-C6	2.08	1.48	1.43
6	J	5103	CFF	C5-C6	2.07	1.48	1.43
6	E	5103	CFF	C5-C6	2.07	1.48	1.43
6	B	5103	CFF	C5-C6	2.04	1.48	1.43

All (26) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	G	5103	CFF	N3-C2-N1	4.27	122.48	117.14
6	J	5103	CFF	N3-C2-N1	4.23	122.43	117.14
6	E	5103	CFF	N3-C2-N1	4.22	122.41	117.14
6	B	5103	CFF	N3-C2-N1	4.12	122.29	117.14
6	G	5103	CFF	C6-N1-C2	-3.03	120.73	125.66
6	E	5103	CFF	C6-N1-C2	-3.01	120.76	125.66
6	J	5103	CFF	C6-N1-C2	-2.99	120.79	125.66
6	B	5103	CFF	C6-N1-C2	-2.90	120.94	125.66
6	G	5103	CFF	N3-C4-N9	2.83	130.72	126.27
6	J	5103	CFF	N3-C4-N9	2.83	130.72	126.27
6	B	5103	CFF	N3-C4-N9	2.83	130.72	126.27
6	E	5103	CFF	N3-C4-N9	2.82	130.69	126.27
6	E	5103	CFF	C5-C4-N9	-2.43	107.28	112.10
6	B	5103	CFF	C5-C4-N9	-2.42	107.31	112.10
6	J	5103	CFF	C5-C4-N9	-2.42	107.31	112.10
6	G	5103	CFF	C5-C4-N9	-2.41	107.32	112.10
6	B	5103	CFF	C6-C5-C4	-2.23	120.10	122.92
6	E	5103	CFF	C6-C5-C4	-2.22	120.12	122.92
6	G	5103	CFF	C6-C5-C4	-2.20	120.14	122.92
6	J	5103	CFF	C6-C5-C4	-2.19	120.16	122.92
6	E	5103	CFF	C5-C6-N1	2.05	115.81	112.06
6	G	5103	CFF	C5-C6-N1	2.05	115.81	112.06
6	B	5103	CFF	C5-C6-N1	2.04	115.80	112.06
6	J	5103	CFF	C5-C6-N1	2.03	115.77	112.06
6	G	5103	CFF	C12-N3-C2	2.01	120.84	117.33
6	G	5103	CFF	O11-C2-N1	-2.01	118.55	121.33

There are no chirality outliers.

All (32) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	B	5102	ATP	PB-O3B-PG-O2G
5	B	5102	ATP	C5'-O5'-PA-O3A
5	E	5102	ATP	PB-O3B-PG-O2G
5	E	5102	ATP	C5'-O5'-PA-O3A
5	G	5102	ATP	PB-O3B-PG-O2G
5	G	5102	ATP	C5'-O5'-PA-O3A
5	J	5102	ATP	PB-O3B-PG-O2G
5	J	5102	ATP	C5'-O5'-PA-O3A
5	B	5102	ATP	O4'-C4'-C5'-O5'
5	E	5102	ATP	O4'-C4'-C5'-O5'

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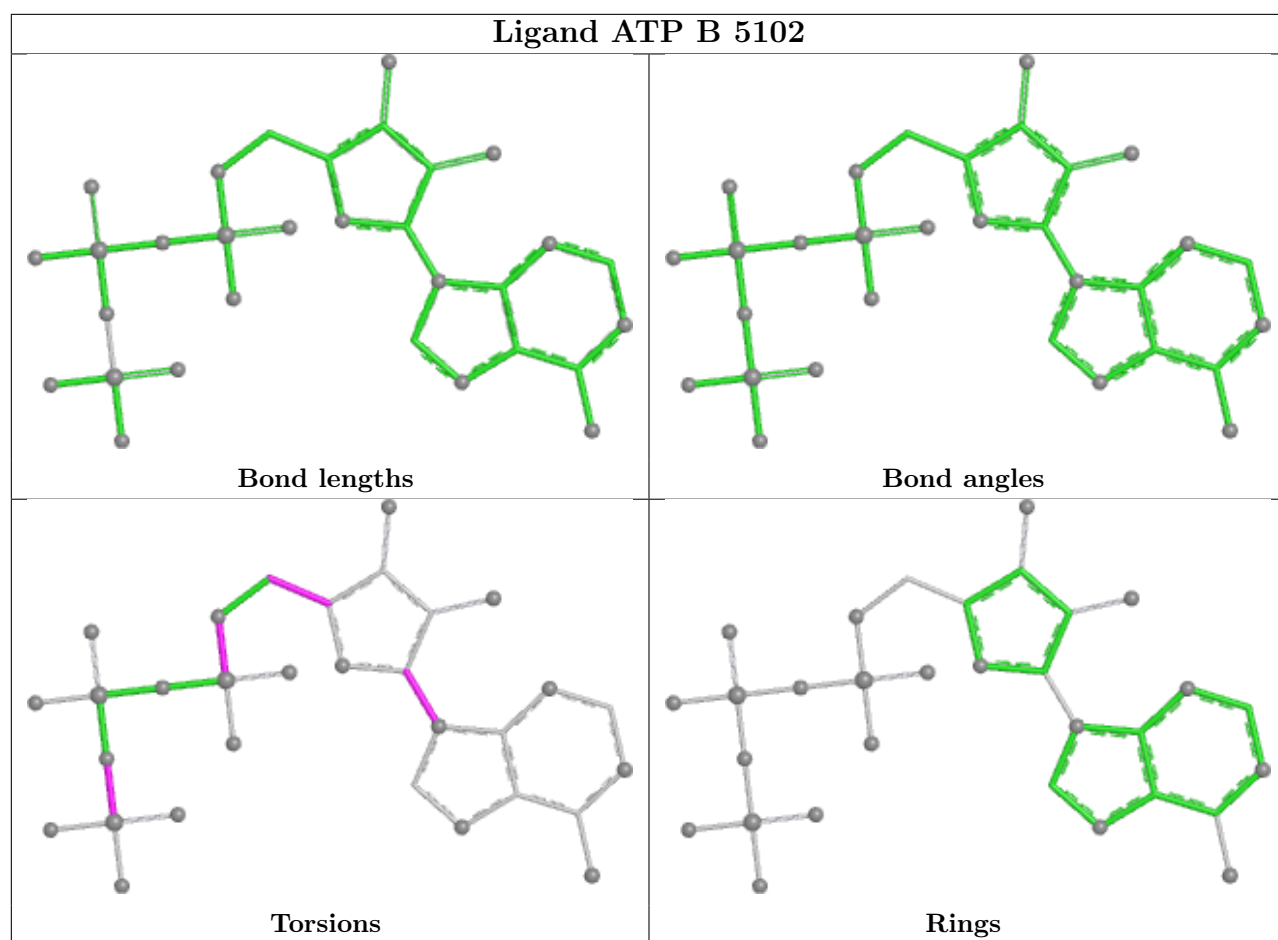
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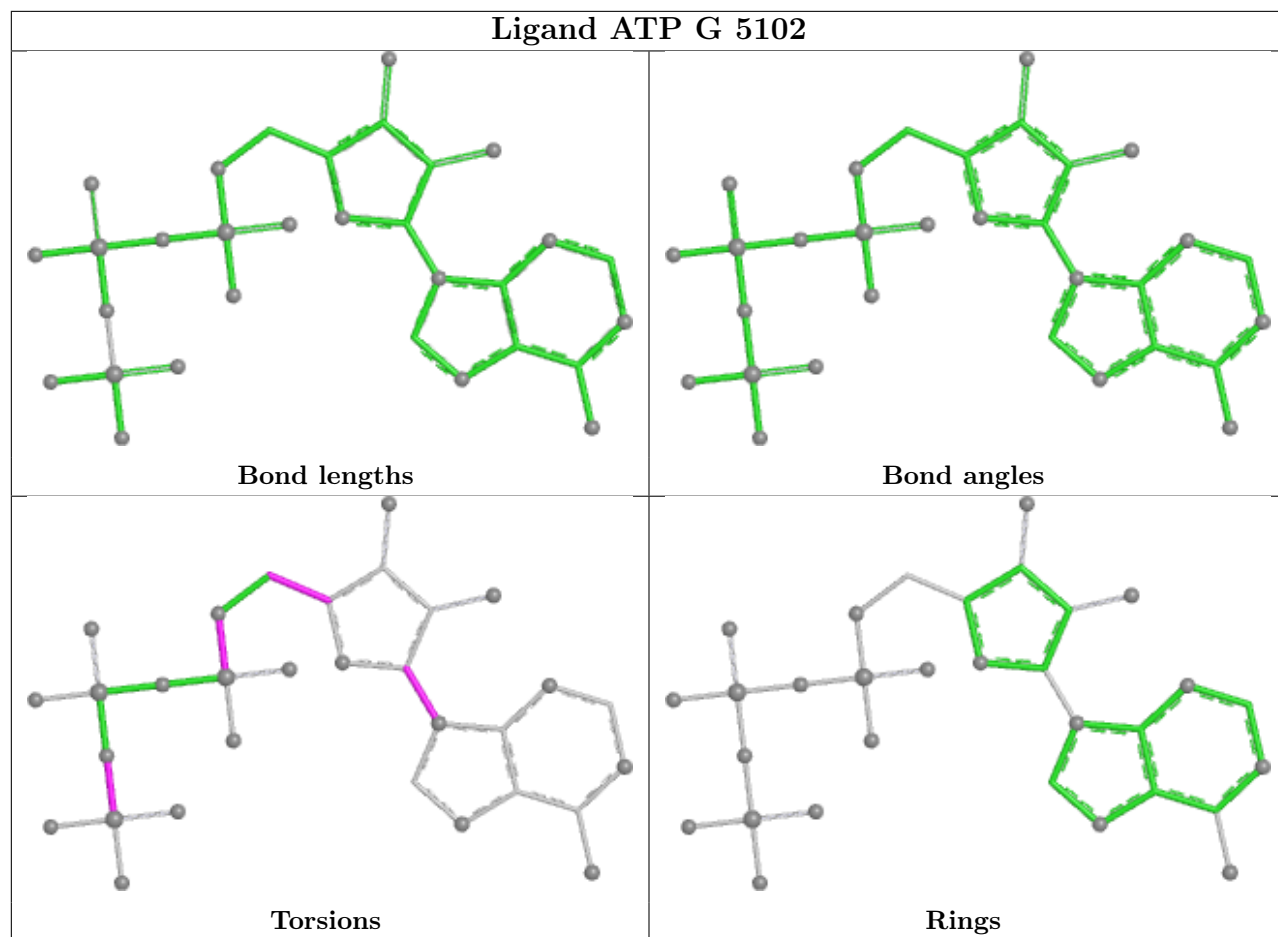
Mol	Chain	Res	Type	Atoms
5	G	5102	ATP	O4'-C4'-C5'-O5'
5	J	5102	ATP	O4'-C4'-C5'-O5'
5	B	5102	ATP	C3'-C4'-C5'-O5'
5	E	5102	ATP	C3'-C4'-C5'-O5'
5	G	5102	ATP	C3'-C4'-C5'-O5'
5	J	5102	ATP	C3'-C4'-C5'-O5'
5	B	5102	ATP	C5'-O5'-PA-O1A
5	E	5102	ATP	C5'-O5'-PA-O1A
5	G	5102	ATP	C5'-O5'-PA-O1A
5	J	5102	ATP	C5'-O5'-PA-O1A
5	B	5102	ATP	PB-O3B-PG-O1G
5	E	5102	ATP	PB-O3B-PG-O1G
5	G	5102	ATP	PB-O3B-PG-O1G
5	J	5102	ATP	PB-O3B-PG-O1G
5	B	5102	ATP	PB-O3B-PG-O3G
5	E	5102	ATP	PB-O3B-PG-O3G
5	G	5102	ATP	PB-O3B-PG-O3G
5	J	5102	ATP	PB-O3B-PG-O3G
5	B	5102	ATP	O4'-C1'-N9-C8
5	E	5102	ATP	O4'-C1'-N9-C8
5	G	5102	ATP	O4'-C1'-N9-C8
5	J	5102	ATP	O4'-C1'-N9-C8

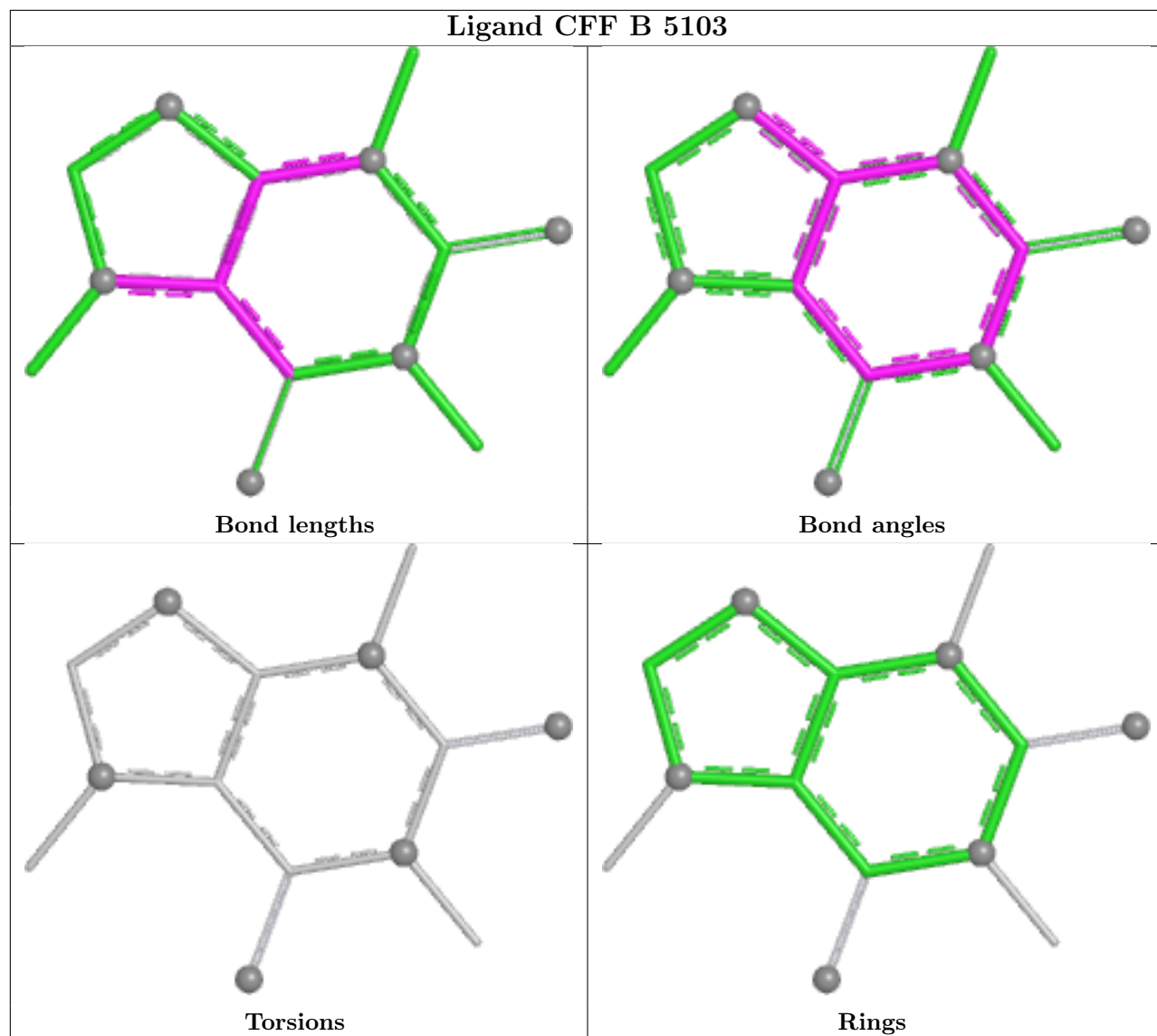
There are no ring outliers.

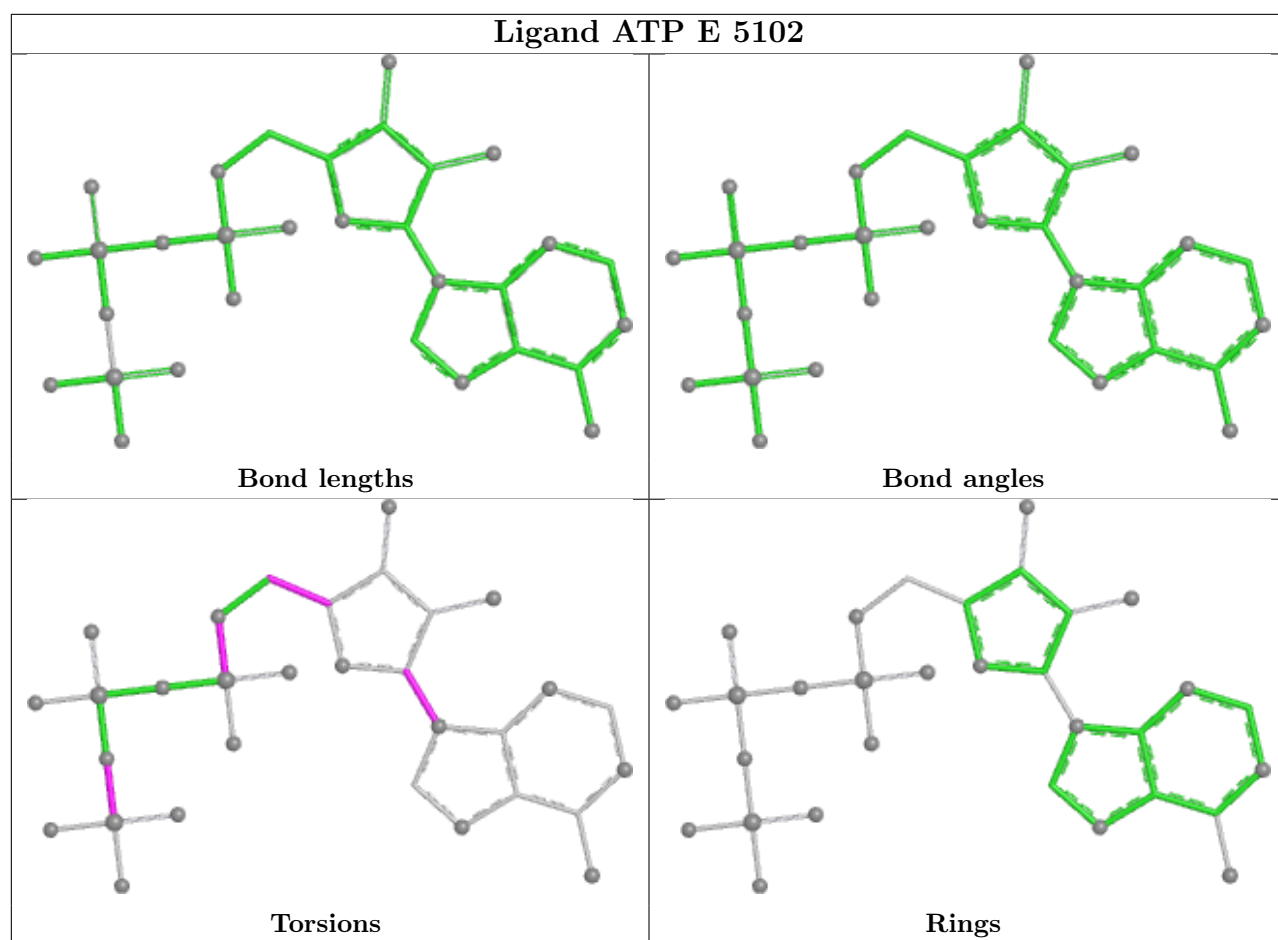
No monomer is involved in short contacts.

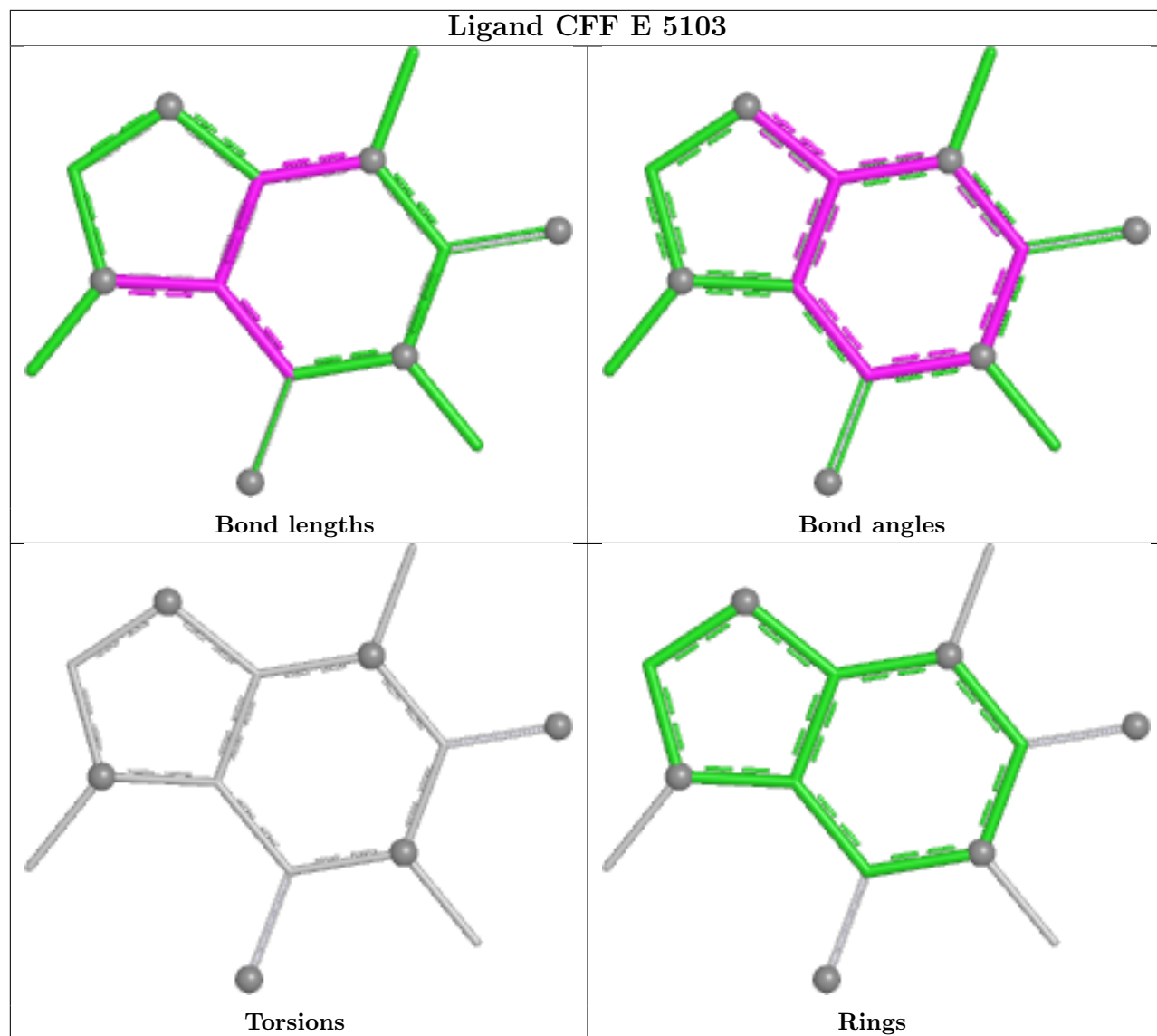
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included.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

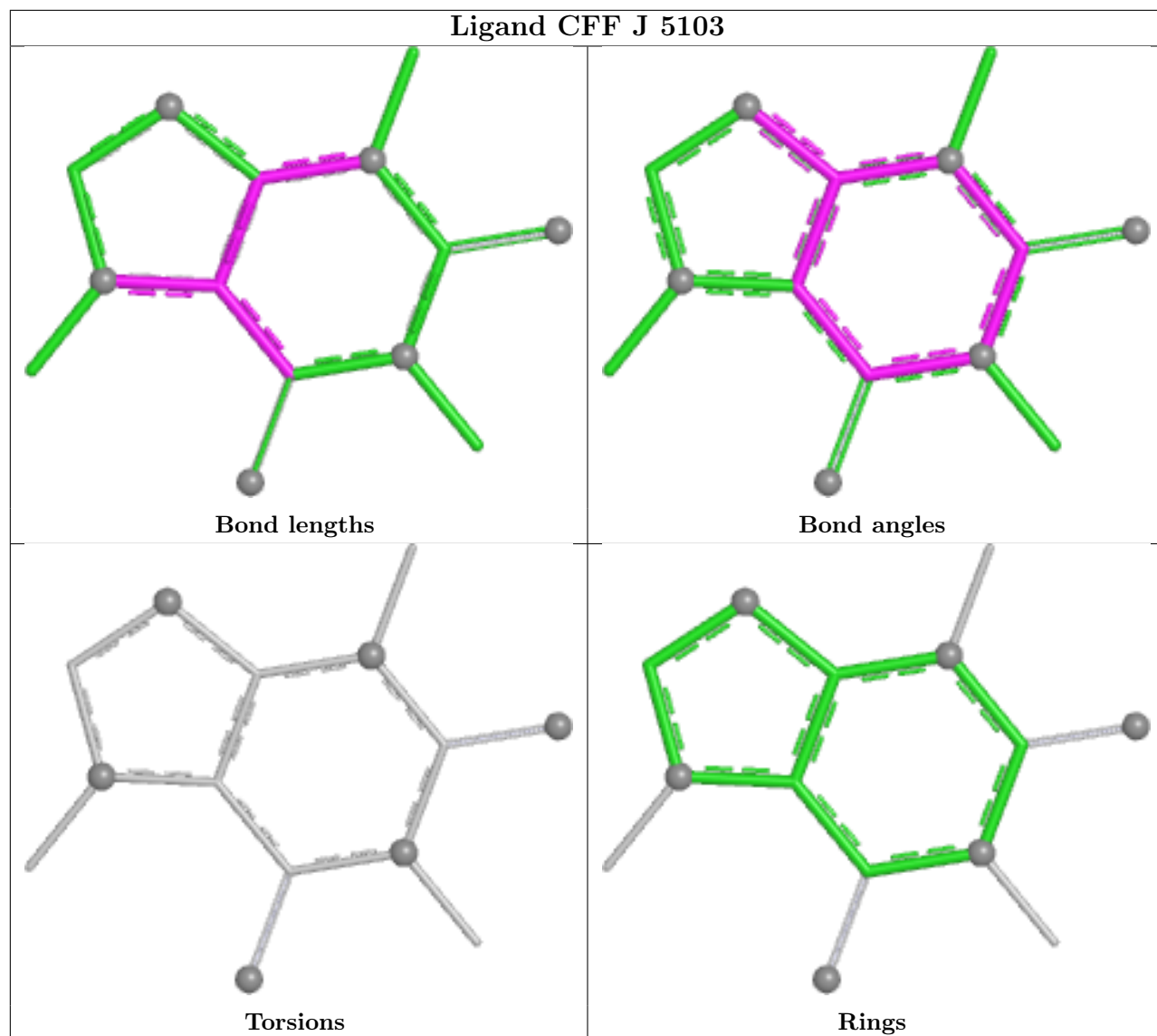


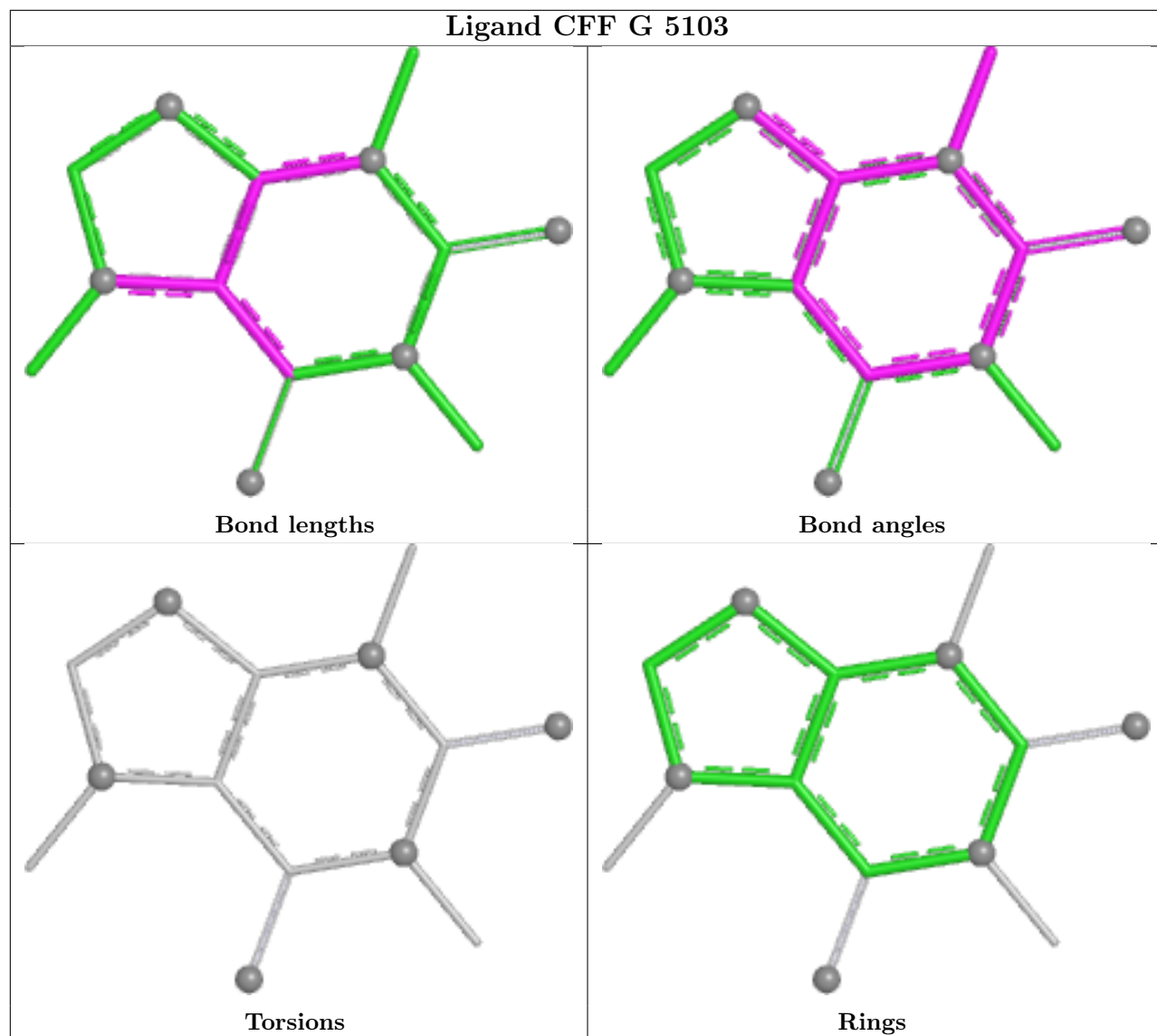


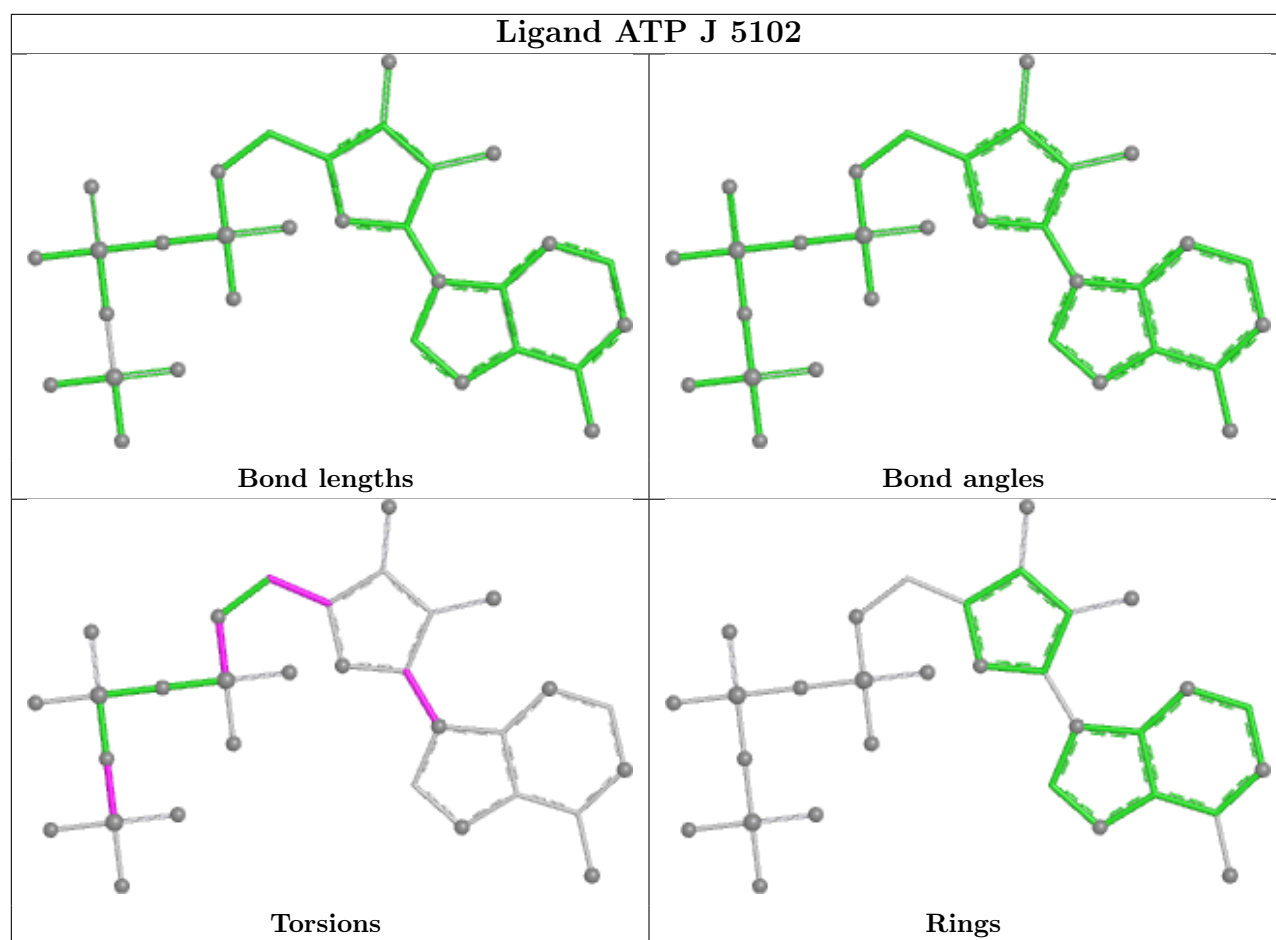












5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

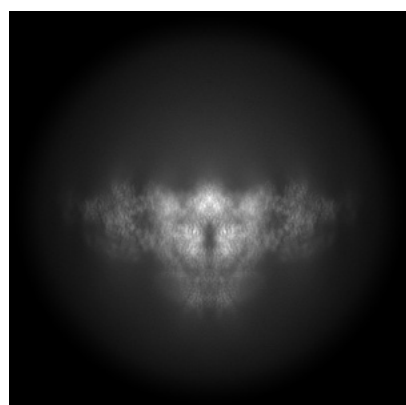
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-19472. These allow visual inspection of the internal detail of the map and identification of artifacts.

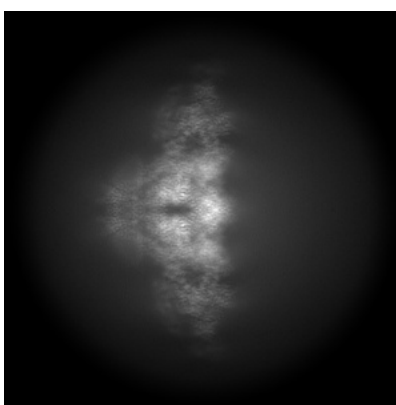
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections [i](#)

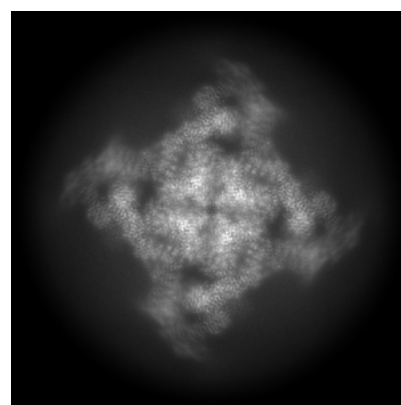
6.1.1 Primary map



X



Y

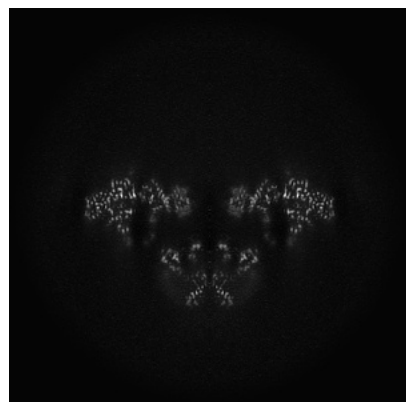


Z

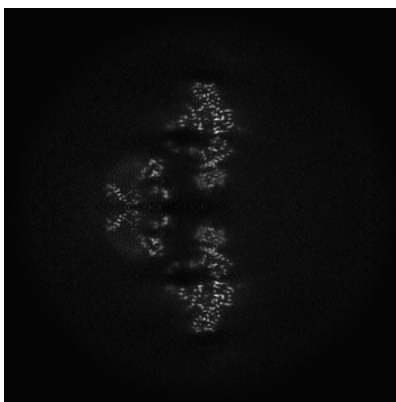
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

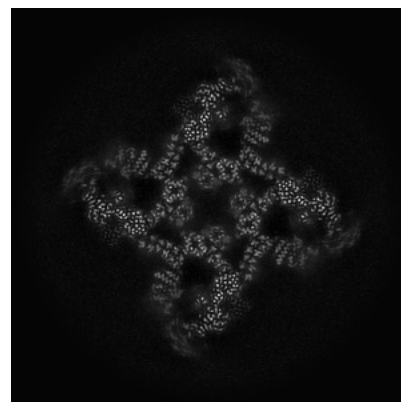
6.2.1 Primary map



X Index: 168



Y Index: 168

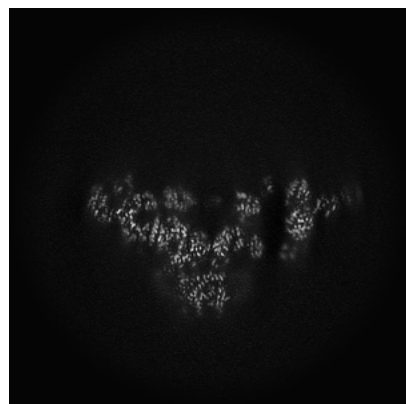


Z Index: 168

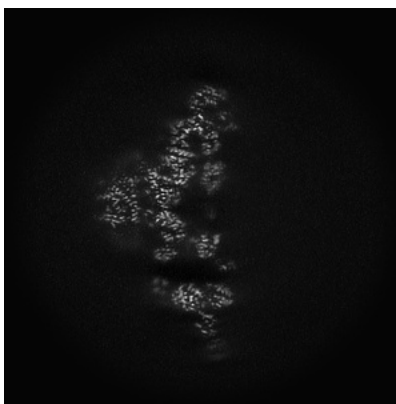
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

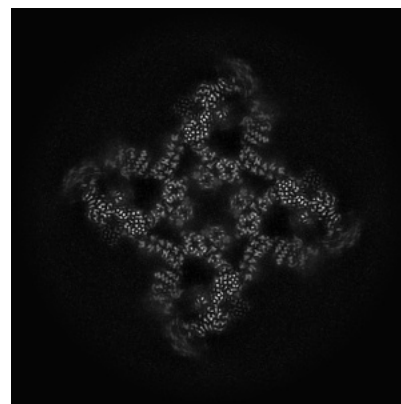
6.3.1 Primary map



X Index: 178



Y Index: 178

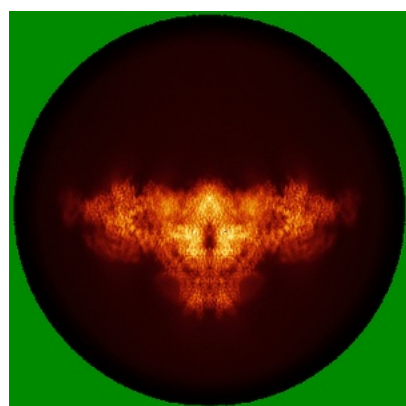


Z Index: 168

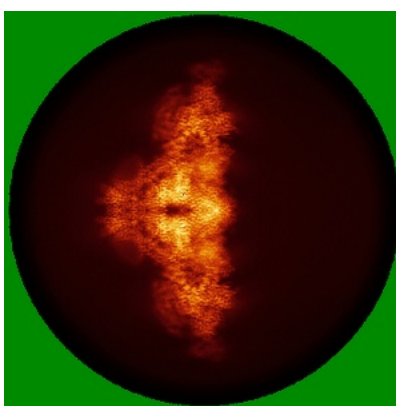
The images above show the largest variance slices of the map in three orthogonal directions.

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

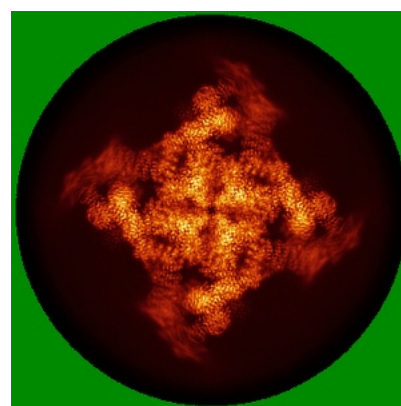
6.4.1 Primary map



X



Y

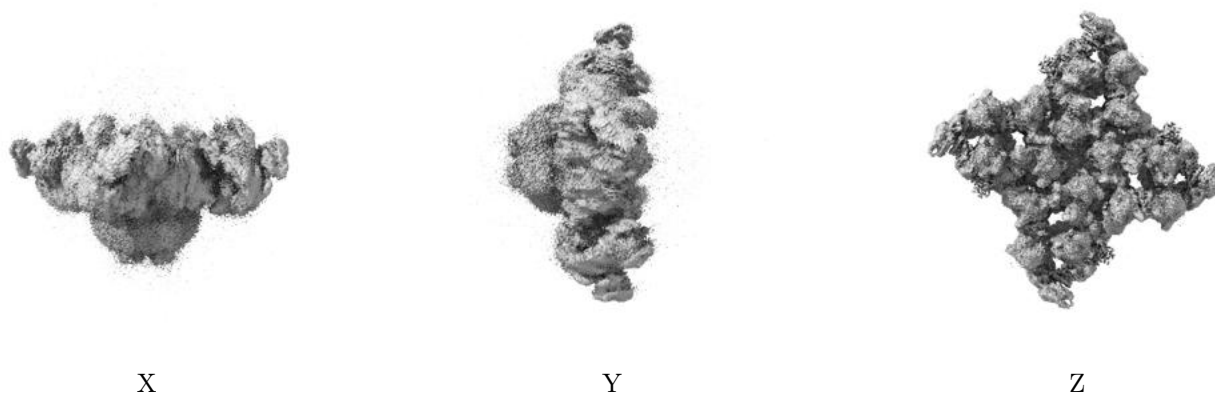


Z

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.

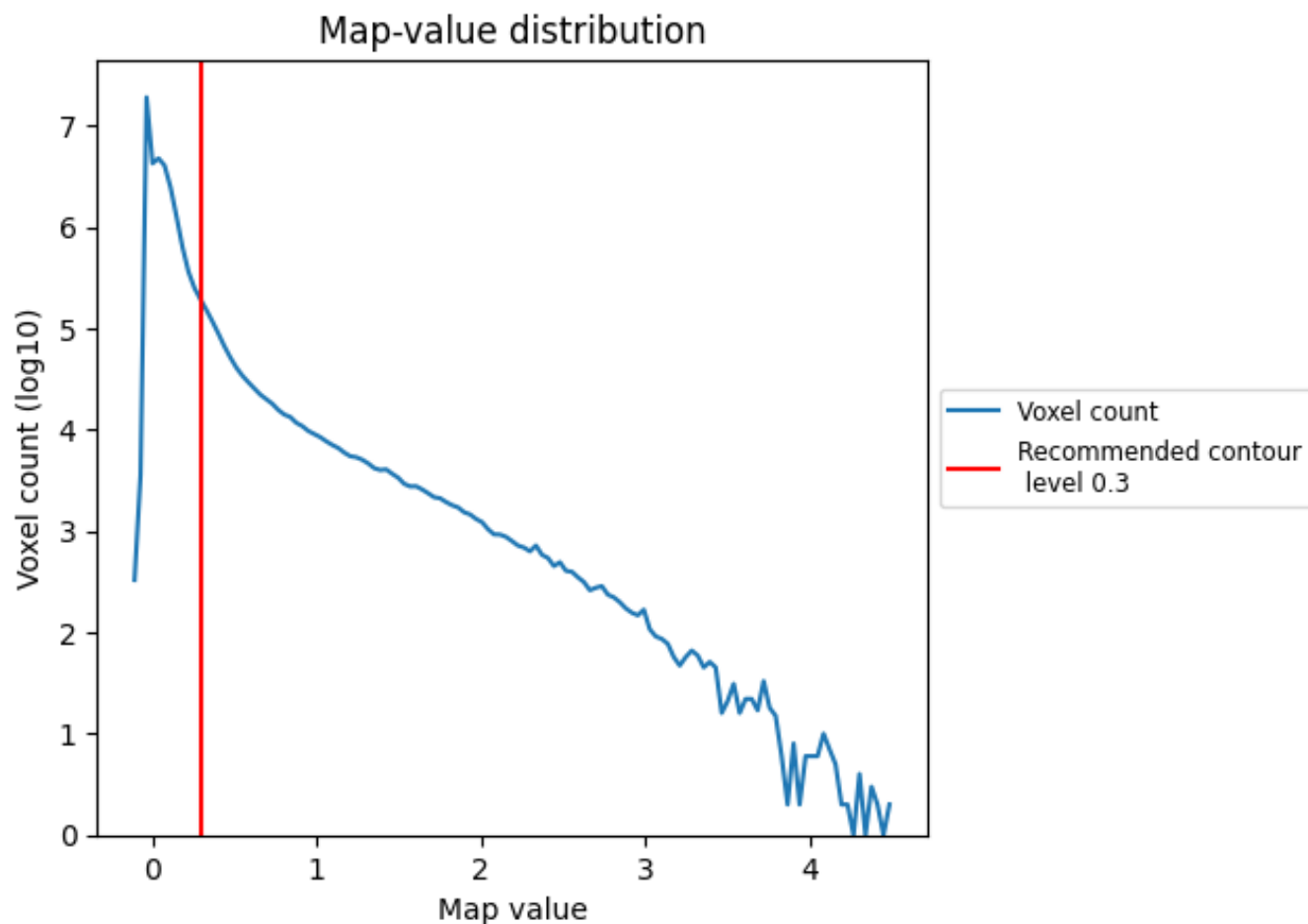
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

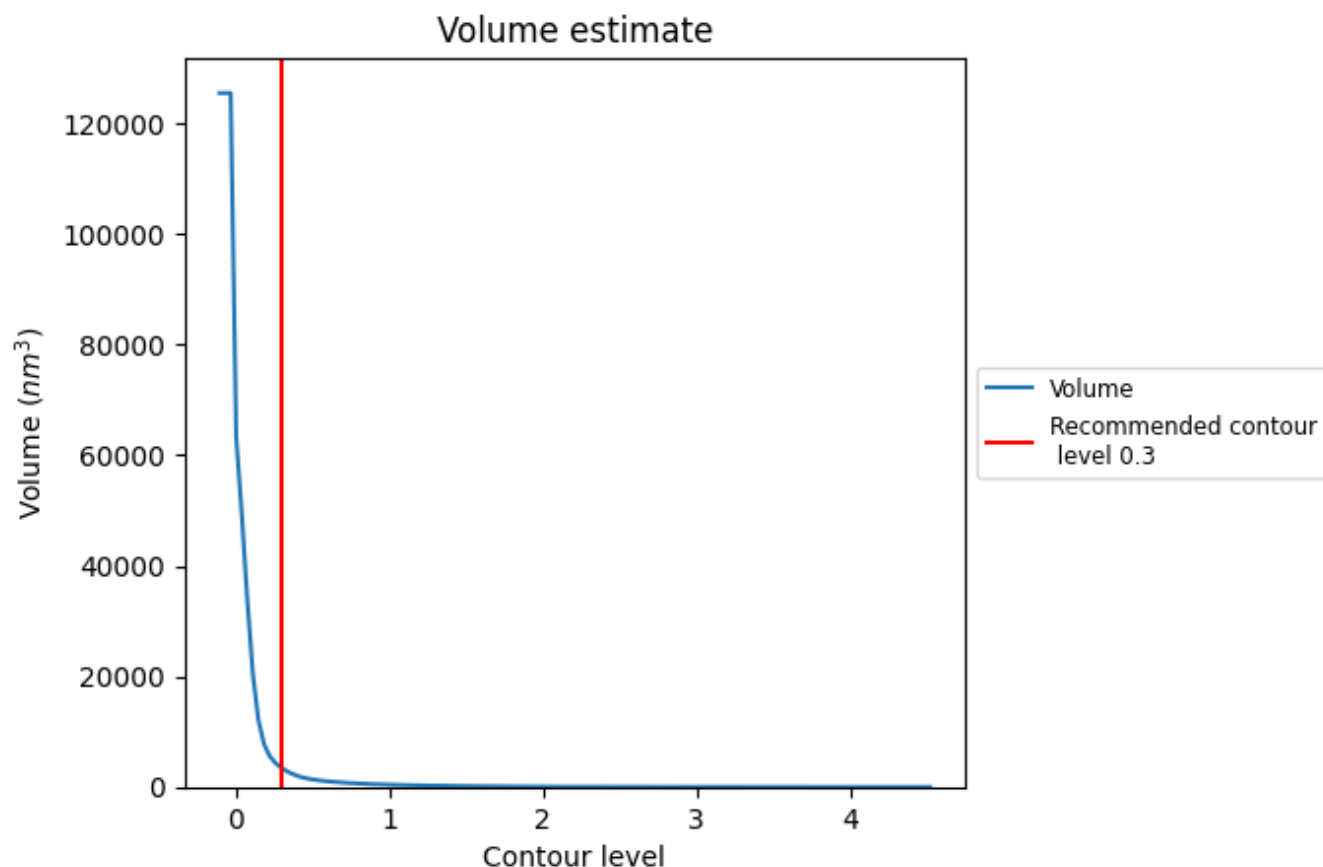
This section contains the results of statistical analysis of the map.

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.

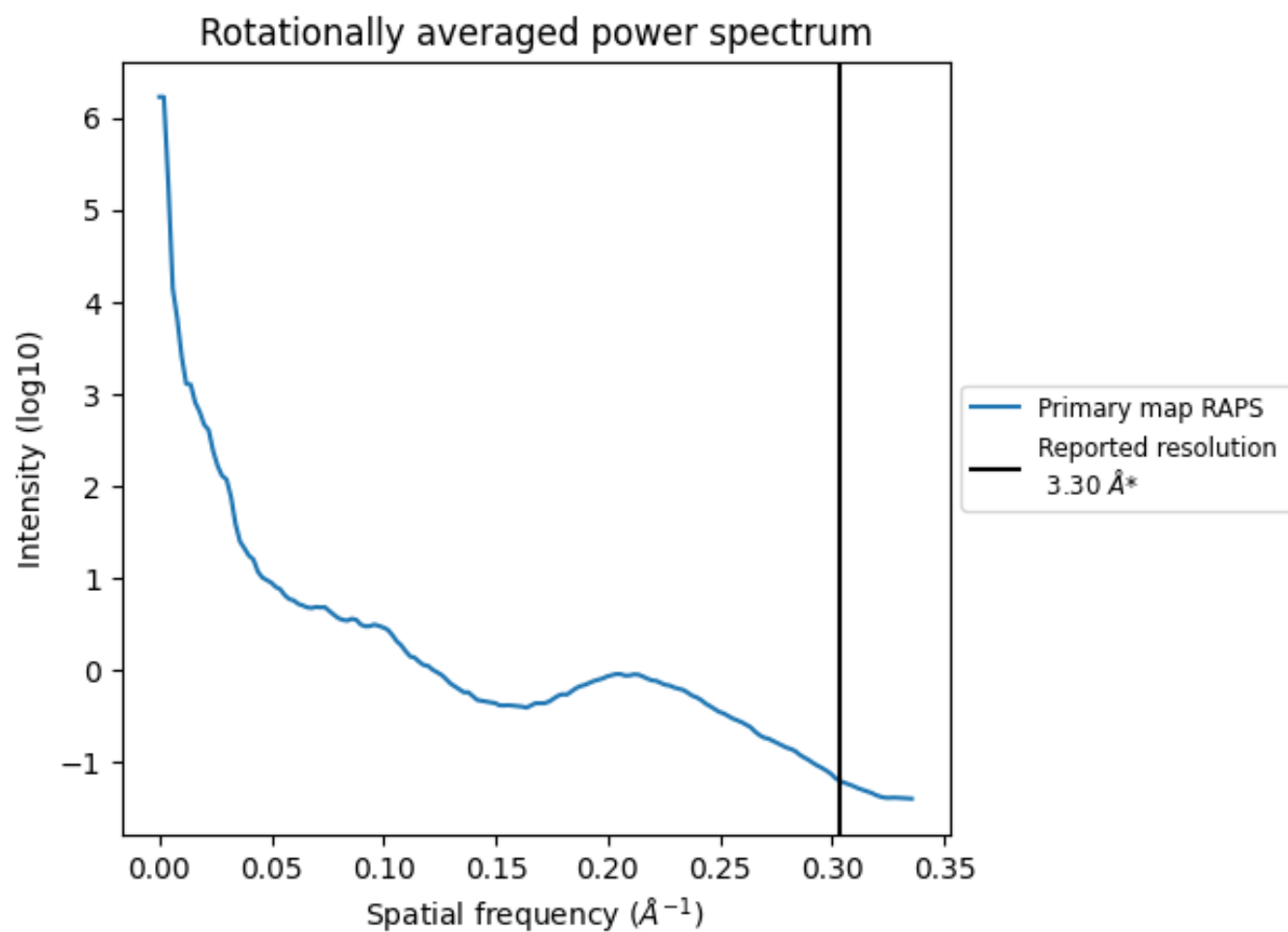
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 3395 nm^3 ; this corresponds to an approximate mass of 3067 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 ⓘ

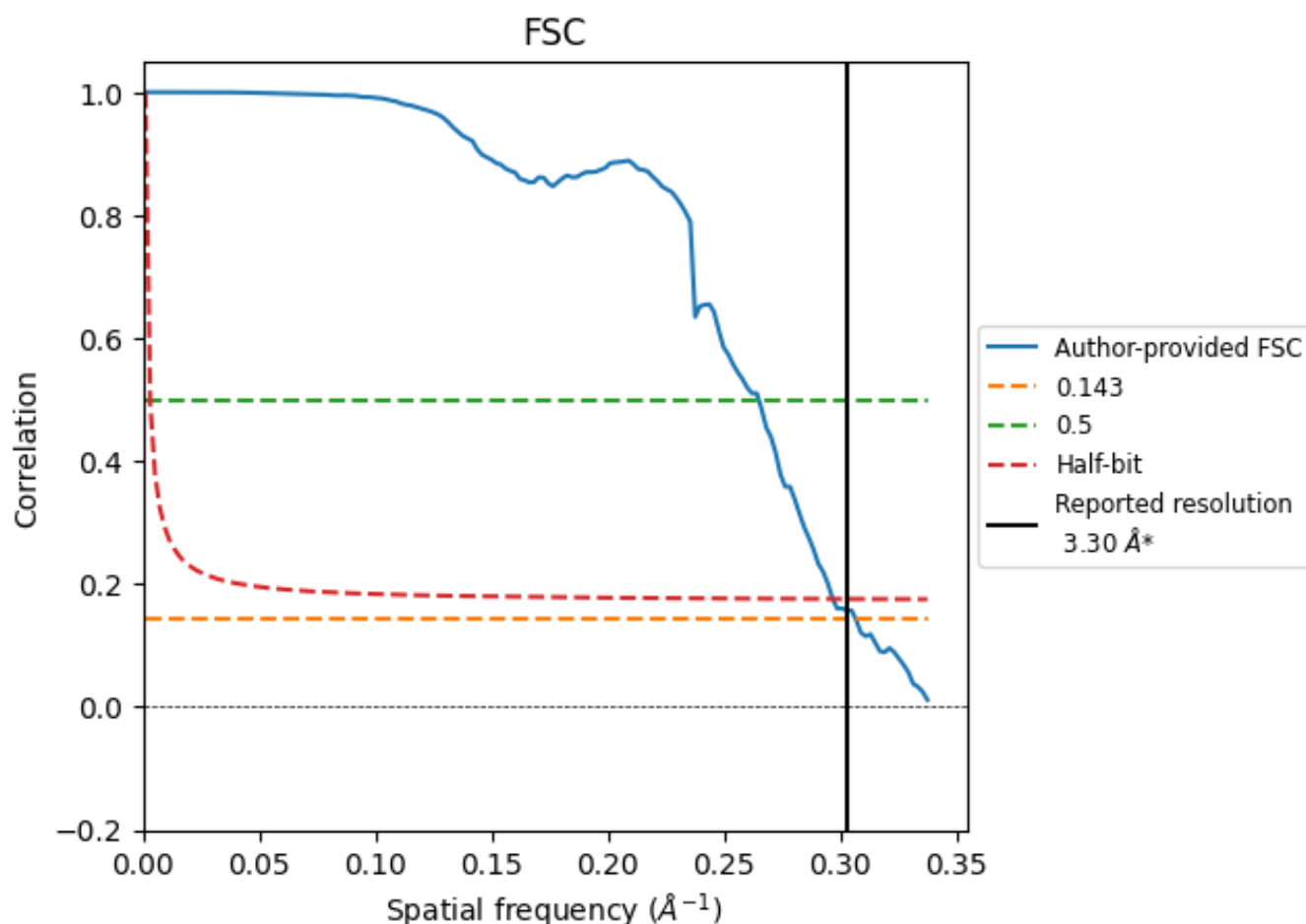


*Reported resolution corresponds to spatial frequency of 0.303 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



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

8.2 Resolution estimates [i](#)

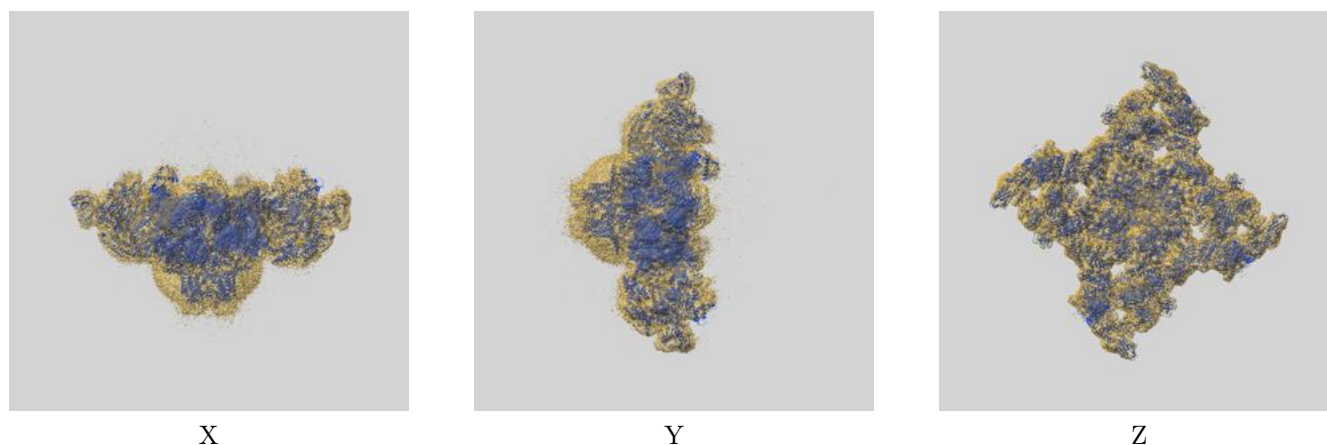
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	3.30	-	-
Author-provided FSC curve	3.26	3.78	3.37
Unmasked-calculated*	-	-	-

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

9 Map-model fit [i](#)

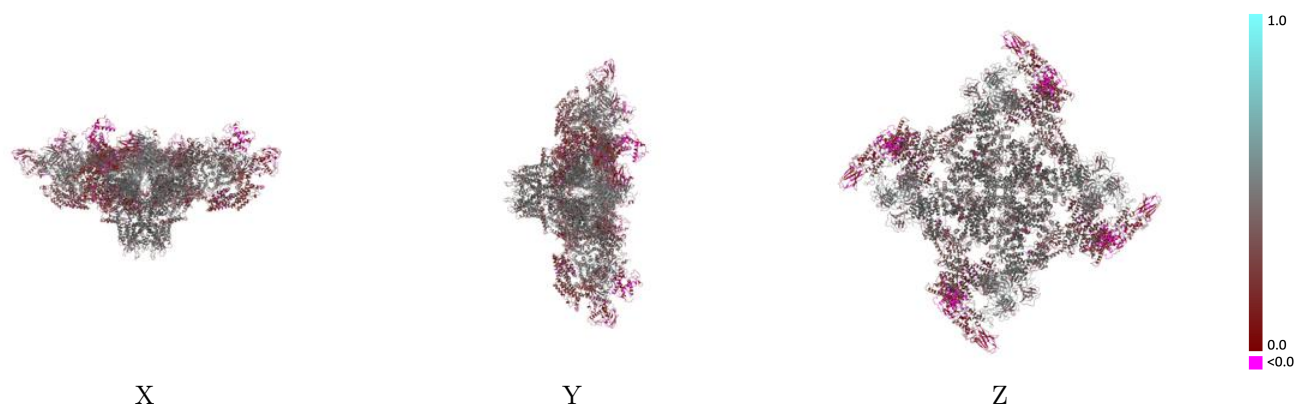
This section contains information regarding the fit between EMDB map EMD-19472 and PDB model 8RS0. Per-residue inclusion information can be found in section [3](#) on page [8](#).

9.1 Map-model overlay [i](#)



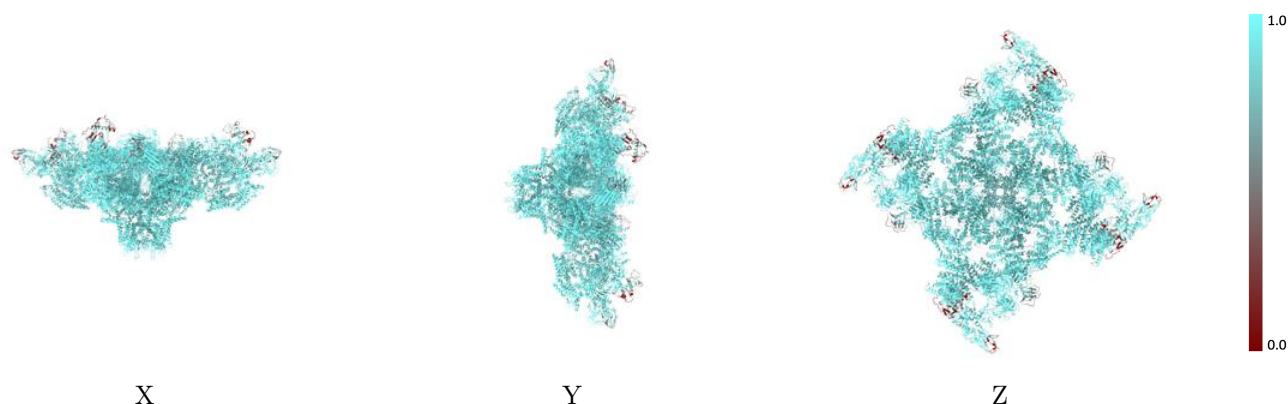
The images above show the 3D surface view of the map at the recommended contour level 0.3 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



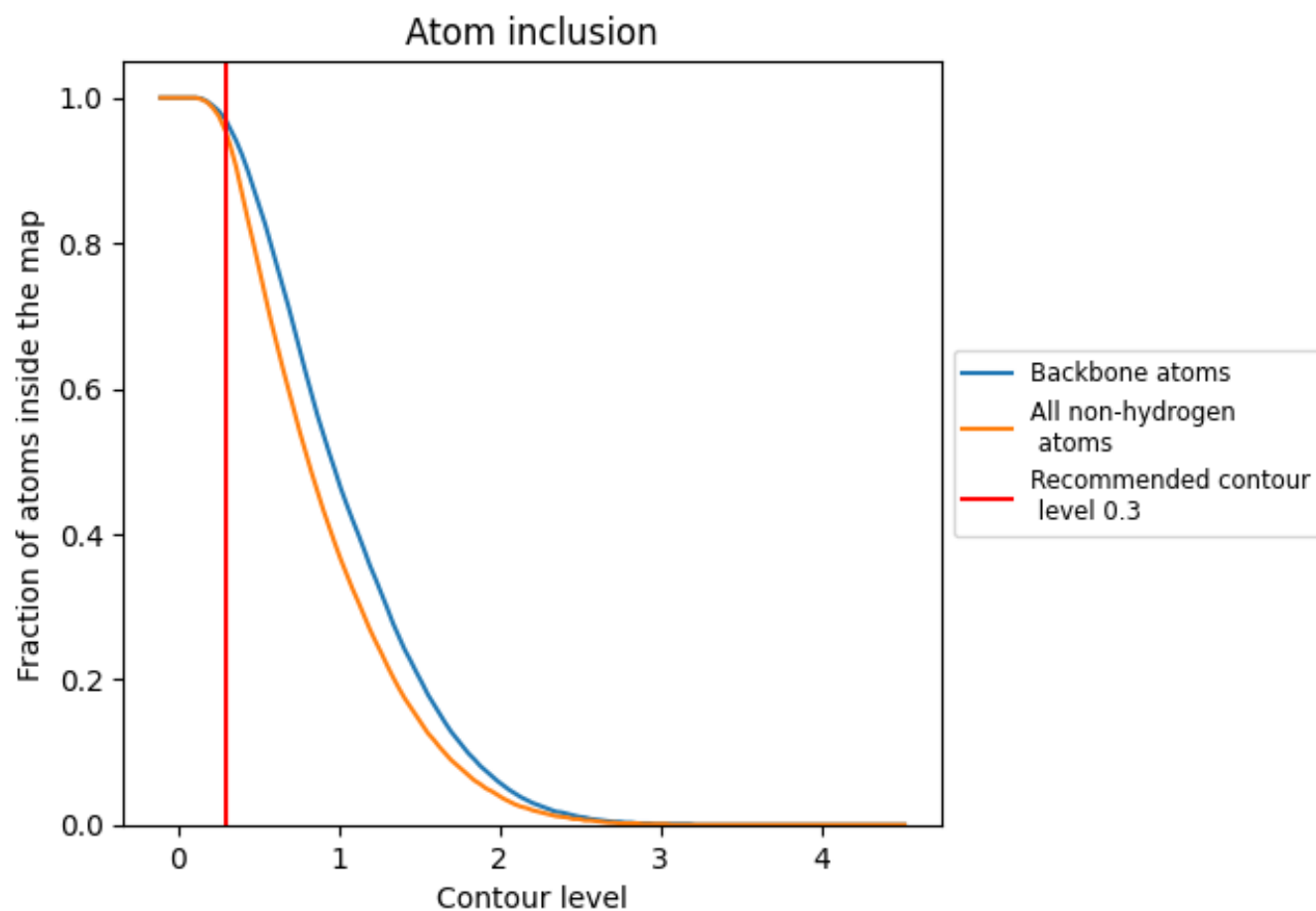
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 ⓘ



At the recommended contour level, 97% of all backbone atoms, 95% 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	0.9530	0.3560
A	0.6870	0.3860
B	0.9670	0.3620
C	0.6930	0.1320
D	0.6890	0.3950
E	0.9670	0.3620
F	0.6880	0.1320
G	0.9670	0.3610
H	0.6880	0.3920
I	0.6850	0.3940
J	0.9670	0.3620
K	0.6880	0.1340
M	0.6910	0.1310

1.0

0.0

<0.0