# Full wwPDB NMR Structure Validation Report (i)

Jun 4, 2023 – 06:57 PM EDT

| | | |
|---|---|---|
| PDB ID | : | 2KVR |
| BMRB ID | : | 16789 |
| Title | : | Solution NMR structure of human ubiquitin specific protease Usp7 UBL domain (residues 537-664). NESG target hr4395c/ SGC-Toronto |
| Authors | : | Bezsonova, I.; Lemak, A.; Avvakumov, G.; Xue, S.; Dhe-Paganon, S.; Montelione, G.T.; Arrowsmith, C.; Northeast Structural Genomics Consortium (NESG); Structural Genomics Consortium (SGC) |
| Deposited on | : | 2010-03-25 |

This is a Full wwPDB NMR Structure 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/NMRValidationReportHelp
with specific help available everywhere you see the (i) symbol.

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

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

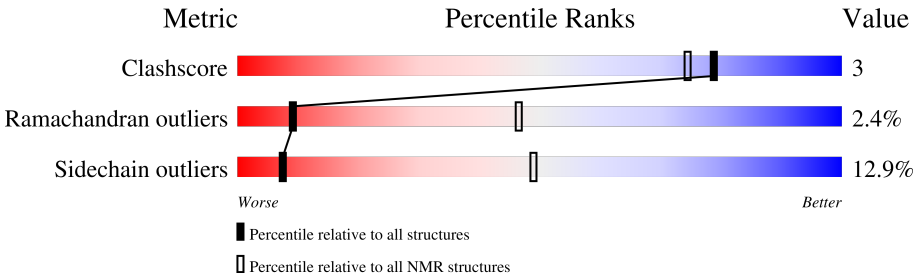
| | | |
|---|---|---|
| MolProbity | : | 4.02b-467 |
| Percentile statistics | : | 20191225.v01 (using entries in the PDB archive December 25th 2019) |
| wwPDB-RCI | : | v_1n_11_5_13_A (Berjanski et al., 2005) |
| PANAV | : | Wang et al. (2010) |
| wwPDB-ShiftChecker | : | v1.2 |
| BMRB Restraints Analysis | : | v1.2 |
| Ideal geometry (proteins) | : | Engh & Huber (2001) |
| Ideal geometry (DNA, RNA) | : | Parkinson et al. (1996) |
| Validation Pipeline (wwPDB-VP) | : | 2.33 |

# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:
*SOLUTION NMR*

The overall completeness of chemical shifts assignment is 87%.

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) | NMR archive (#Entries) |
|---|---|---|
| Clashscore | 158937 | 12864 |
| Ramachandran outliers | 154571 | 11451 |
| Sidechain outliers | 154315 | 11428 |

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

| Mol | Chain | Length | Quality of chain |
|---|---|---|---|
| 1 | A | 130 | 58% 12% • 28% • |

## 2 Ensemble composition and analysis

This entry contains 20 models. Model 11 is the overall representative, medoid model (most similar to other models). The authors have identified model 1 as representative, based on the following criterion: *lowest energy*.

The following residues are included in the computation of the global validation metrics.

| Well-defined (core) protein residues | | | |
|---|---|---|---|
| **Well-defined core** | **Residue range (total)** | **Backbone RMSD (Å)** | **Medoid model** |
| 1 | A:2-A:18, A:26-A:35, A:54-A:89, A:100-A:128 (92) | 0.62 | 11 |

Ill-defined regions of proteins are excluded from the global statistics.

Ligands and non-protein polymers are included in the analysis.

The models can be grouped into 3 clusters. No single-model clusters were found.

| Cluster number | Models |
|---|---|
| 1 | 1, 2, 3, 4, 6, 7, 8, 10, 11, 16, 19, 20 |
| 2 | 5, 9, 12, 13, 14, 15 |
| 3 | 17, 18 |

# 3 Entry composition (i)

There is only 1 type of molecule in this entry. The entry contains 2079 atoms, of which 1026 are hydrogens and 0 are deuteriums.

- Molecule 1 is a protein called Ubiquitin carboxyl-terminal hydrolase 7.

| Mol | Chain | Residues | Atoms | | | | | | Trace |
|---|---|---|---|---|---|---|---|---|---|
| 1 | A | 128 | Total | C | H | N | O | S | 0 |
| | | | 2079 | 654 | 1026 | 185 | 207 | 7 | |

There are 2 discrepancies between the modelled and reference sequences:

| Chain | Residue | Modelled | Actual | Comment | Reference |
|---|---|---|---|---|---|
| A | -1 | GLY | - | expression tag | UNP Q93009 |
| A | 0 | SER | - | expression tag | UNP Q93009 |

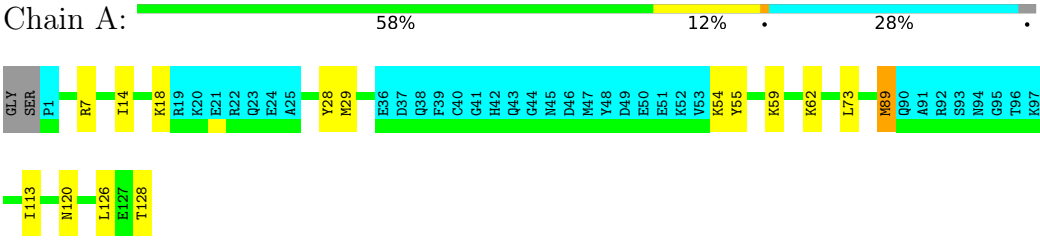
# 4 Residue-property plots

## 4.1 Average score per residue in the NMR ensemble

These plots are provided for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic is the same as shown in the summary in section 1 of this report. The second graphic shows the sequence where residues are colour-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. Stretches of 2 or more consecutive residues without any outliers are shown as green connectors. Residues which are classified as ill-defined in the NMR ensemble, are shown in cyan with an underline colour-coded according to the previous scheme. Residues which were present in the experimental sample, but not modelled in the final structure are shown in grey.

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7

Chain A:



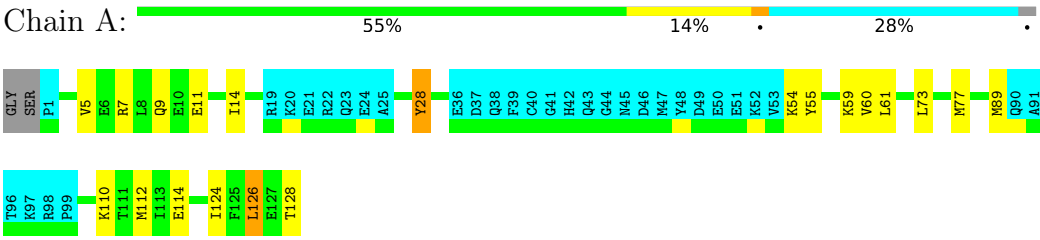

## 4.2 Scores per residue for each member of the ensemble

Colouring as in section 4.1 above.

### 4.2.1 Score per residue for model 1

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7

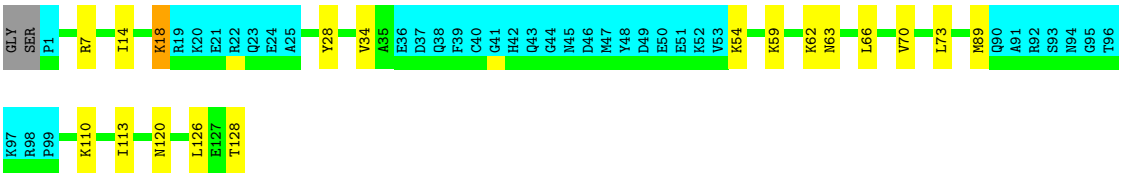
Chain A:




### 4.2.2 Score per residue for model 2

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7

Chain A:

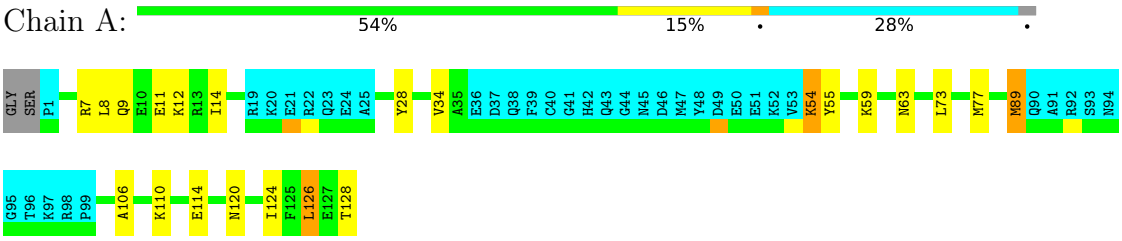



### 4.2.3 Score per residue for model 3

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7

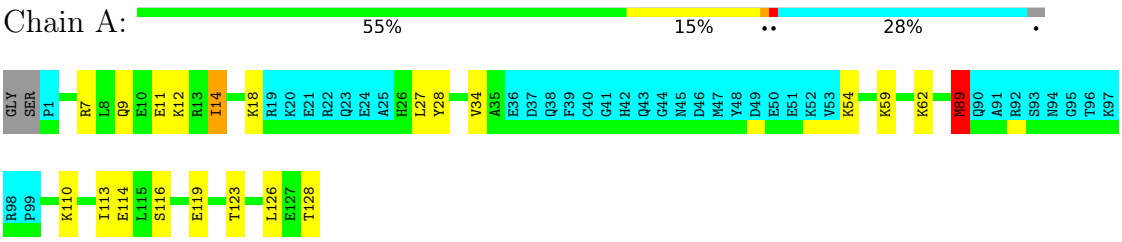

### 4.2.4 Score per residue for model 4

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7



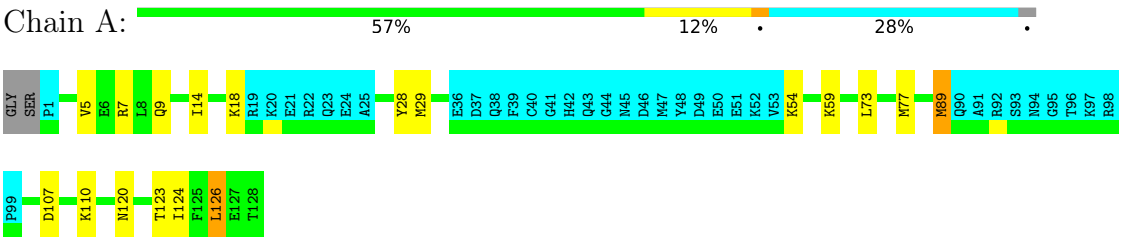

### 4.2.5 Score per residue for model 5

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7



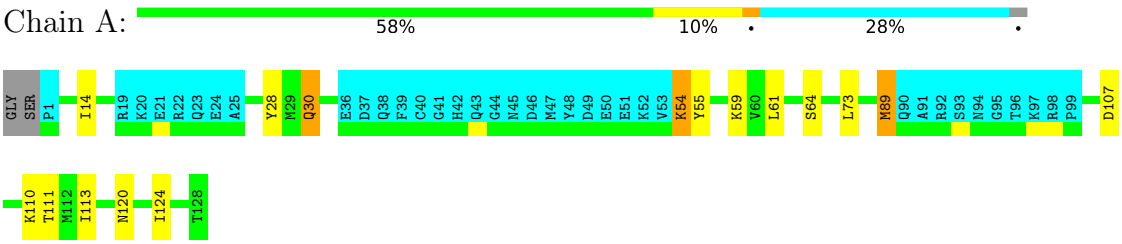

### 4.2.6 Score per residue for model 6

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7



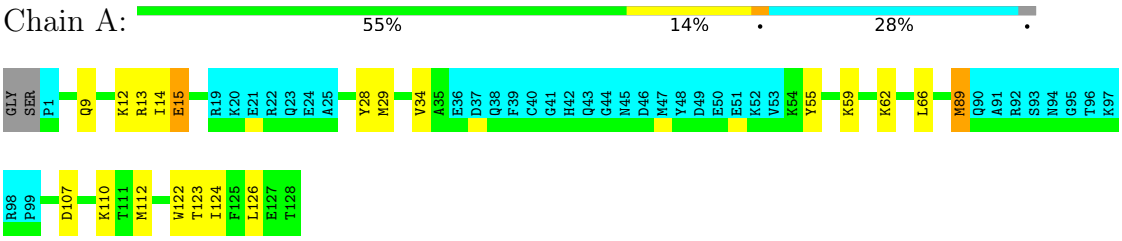

### 4.2.7 Score per residue for model 7

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7




### 4.2.8 Score per residue for model 8

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7



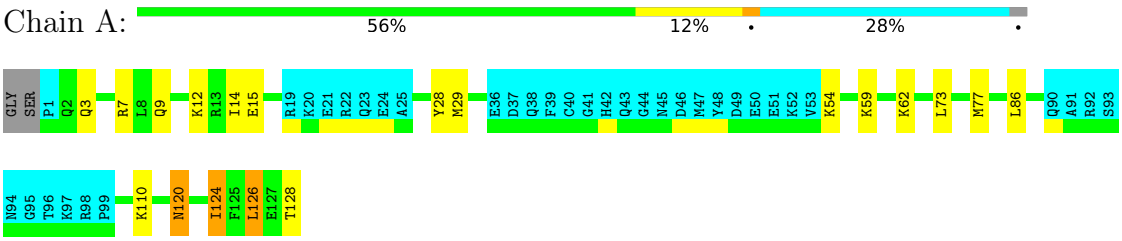

### 4.2.9 Score per residue for model 9

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7

### 4.2.10 Score per residue for model 10

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7

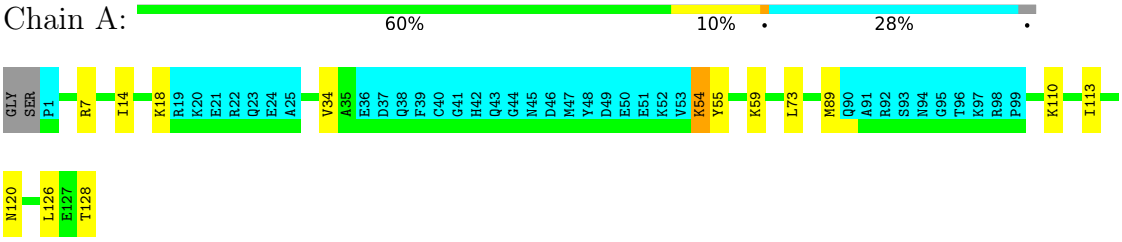
Chain A:




### 4.2.11 Score per residue for model 11 (medoid)

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7

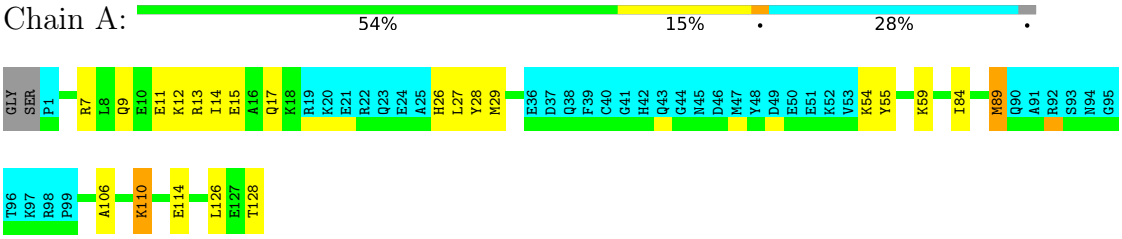
Chain A:




### 4.2.12 Score per residue for model 12

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7

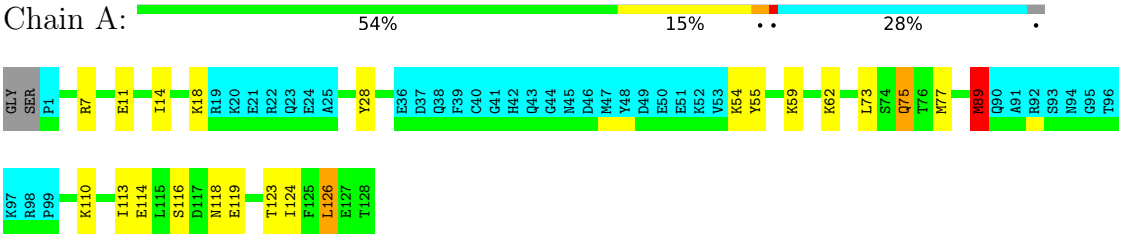
Chain A:




### 4.2.13 Score per residue for model 13

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7

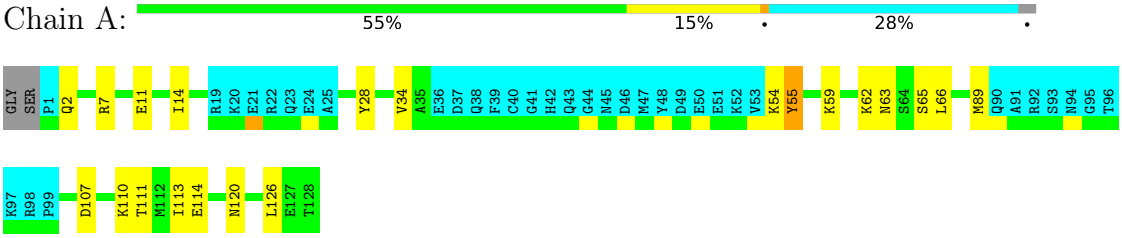
Chain A:



### 4.2.14 Score per residue for model 14

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7

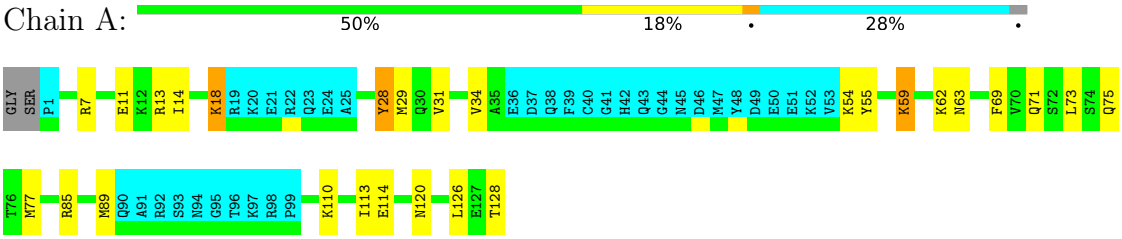
Chain A:




### 4.2.15 Score per residue for model 15

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7

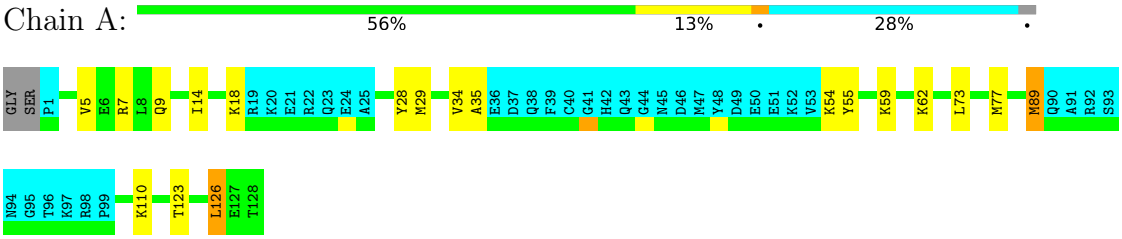
Chain A:




### 4.2.16 Score per residue for model 16

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7

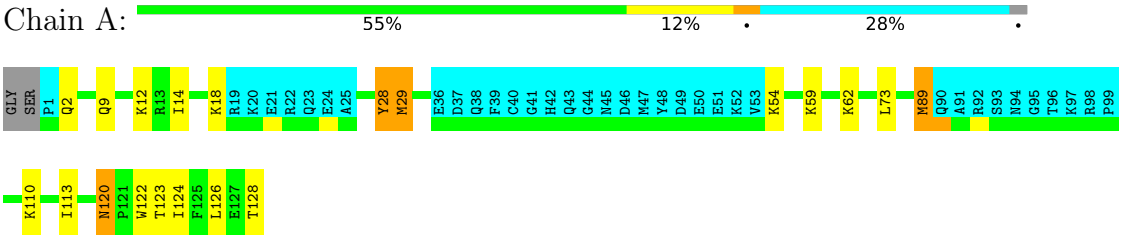
Chain A:




### 4.2.17 Score per residue for model 17

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7

Chain A:



### 4.2.18 Score per residue for model 18

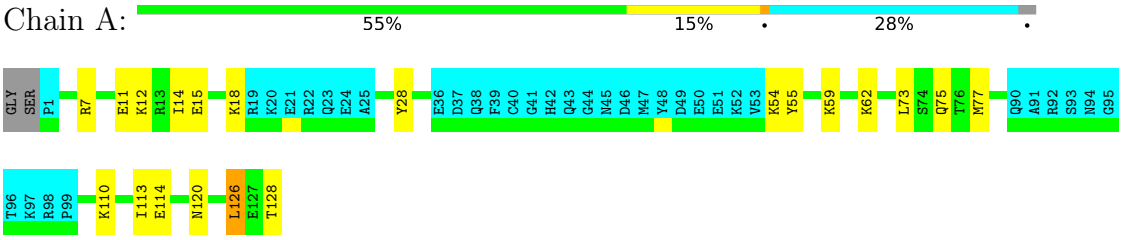
• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7

Chain A:


### 4.2.19 Score per residue for model 19

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7

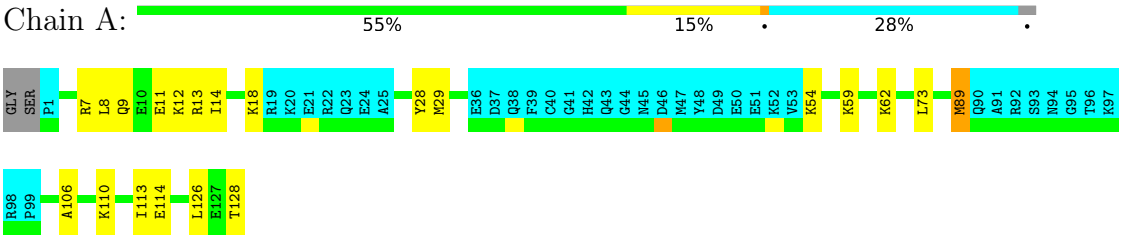
Chain A:




### 4.2.20 Score per residue for model 20

• Molecule 1: Ubiquitin carboxyl-terminal hydrolase 7

Chain A:



# 5 Refinement protocol and experimental data overview

The models were refined using the following method: *simulated annealing*.

Of the 20 calculated structures, 20 were deposited, based on the following criterion: *all calculated structures submitted*.

The following table shows the software used for structure solution, optimisation and refinement.

| Software name | Classification | Version |
|---|---|---|
| CYANA | structure solution | 2.1 |
| CYANA | refinement | 2.1 |

The following table shows chemical shift validation statistics as aggregates over all chemical shift files. Detailed validation can be found in section 7 of this report.

| Chemical shift file(s) | working_cs.cif |
|---|---|
| Number of chemical shift lists | 1 |
| Total number of shifts | 1513 |
| Number of shifts mapped to atoms | 1513 |
| Number of unparsed shifts | 0 |
| Number of shifts with mapping errors | 0 |
| Number of shifts with mapping warnings | 0 |
| Assignment completeness (well-defined parts) | 87% |

# 6 Model quality

## 6.1 Standard geometry

There are no covalent bond-length or bond-angle outliers.

There are no bond-length outliers.

There are no bond-angle outliers.

There are no chirality outliers.

There are no planarity outliers.

## 6.2 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 each 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 averaged over the ensemble.

| Mol | Chain | Non-H | H(model) | H(added) | Clashes |
|---|---|---|---|---|---|
| 1 | A | 758 | 755 | 754 | 4±2 |
| All | All | 15160 | 15100 | 15080 | 85 |

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 3.

All unique clashes are listed below, sorted by their clash magnitude.

| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|---|---|---|---|---|---|
| | | | | Worst | Total |
| 1:A:11:GLU:HB3 | 1:A:114:GLU:HB3 | 0.67 | 1.67 | 19 | 9 |
| 1:A:35:ALA:HB3 | 1:A:77:MET:SD | 0.64 | 2.32 | 16 | 1 |
| 1:A:9:GLN:HA | 1:A:12:LYS:HB3 | 0.57 | 1.76 | 20 | 4 |
| 1:A:27:LEU:HB3 | 1:A:62:LYS:HG2 | 0.56 | 1.76 | 5 | 1 |
| 1:A:29:MET:HB2 | 1:A:62:LYS:HE2 | 0.53 | 1.80 | 17 | 3 |
| 1:A:66:LEU:HG | 1:A:107:ASP:HB2 | 0.52 | 1.80 | 8 | 2 |
| 1:A:89:MET:SD | 1:A:123:THR:HB | 0.51 | 2.45 | 6 | 6 |
| 1:A:28:TYR:HB3 | 1:A:59:LYS:HB2 | 0.50 | 1.82 | 15 | 1 |
| 1:A:62:LYS:HD3 | 1:A:113:ILE:HD13 | 0.49 | 1.84 | 13 | 6 |
| 1:A:30:GLN:N | 1:A:30:GLN:HE21 | 0.48 | 2.07 | 7 | 1 |
| 1:A:15:GLU:HA | 1:A:18:LYS:HB3 | 0.47 | 1.87 | 19 | 1 |
| 1:A:77:MET:SD | 1:A:126:LEU:HD12 | 0.46 | 2.50 | 16 | 8 |
| 1:A:5:VAL:O | 1:A:9:GLN:HG2 | 0.46 | 2.10 | 6 | 2 |
| 1:A:29:MET:HG2 | 1:A:120:ASN:HB3 | 0.46 | 1.87 | 10 | 1 |

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| Atom-1 | Atom-2 | Clash(Å) | Distance(Å) | Models | |
|---|---|---|---|---|---|
| | | | | Worst | Total |
| 1:A:65:SER:HA | 1:A:111:THR:HA | 0.45 | 1.86 | 14 | 1 |
| 1:A:106:ALA:O | 1:A:110:LYS:HG3 | 0.45 | 2.12 | 12 | 1 |
| 1:A:29:MET:HB3 | 1:A:62:LYS:HE3 | 0.44 | 1.89 | 9 | 2 |
| 1:A:9:GLN:HA | 1:A:12:LYS:HG2 | 0.44 | 1.90 | 10 | 3 |
| 1:A:29:MET:HG3 | 1:A:120:ASN:HB3 | 0.44 | 1.90 | 17 | 1 |
| 1:A:89:MET:SD | 1:A:123:THR:O | 0.44 | 2.76 | 18 | 1 |
| 1:A:122:TRP:CH2 | 1:A:124:ILE:HD12 | 0.43 | 2.48 | 17 | 2 |
| 1:A:71:GLN:O | 1:A:75:GLN:HG2 | 0.42 | 2.15 | 15 | 1 |
| 1:A:5:VAL:HG22 | 1:A:9:GLN:HE21 | 0.42 | 1.73 | 1 | 1 |
| 1:A:66:LEU:HD13 | 1:A:70:VAL:HG23 | 0.42 | 1.92 | 2 | 1 |
| 1:A:18:LYS:HG2 | 1:A:113:ILE:HG21 | 0.42 | 1.91 | 11 | 3 |
| 1:A:54:LYS:N | 1:A:54:LYS:HD2 | 0.42 | 2.29 | 13 | 1 |
| 1:A:60:VAL:HG23 | 1:A:112:MET:SD | 0.42 | 2.55 | 1 | 1 |
| 1:A:86:LEU:HB3 | 1:A:124:ILE:HD13 | 0.42 | 1.91 | 10 | 1 |
| 1:A:29:MET:HB3 | 1:A:62:LYS:NZ | 0.42 | 2.30 | 16 | 2 |
| 1:A:31:VAL:HG11 | 1:A:69:PHE:CE1 | 0.42 | 2.50 | 15 | 1 |
| 1:A:8:LEU:HD12 | 1:A:106:ALA:HA | 0.42 | 1.92 | 20 | 2 |
| 1:A:59:LYS:N | 1:A:59:LYS:HD3 | 0.42 | 2.30 | 9 | 1 |
| 1:A:18:LYS:HD2 | 1:A:63:ASN:HB3 | 0.41 | 1.91 | 2 | 1 |
| 1:A:30:GLN:O | 1:A:121:PRO:HA | 0.41 | 2.14 | 9 | 1 |
| 1:A:116:SER:O | 1:A:119:GLU:HG2 | 0.41 | 2.16 | 5 | 3 |
| 1:A:61:LEU:HB2 | 1:A:64:SER:HB2 | 0.41 | 1.93 | 7 | 1 |
| 1:A:30:GLN:HB3 | 1:A:57:VAL:HG13 | 0.41 | 1.93 | 3 | 1 |
| 1:A:11:GLU:O | 1:A:14:ILE:HD12 | 0.41 | 2.15 | 5 | 1 |
| 1:A:12:LYS:O | 1:A:15:GLU:HG3 | 0.41 | 2.16 | 8 | 1 |
| 1:A:18:LYS:HE2 | 1:A:113:ILE:HG12 | 0.41 | 1.92 | 15 | 1 |
| 1:A:62:LYS:HA | 1:A:112:MET:HG3 | 0.41 | 1.92 | 8 | 1 |
| 1:A:111:THR:OG1 | 1:A:113:ILE:HG22 | 0.40 | 2.16 | 7 | 1 |
| 1:A:75:GLN:HE21 | 1:A:75:GLN:HA | 0.40 | 1.77 | 13 | 1 |

## 6.3 Torsion angles (i)

### 6.3.1 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 NMR 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 | 91/130 (70%) | 82±2 (90±2%) | 7±2 (8±2%) | 2±1 (2±1%) | 9 46 |

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| Mol | Chain | Analysed | Favoured | Allowed | Outliers | Percentiles |
|---|---|---|---|---|---|---|
| All | All | 1820/2600 (70%) | 1639 (90%) | 137 (8%) | 44 (2%) | 9 46 |

All 8 unique Ramachandran outliers are listed below. They are sorted by the frequency of occurrence in the ensemble.

| Mol | Chain | Res | Type | Models (Total) |
|---|---|---|---|---|
| 1 | A | 28 | TYR | 19 |
| 1 | A | 55 | TYR | 9 |
| 1 | A | 89 | MET | 7 |
| 1 | A | 54 | LYS | 5 |
| 1 | A | 17 | GLN | 1 |
| 1 | A | 26 | HIS | 1 |
| 1 | A | 84 | ILE | 1 |
| 1 | A | 29 | MET | 1 |

### 6.3.2 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 NMR 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 | 85/117 (73%) | 74±1 (87±1%) | 11±1 (13±1%) | 7 49 |
| All | All | 1700/2340 (73%) | 1480 (87%) | 220 (13%) | 7 49 |

All 29 unique residues with a non-rotameric sidechain are listed below. They are sorted by the frequency of occurrence in the ensemble.

| Mol | Chain | Res | Type | Models (Total) |
|---|---|---|---|---|
| 1 | A | 14 | ILE | 20 |
| 1 | A | 59 | LYS | 20 |
| 1 | A | 110 | LYS | 20 |
| 1 | A | 7 | ARG | 17 |
| 1 | A | 89 | MET | 17 |
| 1 | A | 126 | LEU | 17 |
| 1 | A | 73 | LEU | 15 |
| 1 | A | 54 | LYS | 14 |
| 1 | A | 128 | THR | 14 |
| 1 | A | 34 | VAL | 10 |
| 1 | A | 120 | ASN | 10 |

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| Mol | Chain | Res | Type | Models (Total) |
|---|---|---|---|---|
| 1 | A | 18 | LYS | 8 |
| 1 | A | 124 | ILE | 6 |
| 1 | A | 13 | ARG | 5 |
| 1 | A | 107 | ASP | 3 |
| 1 | A | 29 | MET | 3 |
| 1 | A | 30 | GLN | 3 |
| 1 | A | 55 | TYR | 3 |
| 1 | A | 28 | TYR | 2 |
| 1 | A | 3 | GLN | 2 |
| 1 | A | 75 | GLN | 2 |
| 1 | A | 2 | GLN | 2 |
| 1 | A | 15 | GLU | 1 |
| 1 | A | 56 | THR | 1 |
| 1 | A | 103 | ASP | 1 |
| 1 | A | 105 | GLU | 1 |
| 1 | A | 118 | ASN | 1 |
| 1 | A | 85 | ARG | 1 |
| 1 | A | 12 | LYS | 1 |

### 6.3.3 RNA

There are no RNA molecules in this entry.

## 6.4 Non-standard residues in protein, DNA, RNA chains

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

## 6.5 Carbohydrates

There are no monosaccharides in this entry.

## 6.6 Ligand geometry

There are no ligands in this entry.

## 6.7 Other polymers

There are no such molecules in this entry.

## 6.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

# 7 Chemical shift validation

The completeness of assignment taking into account all chemical shift lists is 87% for the well-defined parts and 84% for the entire structure.

## 7.1 Chemical shift list 1

File name: working_cs.cif

Chemical shift list name: *assigned_chem_shift_list_1*

### 7.1.1 Bookkeeping

The following table shows the results of parsing the chemical shift list and reports the number of nuclei with statistically unusual chemical shifts.

| | |
|---|---|
| Total number of shifts | 1513 |
| Number of shifts mapped to atoms | 1513 |
| Number of unparsed shifts | 0 |
| Number of shifts with mapping errors | 0 |
| Number of shifts with mapping warnings | 0 |
| Number of shift outliers (ShiftChecker) | 3 |

### 7.1.2 Chemical shift referencing

The following table shows the suggested chemical shift referencing corrections.

| Nucleus | # values | Correction ± precision, *ppm* | Suggested action |
|---|---|---|---|
| $^{13}C_{\alpha}$ | 124 | 0.01 ± 0.15 | None needed (< 0.5 ppm) |
| $^{13}C_{\beta}$ | 119 | 0.17 ± 0.09 | None needed (< 0.5 ppm) |
| $^{13}C'$ | 103 | -0.09 ± 0.10 | None needed (< 0.5 ppm) |
| $^{15}N$ | 109 | -0.84 ± 0.25 | Should be applied |

### 7.1.3 Completeness of resonance assignments

The following table shows the completeness of the chemical shift assignments for the well-defined regions of the structure. The overall completeness is 87%, i.e. 1147 atoms were assigned a chemical shift out of a possible 1316. 0 out of 16 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

| | Total | $^{1}H$ | $^{13}C$ | $^{15}N$ |
|---|---|---|---|---|
| Backbone | 417/456 (91%) | 171/183 (93%) | 167/184 (91%) | 79/89 (89%) |
| Sidechain | 669/770 (87%) | 457/498 (92%) | 203/242 (84%) | 9/30 (30%) |

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| | Total | $^{1}$H | $^{13}$C | $^{15}$N |
|---|---|---|---|---|
| Aromatic | 61/90 (68%) | 32/44 (73%) | 27/42 (64%) | 2/4 (50%) |
| Overall | 1147/1316 (87%) | 660/725 (91%) | 397/468 (85%) | 90/123 (73%) |

The following table shows the completeness of the chemical shift assignments for the full structure. The overall completeness is 84%, i.e. 1513 atoms were assigned a chemical shift out of a possible 1801. 0 out of 17 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

| | Total | $^{1}$H | $^{13}$C | $^{15}$N |
|---|---|---|---|---|
| Backbone | 574/635 (90%) | 238/256 (93%) | 227/256 (89%) | 109/123 (89%) |
| Sidechain | 865/1049 (82%) | 589/670 (88%) | 264/328 (80%) | 12/51 (24%) |
| Aromatic | 74/117 (63%) | 39/57 (68%) | 33/54 (61%) | 2/6 (33%) |
| Overall | 1513/1801 (84%) | 866/983 (88%) | 524/638 (82%) | 123/180 (68%) |

### 7.1.4 Statistically unusual chemical shifts (i)

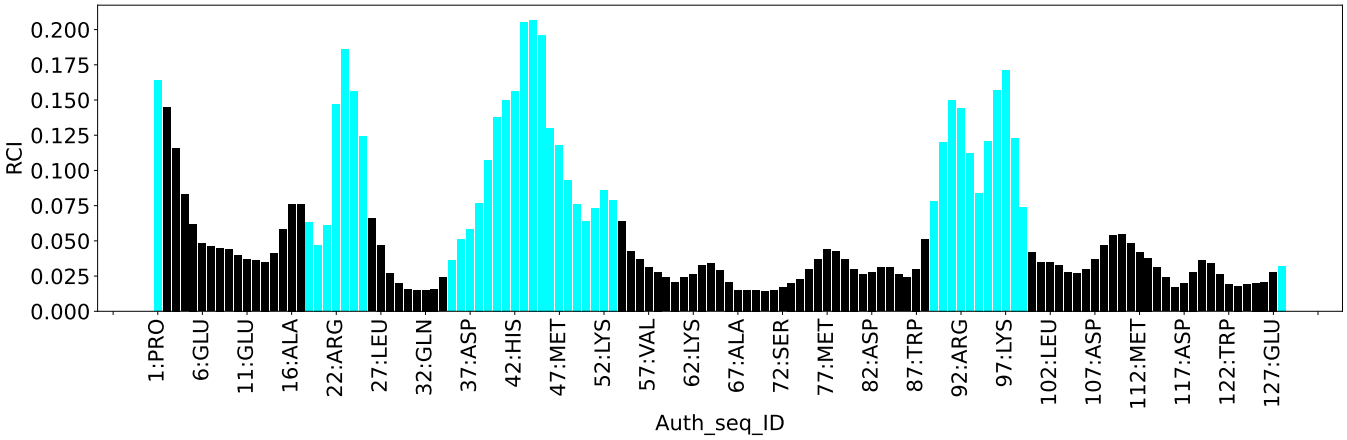
The following table lists the statistically unusual chemical shifts. These are statistical measures, and large deviations from the mean do not necessarily imply incorrect assignments. Molecules containing paramagnetic centres or hemes are expected to give rise to anomalous chemical shifts.

| List Id | Chain | Res | Type | Atom | Shift, *ppm* | Expected range, *ppm* | Z-score |
|---|---|---|---|---|---|---|---|
| 1 | A | 116 | SER | HB3 | 2.39 | 2.49 – 5.20 | -5.4 |
| 1 | A | 116 | SER | HA | 2.38 | 2.50 – 6.44 | -5.3 |
| 1 | A | 101 | MET | HB3 | 0.27 | 0.33 – 3.66 | -5.2 |

### 7.1.5 Random Coil Index (RCI) plots (i)

The image below reports *random coil index* values for the protein chains in the structure. The height of each bar gives a probability of a given residue to be disordered, as predicted from the available chemical shifts and the amino acid sequence. A value above 0.2 is an indication of significant predicted disorder. The colour of the bar shows whether the residue is in the well-defined core (black) or in the ill-defined residue ranges (cyan), as described in section 2 on ensemble composition.If well-defined core and ill-defined regions are not identified then it is shown as gray bars.

Random coil index (RCI) for chain A:


RCI
0.200
0.175
0.150
0.125
0.100
0.075
0.050
0.025
0.000
1:PRO
6:GLU
11:GLU
16:ALA
22:ARG
27:LEU
32:GLN
37:ASP
42:HIS
47:MET
52:LYS
57:VAL
62:LYS
67:ALA
72:SER
77:MET
82:ASP
87:TRP
92:ARG
97:LYS
102:LEU
107:ASP
112:MET
117:ASP
122:TRP
127:GLU
Auth_seq_ID

# 8 NMR restraints analysis

## 8.1 Conformationally restricting restraints

The following table provides the summary of experimentally observed NMR restraints in different categories. Restraints are classified into different categories based on the sequence separation of the atoms involved.

| Description | Value |
|---|---|
| Total distance restraints | 3105 |
| Intra-residue (\|i-j\|=0) | 655 |
| Sequential (\|i-j\|=1) | 703 |
| Medium range (\|i-j\|>1 and \|i-j\|<5) | 576 |
| Long range (\|i-j\|≥5) | 1107 |
| Inter-chain | 0 |
| Hydrogen bond restraints | 64 |
| Disulfide bond restraints | 0 |
| Total dihedral-angle restraints | 187 |
| Number of unmapped restraints | 0 |
| Number of restraints per residue | 25.3 |
| Number of long range restraints per residue[1] | 8.8 |

[1]Long range hydrogen bonds and disulfide bonds are counted as long range restraints while calculating the number of long range restraints per residue

## 8.2 Residual restraint violations

This section provides the overview of the restraint violations analysis. The violations are binned as small, medium and large violations based on its absolute value. Average number of violations per model is calculated by dividing the total number of violations in each bin by the size of the ensemble.

### 8.2.1 Average number of distance violations per model

Distance violations less than 0.1 Å are not included in the calculation.

| Bins (Å) | Average number of violations per model | Max (Å) |
|---|---|---|
| 0.1-0.2 (Small) | 31.9 | 0.2 |
| 0.2-0.5 (Medium) | 14.1 | 0.5 |
| >0.5 (Large) | 37.8 | 4.01 |

### 8.2.2 Average number of dihedral-angle violations per model (i)

Dihedral-angle violations less than 1° are not included in the calculation.

| Bins (°) | Average number of violations per model | Max (°) |
|---|---|---|
| 1.0-10.0 (Small) | 13.6 | 6.3 |
| 10.0-20.0 (Medium) | 0.2 | 19.9 |
| >20.0 (Large) | 0.8 | 25.6 |

# 9 Distance violation analysis (i)

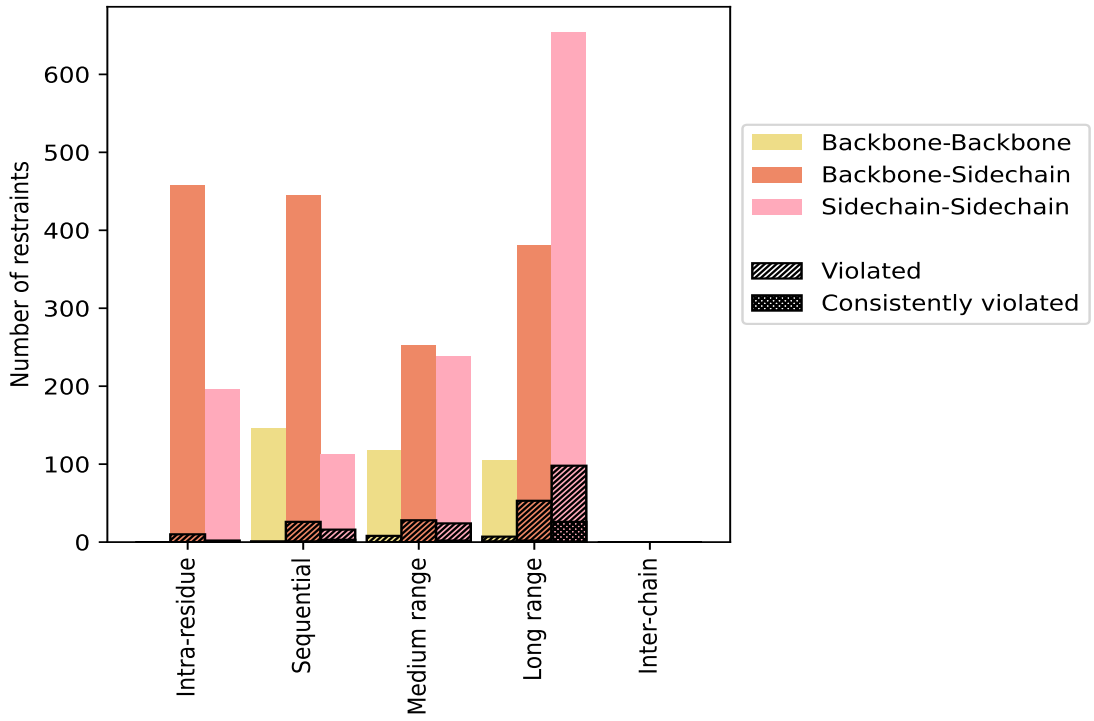
## 9.1 Summary of distance violations (i)

The following table shows the summary of distance violations in different restraint categories based on the sequence separation of the atoms involved. Each category is further sub-divided into three sub-categories based on the atoms involved. Violations less than 0.1 Å are not included in the statistics.

| Restraints type | Count | %[1] | Violated[3] | | | Consistently Violated[4] | | |
|---|---|---|---|---|---|---|---|---|
| | | | Count | %[2] | %[1] | Count | %[2] | %[1] |
| Intra-residue (\|i-j\|=0) | 655 | 21.1 | 12 | 1.8 | 0.4 | 0 | 0.0 | 0.0 |
| Backbone-Backbone | 1 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 458 | 14.8 | 10 | 2.2 | 0.3 | 0 | 0.0 | 0.0 |
| Sidechain-Sidechain | 196 | 6.3 | 2 | 1.0 | 0.1 | 0 | 0.0 | 0.0 |
| Sequential (\|i-j\|=1) | 703 | 22.6 | 43 | 6.1 | 1.4 | 4 | 0.6 | 0.1 |
| Backbone-Backbone | 146 | 4.7 | 1 | 0.7 | 0.0 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 445 | 14.3 | 26 | 5.8 | 0.8 | 1 | 0.2 | 0.0 |
| Sidechain-Sidechain | 112 | 3.6 | 16 | 14.3 | 0.5 | 3 | 2.7 | 0.1 |
| Medium range (\|i-j\|>1 & \|i-j\|<5) | 576 | 18.6 | 55 | 9.5 | 1.8 | 2 | 0.3 | 0.1 |
| Backbone-Backbone | 86 | 2.8 | 3 | 3.5 | 0.1 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 252 | 8.1 | 28 | 11.1 | 0.9 | 0 | 0.0 | 0.0 |
| Sidechain-Sidechain | 238 | 7.7 | 24 | 10.1 | 0.8 | 2 | 0.8 | 0.1 |
| Long range (\|i-j\|≥5) | 1107 | 35.7 | 155 | 14.0 | 5.0 | 28 | 2.5 | 0.9 |
| Backbone-Backbone | 73 | 2.4 | 4 | 5.5 | 0.1 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 380 | 12.2 | 53 | 13.9 | 1.7 | 2 | 0.5 | 0.1 |
| Sidechain-Sidechain | 654 | 21.1 | 98 | 15.0 | 3.2 | 26 | 4.0 | 0.8 |
| Inter-chain | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Backbone-Backbone | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Backbone-Sidechain | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Sidechain-Sidechain | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Hydrogen bond | 64 | 2.1 | 8 | 12.5 | 0.3 | 1 | 1.6 | 0.0 |
| Disulfide bond | 0 | 0.0 | 0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| Total | 3105 | 100.0 | 273 | 8.8 | 8.8 | 35 | 1.1 | 1.1 |
| Backbone-Backbone | 370 | 11.9 | 16 | 4.3 | 0.5 | 1 | 0.3 | 0.0 |
| Backbone-Sidechain | 1535 | 49.4 | 117 | 7.6 | 3.8 | 3 | 0.2 | 0.1 |
| Sidechain-Sidechain | 1200 | 38.6 | 140 | 11.7 | 4.5 | 31 | 2.6 | 1.0 |

[1] percentage calculated with respect to the total number of distance restraints, [2] percentage calculated with respect to the number of restraints in a particular restraint category, [3] violated in at least one model, [4] violated in all the models

### 9.1.1 Bar chart : Distribution of distance restraints and violations




Violated and consistently violated restraints are shown using different hatch patterns in their respective categories. The hydrogen bonds and disulfied bonds are counted in their appropriate category on the x-axis

## 9.2 Distance violation statistics for each model

The following table provides the distance violation statistics for each model in the ensemble. Violations less than 0.1 Å are not included in the statistics.

| Model ID | Number of violations | | | | | | Mean (Å) | Max (Å) | SD[6] (Å) | Median (Å) |
|---|---|---|---|---|---|---|---|---|---|---|
| | IR[1] | SQ[2] | MR[3] | LR[4] | IC[5] | Total | | | | |
| 1 | 0 | 11 | 13 | 55 | 0 | 79 | 0.82 | 2.85 | 0.79 | 0.38 |
| 2 | 1 | 13 | 9 | 50 | 0 | 73 | 0.84 | 2.59 | 0.73 | 0.62 |
| 3 | 1 | 12 | 11 | 55 | 0 | 79 | 0.79 | 2.8 | 0.76 | 0.38 |
| 4 | 1 | 9 | 10 | 52 | 0 | 72 | 0.89 | 3.56 | 0.81 | 0.56 |
| 5 | 2 | 12 | 10 | 56 | 0 | 80 | 0.96 | 2.75 | 0.89 | 0.45 |
| 6 | 0 | 12 | 13 | 58 | 0 | 83 | 0.82 | 3.5 | 0.81 | 0.37 |
| 7 | 4 | 12 | 16 | 56 | 0 | 88 | 0.8 | 3.69 | 0.85 | 0.28 |
| 8 | 0 | 12 | 12 | 56 | 0 | 80 | 0.92 | 2.85 | 0.86 | 0.48 |
| 9 | 1 | 16 | 15 | 66 | 0 | 98 | 0.8 | 2.95 | 0.87 | 0.26 |
| 10 | 3 | 12 | 10 | 51 | 0 | 76 | 0.78 | 3.21 | 0.78 | 0.34 |
| 11 | 1 | 14 | 18 | 57 | 0 | 90 | 0.76 | 3.79 | 0.8 | 0.3 |

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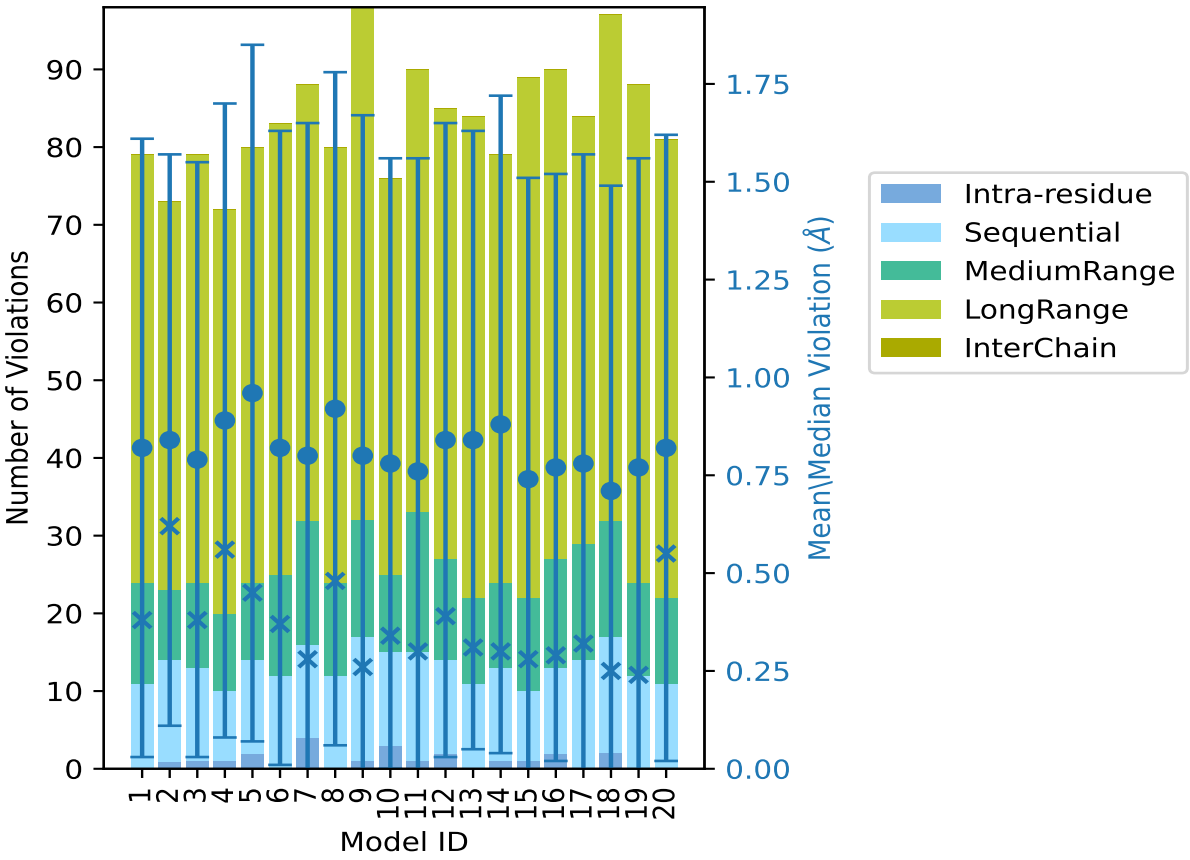
| Model ID | Number of violations | | | | | | Mean (Å) | Max (Å) | SD[6] (Å) | Median (Å) |
|---|---|---|---|---|---|---|---|---|---|---|
| | IR[1] | SQ[2] | MR[3] | LR[4] | IC[5] | Total | | | | |
| 12 | 2 | 12 | 13 | 58 | 0 | 85 | 0.84 | 2.52 | 0.81 | 0.39 |
| 13 | 0 | 11 | 11 | 62 | 0 | 84 | 0.84 | 3.02 | 0.79 | 0.31 |
| 14 | 1 | 12 | 11 | 55 | 0 | 79 | 0.88 | 2.76 | 0.84 | 0.3 |
| 15 | 1 | 9 | 12 | 67 | 0 | 89 | 0.74 | 3.02 | 0.77 | 0.28 |
| 16 | 2 | 11 | 14 | 63 | 0 | 90 | 0.77 | 2.54 | 0.75 | 0.29 |
| 17 | 0 | 14 | 15 | 55 | 0 | 84 | 0.78 | 3.5 | 0.79 | 0.32 |
| 18 | 2 | 15 | 15 | 65 | 0 | 97 | 0.71 | 3.33 | 0.78 | 0.25 |
| 19 | 0 | 12 | 12 | 64 | 0 | 88 | 0.77 | 3.42 | 0.79 | 0.24 |
| 20 | 0 | 11 | 11 | 59 | 0 | 81 | 0.82 | 4.01 | 0.8 | 0.55 |

[1]Intra-residue restraints, [2]Sequential restraints, [3]Medium range restraints, [4]Long range restraints, [5]Inter-chain restraints, [6]Standard deviation

### 9.2.1 Bar graph : Distance Violation statistics for each model




The mean(dot),median(x) and the standard deviation are shown in blue with respect to the y axis on the right

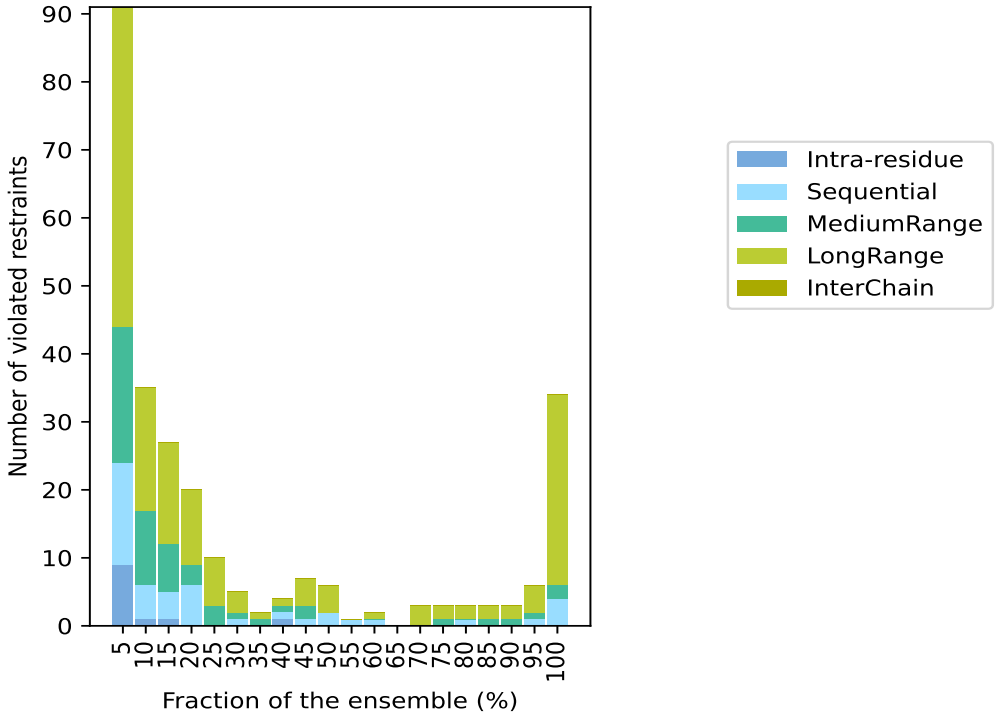
## 9.3 Distance violation statistics for the ensemble (i)

Violation analysis may find that some restraints are violated in few models and some are violated in most of models. The following table provides this information as number of violated restraints for a given fraction of the ensemble. In total, 2776(IR:643, SQ:660, MR:521, LR:952, IC:0) restraints are not violated in the ensemble.

| Number of violated restraints | | | | | | Fraction of the ensemble | |
|---|---|---|---|---|---|---|---|
| IR[1] | SQ[2] | MR[3] | LR[4] | IC[5] | Total | Count[6] | % |
| 9 | 15 | 20 | 47 | 0 | 91 | 1 | 5.0 |
| 1 | 5 | 11 | 18 | 0 | 35 | 2 | 10.0 |
| 1 | 4 | 7 | 15 | 0 | 27 | 3 | 15.0 |
| 0 | 6 | 3 | 11 | 0 | 20 | 4 | 20.0 |
| 0 | 0 | 3 | 7 | 0 | 10 | 5 | 25.0 |
| 0 | 1 | 1 | 3 | 0 | 5 | 6 | 30.0 |
| 0 | 0 | 1 | 1 | 0 | 2 | 7 | 35.0 |
| 1 | 1 | 1 | 1 | 0 | 4 | 8 | 40.0 |
| 0 | 1 | 2 | 4 | 0 | 7 | 9 | 45.0 |
| 0 | 2 | 0 | 4 | 0 | 6 | 10 | 50.0 |
| 0 | 1 | 0 | 0 | 0 | 1 | 11 | 55.0 |
| 0 | 1 | 0 | 1 | 0 | 2 | 12 | 60.0 |
| 0 | 0 | 0 | 0 | 0 | 0 | 13 | 65.0 |
| 0 | 0 | 0 | 3 | 0 | 3 | 14 | 70.0 |
| 0 | 0 | 1 | 2 | 0 | 3 | 15 | 75.0 |
| 0 | 1 | 0 | 2 | 0 | 3 | 16 | 80.0 |
| 0 | 0 | 1 | 2 | 0 | 3 | 17 | 85.0 |
| 0 | 0 | 1 | 2 | 0 | 3 | 18 | 90.0 |
| 0 | 1 | 1 | 4 | 0 | 6 | 19 | 95.0 |
| 0 | 4 | 2 | 28 | 0 | 34 | 20 | 100.0 |

[1]Intra-residue restraints, [2]Sequential restraints, [3]Medium range restraints, [4]Long range restraints, [5]Inter-chain restraints, [6] Number of models with violations

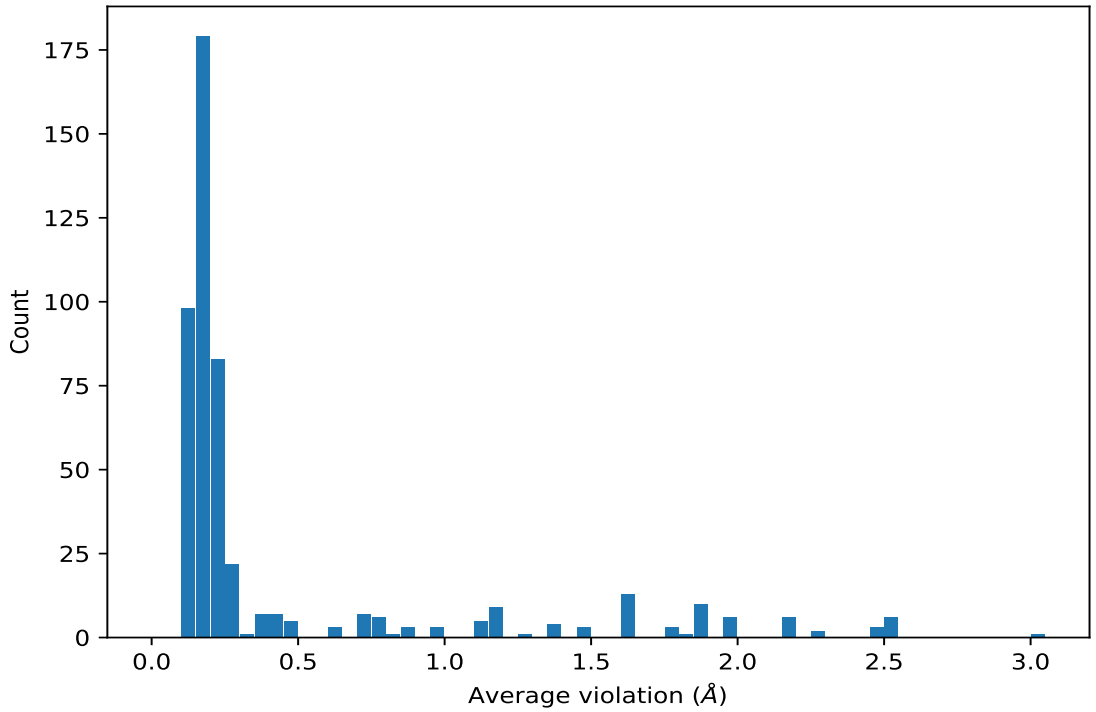
### 9.3.1 Bar graph : Distance violation statistics for the ensemble




## 9.4 Most violated distance restraints in the ensemble

### 9.4.1 Histogram : Distribution of mean distance violations

The following histogram shows the distribution of the average value of the violation. The average is calculated for each restraint that is violated in more than one model over all the violated models in the ensemble




### 9.4.2 Table: Most violated distance restraints (i)

The following table provides the mean and the standard deviation of the violation for each restraint sorted by number of violated models and the mean value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint. Rows with same key represent combinatorial or ambiguous restraints and are counted as a single restraint.

| Key | Atom-1 | Atom-2 | Models[1] | Mean (Å) | SD[1] (Å) | Median (Å) |
|---|---|---|---|---|---|---|
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 20 | 3.0 | 0.58 | 2.94 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 20 | 2.53 | 0.2 | 2.52 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 20 | 2.53 | 0.2 | 2.52 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 20 | 2.53 | 0.2 | 2.52 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 20 | 2.53 | 0.2 | 2.52 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 20 | 2.53 | 0.2 | 2.52 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 20 | 2.53 | 0.2 | 2.52 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 20 | 2.47 | 0.1 | 2.47 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 20 | 2.47 | 0.1 | 2.47 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 20 | 2.47 | 0.1 | 2.47 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 20 | 2.29 | 0.39 | 2.3 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 20 | 2.27 | 0.12 | 2.26 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 20 | 2.19 | 0.17 | 2.22 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 20 | 2.19 | 0.17 | 2.22 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 20 | 2.19 | 0.17 | 2.22 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 20 | 1.98 | 0.16 | 2.02 |

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| Key | Atom-1 | Atom-2 | Models[1] | Mean (Å) | SD[1] (Å) | Median (Å) |
|---|---|---|---|---|---|---|
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 20 | 1.98 | 0.16 | 2.02 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 20 | 1.98 | 0.16 | 2.02 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 20 | 1.97 | 0.55 | 1.99 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 20 | 1.97 | 0.55 | 1.99 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 20 | 1.97 | 0.55 | 1.99 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 20 | 1.88 | 0.15 | 1.87 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 20 | 1.88 | 0.15 | 1.87 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 20 | 1.88 | 0.15 | 1.87 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 20 | 1.88 | 0.15 | 1.87 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 20 | 1.88 | 0.15 | 1.87 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 20 | 1.88 | 0.15 | 1.87 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 20 | 1.86 | 0.18 | 1.87 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 20 | 1.86 | 0.18 | 1.87 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 20 | 1.86 | 0.18 | 1.87 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 20 | 1.77 | 0.17 | 1.8 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 20 | 1.77 | 0.17 | 1.8 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 20 | 1.77 | 0.17 | 1.8 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 20 | 1.63 | 0.18 | 1.69 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 20 | 1.63 | 0.16 | 1.63 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 20 | 1.63 | 0.28 | 1.63 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 20 | 1.63 | 0.28 | 1.63 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 20 | 1.63 | 0.28 | 1.63 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 20 | 1.61 | 0.19 | 1.62 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 20 | 1.61 | 0.15 | 1.63 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 20 | 1.61 | 0.15 | 1.63 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 20 | 1.61 | 0.15 | 1.63 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 20 | 1.61 | 0.15 | 1.63 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 20 | 1.61 | 0.15 | 1.63 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 20 | 1.61 | 0.15 | 1.63 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 20 | 1.6 | 0.47 | 1.45 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 20 | 1.45 | 0.22 | 1.48 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 20 | 1.45 | 0.22 | 1.48 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 20 | 1.45 | 0.22 | 1.48 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 20 | 1.39 | 0.29 | 1.33 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 20 | 1.39 | 0.29 | 1.33 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 20 | 1.39 | 0.29 | 1.33 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 20 | 1.38 | 0.58 | 1.25 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 20 | 1.27 | 0.22 | 1.3 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 20 | 1.17 | 0.68 | 1.26 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 20 | 1.17 | 0.68 | 1.26 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 20 | 1.17 | 0.68 | 1.26 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 20 | 1.16 | 0.44 | 1.15 |

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| Key | Atom-1 | Atom-2 | Models[1] | Mean (Å) | SD[1] (Å) | Median (Å) |
|---|---|---|---|---|---|---|
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 20 | 1.16 | 0.22 | 1.19 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 20 | 1.15 | 0.19 | 1.18 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 20 | 1.13 | 0.34 | 1.13 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 20 | 1.13 | 0.34 | 1.13 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 20 | 1.13 | 0.34 | 1.13 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 20 | 1.12 | 0.4 | 1.14 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 20 | 1.11 | 0.2 | 1.16 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 20 | 0.96 | 0.31 | 0.86 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 20 | 0.96 | 0.31 | 0.86 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 20 | 0.96 | 0.31 | 0.86 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 20 | 0.85 | 0.29 | 0.82 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 20 | 0.85 | 0.29 | 0.82 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 20 | 0.85 | 0.29 | 0.82 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 20 | 0.84 | 0.23 | 0.8 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 20 | 0.72 | 0.14 | 0.78 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 20 | 0.72 | 0.14 | 0.78 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 20 | 0.72 | 0.14 | 0.78 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 20 | 0.72 | 0.14 | 0.78 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 20 | 0.72 | 0.14 | 0.78 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 20 | 0.72 | 0.14 | 0.78 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 20 | 0.38 | 0.03 | 0.38 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 20 | 0.23 | 0.05 | 0.24 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 20 | 0.22 | 0.06 | 0.24 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 19 | 2.19 | 0.28 | 2.12 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 19 | 2.19 | 0.28 | 2.12 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 19 | 2.19 | 0.28 | 2.12 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 19 | 1.89 | 0.78 | 2.05 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 19 | 0.75 | 0.15 | 0.77 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 19 | 0.75 | 0.15 | 0.77 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 19 | 0.75 | 0.15 | 0.77 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 19 | 0.75 | 0.15 | 0.77 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 19 | 0.75 | 0.15 | 0.77 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 19 | 0.75 | 0.15 | 0.77 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 19 | 0.49 | 0.23 | 0.51 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 19 | 0.49 | 0.23 | 0.51 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 19 | 0.49 | 0.23 | 0.51 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 19 | 0.4 | 0.24 | 0.32 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 19 | 0.4 | 0.24 | 0.32 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 19 | 0.4 | 0.24 | 0.32 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 19 | 0.32 | 0.11 | 0.32 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 18 | 1.15 | 0.48 | 1.27 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 18 | 1.15 | 0.48 | 1.27 |

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| Key | Atom-1 | Atom-2 | Models[1] | Mean (Å) | SD[1] (Å) | Median (Å) |
|---|---|---|---|---|---|---|
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 18 | 1.15 | 0.48 | 1.27 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 18 | 0.17 | 0.04 | 0.16 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 18 | 0.15 | 0.03 | 0.15 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 18 | 0.15 | 0.03 | 0.15 |
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 18 | 0.15 | 0.03 | 0.15 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 17 | 0.41 | 0.44 | 0.3 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 17 | 0.41 | 0.44 | 0.3 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 17 | 0.41 | 0.44 | 0.3 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 17 | 0.21 | 0.06 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 17 | 0.21 | 0.06 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 17 | 0.21 | 0.06 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 17 | 0.21 | 0.06 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 17 | 0.21 | 0.06 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 17 | 0.21 | 0.06 | 0.2 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 17 | 0.17 | 0.04 | 0.16 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 17 | 0.17 | 0.04 | 0.16 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 17 | 0.17 | 0.04 | 0.16 |
| (1,41) | 1:A:87:TRP:H | 1:A:125:PHE:HD1 | 16 | 1.84 | 0.21 | 1.8 |
| (1,1629) | 1:A:87:TRP:HB3 | 1:A:125:PHE:HD1 | 16 | 0.73 | 0.24 | 0.76 |
| (1,1754) | 1:A:7:ARG:HG2 | 1:A:8:LEU:HA | 16 | 0.22 | 0.07 | 0.23 |
| (1,1754) | 1:A:7:ARG:HG3 | 1:A:8:LEU:HA | 16 | 0.22 | 0.07 | 0.23 |
| (1,963) | 1:A:56:THR:HG21 | 1:A:58:PHE:HE1 | 15 | 0.38 | 0.21 | 0.31 |
| (1,963) | 1:A:56:THR:HG22 | 1:A:58:PHE:HE1 | 15 | 0.38 | 0.21 | 0.31 |
| (1,963) | 1:A:56:THR:HG23 | 1:A:58:PHE:HE1 | 15 | 0.38 | 0.21 | 0.31 |
| (1,373) | 1:A:66:LEU:HB2 | 1:A:109:ASN:H | 15 | 0.19 | 0.06 | 0.18 |
| (1,2134) | 1:A:70:VAL:HB | 1:A:84:ILE:HG13 | 15 | 0.15 | 0.02 | 0.16 |
| (1,1860) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB3 | 14 | 0.49 | 0.28 | 0.34 |
| (1,970) | 1:A:33:ILE:HG12 | 1:A:56:THR:HB | 14 | 0.18 | 0.04 | 0.18 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD11 | 14 | 0.15 | 0.03 | 0.15 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD12 | 14 | 0.15 | 0.03 | 0.15 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD13 | 14 | 0.15 | 0.03 | 0.15 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD11 | 14 | 0.15 | 0.03 | 0.15 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD12 | 14 | 0.15 | 0.03 | 0.15 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD13 | 14 | 0.15 | 0.03 | 0.15 |
| (1,1497) | 1:A:12:LYS:HE2 | 1:A:13:ARG:HA | 12 | 0.22 | 0.08 | 0.2 |
| (1,1497) | 1:A:12:LYS:HE3 | 1:A:13:ARG:HA | 12 | 0.22 | 0.08 | 0.2 |
| (1,339) | 1:A:89:MET:HE1 | 1:A:125:PHE:H | 12 | 0.17 | 0.03 | 0.16 |
| (1,339) | 1:A:89:MET:HE2 | 1:A:125:PHE:H | 12 | 0.17 | 0.03 | 0.16 |
| (1,339) | 1:A:89:MET:HE3 | 1:A:125:PHE:H | 12 | 0.17 | 0.03 | 0.16 |
| (1,703) | 1:A:2:GLN:H | 1:A:3:GLN:HA | 11 | 0.16 | 0.03 | 0.16 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG21 | 10 | 0.28 | 0.1 | 0.26 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG22 | 10 | 0.28 | 0.1 | 0.26 |

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| Key | Atom-1 | Atom-2 | Models[1] | Mean (Å) | SD[1] (Å) | Median (Å) |
|---|---|---|---|---|---|---|
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG23 | 10 | 0.28 | 0.1 | 0.26 |
| (1,2374) | 1:A:48:TYR:HD1 | 1:A:53:VAL:HB | 10 | 0.18 | 0.03 | 0.2 |
| (1,2609) | 1:A:38:GLN:HG2 | 1:A:39:PHE:H | 10 | 0.17 | 0.05 | 0.16 |
| (1,2609) | 1:A:38:GLN:HG3 | 1:A:39:PHE:H | 10 | 0.17 | 0.05 | 0.16 |
| (1,1608) | 1:A:101:MET:HA | 1:A:102:LEU:HG | 10 | 0.15 | 0.03 | 0.15 |
| (1,1603) | 1:A:79:PHE:HZ | 1:A:128:THR:HB | 10 | 0.15 | 0.03 | 0.16 |
| (1,683) | 1:A:79:PHE:HD1 | 1:A:127:GLU:HG3 | 10 | 0.15 | 0.04 | 0.15 |
| (1,683) | 1:A:79:PHE:HD2 | 1:A:127:GLU:HG3 | 10 | 0.15 | 0.04 | 0.15 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG21 | 9 | 0.6 | 0.32 | 0.45 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG22 | 9 | 0.6 | 0.32 | 0.45 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG23 | 9 | 0.6 | 0.32 | 0.45 |
| (1,1906) | 1:A:89:MET:HE1 | 1:A:124:ILE:HB | 9 | 0.18 | 0.05 | 0.18 |
| (1,1906) | 1:A:89:MET:HE2 | 1:A:124:ILE:HB | 9 | 0.18 | 0.05 | 0.18 |
| (1,1906) | 1:A:89:MET:HE3 | 1:A:124:ILE:HB | 9 | 0.18 | 0.05 | 0.18 |
| (1,2221) | 1:A:106:ALA:HB1 | 1:A:114:GLU:HB2 | 9 | 0.17 | 0.06 | 0.15 |
| (1,2221) | 1:A:106:ALA:HB2 | 1:A:114:GLU:HB2 | 9 | 0.17 | 0.06 | 0.15 |
| (1,2221) | 1:A:106:ALA:HB3 | 1:A:114:GLU:HB2 | 9 | 0.17 | 0.06 | 0.15 |
| (1,907) | 1:A:32:GLN:HG2 | 1:A:33:ILE:HA | 9 | 0.16 | 0.05 | 0.15 |
| (1,975) | 1:A:28:TYR:HB3 | 1:A:60:VAL:HA | 9 | 0.15 | 0.04 | 0.13 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG11 | 9 | 0.14 | 0.02 | 0.15 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG12 | 9 | 0.14 | 0.02 | 0.15 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG13 | 9 | 0.14 | 0.02 | 0.15 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG11 | 9 | 0.14 | 0.02 | 0.15 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG12 | 9 | 0.14 | 0.02 | 0.15 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG13 | 9 | 0.14 | 0.02 | 0.15 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG11 | 9 | 0.14 | 0.02 | 0.15 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG12 | 9 | 0.14 | 0.02 | 0.15 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG13 | 9 | 0.14 | 0.02 | 0.15 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG11 | 9 | 0.13 | 0.02 | 0.13 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG12 | 9 | 0.13 | 0.02 | 0.13 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG13 | 9 | 0.13 | 0.02 | 0.13 |
| (1,808) | 1:A:75:GLN:HB2 | 1:A:75:GLN:HE22 | 8 | 0.18 | 0.09 | 0.12 |
| (1,2313) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HD1 | 8 | 0.16 | 0.02 | 0.15 |
| (1,2313) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HD1 | 8 | 0.16 | 0.02 | 0.15 |
| (1,2313) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HD1 | 8 | 0.16 | 0.02 | 0.15 |
| (1,2101) | 1:A:73:LEU:HG | 1:A:76:THR:HB | 8 | 0.14 | 0.03 | 0.12 |
| (1,632) | 1:A:80:PRO:HA | 1:A:81:GLN:HG3 | 8 | 0.13 | 0.02 | 0.12 |
| (1,2355) | 1:A:122:TRP:HZ2 | 1:A:124:ILE:HA | 7 | 0.16 | 0.06 | 0.13 |
| (1,2368) | 1:A:32:GLN:HA | 1:A:55:TYR:HE1 | 7 | 0.13 | 0.01 | 0.13 |
| (1,2282) | 1:A:28:TYR:HD1 | 1:A:61:LEU:HG | 6 | 0.2 | 0.06 | 0.2 |
| (1,2282) | 1:A:28:TYR:HD2 | 1:A:61:LEU:HG | 6 | 0.2 | 0.06 | 0.2 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG21 | 6 | 0.17 | 0.06 | 0.15 |

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| Key | Atom-1 | Atom-2 | Models[1] | Mean (Å) | SD[1] (Å) | Median (Å) |
|---|---|---|---|---|---|---|
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG22 | 6 | 0.17 | 0.06 | 0.15 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG23 | 6 | 0.17 | 0.06 | 0.15 |
| (1,1162) | 1:A:30:GLN:HG2 | 1:A:59:LYS:HD2 | 6 | 0.15 | 0.02 | 0.15 |
| (1,1162) | 1:A:30:GLN:HG2 | 1:A:59:LYS:HD3 | 6 | 0.15 | 0.02 | 0.15 |
| (1,2648) | 1:A:58:PHE:HA | 1:A:59:LYS:HE2 | 6 | 0.15 | 0.05 | 0.12 |
| (1,2648) | 1:A:58:PHE:HA | 1:A:59:LYS:HE3 | 6 | 0.15 | 0.05 | 0.12 |
| (1,1995) | 1:A:103:ASP:HB3 | 1:A:106:ALA:HA | 6 | 0.14 | 0.04 | 0.12 |
| (2,61) | 1:A:9:GLN:O | 1:A:13:ARG:H | 6 | 0.14 | 0.04 | 0.12 |
| (1,2376) | 1:A:69:PHE:HE1 | 1:A:73:LEU:HB2 | 5 | 0.4 | 0.17 | 0.35 |
| (1,1812) | 1:A:36:GLU:HA | 1:A:52:LYS:HG2 | 5 | 0.24 | 0.03 | 0.25 |
| (1,1812) | 1:A:36:GLU:HA | 1:A:52:LYS:HG3 | 5 | 0.24 | 0.03 | 0.25 |
| (1,2375) | 1:A:66:LEU:HA | 1:A:69:PHE:HD1 | 5 | 0.23 | 0.12 | 0.18 |
| (1,2519) | 1:A:28:TYR:HD1 | 1:A:59:LYS:HE2 | 5 | 0.17 | 0.05 | 0.14 |
| (1,2519) | 1:A:28:TYR:HD1 | 1:A:59:LYS:HE3 | 5 | 0.17 | 0.05 | 0.14 |
| (1,2519) | 1:A:28:TYR:HD2 | 1:A:59:LYS:HE2 | 5 | 0.17 | 0.05 | 0.14 |
| (1,2519) | 1:A:28:TYR:HD2 | 1:A:59:LYS:HE3 | 5 | 0.17 | 0.05 | 0.14 |
| (1,869) | 1:A:33:ILE:HD11 | 1:A:124:ILE:H | 5 | 0.16 | 0.02 | 0.16 |
| (1,869) | 1:A:33:ILE:HD12 | 1:A:124:ILE:H | 5 | 0.16 | 0.02 | 0.16 |
| (1,869) | 1:A:33:ILE:HD13 | 1:A:124:ILE:H | 5 | 0.16 | 0.02 | 0.16 |
| (1,1996) | 1:A:28:TYR:HB3 | 1:A:59:LYS:HD2 | 5 | 0.15 | 0.02 | 0.16 |
| (1,1996) | 1:A:28:TYR:HB3 | 1:A:59:LYS:HD3 | 5 | 0.15 | 0.02 | 0.16 |
| (1,966) | 1:A:33:ILE:H | 1:A:56:THR:HB | 5 | 0.14 | 0.03 | 0.13 |
| (1,2869) | 1:A:85:ARG:HD2 | 1:A:87:TRP:HZ2 | 5 | 0.13 | 0.02 | 0.12 |
| (1,2869) | 1:A:85:ARG:HD3 | 1:A:87:TRP:HZ2 | 5 | 0.13 | 0.02 | 0.12 |
| (1,925) | 1:A:34:VAL:HA | 1:A:56:THR:HB | 5 | 0.13 | 0.01 | 0.12 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE1 | 5 | 0.12 | 0.0 | 0.12 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE2 | 5 | 0.12 | 0.0 | 0.12 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE3 | 5 | 0.12 | 0.0 | 0.12 |
| (1,967) | 1:A:56:THR:HB | 1:A:58:PHE:HE1 | 4 | 0.48 | 0.16 | 0.48 |
| (1,1632) | 1:A:3:GLN:HG3 | 1:A:4:LEU:HB2 | 4 | 0.28 | 0.05 | 0.28 |
| (1,1632) | 1:A:3:GLN:HG3 | 1:A:4:LEU:HB3 | 4 | 0.28 | 0.05 | 0.28 |
| (1,1159) | 1:A:30:GLN:HG3 | 1:A:57:VAL:HA | 4 | 0.26 | 0.07 | 0.28 |
| (1,1080) | 1:A:55:TYR:HD1 | 1:A:56:THR:HG21 | 4 | 0.26 | 0.06 | 0.28 |
| (1,1080) | 1:A:55:TYR:HD1 | 1:A:56:THR:HG22 | 4 | 0.26 | 0.06 | 0.28 |
| (1,1080) | 1:A:55:TYR:HD1 | 1:A:56:THR:HG23 | 4 | 0.26 | 0.06 | 0.28 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD11 | 4 | 0.23 | 0.08 | 0.24 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD12 | 4 | 0.23 | 0.08 | 0.24 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD13 | 4 | 0.23 | 0.08 | 0.24 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD21 | 4 | 0.23 | 0.08 | 0.24 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD22 | 4 | 0.23 | 0.08 | 0.24 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD23 | 4 | 0.23 | 0.08 | 0.24 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD11 | 4 | 0.23 | 0.08 | 0.24 |

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| Key | Atom-1 | Atom-2 | Models[1] | Mean (Å) | SD[1] (Å) | Median (Å) |
|---|---|---|---|---|---|---|
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD12 | 4 | 0.23 | 0.08 | 0.24 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD13 | 4 | 0.23 | 0.08 | 0.24 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD21 | 4 | 0.23 | 0.08 | 0.24 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD22 | 4 | 0.23 | 0.08 | 0.24 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD23 | 4 | 0.23 | 0.08 | 0.24 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD11 | 4 | 0.2 | 0.04 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD12 | 4 | 0.2 | 0.04 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD13 | 4 | 0.2 | 0.04 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD21 | 4 | 0.2 | 0.04 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD22 | 4 | 0.2 | 0.04 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD23 | 4 | 0.2 | 0.04 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD11 | 4 | 0.2 | 0.04 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD12 | 4 | 0.2 | 0.04 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD13 | 4 | 0.2 | 0.04 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD21 | 4 | 0.2 | 0.04 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD22 | 4 | 0.2 | 0.04 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD23 | 4 | 0.2 | 0.04 | 0.22 |
| (1,188) | 1:A:37:ASP:H | 1:A:51:GLU:HG2 | 4 | 0.19 | 0.02 | 0.19 |
| (1,188) | 1:A:37:ASP:H | 1:A:51:GLU:HG3 | 4 | 0.19 | 0.02 | 0.19 |
| (1,2350) | 1:A:79:PHE:HZ | 1:A:128:THR:HG21 | 4 | 0.18 | 0.05 | 0.17 |
| (1,2350) | 1:A:79:PHE:HZ | 1:A:128:THR:HG22 | 4 | 0.18 | 0.05 | 0.17 |
| (1,2350) | 1:A:79:PHE:HZ | 1:A:128:THR:HG23 | 4 | 0.18 | 0.05 | 0.17 |
| (1,3005) | 1:A:117:ASP:HB2 | 1:A:119:GLU:HG2 | 4 | 0.16 | 0.04 | 0.16 |
| (1,3005) | 1:A:117:ASP:HB2 | 1:A:119:GLU:HG3 | 4 | 0.16 | 0.04 | 0.16 |
| (1,816) | 1:A:1:PRO:HG2 | 1:A:2:GLN:HA | 4 | 0.16 | 0.04 | 0.16 |
| (1,816) | 1:A:1:PRO:HG3 | 1:A:2:GLN:HA | 4 | 0.16 | 0.04 | 0.16 |
| (1,1273) | 1:A:87:TRP:HA | 1:A:102:LEU:HD11 | 4 | 0.16 | 0.04 | 0.15 |
| (1,1273) | 1:A:87:TRP:HA | 1:A:102:LEU:HD12 | 4 | 0.16 | 0.04 | 0.15 |
| (1,1273) | 1:A:87:TRP:HA | 1:A:102:LEU:HD13 | 4 | 0.16 | 0.04 | 0.15 |
| (1,2954) | 1:A:104:ASN:HD21 | 1:A:105:GLU:H | 4 | 0.16 | 0.02 | 0.15 |
| (1,2954) | 1:A:104:ASN:HD22 | 1:A:105:GLU:H | 4 | 0.16 | 0.02 | 0.15 |
| (1,971) | 1:A:34:VAL:HG11 | 1:A:56:THR:HB | 4 | 0.15 | 0.06 | 0.12 |
| (1,971) | 1:A:34:VAL:HG12 | 1:A:56:THR:HB | 4 | 0.15 | 0.06 | 0.12 |
| (1,971) | 1:A:34:VAL:HG13 | 1:A:56:THR:HB | 4 | 0.15 | 0.06 | 0.12 |
| (1,1494) | 1:A:71:GLN:HG3 | 1:A:72:SER:HA | 4 | 0.15 | 0.02 | 0.16 |
| (1,734) | 1:A:88:PRO:HD2 | 1:A:102:LEU:HG | 4 | 0.14 | 0.03 | 0.13 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD11 | 4 | 0.14 | 0.02 | 0.14 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD12 | 4 | 0.14 | 0.02 | 0.14 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD13 | 4 | 0.14 | 0.02 | 0.14 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD21 | 4 | 0.14 | 0.02 | 0.14 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD22 | 4 | 0.14 | 0.02 | 0.14 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD23 | 4 | 0.14 | 0.02 | 0.14 |

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| Key | Atom-1 | Atom-2 | Models[1] | Mean (Å) | SD[1] (Å) | Median (Å) |
|---|---|---|---|---|---|---|
| (1,2354) | 1:A:88:PRO:HD2 | 1:A:122:TRP:HZ2 | 4 | 0.14 | 0.03 | 0.13 |
| (1,2136) | 1:A:77:MET:HE1 | 1:A:126:LEU:HA | 4 | 0.14 | 0.03 | 0.12 |
| (1,2136) | 1:A:77:MET:HE2 | 1:A:126:LEU:HA | 4 | 0.14 | 0.03 | 0.12 |
| (1,2136) | 1:A:77:MET:HE3 | 1:A:126:LEU:HA | 4 | 0.14 | 0.03 | 0.12 |
| (1,826) | 1:A:74:SER:HB3 | 1:A:84:ILE:HD11 | 4 | 0.12 | 0.01 | 0.12 |
| (1,826) | 1:A:74:SER:HB3 | 1:A:84:ILE:HD12 | 4 | 0.12 | 0.01 | 0.12 |
| (1,826) | 1:A:74:SER:HB3 | 1:A:84:ILE:HD13 | 4 | 0.12 | 0.01 | 0.12 |
| (1,2081) | 1:A:70:VAL:H | 1:A:84:ILE:HD11 | 4 | 0.12 | 0.0 | 0.12 |
| (1,2081) | 1:A:70:VAL:H | 1:A:84:ILE:HD12 | 4 | 0.12 | 0.0 | 0.12 |
| (1,2081) | 1:A:70:VAL:H | 1:A:84:ILE:HD13 | 4 | 0.12 | 0.0 | 0.12 |
| (1,1387) | 1:A:105:GLU:HB2 | 1:A:107:ASP:H | 3 | 0.27 | 0.07 | 0.23 |
| (1,1387) | 1:A:105:GLU:HB3 | 1:A:107:ASP:H | 3 | 0.27 | 0.07 | 0.23 |
| (1,3019) | 1:A:119:GLU:HG2 | 1:A:121:PRO:HA | 3 | 0.25 | 0.09 | 0.28 |
| (1,3019) | 1:A:119:GLU:HG3 | 1:A:121:PRO:HA | 3 | 0.25 | 0.09 | 0.28 |
| (1,1078) | 1:A:55:TYR:HA | 1:A:56:THR:HG21 | 3 | 0.21 | 0.06 | 0.24 |
| (1,1078) | 1:A:55:TYR:HA | 1:A:56:THR:HG22 | 3 | 0.21 | 0.06 | 0.24 |
| (1,1078) | 1:A:55:TYR:HA | 1:A:56:THR:HG23 | 3 | 0.21 | 0.06 | 0.24 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD11 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD12 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD13 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD21 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD22 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD23 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD11 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD12 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD13 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD21 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD22 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD23 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD11 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD12 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD13 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD21 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD22 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD23 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD11 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD12 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD13 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD21 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD22 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD23 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD11 | 3 | 0.2 | 0.01 | 0.21 |

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| Key | Atom-1 | Atom-2 | Models[1] | Mean (Å) | SD[1] (Å) | Median (Å) |
|---|---|---|---|---|---|---|
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD12 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD13 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD21 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD22 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD23 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD11 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD12 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD13 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD21 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD22 | 3 | 0.2 | 0.01 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD23 | 3 | 0.2 | 0.01 | 0.21 |
| (1,1536) | 1:A:64:SER:HB2 | 1:A:68:GLU:HG2 | 3 | 0.18 | 0.04 | 0.16 |
| (1,1536) | 1:A:64:SER:HB2 | 1:A:68:GLU:HG3 | 3 | 0.18 | 0.04 | 0.16 |
| (1,2035) | 1:A:37:ASP:HA | 1:A:51:GLU:HA | 3 | 0.18 | 0.06 | 0.16 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD11 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD12 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD13 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD21 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD22 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD23 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD11 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD12 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD13 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD21 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD22 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD23 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD11 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD12 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD13 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD21 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD22 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD23 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD11 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD12 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD13 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD21 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD22 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD23 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD11 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD12 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD13 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD21 | 3 | 0.18 | 0.04 | 0.18 |

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| Key | Atom-1 | Atom-2 | Models[1] | Mean (Å) | SD[1] (Å) | Median (Å) |
|---|---|---|---|---|---|---|
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD22 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD23 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD11 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD12 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD13 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD21 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD22 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD23 | 3 | 0.18 | 0.04 | 0.18 |
| (1,2232) | 1:A:113:ILE:HG13 | 1:A:119:GLU:H | 3 | 0.17 | 0.03 | 0.19 |
| (1,1878) | 1:A:56:THR:HA | 1:A:58:PHE:HZ | 3 | 0.17 | 0.04 | 0.16 |
| (1,738) | 1:A:34:VAL:HB | 1:A:55:TYR:HA | 3 | 0.16 | 0.04 | 0.14 |
| (1,1599) | 1:A:84:ILE:HA | 1:A:128:THR:HG21 | 3 | 0.16 | 0.04 | 0.19 |
| (1,1599) | 1:A:84:ILE:HA | 1:A:128:THR:HG22 | 3 | 0.16 | 0.04 | 0.19 |
| (1,1599) | 1:A:84:ILE:HA | 1:A:128:THR:HG23 | 3 | 0.16 | 0.04 | 0.19 |
| (1,775) | 1:A:58:PHE:HD1 | 1:A:76:THR:HG21 | 3 | 0.16 | 0.01 | 0.16 |
| (1,775) | 1:A:58:PHE:HD1 | 1:A:76:THR:HG22 | 3 | 0.16 | 0.01 | 0.16 |
| (1,775) | 1:A:58:PHE:HD1 | 1:A:76:THR:HG23 | 3 | 0.16 | 0.01 | 0.16 |
| (1,1464) | 1:A:49:ASP:HA | 1:A:51:GLU:HG2 | 3 | 0.16 | 0.03 | 0.16 |
| (1,1464) | 1:A:49:ASP:HA | 1:A:51:GLU:HG3 | 3 | 0.16 | 0.03 | 0.16 |
| (1,1797) | 1:A:2:GLN:HB2 | 1:A:5:VAL:H | 3 | 0.16 | 0.04 | 0.14 |
| (1,1797) | 1:A:2:GLN:HB3 | 1:A:5:VAL:H | 3 | 0.16 | 0.04 | 0.14 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD11 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD12 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD13 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD21 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD22 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD23 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD11 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD12 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD13 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD21 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD22 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD23 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD11 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD12 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD13 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD21 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD22 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD23 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2669) | 1:A:61:LEU:HG | 1:A:63:ASN:HD21 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2669) | 1:A:61:LEU:HG | 1:A:63:ASN:HD22 | 3 | 0.15 | 0.02 | 0.16 |
| (1,2257) | 1:A:48:TYR:HD1 | 1:A:49:ASP:HA | 3 | 0.15 | 0.03 | 0.16 |

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| Key | Atom-1 | Atom-2 | Models[1] | Mean (Å) | SD[1] (Å) | Median (Å) |
|---|---|---|---|---|---|---|
| (1,555) | 1:A:28:TYR:HE1 | 1:A:61:LEU:HD11 | 3 | 0.14 | 0.02 | 0.16 |
| (1,555) | 1:A:28:TYR:HE1 | 1:A:61:LEU:HD12 | 3 | 0.14 | 0.02 | 0.16 |
| (1,555) | 1:A:28:TYR:HE1 | 1:A:61:LEU:HD13 | 3 | 0.14 | 0.02 | 0.16 |
| (1,555) | 1:A:28:TYR:HE2 | 1:A:61:LEU:HD11 | 3 | 0.14 | 0.02 | 0.16 |
| (1,555) | 1:A:28:TYR:HE2 | 1:A:61:LEU:HD12 | 3 | 0.14 | 0.02 | 0.16 |
| (1,555) | 1:A:28:TYR:HE2 | 1:A:61:LEU:HD13 | 3 | 0.14 | 0.02 | 0.16 |
| (1,2487) | 1:A:27:LEU:HA | 1:A:63:ASN:HD21 | 3 | 0.14 | 0.02 | 0.13 |
| (1,2487) | 1:A:27:LEU:HA | 1:A:63:ASN:HD22 | 3 | 0.14 | 0.02 | 0.13 |
| (1,2445) | 1:A:12:LYS:HG2 | 1:A:13:ARG:H | 3 | 0.14 | 0.02 | 0.13 |
| (1,2445) | 1:A:12:LYS:HG3 | 1:A:13:ARG:H | 3 | 0.14 | 0.02 | 0.13 |
| (1,2162) | 1:A:14:ILE:HG12 | 1:A:111:THR:HG21 | 3 | 0.14 | 0.03 | 0.12 |
| (1,2162) | 1:A:14:ILE:HG12 | 1:A:111:THR:HG22 | 3 | 0.14 | 0.03 | 0.12 |
| (1,2162) | 1:A:14:ILE:HG12 | 1:A:111:THR:HG23 | 3 | 0.14 | 0.03 | 0.12 |
| (1,2162) | 1:A:14:ILE:HG13 | 1:A:111:THR:HG21 | 3 | 0.14 | 0.03 | 0.12 |
| (1,2162) | 1:A:14:ILE:HG13 | 1:A:111:THR:HG22 | 3 | 0.14 | 0.03 | 0.12 |
| (1,2162) | 1:A:14:ILE:HG13 | 1:A:111:THR:HG23 | 3 | 0.14 | 0.03 | 0.12 |
| (1,1038) | 1:A:32:GLN:HB3 | 1:A:124:ILE:HG21 | 3 | 0.13 | 0.01 | 0.14 |
| (1,1038) | 1:A:32:GLN:HB3 | 1:A:124:ILE:HG22 | 3 | 0.13 | 0.01 | 0.14 |
| (1,1038) | 1:A:32:GLN:HB3 | 1:A:124:ILE:HG23 | 3 | 0.13 | 0.01 | 0.14 |
| (1,1601) | 1:A:83:GLN:HG2 | 1:A:128:THR:HB | 3 | 0.13 | 0.02 | 0.12 |
| (1,1601) | 1:A:83:GLN:HG3 | 1:A:128:THR:HB | 3 | 0.13 | 0.02 | 0.12 |
| (1,1212) | 1:A:113:ILE:HA | 1:A:118:ASN:HD21 | 3 | 0.12 | 0.01 | 0.13 |
| (1,2266) | 1:A:32:GLN:HG3 | 1:A:55:TYR:HE1 | 3 | 0.12 | 0.01 | 0.12 |
| (2,45) | 1:A:71:GLN:O | 1:A:75:GLN:H | 3 | 0.12 | 0.01 | 0.12 |
| (1,2656) | 1:A:59:LYS:HA | 1:A:59:LYS:HE2 | 3 | 0.12 | 0.01 | 0.12 |
| (1,2656) | 1:A:59:LYS:HA | 1:A:59:LYS:HE3 | 3 | 0.12 | 0.01 | 0.12 |
| (1,2275) | 1:A:28:TYR:HD1 | 1:A:29:MET:H | 3 | 0.12 | 0.0 | 0.12 |
| (1,2275) | 1:A:28:TYR:HD2 | 1:A:29:MET:H | 3 | 0.12 | 0.0 | 0.12 |
| (1,779) | 1:A:74:SER:H | 1:A:76:THR:HG21 | 2 | 0.36 | 0.02 | 0.36 |
| (1,779) | 1:A:74:SER:H | 1:A:76:THR:HG22 | 2 | 0.36 | 0.02 | 0.36 |
| (1,779) | 1:A:74:SER:H | 1:A:76:THR:HG23 | 2 | 0.36 | 0.02 | 0.36 |
| (1,780) | 1:A:75:GLN:H | 1:A:76:THR:HG21 | 2 | 0.25 | 0.03 | 0.25 |
| (1,780) | 1:A:75:GLN:H | 1:A:76:THR:HG22 | 2 | 0.25 | 0.03 | 0.25 |
| (1,780) | 1:A:75:GLN:H | 1:A:76:THR:HG23 | 2 | 0.25 | 0.03 | 0.25 |
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD11 | 2 | 0.25 | 0.11 | 0.25 |
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD12 | 2 | 0.25 | 0.11 | 0.25 |
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD13 | 2 | 0.25 | 0.11 | 0.25 |
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD21 | 2 | 0.25 | 0.11 | 0.25 |
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD22 | 2 | 0.25 | 0.11 | 0.25 |
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD23 | 2 | 0.25 | 0.11 | 0.25 |
| (1,1325) | 1:A:49:ASP:HB3 | 1:A:52:LYS:HD2 | 2 | 0.22 | 0.1 | 0.22 |
| (1,1325) | 1:A:49:ASP:HB3 | 1:A:52:LYS:HD3 | 2 | 0.22 | 0.1 | 0.22 |

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| Key | Atom-1 | Atom-2 | Models[1] | Mean (Å) | SD[1] (Å) | Median (Å) |
|---|---|---|---|---|---|---|
| (1,1813) | 1:A:36:GLU:HA | 1:A:52:LYS:HB2 | 2 | 0.22 | 0.01 | 0.22 |
| (1,1388) | 1:A:36:GLU:HA | 1:A:51:GLU:HB3 | 2 | 0.18 | 0.06 | 0.18 |
| (1,2619) | 1:A:46:ASP:H | 1:A:47:MET:HB2 | 2 | 0.18 | 0.06 | 0.18 |
| (1,2619) | 1:A:46:ASP:H | 1:A:47:MET:HB3 | 2 | 0.18 | 0.06 | 0.18 |
| (1,1492) | 1:A:1:PRO:HA | 1:A:3:GLN:HB2 | 2 | 0.17 | 0.06 | 0.17 |
| (1,1492) | 1:A:1:PRO:HA | 1:A:3:GLN:HB3 | 2 | 0.17 | 0.06 | 0.17 |
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD11 | 2 | 0.17 | 0.03 | 0.17 |
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD12 | 2 | 0.17 | 0.03 | 0.17 |
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD13 | 2 | 0.17 | 0.03 | 0.17 |
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD21 | 2 | 0.17 | 0.03 | 0.17 |
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD22 | 2 | 0.17 | 0.03 | 0.17 |
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD23 | 2 | 0.17 | 0.03 | 0.17 |
| (1,2600) | 1:A:36:GLU:HG2 | 1:A:52:LYS:HG2 | 2 | 0.17 | 0.04 | 0.17 |
| (1,2600) | 1:A:36:GLU:HG2 | 1:A:52:LYS:HG3 | 2 | 0.17 | 0.04 | 0.17 |
| (1,2600) | 1:A:36:GLU:HG3 | 1:A:52:LYS:HG2 | 2 | 0.17 | 0.04 | 0.17 |
| (1,2600) | 1:A:36:GLU:HG3 | 1:A:52:LYS:HG3 | 2 | 0.17 | 0.04 | 0.17 |
| (1,1172) | 1:A:30:GLN:HB2 | 1:A:59:LYS:HA | 2 | 0.16 | 0.06 | 0.16 |
| (1,595) | 1:A:8:LEU:HB3 | 1:A:9:GLN:HG3 | 2 | 0.16 | 0.02 | 0.16 |
| (1,2041) | 1:A:49:ASP:HB2 | 1:A:53:VAL:HA | 2 | 0.16 | 0.03 | 0.16 |
| (1,2149) | 1:A:87:TRP:HH2 | 1:A:101:MET:HA | 2 | 0.16 | 0.0 | 0.16 |
| (1,2187) | 1:A:103:ASP:HB2 | 1:A:106:ALA:HA | 2 | 0.16 | 0.0 | 0.16 |
| (1,917) | 1:A:67:ALA:H | 1:A:108:GLY:HA3 | 2 | 0.16 | 0.02 | 0.16 |
| (1,371) | 1:A:106:ALA:HB1 | 1:A:109:ASN:H | 2 | 0.16 | 0.05 | 0.16 |
| (1,371) | 1:A:106:ALA:HB2 | 1:A:109:ASN:H | 2 | 0.16 | 0.05 | 0.16 |
| (1,371) | 1:A:106:ALA:HB3 | 1:A:109:ASN:H | 2 | 0.16 | 0.05 | 0.16 |
| (1,861) | 1:A:33:ILE:HD11 | 1:A:125:PHE:HA | 2 | 0.15 | 0.04 | 0.15 |
| (1,861) | 1:A:33:ILE:HD12 | 1:A:125:PHE:HA | 2 | 0.15 | 0.04 | 0.15 |
| (1,861) | 1:A:33:ILE:HD13 | 1:A:125:PHE:HA | 2 | 0.15 | 0.04 | 0.15 |
| (1,1535) | 1:A:64:SER:HB3 | 1:A:68:GLU:HG2 | 2 | 0.15 | 0.04 | 0.15 |
| (1,1535) | 1:A:64:SER:HB3 | 1:A:68:GLU:HG3 | 2 | 0.15 | 0.04 | 0.15 |
| (1,2351) | 1:A:87:TRP:HH2 | 1:A:100:ALA:HB1 | 2 | 0.15 | 0.03 | 0.15 |
| (1,2351) | 1:A:87:TRP:HH2 | 1:A:100:ALA:HB2 | 2 | 0.15 | 0.03 | 0.15 |
| (1,2351) | 1:A:87:TRP:HH2 | 1:A:100:ALA:HB3 | 2 | 0.15 | 0.03 | 0.15 |
| (1,635) | 1:A:51:GLU:H | 1:A:51:GLU:HB2 | 2 | 0.14 | 0.0 | 0.14 |
| (1,1108) | 1:A:32:GLN:HA | 1:A:57:VAL:HG11 | 2 | 0.14 | 0.03 | 0.14 |
| (1,1108) | 1:A:32:GLN:HA | 1:A:57:VAL:HG12 | 2 | 0.14 | 0.03 | 0.14 |
| (1,1108) | 1:A:32:GLN:HA | 1:A:57:VAL:HG13 | 2 | 0.14 | 0.03 | 0.14 |
| (1,467) | 1:A:66:LEU:HD21 | 1:A:107:ASP:HA | 2 | 0.14 | 0.02 | 0.14 |
| (1,467) | 1:A:66:LEU:HD22 | 1:A:107:ASP:HA | 2 | 0.14 | 0.02 | 0.14 |
| (1,467) | 1:A:66:LEU:HD23 | 1:A:107:ASP:HA | 2 | 0.14 | 0.02 | 0.14 |
| (1,1084) | 1:A:34:VAL:H | 1:A:56:THR:HG21 | 2 | 0.14 | 0.02 | 0.14 |
| (1,1084) | 1:A:34:VAL:H | 1:A:56:THR:HG22 | 2 | 0.14 | 0.02 | 0.14 |

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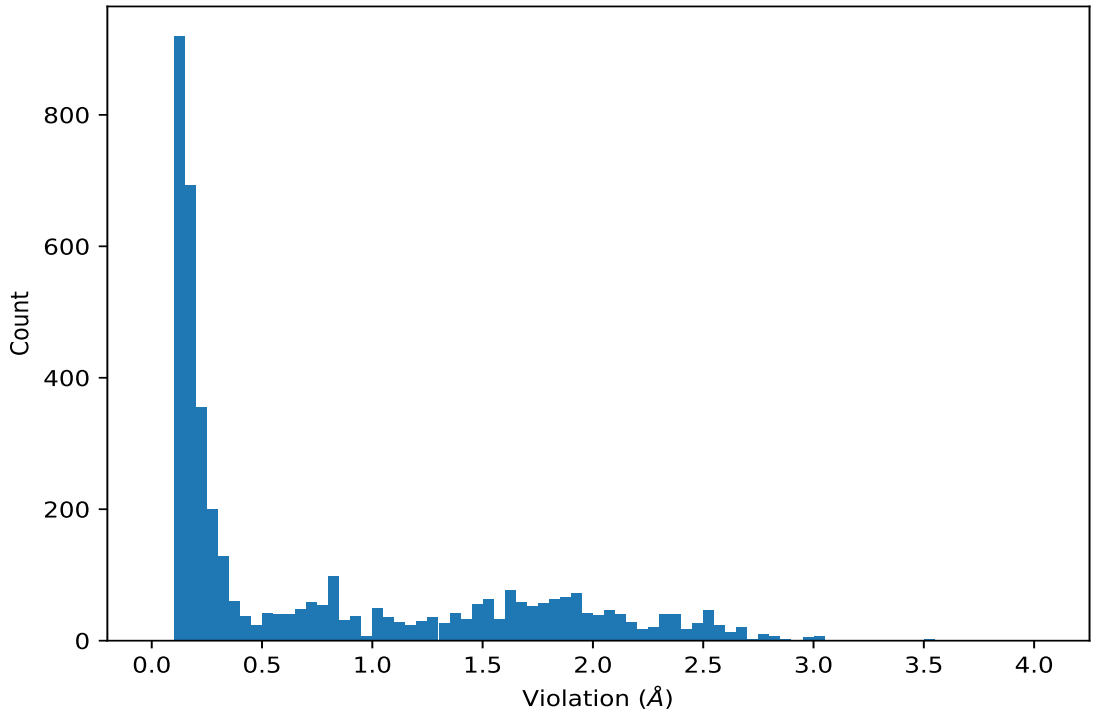
| Key | Atom-1 | Atom-2 | Models[1] | Mean (Å) | SD[1] (Å) | Median (Å) |
|---|---|---|---|---|---|---|
| (1,1084) | 1:A:34:VAL:H | 1:A:56:THR:HG23 | 2 | 0.14 | 0.02 | 0.14 |
| (1,1941) | 1:A:31:VAL:HA | 1:A:112:MET:HE1 | 2 | 0.14 | 0.02 | 0.14 |
| (1,1941) | 1:A:31:VAL:HA | 1:A:112:MET:HE2 | 2 | 0.14 | 0.02 | 0.14 |
| (1,1941) | 1:A:31:VAL:HA | 1:A:112:MET:HE3 | 2 | 0.14 | 0.02 | 0.14 |
| (1,2061) | 1:A:63:ASN:H | 1:A:111:THR:HB | 2 | 0.14 | 0.02 | 0.14 |
| (1,332) | 1:A:31:VAL:HB | 1:A:58:PHE:H | 2 | 0.13 | 0.01 | 0.13 |
| (1,1427) | 1:A:99:PRO:HB2 | 1:A:100:ALA:HB1 | 2 | 0.13 | 0.0 | 0.13 |
| (1,1427) | 1:A:99:PRO:HB2 | 1:A:100:ALA:HB2 | 2 | 0.13 | 0.0 | 0.13 |
| (1,1427) | 1:A:99:PRO:HB2 | 1:A:100:ALA:HB3 | 2 | 0.13 | 0.0 | 0.13 |
| (1,1683) | 1:A:105:GLU:HA | 1:A:107:ASP:H | 2 | 0.13 | 0.01 | 0.13 |
| (1,2023) | 1:A:37:ASP:H | 1:A:51:GLU:HA | 2 | 0.13 | 0.01 | 0.13 |
| (1,1758) | 1:A:7:ARG:HD2 | 1:A:8:LEU:HB3 | 2 | 0.12 | 0.01 | 0.12 |
| (1,1758) | 1:A:7:ARG:HD3 | 1:A:8:LEU:HB3 | 2 | 0.12 | 0.01 | 0.12 |
| (1,2083) | 1:A:67:ALA:HA | 1:A:71:GLN:HB2 | 2 | 0.12 | 0.02 | 0.12 |
| (1,2083) | 1:A:67:ALA:HA | 1:A:71:GLN:HB3 | 2 | 0.12 | 0.02 | 0.12 |
| (1,2239) | 1:A:33:ILE:HG13 | 1:A:73:LEU:HB2 | 2 | 0.12 | 0.02 | 0.12 |
| (2,51) | 1:A:7:ARG:O | 1:A:11:GLU:H | 2 | 0.12 | 0.01 | 0.12 |
| (1,1646) | 1:A:110:LYS:HG2 | 1:A:114:GLU:HG3 | 2 | 0.12 | 0.0 | 0.12 |
| (1,3026) | 1:A:120:ASN:HB2 | 1:A:122:TRP:HB3 | 2 | 0.11 | 0.0 | 0.11 |
| (1,3026) | 1:A:120:ASN:HB3 | 1:A:122:TRP:HB3 | 2 | 0.11 | 0.0 | 0.11 |

[1]Number of violated models, [2]Standard deviation

## 9.5 All violated distance restraints (i)

### 9.5.1 Histogram : Distribution of distance violations (i)

The following histogram shows the distribution of the absolute value of the violation for all violated restraints in the ensemble.




### 9.5.2 Table : All distance violations (i)

The following table lists the absolute value of the violation for each restraint in the ensemble sorted by its value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint. Rows with same key represent combinatorial or ambiguous restraints and are counted as a single restraint.

| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 20 | 4.01 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 11 | 3.79 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 7 | 3.69 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 4 | 3.56 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 6 | 3.5 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 17 | 3.5 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 19 | 3.42 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 18 | 3.33 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 10 | 3.21 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 7 | 3.14 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 13 | 3.02 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 15 | 3.02 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 15 | 3.02 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 15 | 3.02 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 15 | 3.02 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 15 | 3.02 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 15 | 3.02 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 9 | 2.95 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 9 | 2.95 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 9 | 2.95 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 9 | 2.95 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 9 | 2.95 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 9 | 2.95 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 19 | 2.9 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 20 | 2.88 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 1 | 2.85 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 8 | 2.85 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 7 | 2.83 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 7 | 2.83 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 7 | 2.83 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 8 | 2.81 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 8 | 2.81 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 8 | 2.81 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 3 | 2.8 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 14 | 2.76 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 8 | 2.75 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 8 | 2.75 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 8 | 2.75 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 5 | 2.75 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 5 | 2.75 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 5 | 2.75 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 5 | 2.75 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 5 | 2.75 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 5 | 2.75 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 9 | 2.72 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 9 | 2.72 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 9 | 2.72 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 5 | 2.67 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 5 | 2.67 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 5 | 2.67 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 9 | 2.67 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 9 | 2.67 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 9 | 2.67 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 5 | 2.67 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 5 | 2.67 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 5 | 2.67 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 18 | 2.67 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 18 | 2.67 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 18 | 2.67 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 18 | 2.67 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 18 | 2.67 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 18 | 2.67 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 14 | 2.66 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 14 | 2.66 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 14 | 2.66 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 9 | 2.65 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 9 | 2.65 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 9 | 2.65 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 15 | 2.63 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 13 | 2.63 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 8 | 2.62 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 8 | 2.62 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 8 | 2.62 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 8 | 2.62 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 8 | 2.62 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 8 | 2.62 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 11 | 2.62 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 1 | 2.6 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 5 | 2.6 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 5 | 2.6 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 5 | 2.6 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 2 | 2.59 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 2 | 2.59 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 2 | 2.59 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 2 | 2.59 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 2 | 2.59 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 2 | 2.59 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 5 | 2.58 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 4 | 2.58 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 4 | 2.58 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 4 | 2.58 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 4 | 2.58 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 4 | 2.58 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 4 | 2.58 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 1 | 2.57 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 1 | 2.57 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 1 | 2.57 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 8 | 2.56 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 6 | 2.55 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 6 | 2.55 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 6 | 2.55 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 6 | 2.55 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 6 | 2.55 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 6 | 2.55 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 13 | 2.54 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 13 | 2.54 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 13 | 2.54 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 13 | 2.54 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 13 | 2.54 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 13 | 2.54 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 11 | 2.54 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 11 | 2.54 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 11 | 2.54 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 16 | 2.54 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 16 | 2.54 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 16 | 2.54 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 18 | 2.54 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 18 | 2.54 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 18 | 2.54 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 14 | 2.53 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 14 | 2.53 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 14 | 2.53 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 14 | 2.53 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 14 | 2.53 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 14 | 2.53 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 9 | 2.53 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 5 | 2.52 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 12 | 2.52 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 12 | 2.52 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 12 | 2.52 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 12 | 2.52 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 12 | 2.52 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 12 | 2.52 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 12 | 2.52 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 12 | 2.52 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 12 | 2.52 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 13 | 2.52 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 13 | 2.52 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 13 | 2.52 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 16 | 2.51 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 16 | 2.51 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 16 | 2.51 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 16 | 2.51 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 16 | 2.51 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 16 | 2.51 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 7 | 2.5 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 9 | 2.5 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 12 | 2.5 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 12 | 2.5 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 12 | 2.5 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 9 | 2.49 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 7 | 2.49 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 8 | 2.48 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 8 | 2.48 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 8 | 2.48 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 15 | 2.48 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 15 | 2.48 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 15 | 2.48 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 7 | 2.47 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 7 | 2.47 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 7 | 2.47 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 7 | 2.47 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 7 | 2.47 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 7 | 2.47 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 8 | 2.47 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 12 | 2.46 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 1 | 2.46 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 6 | 2.46 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 6 | 2.46 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 6 | 2.46 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 12 | 2.45 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 12 | 2.45 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 12 | 2.45 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 5 | 2.45 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 5 | 2.45 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 8 | 2.45 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 11 | 2.45 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 4 | 2.44 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 4 | 2.44 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 4 | 2.44 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 9 | 2.44 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 9 | 2.43 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 9 | 2.43 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 9 | 2.43 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 17 | 2.42 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 17 | 2.42 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 17 | 2.42 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 17 | 2.42 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 17 | 2.42 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 17 | 2.42 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 17 | 2.42 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 17 | 2.42 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 17 | 2.42 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 12 | 2.41 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 5 | 2.4 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 9 | 2.39 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 11 | 2.39 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 11 | 2.39 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 11 | 2.39 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 11 | 2.39 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 11 | 2.39 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 11 | 2.39 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 14 | 2.38 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 14 | 2.38 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 14 | 2.38 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 2 | 2.38 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 2 | 2.38 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 2 | 2.38 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 20 | 2.38 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 20 | 2.38 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 20 | 2.38 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 1 | 2.36 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 1 | 2.36 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 1 | 2.36 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 1 | 2.36 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 1 | 2.36 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 1 | 2.36 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 6 | 2.36 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 6 | 2.36 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 6 | 2.36 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 6 | 2.36 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 19 | 2.36 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 19 | 2.36 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 19 | 2.36 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 10 | 2.36 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 10 | 2.36 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 10 | 2.36 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 19 | 2.36 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 19 | 2.36 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 19 | 2.36 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 18 | 2.36 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 17 | 2.35 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 10 | 2.35 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 10 | 2.35 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 10 | 2.35 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 3 | 2.34 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 3 | 2.34 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 3 | 2.34 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 3 | 2.34 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 3 | 2.34 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 3 | 2.34 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 5 | 2.34 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 5 | 2.34 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 5 | 2.34 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 15 | 2.33 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 15 | 2.33 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 15 | 2.33 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 7 | 2.33 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 7 | 2.33 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 7 | 2.33 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 5 | 2.33 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 7 | 2.32 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 7 | 2.32 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 7 | 2.32 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 7 | 2.32 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 7 | 2.32 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 7 | 2.32 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 19 | 2.32 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 19 | 2.32 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 19 | 2.32 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 19 | 2.32 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 19 | 2.32 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 19 | 2.32 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 4 | 2.31 |
| (1,2314) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 3 | 2.31 |
| (1,2314) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 3 | 2.31 |
| (1,2314) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 3 | 2.31 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 1 | 2.31 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 3 | 2.31 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 10 | 2.3 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 10 | 2.3 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 10 | 2.3 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 10 | 2.3 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 10 | 2.3 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 10 | 2.3 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 10 | 2.29 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 16 | 2.28 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 16 | 2.28 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 16 | 2.28 |
| (1,41) | 1:A:87:TRP:H | 1:A:125:PHE:HD1 | 7 | 2.28 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 13 | 2.28 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 13 | 2.28 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 13 | 2.28 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 12 | 2.28 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 15 | 2.28 |
| (1,41) | 1:A:87:TRP:H | 1:A:125:PHE:HD1 | 14 | 2.27 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 1 | 2.26 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 1 | 2.26 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 1 | 2.26 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 3 | 2.25 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 3 | 2.25 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 3 | 2.25 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 18 | 2.25 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 18 | 2.25 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 18 | 2.25 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 14 | 2.25 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 16 | 2.24 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 16 | 2.24 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 16 | 2.24 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 5 | 2.24 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 5 | 2.24 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 5 | 2.24 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 16 | 2.24 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 2 | 2.23 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 3 | 2.21 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 3 | 2.21 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 3 | 2.21 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 14 | 2.21 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 14 | 2.21 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 14 | 2.21 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 13 | 2.2 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 8 | 2.2 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 8 | 2.2 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 8 | 2.2 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 2 | 2.19 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD11 | 20 | 2.19 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD12 | 20 | 2.19 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD13 | 20 | 2.19 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD21 | 20 | 2.19 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD22 | 20 | 2.19 |
| (1,2652) | 1:A:58:PHE:HE1 | 1:A:126:LEU:HD23 | 20 | 2.19 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 15 | 2.19 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 20 | 2.19 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 13 | 2.18 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 13 | 2.18 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 13 | 2.18 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 17 | 2.18 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 17 | 2.18 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 17 | 2.18 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 19 | 2.18 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 19 | 2.18 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 19 | 2.18 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 14 | 2.18 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 14 | 2.18 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 14 | 2.18 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 19 | 2.17 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 2 | 2.16 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 6 | 2.16 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 11 | 2.15 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 11 | 2.15 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 11 | 2.15 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 13 | 2.15 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 18 | 2.14 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 18 | 2.14 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 18 | 2.14 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 17 | 2.14 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 17 | 2.14 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 17 | 2.14 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 12 | 2.14 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 12 | 2.14 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 12 | 2.14 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 12 | 2.14 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 4 | 2.14 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 10 | 2.14 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 15 | 2.12 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 15 | 2.12 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 15 | 2.12 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 18 | 2.12 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 9 | 2.12 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 9 | 2.12 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 9 | 2.12 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 8 | 2.11 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 8 | 2.11 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 8 | 2.11 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 4 | 2.11 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 4 | 2.11 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 4 | 2.11 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 16 | 2.11 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 16 | 2.11 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 16 | 2.11 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 8 | 2.11 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 8 | 2.11 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 8 | 2.11 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 12 | 2.11 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 12 | 2.11 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 12 | 2.11 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 8 | 2.1 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 14 | 2.1 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 14 | 2.1 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 14 | 2.1 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 14 | 2.1 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 14 | 2.1 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 14 | 2.1 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 2 | 2.09 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 2 | 2.09 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 2 | 2.09 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 20 | 2.09 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 20 | 2.09 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 20 | 2.09 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 19 | 2.09 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 19 | 2.09 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 19 | 2.09 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 17 | 2.09 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 17 | 2.09 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 17 | 2.09 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 6 | 2.09 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 6 | 2.09 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 6 | 2.09 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 12 | 2.09 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 6 | 2.08 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 6 | 2.08 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 6 | 2.08 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 11 | 2.08 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 11 | 2.08 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 11 | 2.08 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 2 | 2.08 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 7 | 2.08 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 7 | 2.08 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 7 | 2.08 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 3 | 2.07 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 3 | 2.07 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 3 | 2.07 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 16 | 2.06 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 9 | 2.06 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 7 | 2.06 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 7 | 2.06 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 7 | 2.06 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 10 | 2.06 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 10 | 2.06 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 10 | 2.06 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 13 | 2.06 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 13 | 2.06 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 13 | 2.06 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 14 | 2.06 |
| (1,1017) | 1:A:31:VAL:HB | 1:A:58:PHE:HD1 | 17 | 2.06 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 6 | 2.05 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 9 | 2.05 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 9 | 2.05 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 9 | 2.05 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 15 | 2.04 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 15 | 2.04 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 15 | 2.04 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 5 | 2.04 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 5 | 2.04 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 5 | 2.04 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 5 | 2.04 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 5 | 2.04 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 5 | 2.04 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 9 | 2.04 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 18 | 2.04 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 18 | 2.04 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 18 | 2.04 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 4 | 2.03 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 11 | 2.03 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 4 | 2.03 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 4 | 2.03 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 4 | 2.03 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 18 | 2.02 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 18 | 2.02 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 18 | 2.02 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 16 | 2.01 |
| (1,947) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HA | 14 | 2.01 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 10 | 2.01 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 10 | 2.01 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 10 | 2.01 |
| (1,41) | 1:A:87:TRP:H | 1:A:125:PHE:HD1 | 1 | 2.01 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 11 | 2.01 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 11 | 2.01 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 11 | 2.01 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 11 | 2.0 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 11 | 2.0 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 11 | 2.0 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 11 | 2.0 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 11 | 2.0 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 11 | 2.0 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 9 | 2.0 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 9 | 2.0 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 9 | 2.0 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 2 | 1.99 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 2 | 1.99 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 2 | 1.99 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 13 | 1.99 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 13 | 1.99 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 13 | 1.99 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 1 | 1.99 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 1 | 1.99 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 1 | 1.99 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 3 | 1.98 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 15 | 1.98 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 15 | 1.98 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 15 | 1.98 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 15 | 1.98 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 15 | 1.98 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 15 | 1.98 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 12 | 1.98 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 9 | 1.97 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 9 | 1.97 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 9 | 1.97 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 3 | 1.97 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 9 | 1.97 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 9 | 1.97 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 9 | 1.97 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 8 | 1.96 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 8 | 1.96 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 8 | 1.96 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 14 | 1.96 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 14 | 1.96 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 14 | 1.96 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 20 | 1.96 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 20 | 1.96 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 20 | 1.96 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 6 | 1.95 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 6 | 1.95 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 6 | 1.95 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 2 | 1.95 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 2 | 1.95 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 2 | 1.95 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 15 | 1.95 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 15 | 1.95 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 15 | 1.95 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 10 | 1.94 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 10 | 1.94 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 10 | 1.94 |
| (1,41) | 1:A:87:TRP:H | 1:A:125:PHE:HD1 | 13 | 1.94 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 2 | 1.94 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 2 | 1.94 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 2 | 1.94 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 2 | 1.94 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 2 | 1.94 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 2 | 1.94 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 20 | 1.94 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 20 | 1.94 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 20 | 1.94 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 20 | 1.94 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 20 | 1.94 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 20 | 1.94 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 16 | 1.94 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 19 | 1.94 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 19 | 1.94 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 19 | 1.94 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 16 | 1.94 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 8 | 1.93 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 8 | 1.93 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 8 | 1.93 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 15 | 1.93 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 15 | 1.93 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 15 | 1.93 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 15 | 1.93 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 15 | 1.93 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 15 | 1.93 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 7 | 1.93 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 7 | 1.93 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 7 | 1.93 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 16 | 1.93 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 16 | 1.93 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 16 | 1.93 |
| (1,41) | 1:A:87:TRP:H | 1:A:125:PHE:HD1 | 5 | 1.92 |
| (1,41) | 1:A:87:TRP:H | 1:A:125:PHE:HD1 | 12 | 1.92 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 17 | 1.92 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 17 | 1.92 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 17 | 1.92 |
| (1,41) | 1:A:87:TRP:H | 1:A:125:PHE:HD1 | 2 | 1.91 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 10 | 1.91 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 10 | 1.91 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 10 | 1.91 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 10 | 1.91 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 10 | 1.91 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 10 | 1.91 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 18 | 1.91 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 18 | 1.91 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 18 | 1.91 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 18 | 1.91 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 18 | 1.91 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 18 | 1.91 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 5 | 1.91 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 5 | 1.91 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 14 | 1.91 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 19 | 1.9 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 19 | 1.9 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 19 | 1.9 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 4 | 1.9 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 4 | 1.9 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 4 | 1.9 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 5 | 1.9 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 5 | 1.9 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 5 | 1.9 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 12 | 1.9 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 12 | 1.9 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 12 | 1.9 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 4 | 1.9 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 4 | 1.9 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 4 | 1.9 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 5 | 1.89 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 5 | 1.89 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 5 | 1.89 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 6 | 1.89 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 6 | 1.89 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 6 | 1.89 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 1 | 1.89 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 1 | 1.89 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 1 | 1.89 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 11 | 1.89 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 11 | 1.89 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 11 | 1.89 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 13 | 1.89 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 13 | 1.89 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 13 | 1.89 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 13 | 1.89 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 13 | 1.89 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 13 | 1.89 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 17 | 1.88 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 17 | 1.88 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 17 | 1.88 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 17 | 1.88 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 17 | 1.88 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 17 | 1.88 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 3 | 1.88 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 14 | 1.87 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 14 | 1.87 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 14 | 1.87 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 20 | 1.87 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 20 | 1.87 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 20 | 1.87 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 20 | 1.87 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 20 | 1.87 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 20 | 1.87 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 4 | 1.86 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 4 | 1.86 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 4 | 1.86 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 6 | 1.86 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 6 | 1.86 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 6 | 1.86 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 6 | 1.86 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 6 | 1.86 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 6 | 1.86 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 12 | 1.86 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 12 | 1.86 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 12 | 1.86 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 12 | 1.86 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 12 | 1.86 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 12 | 1.86 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 3 | 1.85 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 3 | 1.85 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 3 | 1.85 |
| (1,41) | 1:A:87:TRP:H | 1:A:125:PHE:HD1 | 9 | 1.85 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 1 | 1.85 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 1 | 1.85 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 1 | 1.85 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 1 | 1.85 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 1 | 1.85 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 1 | 1.85 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 19 | 1.85 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 19 | 1.85 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 19 | 1.85 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 19 | 1.85 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 19 | 1.85 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 19 | 1.85 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 14 | 1.85 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 10 | 1.84 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 10 | 1.84 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 10 | 1.84 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 9 | 1.84 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 9 | 1.84 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 9 | 1.84 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 9 | 1.84 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 9 | 1.84 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 9 | 1.84 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 5 | 1.84 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 5 | 1.84 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 5 | 1.84 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 18 | 1.84 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 18 | 1.84 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 18 | 1.84 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 14 | 1.84 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 17 | 1.84 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 17 | 1.84 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 17 | 1.84 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 15 | 1.84 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 15 | 1.84 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 15 | 1.84 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 4 | 1.83 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 4 | 1.83 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 4 | 1.83 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 4 | 1.83 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 4 | 1.83 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 4 | 1.83 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 6 | 1.83 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 6 | 1.83 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 6 | 1.83 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 10 | 1.83 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 10 | 1.83 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 10 | 1.83 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 15 | 1.83 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 15 | 1.83 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 15 | 1.83 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 9 | 1.83 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 7 | 1.82 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 7 | 1.82 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 7 | 1.82 |
| (1,2319) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HE1 | 20 | 1.82 |
| (1,2319) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HE1 | 20 | 1.82 |
| (1,2319) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HE1 | 20 | 1.82 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 2 | 1.82 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 2 | 1.82 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 2 | 1.82 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 18 | 1.81 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 18 | 1.81 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 18 | 1.81 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 18 | 1.81 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 18 | 1.81 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 18 | 1.81 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 20 | 1.81 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 20 | 1.81 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 20 | 1.81 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 20 | 1.8 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 1 | 1.8 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 1 | 1.8 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 1 | 1.8 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 4 | 1.8 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 4 | 1.8 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 4 | 1.8 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 13 | 1.79 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 13 | 1.79 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 13 | 1.79 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 18 | 1.79 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 18 | 1.79 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 18 | 1.79 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 15 | 1.79 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 15 | 1.79 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 15 | 1.79 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 5 | 1.79 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 14 | 1.79 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 14 | 1.79 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 14 | 1.79 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 3 | 1.78 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 3 | 1.78 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 3 | 1.78 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 3 | 1.78 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 3 | 1.78 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 3 | 1.78 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 8 | 1.78 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 20 | 1.78 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 20 | 1.78 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 20 | 1.78 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 7 | 1.77 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 7 | 1.77 |
| (1,512) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 7 | 1.77 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 16 | 1.77 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 16 | 1.77 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 16 | 1.77 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 16 | 1.77 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 16 | 1.77 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 16 | 1.77 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 19 | 1.77 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 19 | 1.77 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 19 | 1.77 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 8 | 1.77 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 11 | 1.76 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 11 | 1.76 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 11 | 1.76 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 17 | 1.75 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 11 | 1.75 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 11 | 1.75 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 11 | 1.75 |
| (1,41) | 1:A:87:TRP:H | 1:A:125:PHE:HD1 | 3 | 1.75 |
| (1,41) | 1:A:87:TRP:H | 1:A:125:PHE:HD1 | 8 | 1.75 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 8 | 1.75 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 8 | 1.75 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 8 | 1.75 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 8 | 1.75 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 8 | 1.75 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 8 | 1.75 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 6 | 1.75 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 8 | 1.75 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 5 | 1.75 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 5 | 1.75 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 5 | 1.75 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 17 | 1.75 |
| (1,41) | 1:A:87:TRP:H | 1:A:125:PHE:HD1 | 20 | 1.74 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 2 | 1.74 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 2 | 1.74 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 2 | 1.74 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 2 | 1.74 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 2 | 1.74 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 2 | 1.74 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 16 | 1.74 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 8 | 1.74 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 18 | 1.74 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 16 | 1.74 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 18 | 1.74 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 1 | 1.73 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 9 | 1.73 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 19 | 1.73 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 12 | 1.73 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 7 | 1.73 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 7 | 1.73 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 7 | 1.73 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 19 | 1.73 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 19 | 1.73 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 19 | 1.73 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 8 | 1.72 |
| (1,41) | 1:A:87:TRP:H | 1:A:125:PHE:HD1 | 16 | 1.72 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 1 | 1.72 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 1 | 1.72 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 1 | 1.72 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 10 | 1.72 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 12 | 1.71 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 12 | 1.71 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 12 | 1.71 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 5 | 1.71 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 5 | 1.71 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 5 | 1.71 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 12 | 1.71 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 12 | 1.71 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 12 | 1.71 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 17 | 1.71 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 17 | 1.71 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 17 | 1.71 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 12 | 1.71 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 3 | 1.71 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 9 | 1.7 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 9 | 1.7 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 9 | 1.7 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 19 | 1.7 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 19 | 1.7 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 19 | 1.7 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 1 | 1.7 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 1 | 1.7 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 1 | 1.7 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 5 | 1.7 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 1 | 1.7 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 16 | 1.69 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 4 | 1.68 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 4 | 1.68 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 4 | 1.68 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 19 | 1.68 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 19 | 1.68 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 19 | 1.68 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 19 | 1.68 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 19 | 1.68 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 19 | 1.68 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 11 | 1.68 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 1 | 1.68 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 14 | 1.68 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 14 | 1.68 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 14 | 1.68 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 17 | 1.67 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 17 | 1.67 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 17 | 1.67 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 17 | 1.67 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 17 | 1.67 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 17 | 1.67 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 1 | 1.67 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 1 | 1.67 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 1 | 1.67 |
| (1,41) | 1:A:87:TRP:H | 1:A:125:PHE:HD1 | 4 | 1.66 |
| (1,41) | 1:A:87:TRP:H | 1:A:125:PHE:HD1 | 11 | 1.66 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 12 | 1.66 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 12 | 1.66 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 12 | 1.66 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 12 | 1.66 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 12 | 1.66 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 12 | 1.66 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 16 | 1.66 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 16 | 1.66 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 16 | 1.66 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 20 | 1.66 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 8 | 1.65 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 8 | 1.65 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 8 | 1.65 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 8 | 1.65 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 8 | 1.65 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 8 | 1.65 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 5 | 1.65 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 5 | 1.65 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 5 | 1.65 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 5 | 1.65 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 5 | 1.65 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 5 | 1.65 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 6 | 1.65 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 6 | 1.65 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 6 | 1.65 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 6 | 1.65 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 6 | 1.65 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 6 | 1.65 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 4 | 1.65 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 6 | 1.65 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 6 | 1.65 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 6 | 1.65 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 6 | 1.65 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 11 | 1.64 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 11 | 1.64 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 11 | 1.64 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 20 | 1.64 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 18 | 1.64 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 16 | 1.63 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 16 | 1.63 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 16 | 1.63 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 16 | 1.63 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 16 | 1.63 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 16 | 1.63 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 16 | 1.63 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 6 | 1.63 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 6 | 1.63 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 6 | 1.63 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 2 | 1.63 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 10 | 1.63 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 13 | 1.63 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 4 | 1.63 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 4 | 1.63 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 4 | 1.63 |
| (1,41) | 1:A:87:TRP:H | 1:A:125:PHE:HD1 | 6 | 1.62 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 13 | 1.62 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 10 | 1.62 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 16 | 1.61 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 16 | 1.61 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 16 | 1.61 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 12 | 1.61 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 4 | 1.61 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 4 | 1.61 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 4 | 1.61 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 4 | 1.61 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 4 | 1.61 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 4 | 1.61 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 13 | 1.61 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 13 | 1.61 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 13 | 1.61 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 13 | 1.61 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 13 | 1.61 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 13 | 1.61 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 13 | 1.61 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 13 | 1.61 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 13 | 1.61 |
| (1,2315) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HD1 | 7 | 1.61 |
| (1,2315) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HD1 | 7 | 1.61 |
| (1,2315) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HD1 | 7 | 1.61 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 17 | 1.6 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 17 | 1.6 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 17 | 1.6 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD11 | 14 | 1.6 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD12 | 14 | 1.6 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD13 | 14 | 1.6 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD21 | 14 | 1.6 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD22 | 14 | 1.6 |
| (1,2740) | 1:A:69:PHE:HD1 | 1:A:86:LEU:HD23 | 14 | 1.6 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 11 | 1.6 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 11 | 1.6 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 11 | 1.6 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 11 | 1.6 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 11 | 1.6 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 11 | 1.6 |
| (1,2377) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HB3 | 14 | 1.6 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 15 | 1.6 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 15 | 1.6 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 15 | 1.6 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 3 | 1.6 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 3 | 1.6 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 3 | 1.6 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 9 | 1.6 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 9 | 1.6 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 9 | 1.6 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 4 | 1.6 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 4 | 1.6 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 4 | 1.6 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 6 | 1.6 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 6 | 1.6 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 6 | 1.6 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 18 | 1.59 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 12 | 1.59 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 12 | 1.59 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 12 | 1.59 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 18 | 1.59 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 3 | 1.59 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 3 | 1.59 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 3 | 1.59 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 3 | 1.58 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 7 | 1.58 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 18 | 1.57 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 18 | 1.57 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 18 | 1.57 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 15 | 1.56 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 15 | 1.56 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 15 | 1.56 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 13 | 1.56 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 13 | 1.56 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 13 | 1.56 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 10 | 1.56 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 10 | 1.56 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 10 | 1.56 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 9 | 1.55 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 3 | 1.55 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 3 | 1.55 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 3 | 1.55 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 13 | 1.55 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 13 | 1.55 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 13 | 1.55 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 12 | 1.55 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 11 | 1.55 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 11 | 1.55 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 11 | 1.55 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 14 | 1.54 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 9 | 1.54 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 9 | 1.54 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 9 | 1.54 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 9 | 1.54 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 9 | 1.54 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 9 | 1.54 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 13 | 1.54 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 18 | 1.54 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 18 | 1.54 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 18 | 1.54 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 4 | 1.54 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 4 | 1.54 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 4 | 1.54 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 9 | 1.53 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 9 | 1.53 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 9 | 1.53 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 12 | 1.53 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 12 | 1.53 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 12 | 1.53 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 9 | 1.53 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 14 | 1.53 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 16 | 1.53 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 17 | 1.53 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 11 | 1.53 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 12 | 1.52 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 12 | 1.52 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 12 | 1.52 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 14 | 1.52 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 14 | 1.52 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 14 | 1.52 |
| (1,41) | 1:A:87:TRP:H | 1:A:125:PHE:HD1 | 17 | 1.52 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG21 | 2 | 1.52 |
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG22 | 2 | 1.52 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2330) | 1:A:69:PHE:HD1 | 1:A:84:ILE:HG23 | 2 | 1.52 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 7 | 1.52 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 1 | 1.52 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 1 | 1.52 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 1 | 1.52 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 19 | 1.51 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 19 | 1.51 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 19 | 1.51 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 15 | 1.51 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 16 | 1.51 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 17 | 1.51 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 1 | 1.5 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 1 | 1.5 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 1 | 1.5 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 18 | 1.5 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 14 | 1.5 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 14 | 1.5 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 14 | 1.5 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 14 | 1.5 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 14 | 1.5 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 14 | 1.5 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 4 | 1.5 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 13 | 1.5 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 13 | 1.5 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 13 | 1.5 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 15 | 1.5 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 15 | 1.5 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 15 | 1.5 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 15 | 1.5 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 10 | 1.49 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 10 | 1.49 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 10 | 1.49 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 10 | 1.49 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 10 | 1.49 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 10 | 1.49 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 19 | 1.49 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 5 | 1.49 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 6 | 1.49 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 8 | 1.49 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 5 | 1.48 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 10 | 1.48 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 10 | 1.48 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 10 | 1.48 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 18 | 1.48 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 18 | 1.48 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 18 | 1.48 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 6 | 1.48 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 10 | 1.48 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 16 | 1.48 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 16 | 1.48 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 16 | 1.48 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 3 | 1.48 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 15 | 1.48 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 5 | 1.48 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 15 | 1.47 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 15 | 1.47 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 15 | 1.47 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 17 | 1.47 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 19 | 1.47 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 15 | 1.47 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 3 | 1.47 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 3 | 1.47 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 3 | 1.47 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 19 | 1.47 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 19 | 1.47 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 19 | 1.47 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 13 | 1.47 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 20 | 1.46 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 20 | 1.46 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 20 | 1.46 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 4 | 1.46 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 20 | 1.45 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 20 | 1.45 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 20 | 1.45 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 20 | 1.45 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 20 | 1.45 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 20 | 1.45 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 8 | 1.45 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 8 | 1.45 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 8 | 1.45 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 19 | 1.45 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 13 | 1.45 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 13 | 1.45 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 13 | 1.45 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 7 | 1.44 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 7 | 1.44 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 7 | 1.44 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 17 | 1.44 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 9 | 1.44 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 14 | 1.44 |
| (1,871) | 1:A:33:ILE:HD11 | 1:A:58:PHE:HD1 | 2 | 1.43 |
| (1,871) | 1:A:33:ILE:HD12 | 1:A:58:PHE:HD1 | 2 | 1.43 |
| (1,871) | 1:A:33:ILE:HD13 | 1:A:58:PHE:HD1 | 2 | 1.43 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 14 | 1.43 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 14 | 1.43 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 14 | 1.43 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 7 | 1.43 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 7 | 1.43 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 7 | 1.43 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 7 | 1.43 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 7 | 1.43 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 7 | 1.43 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 1 | 1.43 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 1 | 1.43 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 1 | 1.43 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 13 | 1.43 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 19 | 1.43 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 3 | 1.43 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 11 | 1.42 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 16 | 1.4 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 16 | 1.4 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 16 | 1.4 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 2 | 1.4 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 20 | 1.4 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 17 | 1.4 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 17 | 1.4 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 17 | 1.4 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 5 | 1.38 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 5 | 1.38 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 5 | 1.38 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 2 | 1.38 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 2 | 1.38 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 2 | 1.38 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 3 | 1.38 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 3 | 1.38 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 3 | 1.38 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 2 | 1.37 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 2 | 1.37 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 2 | 1.37 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 17 | 1.37 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 17 | 1.37 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 17 | 1.37 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 6 | 1.37 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 17 | 1.37 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 17 | 1.36 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 1 | 1.36 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 1 | 1.36 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 1 | 1.36 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 1 | 1.36 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 1 | 1.36 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 1 | 1.36 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 1 | 1.36 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 4 | 1.36 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 4 | 1.36 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 4 | 1.36 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 20 | 1.36 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 18 | 1.36 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 16 | 1.35 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 16 | 1.35 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 16 | 1.35 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 18 | 1.35 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 18 | 1.35 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 18 | 1.35 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 8 | 1.35 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 5 | 1.35 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 7 | 1.35 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG21 | 19 | 1.35 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG22 | 19 | 1.35 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG23 | 19 | 1.35 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 18 | 1.34 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 6 | 1.34 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 6 | 1.34 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 6 | 1.34 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 9 | 1.33 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 15 | 1.33 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 13 | 1.33 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 13 | 1.33 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 13 | 1.33 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 4 | 1.33 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 19 | 1.33 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 3 | 1.32 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 3 | 1.32 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 3 | 1.32 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 3 | 1.32 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 3 | 1.32 |
| (1,2651) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 3 | 1.32 |
| (1,2327) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HB | 15 | 1.32 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 3 | 1.32 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 11 | 1.32 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 5 | 1.32 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 14 | 1.32 |
| (1,2309) | 1:A:33:ILE:HB | 1:A:58:PHE:HD1 | 2 | 1.32 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 18 | 1.31 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 2 | 1.31 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 14 | 1.31 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 15 | 1.31 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 8 | 1.29 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 9 | 1.29 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 10 | 1.29 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 8 | 1.28 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 8 | 1.28 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 8 | 1.28 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 2 | 1.28 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 2 | 1.28 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 2 | 1.28 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 8 | 1.28 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 5 | 1.28 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 5 | 1.28 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 5 | 1.28 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 10 | 1.28 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 10 | 1.28 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 10 | 1.28 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 12 | 1.28 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 12 | 1.27 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 14 | 1.27 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 12 | 1.27 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 15 | 1.27 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 15 | 1.27 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 15 | 1.27 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 11 | 1.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 11 | 1.27 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 11 | 1.27 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 6 | 1.26 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 7 | 1.26 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 7 | 1.26 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 7 | 1.26 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 8 | 1.26 |
| (1,2320) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HE1 | 20 | 1.26 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 6 | 1.26 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 1 | 1.25 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 7 | 1.25 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 18 | 1.24 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 4 | 1.23 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 4 | 1.23 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 4 | 1.23 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 16 | 1.23 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 10 | 1.23 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 13 | 1.22 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 6 | 1.22 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 6 | 1.22 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 6 | 1.22 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 6 | 1.21 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 13 | 1.21 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 1 | 1.21 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 1 | 1.21 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 1 | 1.21 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 3 | 1.2 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 11 | 1.2 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 11 | 1.2 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 11 | 1.2 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 4 | 1.2 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 11 | 1.2 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 11 | 1.2 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 11 | 1.2 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 1 | 1.2 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 19 | 1.2 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 7 | 1.2 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 7 | 1.2 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 7 | 1.2 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 13 | 1.2 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 5 | 1.19 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 10 | 1.18 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 14 | 1.18 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 11 | 1.18 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 16 | 1.18 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 10 | 1.18 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 2 | 1.18 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 2 | 1.17 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 2 | 1.17 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 2 | 1.17 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 13 | 1.17 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 13 | 1.17 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 13 | 1.17 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 20 | 1.17 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 20 | 1.17 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 20 | 1.17 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 19 | 1.17 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 12 | 1.17 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 2 | 1.16 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 13 | 1.16 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 2 | 1.15 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 17 | 1.15 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 11 | 1.15 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 1 | 1.15 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 11 | 1.14 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 16 | 1.14 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 16 | 1.14 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 16 | 1.14 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 19 | 1.14 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 18 | 1.14 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 19 | 1.14 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 11 | 1.14 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 11 | 1.14 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 11 | 1.14 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 19 | 1.14 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 19 | 1.14 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 19 | 1.14 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 20 | 1.14 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 16 | 1.13 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 16 | 1.13 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 16 | 1.13 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 11 | 1.13 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 19 | 1.12 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 19 | 1.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 19 | 1.12 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 17 | 1.11 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 17 | 1.11 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 17 | 1.11 |
| (1,1629) | 1:A:87:TRP:HB3 | 1:A:125:PHE:HD1 | 13 | 1.11 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 6 | 1.11 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 6 | 1.1 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 9 | 1.1 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 3 | 1.09 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 3 | 1.09 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 3 | 1.09 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 7 | 1.09 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 12 | 1.09 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 13 | 1.09 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 12 | 1.09 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 12 | 1.09 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 12 | 1.09 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 16 | 1.08 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 10 | 1.08 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 10 | 1.08 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 10 | 1.08 |
| (1,1860) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB3 | 16 | 1.08 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 19 | 1.07 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 9 | 1.07 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 16 | 1.07 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 16 | 1.07 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 16 | 1.07 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 18 | 1.07 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 18 | 1.07 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 18 | 1.07 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 18 | 1.06 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 18 | 1.06 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 18 | 1.06 |
| (1,1629) | 1:A:87:TRP:HB3 | 1:A:125:PHE:HD1 | 20 | 1.06 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 3 | 1.05 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 3 | 1.05 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 3 | 1.05 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 13 | 1.05 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG21 | 2 | 1.05 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG22 | 2 | 1.05 |
| (1,2331) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HG23 | 2 | 1.05 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 5 | 1.05 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 5 | 1.05 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 5 | 1.05 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 20 | 1.04 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 3 | 1.04 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 4 | 1.04 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 11 | 1.04 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 15 | 1.04 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 15 | 1.04 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 15 | 1.04 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 17 | 1.03 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 17 | 1.03 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 17 | 1.03 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 20 | 1.03 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 20 | 1.03 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 20 | 1.03 |
| (1,2312) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HG | 1 | 1.03 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 8 | 1.03 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 8 | 1.03 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 8 | 1.03 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 7 | 1.03 |
| (1,1629) | 1:A:87:TRP:HB3 | 1:A:125:PHE:HD1 | 7 | 1.02 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 4 | 1.02 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 4 | 1.01 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 15 | 1.01 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 15 | 1.01 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 15 | 1.01 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 15 | 1.01 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 15 | 1.01 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 15 | 1.01 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 15 | 1.01 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 11 | 1.01 |
| (1,1629) | 1:A:87:TRP:HB3 | 1:A:125:PHE:HD1 | 14 | 1.01 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 9 | 1.01 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 9 | 1.01 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 9 | 1.01 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 10 | 1.01 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 10 | 1.01 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 10 | 1.01 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 1 | 1.0 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 1 | 1.0 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 1 | 1.0 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 20 | 1.0 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 20 | 1.0 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 20 | 1.0 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 12 | 1.0 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 2 | 1.0 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 19 | 1.0 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 19 | 1.0 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 19 | 1.0 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE1 | 20 | 1.0 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE2 | 20 | 1.0 |
| (1,1888) | 1:A:58:PHE:HE1 | 1:A:77:MET:HE3 | 20 | 1.0 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 8 | 0.99 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 4 | 0.98 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 16 | 0.98 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 15 | 0.96 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 6 | 0.96 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 15 | 0.95 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 7 | 0.95 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 16 | 0.94 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 8 | 0.94 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 8 | 0.94 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 8 | 0.94 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 17 | 0.93 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 17 | 0.93 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 17 | 0.93 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 17 | 0.93 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 18 | 0.93 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 18 | 0.93 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 18 | 0.93 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 18 | 0.93 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 18 | 0.93 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 18 | 0.93 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 7 | 0.93 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 7 | 0.93 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 7 | 0.93 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 4 | 0.92 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 17 | 0.91 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 7 | 0.91 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 7 | 0.91 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 7 | 0.91 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 13 | 0.91 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 13 | 0.91 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 13 | 0.91 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 2 | 0.9 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 4 | 0.9 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 4 | 0.9 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 4 | 0.9 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 5 | 0.9 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 5 | 0.9 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 5 | 0.9 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 5 | 0.9 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 5 | 0.9 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 5 | 0.9 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 20 | 0.9 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 10 | 0.9 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 20 | 0.89 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 20 | 0.89 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 20 | 0.89 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 8 | 0.89 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 8 | 0.89 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 8 | 0.89 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 20 | 0.89 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 20 | 0.89 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 20 | 0.89 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 20 | 0.89 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 20 | 0.89 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 20 | 0.89 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 1 | 0.89 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 17 | 0.89 |
| (1,1860) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB3 | 17 | 0.89 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 11 | 0.88 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 2 | 0.88 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 2 | 0.88 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 2 | 0.88 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 2 | 0.88 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 2 | 0.88 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 2 | 0.88 |
| (1,1860) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB3 | 20 | 0.88 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 7 | 0.87 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 20 | 0.87 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 18 | 0.86 |
| (1,1629) | 1:A:87:TRP:HB3 | 1:A:125:PHE:HD1 | 2 | 0.86 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG21 | 7 | 0.86 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG22 | 7 | 0.86 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG23 | 7 | 0.86 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1629) | 1:A:87:TRP:HB3 | 1:A:125:PHE:HD1 | 8 | 0.85 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 7 | 0.84 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 7 | 0.84 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 7 | 0.84 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 6 | 0.84 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 6 | 0.84 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 6 | 0.84 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 6 | 0.84 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 6 | 0.84 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 6 | 0.84 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 1 | 0.83 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 1 | 0.83 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 1 | 0.83 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 1 | 0.83 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 1 | 0.83 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 1 | 0.83 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 16 | 0.83 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 16 | 0.83 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 16 | 0.83 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 16 | 0.83 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 16 | 0.83 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 16 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 4 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 4 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 4 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 4 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 4 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 4 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 11 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 11 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 11 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 11 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 11 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 11 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 13 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 13 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 13 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 13 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 13 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 13 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 16 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 16 | 0.83 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 16 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 16 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 16 | 0.83 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 16 | 0.83 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 15 | 0.83 |
| (1,1629) | 1:A:87:TRP:HB3 | 1:A:125:PHE:HD1 | 16 | 0.83 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 6 | 0.83 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 6 | 0.83 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 6 | 0.83 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 19 | 0.82 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 19 | 0.82 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 19 | 0.82 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 19 | 0.82 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 19 | 0.82 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 19 | 0.82 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 7 | 0.82 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 14 | 0.82 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 14 | 0.82 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 14 | 0.82 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 20 | 0.82 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 20 | 0.82 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 20 | 0.82 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 12 | 0.81 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 12 | 0.81 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 12 | 0.81 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 7 | 0.81 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 7 | 0.81 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 7 | 0.81 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 7 | 0.81 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 7 | 0.81 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 7 | 0.81 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 9 | 0.81 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 9 | 0.81 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 9 | 0.81 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 9 | 0.81 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 9 | 0.81 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 9 | 0.81 |
| (1,2321) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HE1 | 20 | 0.81 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 12 | 0.81 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 12 | 0.81 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 12 | 0.81 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 4 | 0.81 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 8 | 0.81 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 8 | 0.81 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 8 | 0.81 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 8 | 0.8 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 8 | 0.8 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 8 | 0.8 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 8 | 0.8 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 8 | 0.8 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 8 | 0.8 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 19 | 0.8 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 19 | 0.8 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 19 | 0.8 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 19 | 0.8 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 19 | 0.8 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 19 | 0.8 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 7 | 0.79 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 12 | 0.79 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 12 | 0.79 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 12 | 0.79 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 12 | 0.79 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 12 | 0.79 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 12 | 0.79 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 14 | 0.79 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 14 | 0.79 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 14 | 0.79 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 14 | 0.79 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 14 | 0.79 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 14 | 0.79 |
| (1,2318) | 1:A:33:ILE:HG21 | 1:A:58:PHE:HE1 | 7 | 0.79 |
| (1,2318) | 1:A:33:ILE:HG22 | 1:A:58:PHE:HE1 | 7 | 0.79 |
| (1,2318) | 1:A:33:ILE:HG23 | 1:A:58:PHE:HE1 | 7 | 0.79 |
| (1,897) | 1:A:33:ILE:HB | 1:A:58:PHE:HE1 | 20 | 0.78 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 2 | 0.78 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 13 | 0.78 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 17 | 0.78 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 17 | 0.78 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 17 | 0.78 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 6 | 0.77 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 6 | 0.77 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 6 | 0.77 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 7 | 0.77 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 7 | 0.77 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 7 | 0.77 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 7 | 0.77 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 7 | 0.77 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 7 | 0.77 |
| (1,1629) | 1:A:87:TRP:HB3 | 1:A:125:PHE:HD1 | 17 | 0.77 |
| (1,963) | 1:A:56:THR:HG21 | 1:A:58:PHE:HE1 | 5 | 0.76 |
| (1,963) | 1:A:56:THR:HG22 | 1:A:58:PHE:HE1 | 5 | 0.76 |
| (1,963) | 1:A:56:THR:HG23 | 1:A:58:PHE:HE1 | 5 | 0.76 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 13 | 0.76 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 13 | 0.76 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 13 | 0.76 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 13 | 0.76 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 13 | 0.76 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 13 | 0.76 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 2 | 0.76 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 3 | 0.76 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 3 | 0.76 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 3 | 0.76 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 10 | 0.75 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 10 | 0.75 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 10 | 0.75 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 10 | 0.75 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 10 | 0.75 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 10 | 0.75 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 10 | 0.75 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 19 | 0.75 |
| (1,1629) | 1:A:87:TRP:HB3 | 1:A:125:PHE:HD1 | 3 | 0.75 |
| (1,963) | 1:A:56:THR:HG21 | 1:A:58:PHE:HE1 | 14 | 0.74 |
| (1,963) | 1:A:56:THR:HG22 | 1:A:58:PHE:HE1 | 14 | 0.74 |
| (1,963) | 1:A:56:THR:HG23 | 1:A:58:PHE:HE1 | 14 | 0.74 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 1 | 0.74 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 1 | 0.74 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 1 | 0.74 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 2 | 0.74 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 2 | 0.74 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 2 | 0.74 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 17 | 0.74 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 17 | 0.74 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 17 | 0.74 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 17 | 0.74 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 17 | 0.74 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 17 | 0.74 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 11 | 0.74 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 11 | 0.74 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 11 | 0.74 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 12 | 0.74 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 12 | 0.74 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 12 | 0.74 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 6 | 0.73 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 6 | 0.73 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 6 | 0.73 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 6 | 0.73 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 6 | 0.73 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 6 | 0.73 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 10 | 0.73 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 10 | 0.73 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 10 | 0.73 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 10 | 0.73 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 10 | 0.73 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 10 | 0.73 |
| (1,2311) | 1:A:33:ILE:HG12 | 1:A:58:PHE:HD1 | 2 | 0.73 |
| (1,2310) | 1:A:33:ILE:HG13 | 1:A:58:PHE:HD1 | 20 | 0.73 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 8 | 0.72 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 8 | 0.72 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 8 | 0.72 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 8 | 0.72 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 8 | 0.72 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 8 | 0.72 |
| (1,1860) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB3 | 18 | 0.72 |
| (1,1629) | 1:A:87:TRP:HB3 | 1:A:125:PHE:HD1 | 6 | 0.72 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 11 | 0.71 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 11 | 0.71 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 11 | 0.71 |
| (1,2376) | 1:A:69:PHE:HE1 | 1:A:73:LEU:HB2 | 9 | 0.71 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 6 | 0.71 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 14 | 0.71 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 1 | 0.71 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 5 | 0.7 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 5 | 0.7 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 5 | 0.7 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 2 | 0.7 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 2 | 0.7 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 2 | 0.7 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG21 | 20 | 0.7 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG22 | 20 | 0.7 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG23 | 20 | 0.7 |
| (1,967) | 1:A:56:THR:HB | 1:A:58:PHE:HE1 | 9 | 0.69 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 15 | 0.69 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 15 | 0.69 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 15 | 0.69 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 20 | 0.69 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 20 | 0.69 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 20 | 0.69 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 20 | 0.69 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 20 | 0.69 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 20 | 0.69 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 13 | 0.68 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 13 | 0.68 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 13 | 0.68 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 18 | 0.68 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 18 | 0.68 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 18 | 0.68 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 18 | 0.68 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 18 | 0.68 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 18 | 0.68 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 18 | 0.68 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 18 | 0.68 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 18 | 0.68 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 3 | 0.67 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 3 | 0.67 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 3 | 0.67 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 3 | 0.67 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 3 | 0.67 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 3 | 0.67 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 3 | 0.67 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 5 | 0.66 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 5 | 0.66 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 5 | 0.66 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 17 | 0.66 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 15 | 0.65 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 15 | 0.65 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 15 | 0.65 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 11 | 0.65 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 11 | 0.65 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 11 | 0.65 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 11 | 0.65 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 11 | 0.65 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 11 | 0.65 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 1 | 0.65 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 1 | 0.65 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 1 | 0.65 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 1 | 0.65 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 1 | 0.65 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 1 | 0.65 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 19 | 0.64 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 19 | 0.64 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 19 | 0.64 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 17 | 0.64 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 17 | 0.64 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 17 | 0.64 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 17 | 0.64 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 17 | 0.64 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 17 | 0.64 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 10 | 0.63 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 10 | 0.63 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 10 | 0.63 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 11 | 0.63 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 10 | 0.62 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 10 | 0.62 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 10 | 0.62 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 2 | 0.62 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 2 | 0.62 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 2 | 0.62 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 2 | 0.62 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 2 | 0.62 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 2 | 0.62 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 12 | 0.62 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 12 | 0.62 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 12 | 0.62 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 12 | 0.62 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 12 | 0.62 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 12 | 0.62 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD11 | 3 | 0.61 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD12 | 3 | 0.61 |
| (1,828) | 1:A:69:PHE:HE1 | 1:A:84:ILE:HD13 | 3 | 0.61 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 3 | 0.61 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 3 | 0.6 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 3 | 0.6 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 3 | 0.6 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 3 | 0.6 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 3 | 0.6 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 3 | 0.6 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 1 | 0.6 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 1 | 0.6 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 1 | 0.6 |
| (1,963) | 1:A:56:THR:HG21 | 1:A:58:PHE:HE1 | 1 | 0.59 |
| (1,963) | 1:A:56:THR:HG22 | 1:A:58:PHE:HE1 | 1 | 0.59 |
| (1,963) | 1:A:56:THR:HG23 | 1:A:58:PHE:HE1 | 1 | 0.59 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 4 | 0.59 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 4 | 0.59 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 4 | 0.59 |
| (1,1860) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB3 | 15 | 0.59 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 6 | 0.58 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 6 | 0.58 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 6 | 0.58 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 2 | 0.58 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 2 | 0.58 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 2 | 0.58 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 8 | 0.58 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 8 | 0.58 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 8 | 0.58 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG21 | 1 | 0.58 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG22 | 1 | 0.58 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG23 | 1 | 0.58 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 4 | 0.57 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 4 | 0.57 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 4 | 0.57 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 19 | 0.57 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 19 | 0.57 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 19 | 0.57 |
| (1,967) | 1:A:56:THR:HB | 1:A:58:PHE:HE1 | 8 | 0.56 |
| (1,963) | 1:A:56:THR:HG21 | 1:A:58:PHE:HE1 | 12 | 0.56 |
| (1,963) | 1:A:56:THR:HG22 | 1:A:58:PHE:HE1 | 12 | 0.56 |
| (1,963) | 1:A:56:THR:HG23 | 1:A:58:PHE:HE1 | 12 | 0.56 |
| (1,1629) | 1:A:87:TRP:HB3 | 1:A:125:PHE:HD1 | 4 | 0.56 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 20 | 0.55 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 20 | 0.55 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 20 | 0.55 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 5 | 0.55 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 5 | 0.55 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 5 | 0.55 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 5 | 0.55 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 5 | 0.55 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 5 | 0.55 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 3 | 0.55 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 10 | 0.54 |
| (1,963) | 1:A:56:THR:HG21 | 1:A:58:PHE:HE1 | 18 | 0.53 |
| (1,963) | 1:A:56:THR:HG22 | 1:A:58:PHE:HE1 | 18 | 0.53 |
| (1,963) | 1:A:56:THR:HG23 | 1:A:58:PHE:HE1 | 18 | 0.53 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 8 | 0.53 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 8 | 0.53 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 8 | 0.53 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 11 | 0.53 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 11 | 0.53 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 11 | 0.53 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 6 | 0.53 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 6 | 0.53 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 6 | 0.53 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 16 | 0.52 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 13 | 0.52 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 13 | 0.52 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 13 | 0.52 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 17 | 0.52 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 17 | 0.52 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 17 | 0.52 |
| (1,1629) | 1:A:87:TRP:HB3 | 1:A:125:PHE:HD1 | 9 | 0.52 |
| (1,1272) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HG | 7 | 0.52 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 12 | 0.52 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 12 | 0.52 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 12 | 0.52 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 17 | 0.51 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 17 | 0.51 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 17 | 0.51 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 7 | 0.51 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 15 | 0.51 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 15 | 0.51 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 15 | 0.51 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 15 | 0.5 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 15 | 0.5 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 15 | 0.5 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 15 | 0.5 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 15 | 0.5 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 15 | 0.5 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 15 | 0.5 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 16 | 0.5 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 16 | 0.5 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 16 | 0.5 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 18 | 0.49 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 18 | 0.49 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 18 | 0.49 |
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 3 | 0.49 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 5 | 0.49 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 14 | 0.48 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG21 | 16 | 0.47 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG22 | 16 | 0.47 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG23 | 16 | 0.47 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 9 | 0.47 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 9 | 0.47 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 9 | 0.47 |
| (1,2375) | 1:A:66:LEU:HA | 1:A:69:PHE:HD1 | 19 | 0.46 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 1 | 0.46 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 1 | 0.46 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 1 | 0.46 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 10 | 0.46 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 5 | 0.46 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 5 | 0.46 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 5 | 0.46 |
| (1,1629) | 1:A:87:TRP:HB3 | 1:A:125:PHE:HD1 | 1 | 0.45 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG21 | 13 | 0.45 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG22 | 13 | 0.45 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG23 | 13 | 0.45 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 2 | 0.44 |
| (1,963) | 1:A:56:THR:HG21 | 1:A:58:PHE:HE1 | 3 | 0.44 |
| (1,963) | 1:A:56:THR:HG22 | 1:A:58:PHE:HE1 | 3 | 0.44 |
| (1,963) | 1:A:56:THR:HG23 | 1:A:58:PHE:HE1 | 3 | 0.44 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 9 | 0.44 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 9 | 0.44 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 9 | 0.44 |
| (1,1860) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB3 | 2 | 0.44 |
| (1,1629) | 1:A:87:TRP:HB3 | 1:A:125:PHE:HD1 | 5 | 0.44 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 18 | 0.43 |
| (1,2329) | 1:A:66:LEU:HD21 | 1:A:69:PHE:HD1 | 19 | 0.43 |
| (1,2329) | 1:A:66:LEU:HD22 | 1:A:69:PHE:HD1 | 19 | 0.43 |
| (1,2329) | 1:A:66:LEU:HD23 | 1:A:69:PHE:HD1 | 19 | 0.43 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 8 | 0.42 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG21 | 18 | 0.42 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG22 | 18 | 0.42 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG23 | 18 | 0.42 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 3 | 0.42 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 3 | 0.42 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 3 | 0.42 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 16 | 0.42 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 16 | 0.42 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 16 | 0.42 |
| (1,2376) | 1:A:69:PHE:HE1 | 1:A:73:LEU:HB2 | 12 | 0.42 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 4 | 0.41 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 7 | 0.41 |
| (1,967) | 1:A:56:THR:HB | 1:A:58:PHE:HE1 | 11 | 0.41 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 2 | 0.41 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 2 | 0.41 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 2 | 0.41 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG21 | 6 | 0.41 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG22 | 6 | 0.41 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG23 | 6 | 0.41 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 12 | 0.4 |
| (1,1434) | 1:A:66:LEU:HD11 | 1:A:69:PHE:HD1 | 10 | 0.4 |
| (1,1434) | 1:A:66:LEU:HD12 | 1:A:69:PHE:HD1 | 10 | 0.4 |
| (1,1434) | 1:A:66:LEU:HD13 | 1:A:69:PHE:HD1 | 10 | 0.4 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 5 | 0.39 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 12 | 0.39 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 13 | 0.39 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 14 | 0.39 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 2 | 0.39 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 9 | 0.39 |
| (1,1629) | 1:A:87:TRP:HB3 | 1:A:125:PHE:HD1 | 12 | 0.39 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG21 | 10 | 0.39 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG22 | 10 | 0.39 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG23 | 10 | 0.39 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 3 | 0.38 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 17 | 0.38 |
| (1,779) | 1:A:74:SER:H | 1:A:76:THR:HG21 | 7 | 0.38 |
| (1,779) | 1:A:74:SER:H | 1:A:76:THR:HG22 | 7 | 0.38 |
| (1,779) | 1:A:74:SER:H | 1:A:76:THR:HG23 | 7 | 0.38 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 9 | 0.38 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 9 | 0.38 |
| (1,504) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 9 | 0.38 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,481) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HA | 1 | 0.38 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 18 | 0.38 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG21 | 11 | 0.38 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG22 | 11 | 0.38 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG23 | 11 | 0.38 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 6 | 0.37 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 10 | 0.37 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 16 | 0.37 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 19 | 0.37 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 20 | 0.37 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 12 | 0.37 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 12 | 0.37 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 12 | 0.37 |
| (1,1629) | 1:A:87:TRP:HB3 | 1:A:125:PHE:HD1 | 11 | 0.37 |
| (1,1387) | 1:A:105:GLU:HB2 | 1:A:107:ASP:H | 6 | 0.37 |
| (1,1387) | 1:A:105:GLU:HB3 | 1:A:107:ASP:H | 6 | 0.37 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 11 | 0.36 |
| (1,963) | 1:A:56:THR:HG21 | 1:A:58:PHE:HE1 | 4 | 0.36 |
| (1,963) | 1:A:56:THR:HG22 | 1:A:58:PHE:HE1 | 4 | 0.36 |
| (1,963) | 1:A:56:THR:HG23 | 1:A:58:PHE:HE1 | 4 | 0.36 |
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD11 | 14 | 0.36 |
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD12 | 14 | 0.36 |
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD13 | 14 | 0.36 |
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD21 | 14 | 0.36 |
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD22 | 14 | 0.36 |
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD23 | 14 | 0.36 |
| (1,2325) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HA | 4 | 0.36 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 9 | 0.36 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 9 | 0.36 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 9 | 0.36 |
| (1,779) | 1:A:74:SER:H | 1:A:76:THR:HG21 | 3 | 0.35 |
| (1,779) | 1:A:74:SER:H | 1:A:76:THR:HG22 | 3 | 0.35 |
| (1,779) | 1:A:74:SER:H | 1:A:76:THR:HG23 | 3 | 0.35 |
| (1,3019) | 1:A:119:GLU:HG2 | 1:A:121:PRO:HA | 16 | 0.35 |
| (1,3019) | 1:A:119:GLU:HG3 | 1:A:121:PRO:HA | 16 | 0.35 |
| (1,2376) | 1:A:69:PHE:HE1 | 1:A:73:LEU:HB2 | 5 | 0.35 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 8 | 0.35 |
| (1,1860) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB3 | 11 | 0.35 |
| (1,1159) | 1:A:30:GLN:HG3 | 1:A:57:VAL:HA | 15 | 0.35 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD11 | 5 | 0.35 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD12 | 5 | 0.35 |
| (1,1052) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HD13 | 5 | 0.35 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 9 | 0.34 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG21 | 8 | 0.34 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG22 | 8 | 0.34 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG23 | 8 | 0.34 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD11 | 18 | 0.34 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD12 | 18 | 0.34 |
| (1,669) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD13 | 18 | 0.34 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 8 | 0.34 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 8 | 0.34 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 8 | 0.34 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 9 | 0.34 |
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 9 | 0.34 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 9 | 0.34 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 9 | 0.34 |
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 9 | 0.34 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 9 | 0.34 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 2 | 0.34 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 2 | 0.34 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 2 | 0.34 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 10 | 0.34 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 10 | 0.34 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 10 | 0.34 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 17 | 0.34 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 17 | 0.34 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 17 | 0.34 |
| (1,1860) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB3 | 5 | 0.34 |
| (1,1754) | 1:A:7:ARG:HG2 | 1:A:8:LEU:HA | 5 | 0.34 |
| (1,1754) | 1:A:7:ARG:HG3 | 1:A:8:LEU:HA | 5 | 0.34 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 12 | 0.34 |
| (1,1632) | 1:A:3:GLN:HG3 | 1:A:4:LEU:HB2 | 1 | 0.34 |
| (1,1632) | 1:A:3:GLN:HG3 | 1:A:4:LEU:HB3 | 1 | 0.34 |
| (1,1497) | 1:A:12:LYS:HE2 | 1:A:13:ARG:HA | 5 | 0.34 |
| (1,1497) | 1:A:12:LYS:HE3 | 1:A:13:ARG:HA | 5 | 0.34 |
| (1,1497) | 1:A:12:LYS:HE2 | 1:A:13:ARG:HA | 11 | 0.34 |
| (1,1497) | 1:A:12:LYS:HE3 | 1:A:13:ARG:HA | 11 | 0.34 |
| (1,808) | 1:A:75:GLN:HB2 | 1:A:75:GLN:HE22 | 5 | 0.33 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 20 | 0.33 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 4 | 0.33 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 4 | 0.33 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 4 | 0.33 |
| (1,1860) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB3 | 8 | 0.33 |
| (1,1497) | 1:A:12:LYS:HE2 | 1:A:13:ARG:HA | 10 | 0.33 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1497) | 1:A:12:LYS:HE3 | 1:A:13:ARG:HA | 10 | 0.33 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 15 | 0.32 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 19 | 0.32 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 19 | 0.32 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 19 | 0.32 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD11 | 10 | 0.32 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD12 | 10 | 0.32 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD13 | 10 | 0.32 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD21 | 10 | 0.32 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD22 | 10 | 0.32 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD23 | 10 | 0.32 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD11 | 10 | 0.32 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD12 | 10 | 0.32 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD13 | 10 | 0.32 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD21 | 10 | 0.32 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD22 | 10 | 0.32 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD23 | 10 | 0.32 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 1 | 0.32 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 3 | 0.32 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 3 | 0.32 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 3 | 0.32 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 15 | 0.32 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 15 | 0.32 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 15 | 0.32 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 16 | 0.32 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 16 | 0.32 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 16 | 0.32 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 18 | 0.32 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 18 | 0.32 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 18 | 0.32 |
| (1,1860) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB3 | 6 | 0.32 |
| (1,1754) | 1:A:7:ARG:HG2 | 1:A:8:LEU:HA | 9 | 0.32 |
| (1,1754) | 1:A:7:ARG:HG3 | 1:A:8:LEU:HA | 9 | 0.32 |
| (1,1754) | 1:A:7:ARG:HG2 | 1:A:8:LEU:HA | 18 | 0.32 |
| (1,1754) | 1:A:7:ARG:HG3 | 1:A:8:LEU:HA | 18 | 0.32 |
| (1,1692) | 1:A:52:LYS:HA | 1:A:52:LYS:HD2 | 9 | 0.32 |
| (1,1692) | 1:A:52:LYS:HA | 1:A:52:LYS:HD3 | 9 | 0.32 |
| (1,1325) | 1:A:49:ASP:HB3 | 1:A:52:LYS:HD2 | 20 | 0.32 |
| (1,1325) | 1:A:49:ASP:HB3 | 1:A:52:LYS:HD3 | 20 | 0.32 |
| (1,963) | 1:A:56:THR:HG21 | 1:A:58:PHE:HE1 | 10 | 0.31 |
| (1,963) | 1:A:56:THR:HG22 | 1:A:58:PHE:HE1 | 10 | 0.31 |
| (1,963) | 1:A:56:THR:HG23 | 1:A:58:PHE:HE1 | 10 | 0.31 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,963) | 1:A:56:THR:HG21 | 1:A:58:PHE:HE1 | 13 | 0.31 |
| (1,963) | 1:A:56:THR:HG22 | 1:A:58:PHE:HE1 | 13 | 0.31 |
| (1,963) | 1:A:56:THR:HG23 | 1:A:58:PHE:HE1 | 13 | 0.31 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 6 | 0.31 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 6 | 0.31 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 6 | 0.31 |
| (1,2927) | 1:A:96:THR:HG21 | 1:A:97:LYS:HB2 | 11 | 0.31 |
| (1,2927) | 1:A:96:THR:HG21 | 1:A:97:LYS:HB3 | 11 | 0.31 |
| (1,2927) | 1:A:96:THR:HG22 | 1:A:97:LYS:HB2 | 11 | 0.31 |
| (1,2927) | 1:A:96:THR:HG22 | 1:A:97:LYS:HB3 | 11 | 0.31 |
| (1,2927) | 1:A:96:THR:HG23 | 1:A:97:LYS:HB2 | 11 | 0.31 |
| (1,2927) | 1:A:96:THR:HG23 | 1:A:97:LYS:HB3 | 11 | 0.31 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 1 | 0.31 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 1 | 0.31 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 1 | 0.31 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 6 | 0.31 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 6 | 0.31 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 6 | 0.31 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 13 | 0.31 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 13 | 0.31 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 13 | 0.31 |
| (1,1632) | 1:A:3:GLN:HG3 | 1:A:4:LEU:HB2 | 8 | 0.31 |
| (1,1632) | 1:A:3:GLN:HG3 | 1:A:4:LEU:HB3 | 8 | 0.31 |
| (1,1159) | 1:A:30:GLN:HG3 | 1:A:57:VAL:HA | 10 | 0.31 |
| (1,1080) | 1:A:55:TYR:HD1 | 1:A:56:THR:HG21 | 8 | 0.31 |
| (1,1080) | 1:A:55:TYR:HD1 | 1:A:56:THR:HG22 | 8 | 0.31 |
| (1,1080) | 1:A:55:TYR:HD1 | 1:A:56:THR:HG23 | 8 | 0.31 |
| (2,3) | 1:A:60:VAL:O | 1:A:29:MET:H | 1 | 0.3 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 15 | 0.3 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 12 | 0.3 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 18 | 0.3 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 17 | 0.3 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 17 | 0.3 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 17 | 0.3 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG11 | 4 | 0.3 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG12 | 4 | 0.3 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG13 | 4 | 0.3 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG21 | 4 | 0.3 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG22 | 4 | 0.3 |
| (1,2739) | 1:A:69:PHE:HD1 | 1:A:70:VAL:HG23 | 4 | 0.3 |
| (1,2609) | 1:A:38:GLN:HG2 | 1:A:39:PHE:H | 14 | 0.3 |
| (1,2609) | 1:A:38:GLN:HG3 | 1:A:39:PHE:H | 14 | 0.3 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2282) | 1:A:28:TYR:HD1 | 1:A:61:LEU:HG | 3 | 0.3 |
| (1,2282) | 1:A:28:TYR:HD2 | 1:A:61:LEU:HG | 3 | 0.3 |
| (1,1223) | 1:A:79:PHE:H | 1:A:80:PRO:HD2 | 6 | 0.3 |
| (1,907) | 1:A:32:GLN:HG2 | 1:A:33:ILE:HA | 8 | 0.29 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG21 | 15 | 0.29 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG22 | 15 | 0.29 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG23 | 15 | 0.29 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 20 | 0.29 |
| (1,373) | 1:A:66:LEU:HB2 | 1:A:109:ASN:H | 11 | 0.29 |
| (1,373) | 1:A:66:LEU:HB2 | 1:A:109:ASN:H | 16 | 0.29 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD11 | 5 | 0.29 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD12 | 5 | 0.29 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD13 | 5 | 0.29 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD21 | 5 | 0.29 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD22 | 5 | 0.29 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD23 | 5 | 0.29 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD11 | 5 | 0.29 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD12 | 5 | 0.29 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD13 | 5 | 0.29 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD21 | 5 | 0.29 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD22 | 5 | 0.29 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD23 | 5 | 0.29 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 3 | 0.29 |
| (1,2355) | 1:A:122:TRP:HZ2 | 1:A:124:ILE:HA | 19 | 0.29 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 15 | 0.29 |
| (1,1508) | 1:A:18:LYS:HD2 | 1:A:20:LYS:H | 16 | 0.29 |
| (1,1508) | 1:A:18:LYS:HD3 | 1:A:20:LYS:H | 16 | 0.29 |
| (1,1080) | 1:A:55:TYR:HD1 | 1:A:56:THR:HG21 | 7 | 0.29 |
| (1,1080) | 1:A:55:TYR:HD1 | 1:A:56:THR:HG22 | 7 | 0.29 |
| (1,1080) | 1:A:55:TYR:HD1 | 1:A:56:THR:HG23 | 7 | 0.29 |
| (1,970) | 1:A:33:ILE:HG12 | 1:A:56:THR:HB | 3 | 0.28 |
| (1,963) | 1:A:56:THR:HG21 | 1:A:58:PHE:HE1 | 6 | 0.28 |
| (1,963) | 1:A:56:THR:HG22 | 1:A:58:PHE:HE1 | 6 | 0.28 |
| (1,963) | 1:A:56:THR:HG23 | 1:A:58:PHE:HE1 | 6 | 0.28 |
| (1,808) | 1:A:75:GLN:HB2 | 1:A:75:GLN:HE22 | 12 | 0.28 |
| (1,808) | 1:A:75:GLN:HB2 | 1:A:75:GLN:HE22 | 15 | 0.28 |
| (1,780) | 1:A:75:GLN:H | 1:A:76:THR:HG21 | 7 | 0.28 |
| (1,780) | 1:A:75:GLN:H | 1:A:76:THR:HG22 | 7 | 0.28 |
| (1,780) | 1:A:75:GLN:H | 1:A:76:THR:HG23 | 7 | 0.28 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 4 | 0.28 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 4 | 0.28 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 4 | 0.28 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 4 | 0.28 |
| (1,373) | 1:A:66:LEU:HB2 | 1:A:109:ASN:H | 8 | 0.28 |
| (1,3019) | 1:A:119:GLU:HG2 | 1:A:121:PRO:HA | 8 | 0.28 |
| (1,3019) | 1:A:119:GLU:HG3 | 1:A:121:PRO:HA | 8 | 0.28 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD11 | 9 | 0.28 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD12 | 9 | 0.28 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD13 | 9 | 0.28 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD21 | 9 | 0.28 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD22 | 9 | 0.28 |
| (1,2650) | 1:A:58:PHE:HD1 | 1:A:73:LEU:HD23 | 9 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 11 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 11 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 11 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 11 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 11 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 11 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 14 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 14 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 14 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 14 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 14 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 14 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 18 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 18 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 18 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 18 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 18 | 0.28 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 18 | 0.28 |
| (1,1754) | 1:A:7:ARG:HG2 | 1:A:8:LEU:HA | 10 | 0.28 |
| (1,1754) | 1:A:7:ARG:HG3 | 1:A:8:LEU:HA | 10 | 0.28 |
| (1,1754) | 1:A:7:ARG:HG2 | 1:A:8:LEU:HA | 20 | 0.28 |
| (1,1754) | 1:A:7:ARG:HG3 | 1:A:8:LEU:HA | 20 | 0.28 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 1 | 0.28 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 4 | 0.28 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG21 | 3 | 0.28 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG22 | 3 | 0.28 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG23 | 3 | 0.28 |
| (1,967) | 1:A:56:THR:HB | 1:A:58:PHE:HE1 | 7 | 0.27 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG21 | 12 | 0.27 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG22 | 12 | 0.27 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG23 | 12 | 0.27 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 1 | 0.27 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 5 | 0.27 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 16 | 0.27 |
| (1,2376) | 1:A:69:PHE:HE1 | 1:A:73:LEU:HB2 | 8 | 0.27 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 10 | 0.27 |
| (1,2221) | 1:A:106:ALA:HB1 | 1:A:114:GLU:HB2 | 18 | 0.27 |
| (1,2221) | 1:A:106:ALA:HB2 | 1:A:114:GLU:HB2 | 18 | 0.27 |
| (1,2221) | 1:A:106:ALA:HB3 | 1:A:114:GLU:HB2 | 18 | 0.27 |
| (1,1906) | 1:A:89:MET:HE1 | 1:A:124:ILE:HB | 7 | 0.27 |
| (1,1906) | 1:A:89:MET:HE2 | 1:A:124:ILE:HB | 7 | 0.27 |
| (1,1906) | 1:A:89:MET:HE3 | 1:A:124:ILE:HB | 7 | 0.27 |
| (1,1754) | 1:A:7:ARG:HG2 | 1:A:8:LEU:HA | 12 | 0.27 |
| (1,1754) | 1:A:7:ARG:HG3 | 1:A:8:LEU:HA | 12 | 0.27 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 9 | 0.27 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 14 | 0.27 |
| (1,1080) | 1:A:55:TYR:HD1 | 1:A:56:THR:HG21 | 9 | 0.27 |
| (1,1080) | 1:A:55:TYR:HD1 | 1:A:56:THR:HG22 | 9 | 0.27 |
| (1,1080) | 1:A:55:TYR:HD1 | 1:A:56:THR:HG23 | 9 | 0.27 |
| (1,1078) | 1:A:55:TYR:HA | 1:A:56:THR:HG21 | 11 | 0.27 |
| (1,1078) | 1:A:55:TYR:HA | 1:A:56:THR:HG22 | 11 | 0.27 |
| (1,1078) | 1:A:55:TYR:HA | 1:A:56:THR:HG23 | 11 | 0.27 |
| (1,971) | 1:A:34:VAL:HG11 | 1:A:56:THR:HB | 16 | 0.26 |
| (1,971) | 1:A:34:VAL:HG12 | 1:A:56:THR:HB | 16 | 0.26 |
| (1,971) | 1:A:34:VAL:HG13 | 1:A:56:THR:HB | 16 | 0.26 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG21 | 9 | 0.26 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG22 | 9 | 0.26 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG23 | 9 | 0.26 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 3 | 0.26 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 12 | 0.26 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 12 | 0.26 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 12 | 0.26 |
| (1,2648) | 1:A:58:PHE:HA | 1:A:59:LYS:HE2 | 15 | 0.26 |
| (1,2648) | 1:A:58:PHE:HA | 1:A:59:LYS:HE3 | 15 | 0.26 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 1 | 0.26 |
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 1 | 0.26 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 1 | 0.26 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 1 | 0.26 |
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 1 | 0.26 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 1 | 0.26 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 5 | 0.26 |
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 5 | 0.26 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 5 | 0.26 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 5 | 0.26 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 5 | 0.26 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 5 | 0.26 |
| (1,2422) | 1:A:8:LEU:HD11 | 1:A:11:GLU:HB2 | 7 | 0.26 |
| (1,2422) | 1:A:8:LEU:HD11 | 1:A:11:GLU:HB3 | 7 | 0.26 |
| (1,2422) | 1:A:8:LEU:HD12 | 1:A:11:GLU:HB2 | 7 | 0.26 |
| (1,2422) | 1:A:8:LEU:HD12 | 1:A:11:GLU:HB3 | 7 | 0.26 |
| (1,2422) | 1:A:8:LEU:HD13 | 1:A:11:GLU:HB2 | 7 | 0.26 |
| (1,2422) | 1:A:8:LEU:HD13 | 1:A:11:GLU:HB3 | 7 | 0.26 |
| (1,2422) | 1:A:8:LEU:HD21 | 1:A:11:GLU:HB2 | 7 | 0.26 |
| (1,2422) | 1:A:8:LEU:HD21 | 1:A:11:GLU:HB3 | 7 | 0.26 |
| (1,2422) | 1:A:8:LEU:HD22 | 1:A:11:GLU:HB2 | 7 | 0.26 |
| (1,2422) | 1:A:8:LEU:HD22 | 1:A:11:GLU:HB3 | 7 | 0.26 |
| (1,2422) | 1:A:8:LEU:HD23 | 1:A:11:GLU:HB2 | 7 | 0.26 |
| (1,2422) | 1:A:8:LEU:HD23 | 1:A:11:GLU:HB3 | 7 | 0.26 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 18 | 0.26 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 18 | 0.26 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 18 | 0.26 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 15 | 0.26 |
| (1,2035) | 1:A:37:ASP:HA | 1:A:51:GLU:HA | 4 | 0.26 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 20 | 0.26 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 20 | 0.26 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 20 | 0.26 |
| (1,1812) | 1:A:36:GLU:HA | 1:A:52:LYS:HG2 | 10 | 0.26 |
| (1,1812) | 1:A:36:GLU:HA | 1:A:52:LYS:HG3 | 10 | 0.26 |
| (1,1812) | 1:A:36:GLU:HA | 1:A:52:LYS:HG2 | 13 | 0.26 |
| (1,1812) | 1:A:36:GLU:HA | 1:A:52:LYS:HG3 | 13 | 0.26 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 13 | 0.26 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 14 | 0.25 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 11 | 0.25 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 11 | 0.25 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 11 | 0.25 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 13 | 0.25 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 13 | 0.25 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 13 | 0.25 |
| (1,373) | 1:A:66:LEU:HB2 | 1:A:109:ASN:H | 20 | 0.25 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD11 | 16 | 0.25 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD12 | 16 | 0.25 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD13 | 16 | 0.25 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD21 | 16 | 0.25 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD22 | 16 | 0.25 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD23 | 16 | 0.25 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD11 | 16 | 0.25 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD12 | 16 | 0.25 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD13 | 16 | 0.25 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD21 | 16 | 0.25 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD22 | 16 | 0.25 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD23 | 16 | 0.25 |
| (1,2595) | 1:A:36:GLU:HB2 | 1:A:52:LYS:HE2 | 1 | 0.25 |
| (1,2595) | 1:A:36:GLU:HB2 | 1:A:52:LYS:HE3 | 1 | 0.25 |
| (1,2595) | 1:A:36:GLU:HB3 | 1:A:52:LYS:HE2 | 1 | 0.25 |
| (1,2595) | 1:A:36:GLU:HB3 | 1:A:52:LYS:HE3 | 1 | 0.25 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 16 | 0.25 |
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 16 | 0.25 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 16 | 0.25 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 16 | 0.25 |
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 16 | 0.25 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 16 | 0.25 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 13 | 0.25 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 19 | 0.25 |
| (1,1906) | 1:A:89:MET:HE1 | 1:A:124:ILE:HB | 13 | 0.25 |
| (1,1906) | 1:A:89:MET:HE2 | 1:A:124:ILE:HB | 13 | 0.25 |
| (1,1906) | 1:A:89:MET:HE3 | 1:A:124:ILE:HB | 13 | 0.25 |
| (1,1860) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB3 | 13 | 0.25 |
| (1,1812) | 1:A:36:GLU:HA | 1:A:52:LYS:HG2 | 16 | 0.25 |
| (1,1812) | 1:A:36:GLU:HA | 1:A:52:LYS:HG3 | 16 | 0.25 |
| (1,1812) | 1:A:36:GLU:HA | 1:A:52:LYS:HG2 | 18 | 0.25 |
| (1,1812) | 1:A:36:GLU:HA | 1:A:52:LYS:HG3 | 18 | 0.25 |
| (1,1754) | 1:A:7:ARG:HG2 | 1:A:8:LEU:HA | 6 | 0.25 |
| (1,1754) | 1:A:7:ARG:HG3 | 1:A:8:LEU:HA | 6 | 0.25 |
| (1,1754) | 1:A:7:ARG:HG2 | 1:A:8:LEU:HA | 17 | 0.25 |
| (1,1754) | 1:A:7:ARG:HG3 | 1:A:8:LEU:HA | 17 | 0.25 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 5 | 0.25 |
| (1,1388) | 1:A:36:GLU:HA | 1:A:51:GLU:HB3 | 18 | 0.25 |
| (1,1379) | 1:A:85:ARG:HB2 | 1:A:127:GLU:HG3 | 20 | 0.25 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG21 | 4 | 0.25 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG22 | 4 | 0.25 |
| (1,1029) | 1:A:69:PHE:HE1 | 1:A:124:ILE:HG23 | 4 | 0.25 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 2 | 0.24 |
| (1,373) | 1:A:66:LEU:HB2 | 1:A:109:ASN:H | 19 | 0.24 |
| (1,2519) | 1:A:28:TYR:HD1 | 1:A:59:LYS:HE2 | 13 | 0.24 |
| (1,2519) | 1:A:28:TYR:HD1 | 1:A:59:LYS:HE3 | 13 | 0.24 |
| (1,2519) | 1:A:28:TYR:HD2 | 1:A:59:LYS:HE2 | 13 | 0.24 |
| (1,2519) | 1:A:28:TYR:HD2 | 1:A:59:LYS:HE3 | 13 | 0.24 |
| (1,2376) | 1:A:69:PHE:HE1 | 1:A:73:LEU:HB2 | 14 | 0.24 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2350) | 1:A:79:PHE:HZ | 1:A:128:THR:HG21 | 13 | 0.24 |
| (1,2350) | 1:A:79:PHE:HZ | 1:A:128:THR:HG22 | 13 | 0.24 |
| (1,2350) | 1:A:79:PHE:HZ | 1:A:128:THR:HG23 | 13 | 0.24 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 10 | 0.24 |
| (1,2221) | 1:A:106:ALA:HB1 | 1:A:114:GLU:HB2 | 12 | 0.24 |
| (1,2221) | 1:A:106:ALA:HB2 | 1:A:114:GLU:HB2 | 12 | 0.24 |
| (1,2221) | 1:A:106:ALA:HB3 | 1:A:114:GLU:HB2 | 12 | 0.24 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 2 | 0.24 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 2 | 0.24 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 2 | 0.24 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 2 | 0.24 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 8 | 0.24 |
| (1,1632) | 1:A:3:GLN:HG3 | 1:A:4:LEU:HB2 | 14 | 0.24 |
| (1,1632) | 1:A:3:GLN:HG3 | 1:A:4:LEU:HB3 | 14 | 0.24 |
| (1,1631) | 1:A:30:GLN:HG2 | 1:A:121:PRO:HB3 | 13 | 0.24 |
| (1,1536) | 1:A:64:SER:HB2 | 1:A:68:GLU:HG2 | 17 | 0.24 |
| (1,1536) | 1:A:64:SER:HB2 | 1:A:68:GLU:HG3 | 17 | 0.24 |
| (1,1497) | 1:A:12:LYS:HE2 | 1:A:13:ARG:HA | 18 | 0.24 |
| (1,1497) | 1:A:12:LYS:HE3 | 1:A:13:ARG:HA | 18 | 0.24 |
| (1,1159) | 1:A:30:GLN:HG3 | 1:A:57:VAL:HA | 13 | 0.24 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 19 | 0.24 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 19 | 0.24 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 19 | 0.24 |
| (1,1078) | 1:A:55:TYR:HA | 1:A:56:THR:HG21 | 7 | 0.24 |
| (1,1078) | 1:A:55:TYR:HA | 1:A:56:THR:HG22 | 7 | 0.24 |
| (1,1078) | 1:A:55:TYR:HA | 1:A:56:THR:HG23 | 7 | 0.24 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG21 | 5 | 0.23 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG22 | 5 | 0.23 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG23 | 5 | 0.23 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 6 | 0.23 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 13 | 0.23 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 5 | 0.23 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 5 | 0.23 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 5 | 0.23 |
| (1,2619) | 1:A:46:ASP:H | 1:A:47:MET:HB2 | 11 | 0.23 |
| (1,2619) | 1:A:46:ASP:H | 1:A:47:MET:HB3 | 11 | 0.23 |
| (1,2519) | 1:A:28:TYR:HD1 | 1:A:59:LYS:HE2 | 15 | 0.23 |
| (1,2519) | 1:A:28:TYR:HD1 | 1:A:59:LYS:HE3 | 15 | 0.23 |
| (1,2519) | 1:A:28:TYR:HD2 | 1:A:59:LYS:HE2 | 15 | 0.23 |
| (1,2519) | 1:A:28:TYR:HD2 | 1:A:59:LYS:HE3 | 15 | 0.23 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 7 | 0.23 |
| (1,2221) | 1:A:106:ALA:HB1 | 1:A:114:GLU:HB2 | 17 | 0.23 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2221) | 1:A:106:ALA:HB2 | 1:A:114:GLU:HB2 | 17 | 0.23 |
| (1,2221) | 1:A:106:ALA:HB3 | 1:A:114:GLU:HB2 | 17 | 0.23 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 10 | 0.23 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 10 | 0.23 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 10 | 0.23 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 19 | 0.23 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 19 | 0.23 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 19 | 0.23 |
| (1,1906) | 1:A:89:MET:HE1 | 1:A:124:ILE:HB | 6 | 0.23 |
| (1,1906) | 1:A:89:MET:HE2 | 1:A:124:ILE:HB | 6 | 0.23 |
| (1,1906) | 1:A:89:MET:HE3 | 1:A:124:ILE:HB | 6 | 0.23 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 16 | 0.23 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 18 | 0.23 |
| (1,1632) | 1:A:3:GLN:HG3 | 1:A:4:LEU:HB2 | 3 | 0.23 |
| (1,1632) | 1:A:3:GLN:HG3 | 1:A:4:LEU:HB3 | 3 | 0.23 |
| (1,1492) | 1:A:1:PRO:HA | 1:A:3:GLN:HB2 | 13 | 0.23 |
| (1,1492) | 1:A:1:PRO:HA | 1:A:3:GLN:HB3 | 13 | 0.23 |
| (1,1387) | 1:A:105:GLU:HB2 | 1:A:107:ASP:H | 12 | 0.23 |
| (1,1387) | 1:A:105:GLU:HB3 | 1:A:107:ASP:H | 12 | 0.23 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 13 | 0.23 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 13 | 0.23 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 13 | 0.23 |
| (2,61) | 1:A:9:GLN:O | 1:A:13:ARG:H | 7 | 0.22 |
| (1,780) | 1:A:75:GLN:H | 1:A:76:THR:HG21 | 3 | 0.22 |
| (1,780) | 1:A:75:GLN:H | 1:A:76:THR:HG22 | 3 | 0.22 |
| (1,780) | 1:A:75:GLN:H | 1:A:76:THR:HG23 | 3 | 0.22 |
| (1,738) | 1:A:34:VAL:HB | 1:A:55:TYR:HA | 7 | 0.22 |
| (1,683) | 1:A:79:PHE:HD1 | 1:A:127:GLU:HG3 | 12 | 0.22 |
| (1,683) | 1:A:79:PHE:HD2 | 1:A:127:GLU:HG3 | 12 | 0.22 |
| (1,339) | 1:A:89:MET:HE1 | 1:A:125:PHE:H | 3 | 0.22 |
| (1,339) | 1:A:89:MET:HE2 | 1:A:125:PHE:H | 3 | 0.22 |
| (1,339) | 1:A:89:MET:HE3 | 1:A:125:PHE:H | 3 | 0.22 |
| (1,339) | 1:A:89:MET:HE1 | 1:A:125:PHE:H | 18 | 0.22 |
| (1,339) | 1:A:89:MET:HE2 | 1:A:125:PHE:H | 18 | 0.22 |
| (1,339) | 1:A:89:MET:HE3 | 1:A:125:PHE:H | 18 | 0.22 |
| (1,3005) | 1:A:117:ASP:HB2 | 1:A:119:GLU:HG2 | 11 | 0.22 |
| (1,3005) | 1:A:117:ASP:HB2 | 1:A:119:GLU:HG3 | 11 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD11 | 19 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD12 | 19 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD13 | 19 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD21 | 19 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD22 | 19 | 0.22 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD23 | 19 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD11 | 19 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD12 | 19 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD13 | 19 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD21 | 19 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD22 | 19 | 0.22 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD23 | 19 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD11 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD12 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD13 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD21 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD22 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD23 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD11 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD12 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD13 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD21 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD22 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD23 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD11 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD12 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD13 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD21 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD22 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD23 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD11 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD12 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD13 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD21 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD22 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD23 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD11 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD12 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD13 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD21 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD22 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD23 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD11 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD12 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD13 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD21 | 14 | 0.22 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD22 | 14 | 0.22 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD23 | 14 | 0.22 |
| (1,2374) | 1:A:48:TYR:HD1 | 1:A:53:VAL:HB | 7 | 0.22 |
| (1,2374) | 1:A:48:TYR:HD1 | 1:A:53:VAL:HB | 15 | 0.22 |
| (1,2282) | 1:A:28:TYR:HD1 | 1:A:61:LEU:HG | 13 | 0.22 |
| (1,2282) | 1:A:28:TYR:HD2 | 1:A:61:LEU:HG | 13 | 0.22 |
| (1,1995) | 1:A:103:ASP:HB3 | 1:A:106:ALA:HA | 7 | 0.22 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 2 | 0.22 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 2 | 0.22 |
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 2 | 0.22 |
| (1,1878) | 1:A:56:THR:HA | 1:A:58:PHE:HZ | 9 | 0.22 |
| (1,1860) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB3 | 12 | 0.22 |
| (1,1813) | 1:A:36:GLU:HA | 1:A:52:LYS:HB2 | 1 | 0.22 |
| (1,1608) | 1:A:101:MET:HA | 1:A:102:LEU:HG | 13 | 0.22 |
| (1,1273) | 1:A:87:TRP:HA | 1:A:102:LEU:HD11 | 7 | 0.22 |
| (1,1273) | 1:A:87:TRP:HA | 1:A:102:LEU:HD12 | 7 | 0.22 |
| (1,1273) | 1:A:87:TRP:HA | 1:A:102:LEU:HD13 | 7 | 0.22 |
| (1,1172) | 1:A:30:GLN:HB2 | 1:A:59:LYS:HA | 3 | 0.22 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 18 | 0.22 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 18 | 0.22 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 18 | 0.22 |
| (1,990) | 1:A:50:GLU:HG2 | 1:A:53:VAL:HG11 | 18 | 0.21 |
| (1,990) | 1:A:50:GLU:HG2 | 1:A:53:VAL:HG12 | 18 | 0.21 |
| (1,990) | 1:A:50:GLU:HG2 | 1:A:53:VAL:HG13 | 18 | 0.21 |
| (1,990) | 1:A:50:GLU:HG3 | 1:A:53:VAL:HG11 | 18 | 0.21 |
| (1,990) | 1:A:50:GLU:HG3 | 1:A:53:VAL:HG12 | 18 | 0.21 |
| (1,990) | 1:A:50:GLU:HG3 | 1:A:53:VAL:HG13 | 18 | 0.21 |
| (1,970) | 1:A:33:ILE:HG12 | 1:A:56:THR:HB | 18 | 0.21 |
| (1,816) | 1:A:1:PRO:HG2 | 1:A:2:GLN:HA | 6 | 0.21 |
| (1,816) | 1:A:1:PRO:HG3 | 1:A:2:GLN:HA | 6 | 0.21 |
| (1,703) | 1:A:2:GLN:H | 1:A:3:GLN:HA | 13 | 0.21 |
| (1,683) | 1:A:79:PHE:HD1 | 1:A:127:GLU:HG3 | 3 | 0.21 |
| (1,683) | 1:A:79:PHE:HD2 | 1:A:127:GLU:HG3 | 3 | 0.21 |
| (1,373) | 1:A:66:LEU:HB2 | 1:A:109:ASN:H | 9 | 0.21 |
| (1,339) | 1:A:89:MET:HE1 | 1:A:125:PHE:H | 16 | 0.21 |
| (1,339) | 1:A:89:MET:HE2 | 1:A:125:PHE:H | 16 | 0.21 |
| (1,339) | 1:A:89:MET:HE3 | 1:A:125:PHE:H | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD11 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD12 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD13 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD21 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD22 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD23 | 9 | 0.21 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD11 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD12 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD13 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD21 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD22 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD23 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD11 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD12 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD13 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD21 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD22 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD23 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD11 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD12 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD13 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD21 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD22 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD23 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD11 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD12 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD13 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD21 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD22 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD23 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD11 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD12 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD13 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD21 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD22 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD23 | 9 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD11 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD12 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD13 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD21 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD22 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD23 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD11 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD12 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD13 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD21 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD22 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD23 | 16 | 0.21 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD11 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD12 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD13 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD21 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD22 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD23 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD11 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD12 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD13 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD21 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD22 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD23 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD11 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD12 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD13 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD21 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD22 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD23 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD11 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD12 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD13 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD21 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD22 | 16 | 0.21 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD23 | 16 | 0.21 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD11 | 14 | 0.21 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD12 | 14 | 0.21 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD13 | 14 | 0.21 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD21 | 14 | 0.21 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD22 | 14 | 0.21 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD23 | 14 | 0.21 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD11 | 14 | 0.21 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD12 | 14 | 0.21 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD13 | 14 | 0.21 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD21 | 14 | 0.21 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD22 | 14 | 0.21 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD23 | 14 | 0.21 |
| (1,2600) | 1:A:36:GLU:HG2 | 1:A:52:LYS:HG2 | 14 | 0.21 |
| (1,2600) | 1:A:36:GLU:HG2 | 1:A:52:LYS:HG3 | 14 | 0.21 |
| (1,2600) | 1:A:36:GLU:HG3 | 1:A:52:LYS:HG2 | 14 | 0.21 |
| (1,2600) | 1:A:36:GLU:HG3 | 1:A:52:LYS:HG3 | 14 | 0.21 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 11 | 0.21 |
| (1,2350) | 1:A:79:PHE:HZ | 1:A:128:THR:HG21 | 16 | 0.21 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2350) | 1:A:79:PHE:HZ | 1:A:128:THR:HG22 | 16 | 0.21 |
| (1,2350) | 1:A:79:PHE:HZ | 1:A:128:THR:HG23 | 16 | 0.21 |
| (1,2282) | 1:A:28:TYR:HD1 | 1:A:61:LEU:HG | 9 | 0.21 |
| (1,2282) | 1:A:28:TYR:HD2 | 1:A:61:LEU:HG | 9 | 0.21 |
| (1,2263) | 1:A:48:TYR:HD1 | 1:A:53:VAL:HA | 18 | 0.21 |
| (1,2126) | 1:A:70:VAL:HB | 1:A:71:GLN:HB2 | 4 | 0.21 |
| (1,2126) | 1:A:70:VAL:HB | 1:A:71:GLN:HB3 | 4 | 0.21 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 11 | 0.21 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 11 | 0.21 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 11 | 0.21 |
| (1,188) | 1:A:37:ASP:H | 1:A:51:GLU:HG2 | 14 | 0.21 |
| (1,188) | 1:A:37:ASP:H | 1:A:51:GLU:HG3 | 14 | 0.21 |
| (1,1860) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB3 | 19 | 0.21 |
| (1,1813) | 1:A:36:GLU:HA | 1:A:52:LYS:HB2 | 19 | 0.21 |
| (1,1797) | 1:A:2:GLN:HB2 | 1:A:5:VAL:H | 20 | 0.21 |
| (1,1797) | 1:A:2:GLN:HB3 | 1:A:5:VAL:H | 20 | 0.21 |
| (1,1754) | 1:A:7:ARG:HG2 | 1:A:8:LEU:HA | 7 | 0.21 |
| (1,1754) | 1:A:7:ARG:HG3 | 1:A:8:LEU:HA | 7 | 0.21 |
| (1,1754) | 1:A:7:ARG:HG2 | 1:A:8:LEU:HA | 8 | 0.21 |
| (1,1754) | 1:A:7:ARG:HG3 | 1:A:8:LEU:HA | 8 | 0.21 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 11 | 0.21 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 19 | 0.21 |
| (1,1497) | 1:A:12:LYS:HE2 | 1:A:13:ARG:HA | 4 | 0.21 |
| (1,1497) | 1:A:12:LYS:HE3 | 1:A:13:ARG:HA | 4 | 0.21 |
| (1,1497) | 1:A:12:LYS:HE2 | 1:A:13:ARG:HA | 20 | 0.21 |
| (1,1497) | 1:A:12:LYS:HE3 | 1:A:13:ARG:HA | 20 | 0.21 |
| (1,1271) | 1:A:58:PHE:HZ | 1:A:73:LEU:HG | 9 | 0.21 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG21 | 15 | 0.21 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG22 | 15 | 0.21 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG23 | 15 | 0.21 |
| (1,975) | 1:A:28:TYR:HB3 | 1:A:60:VAL:HA | 15 | 0.2 |
| (1,970) | 1:A:33:ILE:HG12 | 1:A:56:THR:HB | 1 | 0.2 |
| (1,970) | 1:A:33:ILE:HG12 | 1:A:56:THR:HB | 6 | 0.2 |
| (1,970) | 1:A:33:ILE:HG12 | 1:A:56:THR:HB | 12 | 0.2 |
| (1,734) | 1:A:88:PRO:HD2 | 1:A:102:LEU:HG | 1 | 0.2 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 11 | 0.2 |
| (1,373) | 1:A:66:LEU:HB2 | 1:A:109:ASN:H | 13 | 0.2 |
| (1,371) | 1:A:106:ALA:HB1 | 1:A:109:ASN:H | 8 | 0.2 |
| (1,371) | 1:A:106:ALA:HB2 | 1:A:109:ASN:H | 8 | 0.2 |
| (1,371) | 1:A:106:ALA:HB3 | 1:A:109:ASN:H | 8 | 0.2 |
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD11 | 6 | 0.2 |
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD12 | 6 | 0.2 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD13 | 6 | 0.2 |
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD21 | 6 | 0.2 |
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD22 | 6 | 0.2 |
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD23 | 6 | 0.2 |
| (1,2954) | 1:A:104:ASN:HD21 | 1:A:105:GLU:H | 6 | 0.2 |
| (1,2954) | 1:A:104:ASN:HD22 | 1:A:105:GLU:H | 6 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 8 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 8 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 8 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 8 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 8 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 8 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 13 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 13 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 13 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 13 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 13 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 13 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 19 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 19 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 19 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 19 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 19 | 0.2 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 19 | 0.2 |
| (1,2374) | 1:A:48:TYR:HD1 | 1:A:53:VAL:HB | 11 | 0.2 |
| (1,2374) | 1:A:48:TYR:HD1 | 1:A:53:VAL:HB | 13 | 0.2 |
| (1,2374) | 1:A:48:TYR:HD1 | 1:A:53:VAL:HB | 14 | 0.2 |
| (1,2374) | 1:A:48:TYR:HD1 | 1:A:53:VAL:HB | 19 | 0.2 |
| (1,2313) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HD1 | 9 | 0.2 |
| (1,2313) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HD1 | 9 | 0.2 |
| (1,2313) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HD1 | 9 | 0.2 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 1 | 0.2 |
| (1,2101) | 1:A:73:LEU:HG | 1:A:76:THR:HB | 12 | 0.2 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 16 | 0.2 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 16 | 0.2 |
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 16 | 0.2 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE1 | 7 | 0.2 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE2 | 7 | 0.2 |
| (1,1910) | 1:A:73:LEU:HG | 1:A:77:MET:HE3 | 7 | 0.2 |
| (1,1906) | 1:A:89:MET:HE1 | 1:A:124:ILE:HB | 19 | 0.2 |
| (1,1906) | 1:A:89:MET:HE2 | 1:A:124:ILE:HB | 19 | 0.2 |
| (1,1906) | 1:A:89:MET:HE3 | 1:A:124:ILE:HB | 19 | 0.2 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,188) | 1:A:37:ASP:H | 1:A:51:GLU:HG2 | 19 | 0.2 |
| (1,188) | 1:A:37:ASP:H | 1:A:51:GLU:HG3 | 19 | 0.2 |
| (1,1859) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB2 | 1 | 0.2 |
| (1,1695) | 1:A:38:GLN:H | 1:A:52:LYS:HD2 | 20 | 0.2 |
| (1,1695) | 1:A:38:GLN:H | 1:A:52:LYS:HD3 | 20 | 0.2 |
| (1,1608) | 1:A:101:MET:HA | 1:A:102:LEU:HG | 9 | 0.2 |
| (1,1464) | 1:A:49:ASP:HA | 1:A:51:GLU:HG2 | 6 | 0.2 |
| (1,1464) | 1:A:49:ASP:HA | 1:A:51:GLU:HG3 | 6 | 0.2 |
| (1,1387) | 1:A:105:GLU:HB2 | 1:A:107:ASP:H | 9 | 0.2 |
| (1,1387) | 1:A:105:GLU:HB3 | 1:A:107:ASP:H | 9 | 0.2 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 17 | 0.2 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 17 | 0.2 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 17 | 0.2 |
| (1,975) | 1:A:28:TYR:HB3 | 1:A:60:VAL:HA | 8 | 0.19 |
| (1,975) | 1:A:28:TYR:HB3 | 1:A:60:VAL:HA | 13 | 0.19 |
| (1,970) | 1:A:33:ILE:HG12 | 1:A:56:THR:HB | 19 | 0.19 |
| (1,966) | 1:A:33:ILE:H | 1:A:56:THR:HB | 12 | 0.19 |
| (1,963) | 1:A:56:THR:HG21 | 1:A:58:PHE:HE1 | 2 | 0.19 |
| (1,963) | 1:A:56:THR:HG22 | 1:A:58:PHE:HE1 | 2 | 0.19 |
| (1,963) | 1:A:56:THR:HG23 | 1:A:58:PHE:HE1 | 2 | 0.19 |
| (1,963) | 1:A:56:THR:HG21 | 1:A:58:PHE:HE1 | 19 | 0.19 |
| (1,963) | 1:A:56:THR:HG22 | 1:A:58:PHE:HE1 | 19 | 0.19 |
| (1,963) | 1:A:56:THR:HG23 | 1:A:58:PHE:HE1 | 19 | 0.19 |
| (1,907) | 1:A:32:GLN:HG2 | 1:A:33:ILE:HA | 14 | 0.19 |
| (1,861) | 1:A:33:ILE:HD11 | 1:A:125:PHE:HA | 10 | 0.19 |
| (1,861) | 1:A:33:ILE:HD12 | 1:A:125:PHE:HA | 10 | 0.19 |
| (1,861) | 1:A:33:ILE:HD13 | 1:A:125:PHE:HA | 10 | 0.19 |
| (1,816) | 1:A:1:PRO:HG2 | 1:A:2:GLN:HA | 13 | 0.19 |
| (1,816) | 1:A:1:PRO:HG3 | 1:A:2:GLN:HA | 13 | 0.19 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG21 | 17 | 0.19 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG22 | 17 | 0.19 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG23 | 17 | 0.19 |
| (1,703) | 1:A:2:GLN:H | 1:A:3:GLN:HA | 10 | 0.19 |
| (1,683) | 1:A:79:PHE:HD1 | 1:A:127:GLU:HG3 | 17 | 0.19 |
| (1,683) | 1:A:79:PHE:HD2 | 1:A:127:GLU:HG3 | 17 | 0.19 |
| (1,2918) | 1:A:92:ARG:HG2 | 1:A:97:LYS:HD2 | 10 | 0.19 |
| (1,2918) | 1:A:92:ARG:HG2 | 1:A:97:LYS:HD3 | 10 | 0.19 |
| (1,2918) | 1:A:92:ARG:HG3 | 1:A:97:LYS:HD2 | 10 | 0.19 |
| (1,2918) | 1:A:92:ARG:HG3 | 1:A:97:LYS:HD3 | 10 | 0.19 |
| (1,2609) | 1:A:38:GLN:HG2 | 1:A:39:PHE:H | 5 | 0.19 |
| (1,2609) | 1:A:38:GLN:HG3 | 1:A:39:PHE:H | 5 | 0.19 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 12 | 0.19 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 12 | 0.19 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 12 | 0.19 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 12 | 0.19 |
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 12 | 0.19 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 12 | 0.19 |
| (1,2375) | 1:A:66:LEU:HA | 1:A:69:PHE:HD1 | 15 | 0.19 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 6 | 0.19 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 17 | 0.19 |
| (1,2354) | 1:A:88:PRO:HD2 | 1:A:122:TRP:HZ2 | 18 | 0.19 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 13 | 0.19 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 16 | 0.19 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 18 | 0.19 |
| (1,2232) | 1:A:113:ILE:HG13 | 1:A:119:GLU:H | 9 | 0.19 |
| (1,2232) | 1:A:113:ILE:HG13 | 1:A:119:GLU:H | 18 | 0.19 |
| (1,2136) | 1:A:77:MET:HE1 | 1:A:126:LEU:HA | 8 | 0.19 |
| (1,2136) | 1:A:77:MET:HE2 | 1:A:126:LEU:HA | 8 | 0.19 |
| (1,2136) | 1:A:77:MET:HE3 | 1:A:126:LEU:HA | 8 | 0.19 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD11 | 10 | 0.19 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD12 | 10 | 0.19 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD13 | 10 | 0.19 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD11 | 10 | 0.19 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD12 | 10 | 0.19 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD13 | 10 | 0.19 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD11 | 11 | 0.19 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD12 | 11 | 0.19 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD13 | 11 | 0.19 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD11 | 11 | 0.19 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD12 | 11 | 0.19 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD13 | 11 | 0.19 |
| (1,2041) | 1:A:49:ASP:HB2 | 1:A:53:VAL:HA | 2 | 0.19 |
| (1,2001) | 1:A:29:MET:HE1 | 1:A:124:ILE:HG21 | 19 | 0.19 |
| (1,2001) | 1:A:29:MET:HE1 | 1:A:124:ILE:HG22 | 19 | 0.19 |
| (1,2001) | 1:A:29:MET:HE1 | 1:A:124:ILE:HG23 | 19 | 0.19 |
| (1,2001) | 1:A:29:MET:HE2 | 1:A:124:ILE:HG21 | 19 | 0.19 |
| (1,2001) | 1:A:29:MET:HE2 | 1:A:124:ILE:HG22 | 19 | 0.19 |
| (1,2001) | 1:A:29:MET:HE2 | 1:A:124:ILE:HG23 | 19 | 0.19 |
| (1,2001) | 1:A:29:MET:HE3 | 1:A:124:ILE:HG21 | 19 | 0.19 |
| (1,2001) | 1:A:29:MET:HE3 | 1:A:124:ILE:HG22 | 19 | 0.19 |
| (1,2001) | 1:A:29:MET:HE3 | 1:A:124:ILE:HG23 | 19 | 0.19 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 3 | 0.19 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 3 | 0.19 |
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 3 | 0.19 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1860) | 1:A:58:PHE:HD1 | 1:A:72:SER:HB3 | 7 | 0.19 |
| (1,1754) | 1:A:7:ARG:HG2 | 1:A:8:LEU:HA | 15 | 0.19 |
| (1,1754) | 1:A:7:ARG:HG3 | 1:A:8:LEU:HA | 15 | 0.19 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 7 | 0.19 |
| (1,1603) | 1:A:79:PHE:HZ | 1:A:128:THR:HB | 11 | 0.19 |
| (1,1603) | 1:A:79:PHE:HZ | 1:A:128:THR:HB | 19 | 0.19 |
| (1,1599) | 1:A:84:ILE:HA | 1:A:128:THR:HG21 | 8 | 0.19 |
| (1,1599) | 1:A:84:ILE:HA | 1:A:128:THR:HG22 | 8 | 0.19 |
| (1,1599) | 1:A:84:ILE:HA | 1:A:128:THR:HG23 | 8 | 0.19 |
| (1,1599) | 1:A:84:ILE:HA | 1:A:128:THR:HG21 | 14 | 0.19 |
| (1,1599) | 1:A:84:ILE:HA | 1:A:128:THR:HG22 | 14 | 0.19 |
| (1,1599) | 1:A:84:ILE:HA | 1:A:128:THR:HG23 | 14 | 0.19 |
| (1,1535) | 1:A:64:SER:HB3 | 1:A:68:GLU:HG2 | 18 | 0.19 |
| (1,1535) | 1:A:64:SER:HB3 | 1:A:68:GLU:HG3 | 18 | 0.19 |
| (1,1497) | 1:A:12:LYS:HE2 | 1:A:13:ARG:HA | 3 | 0.19 |
| (1,1497) | 1:A:12:LYS:HE3 | 1:A:13:ARG:HA | 3 | 0.19 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG11 | 1 | 0.19 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG12 | 1 | 0.19 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG13 | 1 | 0.19 |
| (1,1162) | 1:A:30:GLN:HG2 | 1:A:59:LYS:HD2 | 15 | 0.19 |
| (1,1162) | 1:A:30:GLN:HG2 | 1:A:59:LYS:HD3 | 15 | 0.19 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 6 | 0.19 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 6 | 0.19 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 6 | 0.19 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 14 | 0.19 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 14 | 0.19 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 14 | 0.19 |
| (1,975) | 1:A:28:TYR:HB3 | 1:A:60:VAL:HA | 9 | 0.18 |
| (1,970) | 1:A:33:ILE:HG12 | 1:A:56:THR:HB | 4 | 0.18 |
| (1,970) | 1:A:33:ILE:HG12 | 1:A:56:THR:HB | 17 | 0.18 |
| (1,869) | 1:A:33:ILE:HD11 | 1:A:124:ILE:H | 16 | 0.18 |
| (1,869) | 1:A:33:ILE:HD12 | 1:A:124:ILE:H | 16 | 0.18 |
| (1,869) | 1:A:33:ILE:HD13 | 1:A:124:ILE:H | 16 | 0.18 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG21 | 2 | 0.18 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG22 | 2 | 0.18 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG23 | 2 | 0.18 |
| (1,703) | 1:A:2:GLN:H | 1:A:3:GLN:HA | 6 | 0.18 |
| (1,595) | 1:A:8:LEU:HB3 | 1:A:9:GLN:HG3 | 16 | 0.18 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 15 | 0.18 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 17 | 0.18 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 19 | 0.18 |
| (1,373) | 1:A:66:LEU:HB2 | 1:A:109:ASN:H | 7 | 0.18 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,339) | 1:A:89:MET:HE1 | 1:A:125:PHE:H | 5 | 0.18 |
| (1,339) | 1:A:89:MET:HE2 | 1:A:125:PHE:H | 5 | 0.18 |
| (1,339) | 1:A:89:MET:HE3 | 1:A:125:PHE:H | 5 | 0.18 |
| (1,339) | 1:A:89:MET:HE1 | 1:A:125:PHE:H | 9 | 0.18 |
| (1,339) | 1:A:89:MET:HE2 | 1:A:125:PHE:H | 9 | 0.18 |
| (1,339) | 1:A:89:MET:HE3 | 1:A:125:PHE:H | 9 | 0.18 |
| (1,339) | 1:A:89:MET:HE1 | 1:A:125:PHE:H | 11 | 0.18 |
| (1,339) | 1:A:89:MET:HE2 | 1:A:125:PHE:H | 11 | 0.18 |
| (1,339) | 1:A:89:MET:HE3 | 1:A:125:PHE:H | 11 | 0.18 |
| (1,3005) | 1:A:117:ASP:HB2 | 1:A:119:GLU:HG2 | 18 | 0.18 |
| (1,3005) | 1:A:117:ASP:HB2 | 1:A:119:GLU:HG3 | 18 | 0.18 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD11 | 2 | 0.18 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD12 | 2 | 0.18 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD13 | 2 | 0.18 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD21 | 2 | 0.18 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD22 | 2 | 0.18 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD23 | 2 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD11 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD12 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD13 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD21 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD22 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD11 | 1:A:126:LEU:HD23 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD11 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD12 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD13 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD21 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD22 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD12 | 1:A:126:LEU:HD23 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD11 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD12 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD13 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD21 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD22 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD13 | 1:A:126:LEU:HD23 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD11 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD12 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD13 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD21 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD22 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD21 | 1:A:126:LEU:HD23 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD11 | 5 | 0.18 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD12 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD13 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD21 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD22 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD22 | 1:A:126:LEU:HD23 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD11 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD12 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD13 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD21 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD22 | 5 | 0.18 |
| (1,2890) | 1:A:86:LEU:HD23 | 1:A:126:LEU:HD23 | 5 | 0.18 |
| (1,2869) | 1:A:85:ARG:HD2 | 1:A:87:TRP:HZ2 | 8 | 0.18 |
| (1,2869) | 1:A:85:ARG:HD3 | 1:A:87:TRP:HZ2 | 8 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD11 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD12 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD13 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD21 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD22 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD23 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD11 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD12 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD13 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD21 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD22 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD23 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD11 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD12 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD13 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD21 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD22 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD23 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD11 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD12 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD13 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD21 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD22 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD23 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD11 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD12 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD13 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD21 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD22 | 15 | 0.18 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD23 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD11 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD12 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD13 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD21 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD22 | 15 | 0.18 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD23 | 15 | 0.18 |
| (1,2609) | 1:A:38:GLN:HG2 | 1:A:39:PHE:H | 1 | 0.18 |
| (1,2609) | 1:A:38:GLN:HG3 | 1:A:39:PHE:H | 1 | 0.18 |
| (1,2609) | 1:A:38:GLN:HG2 | 1:A:39:PHE:H | 18 | 0.18 |
| (1,2609) | 1:A:38:GLN:HG3 | 1:A:39:PHE:H | 18 | 0.18 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 6 | 0.18 |
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 6 | 0.18 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 6 | 0.18 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 6 | 0.18 |
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 6 | 0.18 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 6 | 0.18 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 15 | 0.18 |
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 15 | 0.18 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 15 | 0.18 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 15 | 0.18 |
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 15 | 0.18 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 15 | 0.18 |
| (1,2507) | 1:A:27:LEU:HD11 | 1:A:62:LYS:HD2 | 12 | 0.18 |
| (1,2507) | 1:A:27:LEU:HD11 | 1:A:62:LYS:HD3 | 12 | 0.18 |
| (1,2507) | 1:A:27:LEU:HD12 | 1:A:62:LYS:HD2 | 12 | 0.18 |
| (1,2507) | 1:A:27:LEU:HD12 | 1:A:62:LYS:HD3 | 12 | 0.18 |
| (1,2507) | 1:A:27:LEU:HD13 | 1:A:62:LYS:HD2 | 12 | 0.18 |
| (1,2507) | 1:A:27:LEU:HD13 | 1:A:62:LYS:HD3 | 12 | 0.18 |
| (1,2507) | 1:A:27:LEU:HD21 | 1:A:62:LYS:HD2 | 12 | 0.18 |
| (1,2507) | 1:A:27:LEU:HD21 | 1:A:62:LYS:HD3 | 12 | 0.18 |
| (1,2507) | 1:A:27:LEU:HD22 | 1:A:62:LYS:HD2 | 12 | 0.18 |
| (1,2507) | 1:A:27:LEU:HD22 | 1:A:62:LYS:HD3 | 12 | 0.18 |
| (1,2507) | 1:A:27:LEU:HD23 | 1:A:62:LYS:HD2 | 12 | 0.18 |
| (1,2507) | 1:A:27:LEU:HD23 | 1:A:62:LYS:HD3 | 12 | 0.18 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD11 | 9 | 0.18 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD12 | 9 | 0.18 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD13 | 9 | 0.18 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD21 | 9 | 0.18 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD22 | 9 | 0.18 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD23 | 9 | 0.18 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD11 | 9 | 0.18 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD12 | 9 | 0.18 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD13 | 9 | 0.18 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD21 | 9 | 0.18 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD22 | 9 | 0.18 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD23 | 9 | 0.18 |
| (1,2375) | 1:A:66:LEU:HA | 1:A:69:PHE:HD1 | 10 | 0.18 |
| (1,2351) | 1:A:87:TRP:HH2 | 1:A:100:ALA:HB1 | 1 | 0.18 |
| (1,2351) | 1:A:87:TRP:HH2 | 1:A:100:ALA:HB2 | 1 | 0.18 |
| (1,2351) | 1:A:87:TRP:HH2 | 1:A:100:ALA:HB3 | 1 | 0.18 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 16 | 0.18 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 16 | 0.18 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 16 | 0.18 |
| (1,2313) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HD1 | 11 | 0.18 |
| (1,2313) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HD1 | 11 | 0.18 |
| (1,2313) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HD1 | 11 | 0.18 |
| (1,2282) | 1:A:28:TYR:HD1 | 1:A:61:LEU:HG | 2 | 0.18 |
| (1,2282) | 1:A:28:TYR:HD2 | 1:A:61:LEU:HG | 2 | 0.18 |
| (1,2282) | 1:A:28:TYR:HD1 | 1:A:61:LEU:HG | 8 | 0.18 |
| (1,2282) | 1:A:28:TYR:HD2 | 1:A:61:LEU:HG | 8 | 0.18 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 2 | 0.18 |
| (1,2162) | 1:A:14:ILE:HG12 | 1:A:111:THR:HG21 | 19 | 0.18 |
| (1,2162) | 1:A:14:ILE:HG12 | 1:A:111:THR:HG22 | 19 | 0.18 |
| (1,2162) | 1:A:14:ILE:HG12 | 1:A:111:THR:HG23 | 19 | 0.18 |
| (1,2162) | 1:A:14:ILE:HG13 | 1:A:111:THR:HG21 | 19 | 0.18 |
| (1,2162) | 1:A:14:ILE:HG13 | 1:A:111:THR:HG22 | 19 | 0.18 |
| (1,2162) | 1:A:14:ILE:HG13 | 1:A:111:THR:HG23 | 19 | 0.18 |
| (1,2134) | 1:A:70:VAL:HB | 1:A:84:ILE:HG13 | 13 | 0.18 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD11 | 14 | 0.18 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD12 | 14 | 0.18 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD13 | 14 | 0.18 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD11 | 14 | 0.18 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD12 | 14 | 0.18 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD13 | 14 | 0.18 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD11 | 19 | 0.18 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD12 | 19 | 0.18 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD13 | 19 | 0.18 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD11 | 19 | 0.18 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD12 | 19 | 0.18 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD13 | 19 | 0.18 |
| (1,1996) | 1:A:28:TYR:HB3 | 1:A:59:LYS:HD2 | 17 | 0.18 |
| (1,1996) | 1:A:28:TYR:HB3 | 1:A:59:LYS:HD3 | 17 | 0.18 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 10 | 0.18 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 10 | 0.18 |
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 10 | 0.18 |
| (1,1906) | 1:A:89:MET:HE1 | 1:A:124:ILE:HB | 20 | 0.18 |
| (1,1906) | 1:A:89:MET:HE2 | 1:A:124:ILE:HB | 20 | 0.18 |
| (1,1906) | 1:A:89:MET:HE3 | 1:A:124:ILE:HB | 20 | 0.18 |
| (1,188) | 1:A:37:ASP:H | 1:A:51:GLU:HG2 | 11 | 0.18 |
| (1,188) | 1:A:37:ASP:H | 1:A:51:GLU:HG3 | 11 | 0.18 |
| (1,1812) | 1:A:36:GLU:HA | 1:A:52:LYS:HG2 | 11 | 0.18 |
| (1,1812) | 1:A:36:GLU:HA | 1:A:52:LYS:HG3 | 11 | 0.18 |
| (1,1754) | 1:A:7:ARG:HG2 | 1:A:8:LEU:HA | 2 | 0.18 |
| (1,1754) | 1:A:7:ARG:HG3 | 1:A:8:LEU:HA | 2 | 0.18 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 6 | 0.18 |
| (1,1603) | 1:A:79:PHE:HZ | 1:A:128:THR:HB | 17 | 0.18 |
| (1,1497) | 1:A:12:LYS:HE2 | 1:A:13:ARG:HA | 1 | 0.18 |
| (1,1497) | 1:A:12:LYS:HE3 | 1:A:13:ARG:HA | 1 | 0.18 |
| (1,1273) | 1:A:87:TRP:HA | 1:A:102:LEU:HD11 | 2 | 0.18 |
| (1,1273) | 1:A:87:TRP:HA | 1:A:102:LEU:HD12 | 2 | 0.18 |
| (1,1273) | 1:A:87:TRP:HA | 1:A:102:LEU:HD13 | 2 | 0.18 |
| (1,1251) | 1:A:62:LYS:HA | 1:A:64:SER:HB3 | 14 | 0.18 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 3 | 0.18 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 3 | 0.18 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 3 | 0.18 |
| (1,970) | 1:A:33:ILE:HG12 | 1:A:56:THR:HB | 2 | 0.17 |
| (1,970) | 1:A:33:ILE:HG12 | 1:A:56:THR:HB | 5 | 0.17 |
| (1,970) | 1:A:33:ILE:HG12 | 1:A:56:THR:HB | 20 | 0.17 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 19 | 0.17 |
| (1,917) | 1:A:67:ALA:H | 1:A:108:GLY:HA3 | 5 | 0.17 |
| (1,869) | 1:A:33:ILE:HD11 | 1:A:124:ILE:H | 18 | 0.17 |
| (1,869) | 1:A:33:ILE:HD12 | 1:A:124:ILE:H | 18 | 0.17 |
| (1,869) | 1:A:33:ILE:HD13 | 1:A:124:ILE:H | 18 | 0.17 |
| (1,775) | 1:A:58:PHE:HD1 | 1:A:76:THR:HG21 | 18 | 0.17 |
| (1,775) | 1:A:58:PHE:HD1 | 1:A:76:THR:HG22 | 18 | 0.17 |
| (1,775) | 1:A:58:PHE:HD1 | 1:A:76:THR:HG23 | 18 | 0.17 |
| (1,703) | 1:A:2:GLN:H | 1:A:3:GLN:HA | 4 | 0.17 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD11 | 7 | 0.17 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD12 | 7 | 0.17 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD13 | 7 | 0.17 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD21 | 7 | 0.17 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD22 | 7 | 0.17 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD23 | 7 | 0.17 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD11 | 7 | 0.17 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD12 | 7 | 0.17 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD13 | 7 | 0.17 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD21 | 7 | 0.17 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD22 | 7 | 0.17 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD23 | 7 | 0.17 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD11 | 7 | 0.17 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD12 | 7 | 0.17 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD13 | 7 | 0.17 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD21 | 7 | 0.17 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD22 | 7 | 0.17 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD23 | 7 | 0.17 |
| (1,2648) | 1:A:58:PHE:HA | 1:A:59:LYS:HE2 | 7 | 0.17 |
| (1,2648) | 1:A:58:PHE:HA | 1:A:59:LYS:HE3 | 7 | 0.17 |
| (1,2609) | 1:A:38:GLN:HG2 | 1:A:39:PHE:H | 6 | 0.17 |
| (1,2609) | 1:A:38:GLN:HG3 | 1:A:39:PHE:H | 6 | 0.17 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 2 | 0.17 |
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 2 | 0.17 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 2 | 0.17 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 2 | 0.17 |
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 2 | 0.17 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 2 | 0.17 |
| (1,2487) | 1:A:27:LEU:HA | 1:A:63:ASN:HD21 | 10 | 0.17 |
| (1,2487) | 1:A:27:LEU:HA | 1:A:63:ASN:HD22 | 10 | 0.17 |
| (1,2375) | 1:A:66:LEU:HA | 1:A:69:PHE:HD1 | 4 | 0.17 |
| (1,2374) | 1:A:48:TYR:HD1 | 1:A:53:VAL:HB | 5 | 0.17 |
| (1,2374) | 1:A:48:TYR:HD1 | 1:A:53:VAL:HB | 20 | 0.17 |
| (1,2313) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HD1 | 8 | 0.17 |
| (1,2313) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HD1 | 8 | 0.17 |
| (1,2313) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HD1 | 8 | 0.17 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 12 | 0.17 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 20 | 0.17 |
| (1,2257) | 1:A:48:TYR:HD1 | 1:A:49:ASP:HA | 2 | 0.17 |
| (1,2221) | 1:A:106:ALA:HB1 | 1:A:114:GLU:HB2 | 16 | 0.17 |
| (1,2221) | 1:A:106:ALA:HB2 | 1:A:114:GLU:HB2 | 16 | 0.17 |
| (1,2221) | 1:A:106:ALA:HB3 | 1:A:114:GLU:HB2 | 16 | 0.17 |
| (1,2134) | 1:A:70:VAL:HB | 1:A:84:ILE:HG13 | 5 | 0.17 |
| (1,2134) | 1:A:70:VAL:HB | 1:A:84:ILE:HG13 | 12 | 0.17 |
| (1,2134) | 1:A:70:VAL:HB | 1:A:84:ILE:HG13 | 17 | 0.17 |
| (1,2101) | 1:A:73:LEU:HG | 1:A:76:THR:HB | 9 | 0.17 |
| (1,1996) | 1:A:28:TYR:HB3 | 1:A:59:LYS:HD2 | 20 | 0.17 |
| (1,1996) | 1:A:28:TYR:HB3 | 1:A:59:LYS:HD3 | 20 | 0.17 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 8 | 0.17 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 8 | 0.17 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 8 | 0.17 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 9 | 0.17 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 9 | 0.17 |
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 9 | 0.17 |
| (1,1906) | 1:A:89:MET:HE1 | 1:A:124:ILE:HB | 4 | 0.17 |
| (1,1906) | 1:A:89:MET:HE2 | 1:A:124:ILE:HB | 4 | 0.17 |
| (1,1906) | 1:A:89:MET:HE3 | 1:A:124:ILE:HB | 4 | 0.17 |
| (1,1774) | 1:A:7:ARG:HD2 | 1:A:8:LEU:HG | 18 | 0.17 |
| (1,1774) | 1:A:7:ARG:HD3 | 1:A:8:LEU:HG | 18 | 0.17 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 20 | 0.17 |
| (1,1603) | 1:A:79:PHE:HZ | 1:A:128:THR:HB | 20 | 0.17 |
| (1,1296) | 1:A:85:ARG:HD3 | 1:A:127:GLU:HG2 | 15 | 0.17 |
| (1,1162) | 1:A:30:GLN:HG2 | 1:A:59:LYS:HD2 | 9 | 0.17 |
| (1,1162) | 1:A:30:GLN:HG2 | 1:A:59:LYS:HD3 | 9 | 0.17 |
| (1,1108) | 1:A:32:GLN:HA | 1:A:57:VAL:HG11 | 15 | 0.17 |
| (1,1108) | 1:A:32:GLN:HA | 1:A:57:VAL:HG12 | 15 | 0.17 |
| (1,1108) | 1:A:32:GLN:HA | 1:A:57:VAL:HG13 | 15 | 0.17 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG11 | 16 | 0.17 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG12 | 16 | 0.17 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG13 | 16 | 0.17 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG11 | 16 | 0.17 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG12 | 16 | 0.17 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG13 | 16 | 0.17 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG11 | 16 | 0.17 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG12 | 16 | 0.17 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG13 | 16 | 0.17 |
| (1,869) | 1:A:33:ILE:HD11 | 1:A:124:ILE:H | 11 | 0.16 |
| (1,869) | 1:A:33:ILE:HD12 | 1:A:124:ILE:H | 11 | 0.16 |
| (1,869) | 1:A:33:ILE:HD13 | 1:A:124:ILE:H | 11 | 0.16 |
| (1,775) | 1:A:58:PHE:HD1 | 1:A:76:THR:HG21 | 9 | 0.16 |
| (1,775) | 1:A:58:PHE:HD1 | 1:A:76:THR:HG22 | 9 | 0.16 |
| (1,775) | 1:A:58:PHE:HD1 | 1:A:76:THR:HG23 | 9 | 0.16 |
| (1,703) | 1:A:2:GLN:H | 1:A:3:GLN:HA | 2 | 0.16 |
| (1,703) | 1:A:2:GLN:H | 1:A:3:GLN:HA | 9 | 0.16 |
| (1,703) | 1:A:2:GLN:H | 1:A:3:GLN:HA | 19 | 0.16 |
| (1,632) | 1:A:80:PRO:HA | 1:A:81:GLN:HG3 | 1 | 0.16 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 8 | 0.16 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 10 | 0.16 |
| (1,555) | 1:A:28:TYR:HE1 | 1:A:61:LEU:HD11 | 14 | 0.16 |
| (1,555) | 1:A:28:TYR:HE1 | 1:A:61:LEU:HD12 | 14 | 0.16 |
| (1,555) | 1:A:28:TYR:HE1 | 1:A:61:LEU:HD13 | 14 | 0.16 |
| (1,555) | 1:A:28:TYR:HE2 | 1:A:61:LEU:HD11 | 14 | 0.16 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,555) | 1:A:28:TYR:HE2 | 1:A:61:LEU:HD12 | 14 | 0.16 |
| (1,555) | 1:A:28:TYR:HE2 | 1:A:61:LEU:HD13 | 14 | 0.16 |
| (1,555) | 1:A:28:TYR:HE1 | 1:A:61:LEU:HD11 | 17 | 0.16 |
| (1,555) | 1:A:28:TYR:HE1 | 1:A:61:LEU:HD12 | 17 | 0.16 |
| (1,555) | 1:A:28:TYR:HE1 | 1:A:61:LEU:HD13 | 17 | 0.16 |
| (1,555) | 1:A:28:TYR:HE2 | 1:A:61:LEU:HD11 | 17 | 0.16 |
| (1,555) | 1:A:28:TYR:HE2 | 1:A:61:LEU:HD12 | 17 | 0.16 |
| (1,555) | 1:A:28:TYR:HE2 | 1:A:61:LEU:HD13 | 17 | 0.16 |
| (1,467) | 1:A:66:LEU:HD21 | 1:A:107:ASP:HA | 19 | 0.16 |
| (1,467) | 1:A:66:LEU:HD22 | 1:A:107:ASP:HA | 19 | 0.16 |
| (1,467) | 1:A:66:LEU:HD23 | 1:A:107:ASP:HA | 19 | 0.16 |
| (1,2954) | 1:A:104:ASN:HD21 | 1:A:105:GLU:H | 2 | 0.16 |
| (1,2954) | 1:A:104:ASN:HD22 | 1:A:105:GLU:H | 2 | 0.16 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD11 | 15 | 0.16 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD12 | 15 | 0.16 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD13 | 15 | 0.16 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD21 | 15 | 0.16 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD22 | 15 | 0.16 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD23 | 15 | 0.16 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD11 | 15 | 0.16 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD12 | 15 | 0.16 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD13 | 15 | 0.16 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD21 | 15 | 0.16 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD22 | 15 | 0.16 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD23 | 15 | 0.16 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD11 | 15 | 0.16 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD12 | 15 | 0.16 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD13 | 15 | 0.16 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD21 | 15 | 0.16 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD22 | 15 | 0.16 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD23 | 15 | 0.16 |
| (1,2669) | 1:A:61:LEU:HG | 1:A:63:ASN:HD21 | 11 | 0.16 |
| (1,2669) | 1:A:61:LEU:HG | 1:A:63:ASN:HD22 | 11 | 0.16 |
| (1,2669) | 1:A:61:LEU:HG | 1:A:63:ASN:HD21 | 17 | 0.16 |
| (1,2669) | 1:A:61:LEU:HG | 1:A:63:ASN:HD22 | 17 | 0.16 |
| (1,2609) | 1:A:38:GLN:HG2 | 1:A:39:PHE:H | 7 | 0.16 |
| (1,2609) | 1:A:38:GLN:HG3 | 1:A:39:PHE:H | 7 | 0.16 |
| (1,2609) | 1:A:38:GLN:HG2 | 1:A:39:PHE:H | 12 | 0.16 |
| (1,2609) | 1:A:38:GLN:HG3 | 1:A:39:PHE:H | 12 | 0.16 |
| (1,2445) | 1:A:12:LYS:HG2 | 1:A:13:ARG:H | 4 | 0.16 |
| (1,2445) | 1:A:12:LYS:HG3 | 1:A:13:ARG:H | 4 | 0.16 |
| (1,2355) | 1:A:122:TRP:HZ2 | 1:A:124:ILE:HA | 13 | 0.16 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 14 | 0.16 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 14 | 0.16 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 14 | 0.16 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 3 | 0.16 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 7 | 0.16 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 14 | 0.16 |
| (1,2257) | 1:A:48:TYR:HD1 | 1:A:49:ASP:HA | 12 | 0.16 |
| (1,2187) | 1:A:103:ASP:HB2 | 1:A:106:ALA:HA | 15 | 0.16 |
| (1,2187) | 1:A:103:ASP:HB2 | 1:A:106:ALA:HA | 18 | 0.16 |
| (1,2149) | 1:A:87:TRP:HH2 | 1:A:101:MET:HA | 4 | 0.16 |
| (1,2149) | 1:A:87:TRP:HH2 | 1:A:101:MET:HA | 19 | 0.16 |
| (1,2134) | 1:A:70:VAL:HB | 1:A:84:ILE:HG13 | 1 | 0.16 |
| (1,2134) | 1:A:70:VAL:HB | 1:A:84:ILE:HG13 | 9 | 0.16 |
| (1,2134) | 1:A:70:VAL:HB | 1:A:84:ILE:HG13 | 14 | 0.16 |
| (1,2134) | 1:A:70:VAL:HB | 1:A:84:ILE:HG13 | 15 | 0.16 |
| (1,2134) | 1:A:70:VAL:HB | 1:A:84:ILE:HG13 | 16 | 0.16 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD11 | 3 | 0.16 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD12 | 3 | 0.16 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD13 | 3 | 0.16 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD11 | 3 | 0.16 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD12 | 3 | 0.16 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD13 | 3 | 0.16 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD11 | 13 | 0.16 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD12 | 13 | 0.16 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD13 | 13 | 0.16 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD11 | 13 | 0.16 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD12 | 13 | 0.16 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD13 | 13 | 0.16 |
| (1,2061) | 1:A:63:ASN:H | 1:A:111:THR:HB | 19 | 0.16 |
| (1,2035) | 1:A:37:ASP:HA | 1:A:51:GLU:HA | 8 | 0.16 |
| (1,1996) | 1:A:28:TYR:HB3 | 1:A:59:LYS:HD2 | 1 | 0.16 |
| (1,1996) | 1:A:28:TYR:HB3 | 1:A:59:LYS:HD3 | 1 | 0.16 |
| (1,1995) | 1:A:103:ASP:HB3 | 1:A:106:ALA:HA | 2 | 0.16 |
| (1,1941) | 1:A:31:VAL:HA | 1:A:112:MET:HE1 | 16 | 0.16 |
| (1,1941) | 1:A:31:VAL:HA | 1:A:112:MET:HE2 | 16 | 0.16 |
| (1,1941) | 1:A:31:VAL:HA | 1:A:112:MET:HE3 | 16 | 0.16 |
| (1,188) | 1:A:37:ASP:H | 1:A:51:GLU:HG2 | 16 | 0.16 |
| (1,188) | 1:A:37:ASP:H | 1:A:51:GLU:HG3 | 16 | 0.16 |
| (1,1878) | 1:A:56:THR:HA | 1:A:58:PHE:HZ | 19 | 0.16 |
| (1,1720) | 1:A:70:VAL:HG21 | 1:A:84:ILE:HG21 | 4 | 0.16 |
| (1,1720) | 1:A:70:VAL:HG21 | 1:A:84:ILE:HG22 | 4 | 0.16 |
| (1,1720) | 1:A:70:VAL:HG21 | 1:A:84:ILE:HG23 | 4 | 0.16 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1720) | 1:A:70:VAL:HG22 | 1:A:84:ILE:HG21 | 4 | 0.16 |
| (1,1720) | 1:A:70:VAL:HG22 | 1:A:84:ILE:HG22 | 4 | 0.16 |
| (1,1720) | 1:A:70:VAL:HG22 | 1:A:84:ILE:HG23 | 4 | 0.16 |
| (1,1720) | 1:A:70:VAL:HG23 | 1:A:84:ILE:HG21 | 4 | 0.16 |
| (1,1720) | 1:A:70:VAL:HG23 | 1:A:84:ILE:HG22 | 4 | 0.16 |
| (1,1720) | 1:A:70:VAL:HG23 | 1:A:84:ILE:HG23 | 4 | 0.16 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 17 | 0.16 |
| (1,1608) | 1:A:101:MET:HA | 1:A:102:LEU:HG | 15 | 0.16 |
| (1,1608) | 1:A:101:MET:HA | 1:A:102:LEU:HG | 19 | 0.16 |
| (1,1603) | 1:A:79:PHE:HZ | 1:A:128:THR:HB | 15 | 0.16 |
| (1,1536) | 1:A:64:SER:HB2 | 1:A:68:GLU:HG2 | 7 | 0.16 |
| (1,1536) | 1:A:64:SER:HB2 | 1:A:68:GLU:HG3 | 7 | 0.16 |
| (1,1497) | 1:A:12:LYS:HE2 | 1:A:13:ARG:HA | 2 | 0.16 |
| (1,1497) | 1:A:12:LYS:HE3 | 1:A:13:ARG:HA | 2 | 0.16 |
| (1,1494) | 1:A:71:GLN:HG3 | 1:A:72:SER:HA | 12 | 0.16 |
| (1,1494) | 1:A:71:GLN:HG3 | 1:A:72:SER:HA | 20 | 0.16 |
| (1,1464) | 1:A:49:ASP:HA | 1:A:51:GLU:HG2 | 13 | 0.16 |
| (1,1464) | 1:A:49:ASP:HA | 1:A:51:GLU:HG3 | 13 | 0.16 |
| (1,1159) | 1:A:30:GLN:HG3 | 1:A:57:VAL:HA | 19 | 0.16 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 5 | 0.16 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 5 | 0.16 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 5 | 0.16 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 20 | 0.16 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 20 | 0.16 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 20 | 0.16 |
| (1,1098) | 1:A:32:GLN:HG2 | 1:A:56:THR:HG21 | 9 | 0.16 |
| (1,1098) | 1:A:32:GLN:HG2 | 1:A:56:THR:HG22 | 9 | 0.16 |
| (1,1098) | 1:A:32:GLN:HG2 | 1:A:56:THR:HG23 | 9 | 0.16 |
| (1,1080) | 1:A:55:TYR:HD1 | 1:A:56:THR:HG21 | 11 | 0.16 |
| (1,1080) | 1:A:55:TYR:HD1 | 1:A:56:THR:HG22 | 11 | 0.16 |
| (1,1080) | 1:A:55:TYR:HD1 | 1:A:56:THR:HG23 | 11 | 0.16 |
| (1,1061) | 1:A:89:MET:HG2 | 1:A:124:ILE:HA | 19 | 0.16 |
| (1,1061) | 1:A:89:MET:HG3 | 1:A:124:ILE:HA | 19 | 0.16 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG11 | 3 | 0.16 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG12 | 3 | 0.16 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG13 | 3 | 0.16 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG11 | 3 | 0.16 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG12 | 3 | 0.16 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG13 | 3 | 0.16 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG11 | 3 | 0.16 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG12 | 3 | 0.16 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG13 | 3 | 0.16 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG11 | 5 | 0.16 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG12 | 5 | 0.16 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG13 | 5 | 0.16 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG11 | 5 | 0.16 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG12 | 5 | 0.16 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG13 | 5 | 0.16 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG11 | 5 | 0.16 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG12 | 5 | 0.16 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG13 | 5 | 0.16 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG11 | 9 | 0.16 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG12 | 9 | 0.16 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG13 | 9 | 0.16 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG11 | 9 | 0.16 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG12 | 9 | 0.16 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG13 | 9 | 0.16 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG11 | 9 | 0.16 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG12 | 9 | 0.16 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG13 | 9 | 0.16 |
| (1,970) | 1:A:33:ILE:HG12 | 1:A:56:THR:HB | 16 | 0.15 |
| (1,966) | 1:A:33:ILE:H | 1:A:56:THR:HB | 20 | 0.15 |
| (1,925) | 1:A:34:VAL:HA | 1:A:56:THR:HB | 2 | 0.15 |
| (1,925) | 1:A:34:VAL:HA | 1:A:56:THR:HB | 15 | 0.15 |
| (1,907) | 1:A:32:GLN:HG2 | 1:A:33:ILE:HA | 2 | 0.15 |
| (1,907) | 1:A:32:GLN:HG2 | 1:A:33:ILE:HA | 5 | 0.15 |
| (1,907) | 1:A:32:GLN:HG2 | 1:A:33:ILE:HA | 17 | 0.15 |
| (1,869) | 1:A:33:ILE:HD11 | 1:A:124:ILE:H | 2 | 0.15 |
| (1,869) | 1:A:33:ILE:HD12 | 1:A:124:ILE:H | 2 | 0.15 |
| (1,869) | 1:A:33:ILE:HD13 | 1:A:124:ILE:H | 2 | 0.15 |
| (1,815) | 1:A:87:TRP:HE3 | 1:A:99:PRO:HG2 | 19 | 0.15 |
| (1,775) | 1:A:58:PHE:HD1 | 1:A:76:THR:HG21 | 8 | 0.15 |
| (1,775) | 1:A:58:PHE:HD1 | 1:A:76:THR:HG22 | 8 | 0.15 |
| (1,775) | 1:A:58:PHE:HD1 | 1:A:76:THR:HG23 | 8 | 0.15 |
| (1,683) | 1:A:79:PHE:HD1 | 1:A:127:GLU:HG3 | 9 | 0.15 |
| (1,683) | 1:A:79:PHE:HD2 | 1:A:127:GLU:HG3 | 9 | 0.15 |
| (1,683) | 1:A:79:PHE:HD1 | 1:A:127:GLU:HG3 | 11 | 0.15 |
| (1,683) | 1:A:79:PHE:HD2 | 1:A:127:GLU:HG3 | 11 | 0.15 |
| (1,632) | 1:A:80:PRO:HA | 1:A:81:GLN:HG3 | 5 | 0.15 |
| (1,373) | 1:A:66:LEU:HB2 | 1:A:109:ASN:H | 10 | 0.15 |
| (1,373) | 1:A:66:LEU:HB2 | 1:A:109:ASN:H | 15 | 0.15 |
| (1,339) | 1:A:89:MET:HE1 | 1:A:125:PHE:H | 20 | 0.15 |
| (1,339) | 1:A:89:MET:HE2 | 1:A:125:PHE:H | 20 | 0.15 |
| (1,339) | 1:A:89:MET:HE3 | 1:A:125:PHE:H | 20 | 0.15 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD11 | 12 | 0.15 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD12 | 12 | 0.15 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD13 | 12 | 0.15 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD21 | 12 | 0.15 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD22 | 12 | 0.15 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD23 | 12 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD11 | 1:A:86:LEU:HD11 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD11 | 1:A:86:LEU:HD12 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD11 | 1:A:86:LEU:HD13 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD11 | 1:A:86:LEU:HD21 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD11 | 1:A:86:LEU:HD22 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD11 | 1:A:86:LEU:HD23 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD12 | 1:A:86:LEU:HD11 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD12 | 1:A:86:LEU:HD12 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD12 | 1:A:86:LEU:HD13 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD12 | 1:A:86:LEU:HD21 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD12 | 1:A:86:LEU:HD22 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD12 | 1:A:86:LEU:HD23 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD13 | 1:A:86:LEU:HD11 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD13 | 1:A:86:LEU:HD12 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD13 | 1:A:86:LEU:HD13 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD13 | 1:A:86:LEU:HD21 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD13 | 1:A:86:LEU:HD22 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD13 | 1:A:86:LEU:HD23 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD21 | 1:A:86:LEU:HD11 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD21 | 1:A:86:LEU:HD12 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD21 | 1:A:86:LEU:HD13 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD21 | 1:A:86:LEU:HD21 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD21 | 1:A:86:LEU:HD22 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD21 | 1:A:86:LEU:HD23 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD22 | 1:A:86:LEU:HD11 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD22 | 1:A:86:LEU:HD12 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD22 | 1:A:86:LEU:HD13 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD22 | 1:A:86:LEU:HD21 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD22 | 1:A:86:LEU:HD22 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD22 | 1:A:86:LEU:HD23 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD23 | 1:A:86:LEU:HD11 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD23 | 1:A:86:LEU:HD12 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD23 | 1:A:86:LEU:HD13 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD23 | 1:A:86:LEU:HD21 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD23 | 1:A:86:LEU:HD22 | 5 | 0.15 |
| (1,2704) | 1:A:66:LEU:HD23 | 1:A:86:LEU:HD23 | 5 | 0.15 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2609) | 1:A:38:GLN:HG2 | 1:A:39:PHE:H | 3 | 0.15 |
| (1,2609) | 1:A:38:GLN:HG3 | 1:A:39:PHE:H | 3 | 0.15 |
| (1,2375) | 1:A:66:LEU:HA | 1:A:69:PHE:HD1 | 3 | 0.15 |
| (1,2313) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HD1 | 5 | 0.15 |
| (1,2313) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HD1 | 5 | 0.15 |
| (1,2313) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HD1 | 5 | 0.15 |
| (1,2313) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HD1 | 18 | 0.15 |
| (1,2313) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HD1 | 18 | 0.15 |
| (1,2313) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HD1 | 18 | 0.15 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 4 | 0.15 |
| (1,2248) | 1:A:80:PRO:HD2 | 1:A:128:THR:HB | 13 | 0.15 |
| (1,2221) | 1:A:106:ALA:HB1 | 1:A:114:GLU:HB2 | 1 | 0.15 |
| (1,2221) | 1:A:106:ALA:HB2 | 1:A:114:GLU:HB2 | 1 | 0.15 |
| (1,2221) | 1:A:106:ALA:HB3 | 1:A:114:GLU:HB2 | 1 | 0.15 |
| (1,2221) | 1:A:106:ALA:HB1 | 1:A:114:GLU:HB2 | 9 | 0.15 |
| (1,2221) | 1:A:106:ALA:HB2 | 1:A:114:GLU:HB2 | 9 | 0.15 |
| (1,2221) | 1:A:106:ALA:HB3 | 1:A:114:GLU:HB2 | 9 | 0.15 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD11 | 1 | 0.15 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD12 | 1 | 0.15 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD13 | 1 | 0.15 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD11 | 1 | 0.15 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD12 | 1 | 0.15 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD13 | 1 | 0.15 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD11 | 18 | 0.15 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD12 | 18 | 0.15 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD13 | 18 | 0.15 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD11 | 18 | 0.15 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD12 | 18 | 0.15 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD13 | 18 | 0.15 |
| (1,2101) | 1:A:73:LEU:HG | 1:A:76:THR:HB | 8 | 0.15 |
| (1,2024) | 1:A:37:ASP:H | 1:A:52:LYS:HD2 | 1 | 0.15 |
| (1,2024) | 1:A:37:ASP:H | 1:A:52:LYS:HD3 | 1 | 0.15 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 7 | 0.15 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 7 | 0.15 |
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 7 | 0.15 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 11 | 0.15 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 11 | 0.15 |
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 11 | 0.15 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 15 | 0.15 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 15 | 0.15 |
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 15 | 0.15 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 3 | 0.15 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1608) | 1:A:101:MET:HA | 1:A:102:LEU:HG | 4 | 0.15 |
| (1,1603) | 1:A:79:PHE:HZ | 1:A:128:THR:HB | 3 | 0.15 |
| (1,1601) | 1:A:83:GLN:HG2 | 1:A:128:THR:HB | 16 | 0.15 |
| (1,1601) | 1:A:83:GLN:HG3 | 1:A:128:THR:HB | 16 | 0.15 |
| (1,1536) | 1:A:64:SER:HB2 | 1:A:68:GLU:HG2 | 18 | 0.15 |
| (1,1536) | 1:A:64:SER:HB2 | 1:A:68:GLU:HG3 | 18 | 0.15 |
| (1,1494) | 1:A:71:GLN:HG3 | 1:A:72:SER:HA | 18 | 0.15 |
| (1,1423) | 1:A:99:PRO:HG2 | 1:A:100:ALA:HA | 10 | 0.15 |
| (1,1390) | 1:A:80:PRO:HD3 | 1:A:83:GLN:H | 11 | 0.15 |
| (1,1162) | 1:A:30:GLN:HG2 | 1:A:59:LYS:HD2 | 18 | 0.15 |
| (1,1162) | 1:A:30:GLN:HG2 | 1:A:59:LYS:HD3 | 18 | 0.15 |
| (1,1162) | 1:A:30:GLN:HG2 | 1:A:59:LYS:HD2 | 20 | 0.15 |
| (1,1162) | 1:A:30:GLN:HG2 | 1:A:59:LYS:HD3 | 20 | 0.15 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 4 | 0.15 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 4 | 0.15 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 4 | 0.15 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 10 | 0.15 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 10 | 0.15 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 10 | 0.15 |
| (1,1084) | 1:A:34:VAL:H | 1:A:56:THR:HG21 | 11 | 0.15 |
| (1,1084) | 1:A:34:VAL:H | 1:A:56:THR:HG22 | 11 | 0.15 |
| (1,1084) | 1:A:34:VAL:H | 1:A:56:THR:HG23 | 11 | 0.15 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG21 | 12 | 0.15 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG22 | 12 | 0.15 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG23 | 12 | 0.15 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG11 | 18 | 0.15 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG12 | 18 | 0.15 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG13 | 18 | 0.15 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG11 | 18 | 0.15 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG12 | 18 | 0.15 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG13 | 18 | 0.15 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG11 | 18 | 0.15 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG12 | 18 | 0.15 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG13 | 18 | 0.15 |
| (2,45) | 1:A:71:GLN:O | 1:A:75:GLN:H | 13 | 0.14 |
| (1,970) | 1:A:33:ILE:HG12 | 1:A:56:THR:HB | 10 | 0.14 |
| (1,963) | 1:A:56:THR:HG21 | 1:A:58:PHE:HE1 | 15 | 0.14 |
| (1,963) | 1:A:56:THR:HG22 | 1:A:58:PHE:HE1 | 15 | 0.14 |
| (1,963) | 1:A:56:THR:HG23 | 1:A:58:PHE:HE1 | 15 | 0.14 |
| (1,963) | 1:A:56:THR:HG21 | 1:A:58:PHE:HE1 | 17 | 0.14 |
| (1,963) | 1:A:56:THR:HG22 | 1:A:58:PHE:HE1 | 17 | 0.14 |
| (1,963) | 1:A:56:THR:HG23 | 1:A:58:PHE:HE1 | 17 | 0.14 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,917) | 1:A:67:ALA:H | 1:A:108:GLY:HA3 | 6 | 0.14 |
| (1,907) | 1:A:32:GLN:HG2 | 1:A:33:ILE:HA | 3 | 0.14 |
| (1,738) | 1:A:34:VAL:HB | 1:A:55:TYR:HA | 8 | 0.14 |
| (1,734) | 1:A:88:PRO:HD2 | 1:A:102:LEU:HG | 16 | 0.14 |
| (1,703) | 1:A:2:GLN:H | 1:A:3:GLN:HA | 18 | 0.14 |
| (1,683) | 1:A:79:PHE:HD1 | 1:A:127:GLU:HG3 | 16 | 0.14 |
| (1,683) | 1:A:79:PHE:HD2 | 1:A:127:GLU:HG3 | 16 | 0.14 |
| (1,635) | 1:A:51:GLU:H | 1:A:51:GLU:HB2 | 10 | 0.14 |
| (1,635) | 1:A:51:GLU:H | 1:A:51:GLU:HB2 | 18 | 0.14 |
| (1,632) | 1:A:80:PRO:HA | 1:A:81:GLN:HG3 | 14 | 0.14 |
| (1,595) | 1:A:8:LEU:HB3 | 1:A:9:GLN:HG3 | 6 | 0.14 |
| (1,442) | 1:A:45:ASN:HA | 1:A:45:ASN:HD22 | 16 | 0.14 |
| (1,373) | 1:A:66:LEU:HB2 | 1:A:109:ASN:H | 6 | 0.14 |
| (1,373) | 1:A:66:LEU:HB2 | 1:A:109:ASN:H | 14 | 0.14 |
| (1,339) | 1:A:89:MET:HE1 | 1:A:125:PHE:H | 1 | 0.14 |
| (1,339) | 1:A:89:MET:HE2 | 1:A:125:PHE:H | 1 | 0.14 |
| (1,339) | 1:A:89:MET:HE3 | 1:A:125:PHE:H | 1 | 0.14 |
| (1,339) | 1:A:89:MET:HE1 | 1:A:125:PHE:H | 12 | 0.14 |
| (1,339) | 1:A:89:MET:HE2 | 1:A:125:PHE:H | 12 | 0.14 |
| (1,339) | 1:A:89:MET:HE3 | 1:A:125:PHE:H | 12 | 0.14 |
| (1,339) | 1:A:89:MET:HE1 | 1:A:125:PHE:H | 15 | 0.14 |
| (1,339) | 1:A:89:MET:HE2 | 1:A:125:PHE:H | 15 | 0.14 |
| (1,339) | 1:A:89:MET:HE3 | 1:A:125:PHE:H | 15 | 0.14 |
| (1,332) | 1:A:31:VAL:HB | 1:A:58:PHE:H | 19 | 0.14 |
| (1,3005) | 1:A:117:ASP:HB2 | 1:A:119:GLU:HG2 | 7 | 0.14 |
| (1,3005) | 1:A:117:ASP:HB2 | 1:A:119:GLU:HG3 | 7 | 0.14 |
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD11 | 3 | 0.14 |
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD12 | 3 | 0.14 |
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD13 | 3 | 0.14 |
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD21 | 3 | 0.14 |
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD22 | 3 | 0.14 |
| (1,2968) | 1:A:110:LYS:H | 1:A:115:LEU:HD23 | 3 | 0.14 |
| (1,2954) | 1:A:104:ASN:HD21 | 1:A:105:GLU:H | 12 | 0.14 |
| (1,2954) | 1:A:104:ASN:HD22 | 1:A:105:GLU:H | 12 | 0.14 |
| (1,2954) | 1:A:104:ASN:HD21 | 1:A:105:GLU:H | 18 | 0.14 |
| (1,2954) | 1:A:104:ASN:HD22 | 1:A:105:GLU:H | 18 | 0.14 |
| (1,2869) | 1:A:85:ARG:HD2 | 1:A:87:TRP:HZ2 | 1 | 0.14 |
| (1,2869) | 1:A:85:ARG:HD3 | 1:A:87:TRP:HZ2 | 1 | 0.14 |
| (1,2848) | 1:A:82:ASP:HB2 | 1:A:83:GLN:HB2 | 12 | 0.14 |
| (1,2848) | 1:A:82:ASP:HB2 | 1:A:83:GLN:HB3 | 12 | 0.14 |
| (1,2848) | 1:A:82:ASP:HB3 | 1:A:83:GLN:HB2 | 12 | 0.14 |
| (1,2848) | 1:A:82:ASP:HB3 | 1:A:83:GLN:HB3 | 12 | 0.14 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD11 | 15 | 0.14 |
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD12 | 15 | 0.14 |
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD13 | 15 | 0.14 |
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD21 | 15 | 0.14 |
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD22 | 15 | 0.14 |
| (1,2638) | 1:A:56:THR:HB | 1:A:73:LEU:HD23 | 15 | 0.14 |
| (1,2609) | 1:A:38:GLN:HG2 | 1:A:39:PHE:H | 9 | 0.14 |
| (1,2609) | 1:A:38:GLN:HG3 | 1:A:39:PHE:H | 9 | 0.14 |
| (1,2519) | 1:A:28:TYR:HD1 | 1:A:59:LYS:HE2 | 9 | 0.14 |
| (1,2519) | 1:A:28:TYR:HD1 | 1:A:59:LYS:HE3 | 9 | 0.14 |
| (1,2519) | 1:A:28:TYR:HD2 | 1:A:59:LYS:HE2 | 9 | 0.14 |
| (1,2519) | 1:A:28:TYR:HD2 | 1:A:59:LYS:HE3 | 9 | 0.14 |
| (1,2406) | 1:A:4:LEU:HD11 | 1:A:105:GLU:HA | 12 | 0.14 |
| (1,2406) | 1:A:4:LEU:HD12 | 1:A:105:GLU:HA | 12 | 0.14 |
| (1,2406) | 1:A:4:LEU:HD13 | 1:A:105:GLU:HA | 12 | 0.14 |
| (1,2406) | 1:A:4:LEU:HD21 | 1:A:105:GLU:HA | 12 | 0.14 |
| (1,2406) | 1:A:4:LEU:HD22 | 1:A:105:GLU:HA | 12 | 0.14 |
| (1,2406) | 1:A:4:LEU:HD23 | 1:A:105:GLU:HA | 12 | 0.14 |
| (1,2368) | 1:A:32:GLN:HA | 1:A:55:TYR:HE1 | 15 | 0.14 |
| (1,2355) | 1:A:122:TRP:HZ2 | 1:A:124:ILE:HA | 1 | 0.14 |
| (1,2354) | 1:A:88:PRO:HD2 | 1:A:122:TRP:HZ2 | 12 | 0.14 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD21 | 8 | 0.14 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD22 | 8 | 0.14 |
| (1,2332) | 1:A:69:PHE:HE1 | 1:A:86:LEU:HD23 | 8 | 0.14 |
| (1,2266) | 1:A:32:GLN:HG3 | 1:A:55:TYR:HE1 | 18 | 0.14 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 6 | 0.14 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 19 | 0.14 |
| (1,2239) | 1:A:33:ILE:HG13 | 1:A:73:LEU:HB2 | 9 | 0.14 |
| (1,2138) | 1:A:85:ARG:HB2 | 1:A:127:GLU:HB3 | 20 | 0.14 |
| (1,2134) | 1:A:70:VAL:HB | 1:A:84:ILE:HG13 | 8 | 0.14 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD11 | 2 | 0.14 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD12 | 2 | 0.14 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD13 | 2 | 0.14 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD11 | 2 | 0.14 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD12 | 2 | 0.14 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD13 | 2 | 0.14 |
| (1,2083) | 1:A:67:ALA:HA | 1:A:71:GLN:HB2 | 1 | 0.14 |
| (1,2083) | 1:A:67:ALA:HA | 1:A:71:GLN:HB3 | 1 | 0.14 |
| (1,2034) | 1:A:50:GLU:H | 1:A:53:VAL:HG21 | 11 | 0.14 |
| (1,2034) | 1:A:50:GLU:H | 1:A:53:VAL:HG22 | 11 | 0.14 |
| (1,2034) | 1:A:50:GLU:H | 1:A:53:VAL:HG23 | 11 | 0.14 |
| (1,2023) | 1:A:37:ASP:H | 1:A:51:GLU:HA | 1 | 0.14 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1998) | 1:A:61:LEU:HA | 1:A:64:SER:HB3 | 14 | 0.14 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 4 | 0.14 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 4 | 0.14 |
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 4 | 0.14 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 6 | 0.14 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 6 | 0.14 |
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 6 | 0.14 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 14 | 0.14 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 14 | 0.14 |
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 14 | 0.14 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 17 | 0.14 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 17 | 0.14 |
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 17 | 0.14 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 20 | 0.14 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 20 | 0.14 |
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 20 | 0.14 |
| (1,1906) | 1:A:89:MET:HE1 | 1:A:124:ILE:HB | 1 | 0.14 |
| (1,1906) | 1:A:89:MET:HE2 | 1:A:124:ILE:HB | 1 | 0.14 |
| (1,1906) | 1:A:89:MET:HE3 | 1:A:124:ILE:HB | 1 | 0.14 |
| (1,1797) | 1:A:2:GLN:HB2 | 1:A:5:VAL:H | 9 | 0.14 |
| (1,1797) | 1:A:2:GLN:HB3 | 1:A:5:VAL:H | 9 | 0.14 |
| (1,1754) | 1:A:7:ARG:HG2 | 1:A:8:LEU:HA | 1 | 0.14 |
| (1,1754) | 1:A:7:ARG:HG3 | 1:A:8:LEU:HA | 1 | 0.14 |
| (1,1683) | 1:A:105:GLU:HA | 1:A:107:ASP:H | 17 | 0.14 |
| (1,1608) | 1:A:101:MET:HA | 1:A:102:LEU:HG | 18 | 0.14 |
| (1,1497) | 1:A:12:LYS:HE2 | 1:A:13:ARG:HA | 9 | 0.14 |
| (1,1497) | 1:A:12:LYS:HE3 | 1:A:13:ARG:HA | 9 | 0.14 |
| (1,1341) | 1:A:89:MET:HE1 | 1:A:116:SER:HA | 2 | 0.14 |
| (1,1341) | 1:A:89:MET:HE2 | 1:A:116:SER:HA | 2 | 0.14 |
| (1,1341) | 1:A:89:MET:HE3 | 1:A:116:SER:HA | 2 | 0.14 |
| (1,1307) | 1:A:97:LYS:HD2 | 1:A:99:PRO:HG2 | 11 | 0.14 |
| (1,1307) | 1:A:97:LYS:HD3 | 1:A:99:PRO:HG2 | 11 | 0.14 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG11 | 13 | 0.14 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG12 | 13 | 0.14 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG13 | 13 | 0.14 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG11 | 16 | 0.14 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG12 | 16 | 0.14 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG13 | 16 | 0.14 |
| (1,1162) | 1:A:30:GLN:HG2 | 1:A:59:LYS:HD2 | 3 | 0.14 |
| (1,1162) | 1:A:30:GLN:HG2 | 1:A:59:LYS:HD3 | 3 | 0.14 |
| (1,1154) | 1:A:30:GLN:HG2 | 1:A:31:VAL:H | 17 | 0.14 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 12 | 0.14 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 12 | 0.14 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 12 | 0.14 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 15 | 0.14 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 15 | 0.14 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 15 | 0.14 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 16 | 0.14 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 16 | 0.14 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 16 | 0.14 |
| (1,1038) | 1:A:32:GLN:HB3 | 1:A:124:ILE:HG21 | 1 | 0.14 |
| (1,1038) | 1:A:32:GLN:HB3 | 1:A:124:ILE:HG22 | 1 | 0.14 |
| (1,1038) | 1:A:32:GLN:HB3 | 1:A:124:ILE:HG23 | 1 | 0.14 |
| (1,1038) | 1:A:32:GLN:HB3 | 1:A:124:ILE:HG21 | 7 | 0.14 |
| (1,1038) | 1:A:32:GLN:HB3 | 1:A:124:ILE:HG22 | 7 | 0.14 |
| (1,1038) | 1:A:32:GLN:HB3 | 1:A:124:ILE:HG23 | 7 | 0.14 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG21 | 18 | 0.14 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG22 | 18 | 0.14 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG23 | 18 | 0.14 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG11 | 14 | 0.14 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG12 | 14 | 0.14 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG13 | 14 | 0.14 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG11 | 14 | 0.14 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG12 | 14 | 0.14 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG13 | 14 | 0.14 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG11 | 14 | 0.14 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG12 | 14 | 0.14 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG13 | 14 | 0.14 |
| (2,61) | 1:A:9:GLN:O | 1:A:13:ARG:H | 12 | 0.13 |
| (2,61) | 1:A:9:GLN:O | 1:A:13:ARG:H | 19 | 0.13 |
| (2,51) | 1:A:7:ARG:O | 1:A:11:GLU:H | 12 | 0.13 |
| (2,29) | 1:A:123:THR:O | 1:A:89:MET:H | 3 | 0.13 |
| (1,975) | 1:A:28:TYR:HB3 | 1:A:60:VAL:HA | 18 | 0.13 |
| (1,970) | 1:A:33:ILE:HG12 | 1:A:56:THR:HB | 13 | 0.13 |
| (1,966) | 1:A:33:ILE:H | 1:A:56:THR:HB | 1 | 0.13 |
| (1,966) | 1:A:33:ILE:H | 1:A:56:THR:HB | 17 | 0.13 |
| (1,963) | 1:A:56:THR:HG21 | 1:A:58:PHE:HE1 | 16 | 0.13 |
| (1,963) | 1:A:56:THR:HG22 | 1:A:58:PHE:HE1 | 16 | 0.13 |
| (1,963) | 1:A:56:THR:HG23 | 1:A:58:PHE:HE1 | 16 | 0.13 |
| (1,907) | 1:A:32:GLN:HG2 | 1:A:33:ILE:HA | 11 | 0.13 |
| (1,826) | 1:A:74:SER:HB3 | 1:A:84:ILE:HD11 | 15 | 0.13 |
| (1,826) | 1:A:74:SER:HB3 | 1:A:84:ILE:HD12 | 15 | 0.13 |
| (1,826) | 1:A:74:SER:HB3 | 1:A:84:ILE:HD13 | 15 | 0.13 |
| (1,816) | 1:A:1:PRO:HG2 | 1:A:2:GLN:HA | 9 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,816) | 1:A:1:PRO:HG3 | 1:A:2:GLN:HA | 9 | 0.13 |
| (1,785) | 1:A:14:ILE:HD11 | 1:A:114:GLU:HA | 17 | 0.13 |
| (1,785) | 1:A:14:ILE:HD12 | 1:A:114:GLU:HA | 17 | 0.13 |
| (1,785) | 1:A:14:ILE:HD13 | 1:A:114:GLU:HA | 17 | 0.13 |
| (1,738) | 1:A:34:VAL:HB | 1:A:55:TYR:HA | 9 | 0.13 |
| (1,703) | 1:A:2:GLN:H | 1:A:3:GLN:HA | 20 | 0.13 |
| (1,655) | 1:A:54:LYS:H | 1:A:54:LYS:HD2 | 7 | 0.13 |
| (1,655) | 1:A:54:LYS:H | 1:A:54:LYS:HD3 | 7 | 0.13 |
| (1,632) | 1:A:80:PRO:HA | 1:A:81:GLN:HG3 | 17 | 0.13 |
| (1,510) | 1:A:73:LEU:HD11 | 1:A:77:MET:HG2 | 9 | 0.13 |
| (1,510) | 1:A:73:LEU:HD11 | 1:A:77:MET:HG3 | 9 | 0.13 |
| (1,510) | 1:A:73:LEU:HD12 | 1:A:77:MET:HG2 | 9 | 0.13 |
| (1,510) | 1:A:73:LEU:HD12 | 1:A:77:MET:HG3 | 9 | 0.13 |
| (1,510) | 1:A:73:LEU:HD13 | 1:A:77:MET:HG2 | 9 | 0.13 |
| (1,510) | 1:A:73:LEU:HD13 | 1:A:77:MET:HG3 | 9 | 0.13 |
| (1,382) | 1:A:85:ARG:H | 1:A:126:LEU:HG | 15 | 0.13 |
| (1,373) | 1:A:66:LEU:HB2 | 1:A:109:ASN:H | 3 | 0.13 |
| (1,373) | 1:A:66:LEU:HB2 | 1:A:109:ASN:H | 4 | 0.13 |
| (1,339) | 1:A:89:MET:HE1 | 1:A:125:PHE:H | 10 | 0.13 |
| (1,339) | 1:A:89:MET:HE2 | 1:A:125:PHE:H | 10 | 0.13 |
| (1,339) | 1:A:89:MET:HE3 | 1:A:125:PHE:H | 10 | 0.13 |
| (1,3019) | 1:A:119:GLU:HG2 | 1:A:121:PRO:HA | 6 | 0.13 |
| (1,3019) | 1:A:119:GLU:HG3 | 1:A:121:PRO:HA | 6 | 0.13 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD11 | 7 | 0.13 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD12 | 7 | 0.13 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD13 | 7 | 0.13 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD21 | 7 | 0.13 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD22 | 7 | 0.13 |
| (1,2867) | 1:A:85:ARG:HG2 | 1:A:102:LEU:HD23 | 7 | 0.13 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD11 | 7 | 0.13 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD12 | 7 | 0.13 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD13 | 7 | 0.13 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD21 | 7 | 0.13 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD22 | 7 | 0.13 |
| (1,2867) | 1:A:85:ARG:HG3 | 1:A:102:LEU:HD23 | 7 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD11 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD12 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD13 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD21 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD22 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD11 | 1:A:86:LEU:HD23 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD11 | 16 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD12 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD13 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD21 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD22 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD12 | 1:A:86:LEU:HD23 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD11 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD12 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD13 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD21 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD22 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD13 | 1:A:86:LEU:HD23 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD11 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD12 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD13 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD21 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD22 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD21 | 1:A:86:LEU:HD23 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD11 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD12 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD13 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD21 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD22 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD22 | 1:A:86:LEU:HD23 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD11 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD12 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD13 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD21 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD22 | 16 | 0.13 |
| (1,2795) | 1:A:73:LEU:HD23 | 1:A:86:LEU:HD23 | 16 | 0.13 |
| (1,2744) | 1:A:69:PHE:HZ | 1:A:126:LEU:HB2 | 19 | 0.13 |
| (1,2744) | 1:A:69:PHE:HZ | 1:A:126:LEU:HB3 | 19 | 0.13 |
| (1,2672) | 1:A:61:LEU:HD11 | 1:A:63:ASN:HB2 | 7 | 0.13 |
| (1,2672) | 1:A:61:LEU:HD11 | 1:A:63:ASN:HB3 | 7 | 0.13 |
| (1,2672) | 1:A:61:LEU:HD12 | 1:A:63:ASN:HB2 | 7 | 0.13 |
| (1,2672) | 1:A:61:LEU:HD12 | 1:A:63:ASN:HB3 | 7 | 0.13 |
| (1,2672) | 1:A:61:LEU:HD13 | 1:A:63:ASN:HB2 | 7 | 0.13 |
| (1,2672) | 1:A:61:LEU:HD13 | 1:A:63:ASN:HB3 | 7 | 0.13 |
| (1,2672) | 1:A:61:LEU:HD21 | 1:A:63:ASN:HB2 | 7 | 0.13 |
| (1,2672) | 1:A:61:LEU:HD21 | 1:A:63:ASN:HB3 | 7 | 0.13 |
| (1,2672) | 1:A:61:LEU:HD22 | 1:A:63:ASN:HB2 | 7 | 0.13 |
| (1,2672) | 1:A:61:LEU:HD22 | 1:A:63:ASN:HB3 | 7 | 0.13 |
| (1,2672) | 1:A:61:LEU:HD23 | 1:A:63:ASN:HB2 | 7 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2672) | 1:A:61:LEU:HD23 | 1:A:63:ASN:HB3 | 7 | 0.13 |
| (1,2656) | 1:A:59:LYS:HA | 1:A:59:LYS:HE2 | 5 | 0.13 |
| (1,2656) | 1:A:59:LYS:HA | 1:A:59:LYS:HE3 | 5 | 0.13 |
| (1,2648) | 1:A:58:PHE:HA | 1:A:59:LYS:HE2 | 13 | 0.13 |
| (1,2648) | 1:A:58:PHE:HA | 1:A:59:LYS:HE3 | 13 | 0.13 |
| (1,2600) | 1:A:36:GLU:HG2 | 1:A:52:LYS:HG2 | 9 | 0.13 |
| (1,2600) | 1:A:36:GLU:HG2 | 1:A:52:LYS:HG3 | 9 | 0.13 |
| (1,2600) | 1:A:36:GLU:HG3 | 1:A:52:LYS:HG2 | 9 | 0.13 |
| (1,2600) | 1:A:36:GLU:HG3 | 1:A:52:LYS:HG3 | 9 | 0.13 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 4 | 0.13 |
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 4 | 0.13 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 4 | 0.13 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 4 | 0.13 |
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 4 | 0.13 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 4 | 0.13 |
| (1,2519) | 1:A:28:TYR:HD1 | 1:A:59:LYS:HE2 | 14 | 0.13 |
| (1,2519) | 1:A:28:TYR:HD1 | 1:A:59:LYS:HE3 | 14 | 0.13 |
| (1,2519) | 1:A:28:TYR:HD2 | 1:A:59:LYS:HE2 | 14 | 0.13 |
| (1,2519) | 1:A:28:TYR:HD2 | 1:A:59:LYS:HE3 | 14 | 0.13 |
| (1,2487) | 1:A:27:LEU:HA | 1:A:63:ASN:HD21 | 5 | 0.13 |
| (1,2487) | 1:A:27:LEU:HA | 1:A:63:ASN:HD22 | 5 | 0.13 |
| (1,2487) | 1:A:27:LEU:HA | 1:A:63:ASN:HD21 | 19 | 0.13 |
| (1,2487) | 1:A:27:LEU:HA | 1:A:63:ASN:HD22 | 19 | 0.13 |
| (1,2445) | 1:A:12:LYS:HG2 | 1:A:13:ARG:H | 17 | 0.13 |
| (1,2445) | 1:A:12:LYS:HG3 | 1:A:13:ARG:H | 17 | 0.13 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD11 | 13 | 0.13 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD12 | 13 | 0.13 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD13 | 13 | 0.13 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD21 | 13 | 0.13 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD22 | 13 | 0.13 |
| (1,2394) | 1:A:3:GLN:HB2 | 1:A:4:LEU:HD23 | 13 | 0.13 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD11 | 13 | 0.13 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD12 | 13 | 0.13 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD13 | 13 | 0.13 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD21 | 13 | 0.13 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD22 | 13 | 0.13 |
| (1,2394) | 1:A:3:GLN:HB3 | 1:A:4:LEU:HD23 | 13 | 0.13 |
| (1,2374) | 1:A:48:TYR:HD1 | 1:A:53:VAL:HB | 4 | 0.13 |
| (1,2374) | 1:A:48:TYR:HD1 | 1:A:53:VAL:HB | 8 | 0.13 |
| (1,2368) | 1:A:32:GLN:HA | 1:A:55:TYR:HE1 | 2 | 0.13 |
| (1,2368) | 1:A:32:GLN:HA | 1:A:55:TYR:HE1 | 5 | 0.13 |
| (1,2368) | 1:A:32:GLN:HA | 1:A:55:TYR:HE1 | 16 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2368) | 1:A:32:GLN:HA | 1:A:55:TYR:HE1 | 20 | 0.13 |
| (1,2355) | 1:A:122:TRP:HZ2 | 1:A:124:ILE:HA | 6 | 0.13 |
| (1,2355) | 1:A:122:TRP:HZ2 | 1:A:124:ILE:HA | 7 | 0.13 |
| (1,2355) | 1:A:122:TRP:HZ2 | 1:A:124:ILE:HA | 11 | 0.13 |
| (1,2350) | 1:A:79:PHE:HZ | 1:A:128:THR:HG21 | 5 | 0.13 |
| (1,2350) | 1:A:79:PHE:HZ | 1:A:128:THR:HG22 | 5 | 0.13 |
| (1,2350) | 1:A:79:PHE:HZ | 1:A:128:THR:HG23 | 5 | 0.13 |
| (1,2313) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HD1 | 1 | 0.13 |
| (1,2313) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HD1 | 1 | 0.13 |
| (1,2313) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HD1 | 1 | 0.13 |
| (1,2313) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HD1 | 7 | 0.13 |
| (1,2313) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HD1 | 7 | 0.13 |
| (1,2313) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HD1 | 7 | 0.13 |
| (1,2313) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HD1 | 14 | 0.13 |
| (1,2313) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HD1 | 14 | 0.13 |
| (1,2313) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HD1 | 14 | 0.13 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 5 | 0.13 |
| (1,2232) | 1:A:113:ILE:HG13 | 1:A:119:GLU:H | 19 | 0.13 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD11 | 6 | 0.13 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD12 | 6 | 0.13 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD13 | 6 | 0.13 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD11 | 6 | 0.13 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD12 | 6 | 0.13 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD13 | 6 | 0.13 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD11 | 16 | 0.13 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD12 | 16 | 0.13 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD13 | 16 | 0.13 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD11 | 16 | 0.13 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD12 | 16 | 0.13 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD13 | 16 | 0.13 |
| (1,2101) | 1:A:73:LEU:HG | 1:A:76:THR:HB | 10 | 0.13 |
| (1,2041) | 1:A:49:ASP:HB2 | 1:A:53:VAL:HA | 18 | 0.13 |
| (1,2007) | 1:A:31:VAL:HB | 1:A:124:ILE:HG21 | 10 | 0.13 |
| (1,2007) | 1:A:31:VAL:HB | 1:A:124:ILE:HG22 | 10 | 0.13 |
| (1,2007) | 1:A:31:VAL:HB | 1:A:124:ILE:HG23 | 10 | 0.13 |
| (1,1996) | 1:A:28:TYR:HB3 | 1:A:59:LYS:HD2 | 6 | 0.13 |
| (1,1996) | 1:A:28:TYR:HB3 | 1:A:59:LYS:HD3 | 6 | 0.13 |
| (1,1867) | 1:A:75:GLN:HB3 | 1:A:77:MET:H | 3 | 0.13 |
| (1,1838) | 1:A:103:ASP:HB3 | 1:A:105:GLU:HA | 15 | 0.13 |
| (1,1758) | 1:A:7:ARG:HD2 | 1:A:8:LEU:HB3 | 19 | 0.13 |
| (1,1758) | 1:A:7:ARG:HD3 | 1:A:8:LEU:HB3 | 19 | 0.13 |
| (1,1754) | 1:A:7:ARG:HG2 | 1:A:8:LEU:HA | 11 | 0.13 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1754) | 1:A:7:ARG:HG3 | 1:A:8:LEU:HA | 11 | 0.13 |
| (1,1703) | 1:A:16:ALA:HA | 1:A:19:ARG:H | 9 | 0.13 |
| (1,1643) | 1:A:113:ILE:HB | 1:A:114:GLU:HG2 | 10 | 0.13 |
| (1,1608) | 1:A:101:MET:HA | 1:A:102:LEU:HG | 1 | 0.13 |
| (1,1608) | 1:A:101:MET:HA | 1:A:102:LEU:HG | 10 | 0.13 |
| (1,1497) | 1:A:12:LYS:HE2 | 1:A:13:ARG:HA | 12 | 0.13 |
| (1,1497) | 1:A:12:LYS:HE3 | 1:A:13:ARG:HA | 12 | 0.13 |
| (1,1497) | 1:A:12:LYS:HE2 | 1:A:13:ARG:HA | 14 | 0.13 |
| (1,1497) | 1:A:12:LYS:HE3 | 1:A:13:ARG:HA | 14 | 0.13 |
| (1,1427) | 1:A:99:PRO:HB2 | 1:A:100:ALA:HB1 | 3 | 0.13 |
| (1,1427) | 1:A:99:PRO:HB2 | 1:A:100:ALA:HB2 | 3 | 0.13 |
| (1,1427) | 1:A:99:PRO:HB2 | 1:A:100:ALA:HB3 | 3 | 0.13 |
| (1,1427) | 1:A:99:PRO:HB2 | 1:A:100:ALA:HB1 | 17 | 0.13 |
| (1,1427) | 1:A:99:PRO:HB2 | 1:A:100:ALA:HB2 | 17 | 0.13 |
| (1,1427) | 1:A:99:PRO:HB2 | 1:A:100:ALA:HB3 | 17 | 0.13 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG11 | 4 | 0.13 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG12 | 4 | 0.13 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG13 | 4 | 0.13 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG11 | 8 | 0.13 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG12 | 8 | 0.13 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG13 | 8 | 0.13 |
| (1,1212) | 1:A:113:ILE:HA | 1:A:118:ASN:HD21 | 3 | 0.13 |
| (1,1212) | 1:A:113:ILE:HA | 1:A:118:ASN:HD21 | 4 | 0.13 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 1 | 0.13 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 1 | 0.13 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 1 | 0.13 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 9 | 0.13 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 9 | 0.13 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 9 | 0.13 |
| (1,1078) | 1:A:55:TYR:HA | 1:A:56:THR:HG21 | 8 | 0.13 |
| (1,1078) | 1:A:55:TYR:HA | 1:A:56:THR:HG22 | 8 | 0.13 |
| (1,1078) | 1:A:55:TYR:HA | 1:A:56:THR:HG23 | 8 | 0.13 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG11 | 13 | 0.13 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG12 | 13 | 0.13 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG13 | 13 | 0.13 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG11 | 13 | 0.13 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG12 | 13 | 0.13 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG13 | 13 | 0.13 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG11 | 13 | 0.13 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG12 | 13 | 0.13 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG13 | 13 | 0.13 |
| (2,61) | 1:A:9:GLN:O | 1:A:13:ARG:H | 16 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (2,51) | 1:A:7:ARG:O | 1:A:11:GLU:H | 5 | 0.12 |
| (2,45) | 1:A:71:GLN:O | 1:A:75:GLN:H | 7 | 0.12 |
| (2,39) | 1:A:68:GLU:O | 1:A:72:SER:H | 11 | 0.12 |
| (2,13) | 1:A:33:ILE:O | 1:A:56:THR:H | 7 | 0.12 |
| (1,975) | 1:A:28:TYR:HB3 | 1:A:60:VAL:HA | 6 | 0.12 |
| (1,975) | 1:A:28:TYR:HB3 | 1:A:60:VAL:HA | 16 | 0.12 |
| (1,975) | 1:A:28:TYR:HB3 | 1:A:60:VAL:HA | 17 | 0.12 |
| (1,971) | 1:A:34:VAL:HG11 | 1:A:56:THR:HB | 3 | 0.12 |
| (1,971) | 1:A:34:VAL:HG12 | 1:A:56:THR:HB | 3 | 0.12 |
| (1,971) | 1:A:34:VAL:HG13 | 1:A:56:THR:HB | 3 | 0.12 |
| (1,971) | 1:A:34:VAL:HG11 | 1:A:56:THR:HB | 13 | 0.12 |
| (1,971) | 1:A:34:VAL:HG12 | 1:A:56:THR:HB | 13 | 0.12 |
| (1,971) | 1:A:34:VAL:HG13 | 1:A:56:THR:HB | 13 | 0.12 |
| (1,925) | 1:A:34:VAL:HA | 1:A:56:THR:HB | 6 | 0.12 |
| (1,925) | 1:A:34:VAL:HA | 1:A:56:THR:HB | 10 | 0.12 |
| (1,925) | 1:A:34:VAL:HA | 1:A:56:THR:HB | 20 | 0.12 |
| (1,922) | 1:A:66:LEU:HB2 | 1:A:108:GLY:HA2 | 5 | 0.12 |
| (1,912) | 1:A:65:SER:HA | 1:A:111:THR:HA | 14 | 0.12 |
| (1,869) | 1:A:33:ILE:HD11 | 1:A:124:ILE:H | 9 | 0.12 |
| (1,869) | 1:A:33:ILE:HD12 | 1:A:124:ILE:H | 9 | 0.12 |
| (1,869) | 1:A:33:ILE:HD13 | 1:A:124:ILE:H | 9 | 0.12 |
| (1,826) | 1:A:74:SER:HB3 | 1:A:84:ILE:HD11 | 5 | 0.12 |
| (1,826) | 1:A:74:SER:HB3 | 1:A:84:ILE:HD12 | 5 | 0.12 |
| (1,826) | 1:A:74:SER:HB3 | 1:A:84:ILE:HD13 | 5 | 0.12 |
| (1,808) | 1:A:75:GLN:HB2 | 1:A:75:GLN:HE22 | 7 | 0.12 |
| (1,778) | 1:A:76:THR:H | 1:A:76:THR:HG21 | 7 | 0.12 |
| (1,778) | 1:A:76:THR:H | 1:A:76:THR:HG22 | 7 | 0.12 |
| (1,778) | 1:A:76:THR:H | 1:A:76:THR:HG23 | 7 | 0.12 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG21 | 4 | 0.12 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG22 | 4 | 0.12 |
| (1,773) | 1:A:58:PHE:HE1 | 1:A:76:THR:HG23 | 4 | 0.12 |
| (1,734) | 1:A:88:PRO:HD2 | 1:A:102:LEU:HG | 15 | 0.12 |
| (1,703) | 1:A:2:GLN:H | 1:A:3:GLN:HA | 15 | 0.12 |
| (1,703) | 1:A:2:GLN:H | 1:A:3:GLN:HA | 17 | 0.12 |
| (1,691) | 1:A:35:ALA:HB1 | 1:A:36:GLU:H | 18 | 0.12 |
| (1,691) | 1:A:35:ALA:HB2 | 1:A:36:GLU:H | 18 | 0.12 |
| (1,691) | 1:A:35:ALA:HB3 | 1:A:36:GLU:H | 18 | 0.12 |
| (1,632) | 1:A:80:PRO:HA | 1:A:81:GLN:HG3 | 11 | 0.12 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 9 | 0.12 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 7 | 0.12 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 7 | 0.12 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 7 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 10 | 0.12 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 10 | 0.12 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 10 | 0.12 |
| (1,373) | 1:A:66:LEU:HB2 | 1:A:109:ASN:H | 5 | 0.12 |
| (1,339) | 1:A:89:MET:HE1 | 1:A:125:PHE:H | 8 | 0.12 |
| (1,339) | 1:A:89:MET:HE2 | 1:A:125:PHE:H | 8 | 0.12 |
| (1,339) | 1:A:89:MET:HE3 | 1:A:125:PHE:H | 8 | 0.12 |
| (1,332) | 1:A:31:VAL:HB | 1:A:58:PHE:H | 13 | 0.12 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD11 | 16 | 0.12 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD12 | 16 | 0.12 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD13 | 16 | 0.12 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD21 | 16 | 0.12 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD22 | 16 | 0.12 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD23 | 16 | 0.12 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD11 | 18 | 0.12 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD12 | 18 | 0.12 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD13 | 18 | 0.12 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD21 | 18 | 0.12 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD22 | 18 | 0.12 |
| (1,2978) | 1:A:113:ILE:H | 1:A:115:LEU:HD23 | 18 | 0.12 |
| (1,2869) | 1:A:85:ARG:HD2 | 1:A:87:TRP:HZ2 | 9 | 0.12 |
| (1,2869) | 1:A:85:ARG:HD3 | 1:A:87:TRP:HZ2 | 9 | 0.12 |
| (1,2869) | 1:A:85:ARG:HD2 | 1:A:87:TRP:HZ2 | 11 | 0.12 |
| (1,2869) | 1:A:85:ARG:HD3 | 1:A:87:TRP:HZ2 | 11 | 0.12 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD11 | 16 | 0.12 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD12 | 16 | 0.12 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD13 | 16 | 0.12 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD21 | 16 | 0.12 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD22 | 16 | 0.12 |
| (1,2829) | 1:A:77:MET:HE1 | 1:A:126:LEU:HD23 | 16 | 0.12 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD11 | 16 | 0.12 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD12 | 16 | 0.12 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD13 | 16 | 0.12 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD21 | 16 | 0.12 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD22 | 16 | 0.12 |
| (1,2829) | 1:A:77:MET:HE2 | 1:A:126:LEU:HD23 | 16 | 0.12 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD11 | 16 | 0.12 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD12 | 16 | 0.12 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD13 | 16 | 0.12 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD21 | 16 | 0.12 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD22 | 16 | 0.12 |
| (1,2829) | 1:A:77:MET:HE3 | 1:A:126:LEU:HD23 | 16 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2669) | 1:A:61:LEU:HG | 1:A:63:ASN:HD21 | 4 | 0.12 |
| (1,2669) | 1:A:61:LEU:HG | 1:A:63:ASN:HD22 | 4 | 0.12 |
| (1,2656) | 1:A:59:LYS:HA | 1:A:59:LYS:HE2 | 4 | 0.12 |
| (1,2656) | 1:A:59:LYS:HA | 1:A:59:LYS:HE3 | 4 | 0.12 |
| (1,2648) | 1:A:58:PHE:HA | 1:A:59:LYS:HE2 | 16 | 0.12 |
| (1,2648) | 1:A:58:PHE:HA | 1:A:59:LYS:HE3 | 16 | 0.12 |
| (1,2619) | 1:A:46:ASP:H | 1:A:47:MET:HB2 | 9 | 0.12 |
| (1,2619) | 1:A:46:ASP:H | 1:A:47:MET:HB3 | 9 | 0.12 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 17 | 0.12 |
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 17 | 0.12 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 17 | 0.12 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 17 | 0.12 |
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 17 | 0.12 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 17 | 0.12 |
| (1,2550) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HD1 | 9 | 0.12 |
| (1,2550) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HD1 | 9 | 0.12 |
| (1,2550) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HD1 | 9 | 0.12 |
| (1,2550) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HD1 | 9 | 0.12 |
| (1,2550) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HD1 | 9 | 0.12 |
| (1,2550) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HD1 | 9 | 0.12 |
| (1,2519) | 1:A:28:TYR:HD1 | 1:A:59:LYS:HE2 | 18 | 0.12 |
| (1,2519) | 1:A:28:TYR:HD1 | 1:A:59:LYS:HE3 | 18 | 0.12 |
| (1,2519) | 1:A:28:TYR:HD2 | 1:A:59:LYS:HE2 | 18 | 0.12 |
| (1,2519) | 1:A:28:TYR:HD2 | 1:A:59:LYS:HE3 | 18 | 0.12 |
| (1,2490) | 1:A:27:LEU:HB2 | 1:A:28:TYR:HD1 | 3 | 0.12 |
| (1,2490) | 1:A:27:LEU:HB2 | 1:A:28:TYR:HD2 | 3 | 0.12 |
| (1,2490) | 1:A:27:LEU:HB3 | 1:A:28:TYR:HD1 | 3 | 0.12 |
| (1,2490) | 1:A:27:LEU:HB3 | 1:A:28:TYR:HD2 | 3 | 0.12 |
| (1,2445) | 1:A:12:LYS:HG2 | 1:A:13:ARG:H | 11 | 0.12 |
| (1,2445) | 1:A:12:LYS:HG3 | 1:A:13:ARG:H | 11 | 0.12 |
| (1,2407) | 1:A:4:LEU:HD11 | 1:A:105:GLU:HB2 | 12 | 0.12 |
| (1,2407) | 1:A:4:LEU:HD11 | 1:A:105:GLU:HB3 | 12 | 0.12 |
| (1,2407) | 1:A:4:LEU:HD12 | 1:A:105:GLU:HB2 | 12 | 0.12 |
| (1,2407) | 1:A:4:LEU:HD12 | 1:A:105:GLU:HB3 | 12 | 0.12 |
| (1,2407) | 1:A:4:LEU:HD13 | 1:A:105:GLU:HB2 | 12 | 0.12 |
| (1,2407) | 1:A:4:LEU:HD13 | 1:A:105:GLU:HB3 | 12 | 0.12 |
| (1,2407) | 1:A:4:LEU:HD21 | 1:A:105:GLU:HB2 | 12 | 0.12 |
| (1,2407) | 1:A:4:LEU:HD21 | 1:A:105:GLU:HB3 | 12 | 0.12 |
| (1,2407) | 1:A:4:LEU:HD22 | 1:A:105:GLU:HB2 | 12 | 0.12 |
| (1,2407) | 1:A:4:LEU:HD22 | 1:A:105:GLU:HB3 | 12 | 0.12 |
| (1,2407) | 1:A:4:LEU:HD23 | 1:A:105:GLU:HB2 | 12 | 0.12 |
| (1,2407) | 1:A:4:LEU:HD23 | 1:A:105:GLU:HB3 | 12 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2355) | 1:A:122:TRP:HZ2 | 1:A:124:ILE:HA | 18 | 0.12 |
| (1,2354) | 1:A:88:PRO:HD2 | 1:A:122:TRP:HZ2 | 9 | 0.12 |
| (1,2351) | 1:A:87:TRP:HH2 | 1:A:100:ALA:HB1 | 18 | 0.12 |
| (1,2351) | 1:A:87:TRP:HH2 | 1:A:100:ALA:HB2 | 18 | 0.12 |
| (1,2351) | 1:A:87:TRP:HH2 | 1:A:100:ALA:HB3 | 18 | 0.12 |
| (1,2350) | 1:A:79:PHE:HZ | 1:A:128:THR:HG21 | 11 | 0.12 |
| (1,2350) | 1:A:79:PHE:HZ | 1:A:128:THR:HG22 | 11 | 0.12 |
| (1,2350) | 1:A:79:PHE:HZ | 1:A:128:THR:HG23 | 11 | 0.12 |
| (1,2275) | 1:A:28:TYR:HD1 | 1:A:29:MET:H | 8 | 0.12 |
| (1,2275) | 1:A:28:TYR:HD2 | 1:A:29:MET:H | 8 | 0.12 |
| (1,2275) | 1:A:28:TYR:HD1 | 1:A:29:MET:H | 19 | 0.12 |
| (1,2275) | 1:A:28:TYR:HD2 | 1:A:29:MET:H | 19 | 0.12 |
| (1,2266) | 1:A:32:GLN:HG3 | 1:A:55:TYR:HE1 | 13 | 0.12 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 8 | 0.12 |
| (1,2265) | 1:A:34:VAL:HA | 1:A:55:TYR:HE1 | 17 | 0.12 |
| (1,2221) | 1:A:106:ALA:HB1 | 1:A:114:GLU:HB2 | 7 | 0.12 |
| (1,2221) | 1:A:106:ALA:HB2 | 1:A:114:GLU:HB2 | 7 | 0.12 |
| (1,2221) | 1:A:106:ALA:HB3 | 1:A:114:GLU:HB2 | 7 | 0.12 |
| (1,2221) | 1:A:106:ALA:HB1 | 1:A:114:GLU:HB2 | 8 | 0.12 |
| (1,2221) | 1:A:106:ALA:HB2 | 1:A:114:GLU:HB2 | 8 | 0.12 |
| (1,2221) | 1:A:106:ALA:HB3 | 1:A:114:GLU:HB2 | 8 | 0.12 |
| (1,2179) | 1:A:106:ALA:HB1 | 1:A:115:LEU:HD11 | 18 | 0.12 |
| (1,2179) | 1:A:106:ALA:HB1 | 1:A:115:LEU:HD12 | 18 | 0.12 |
| (1,2179) | 1:A:106:ALA:HB1 | 1:A:115:LEU:HD13 | 18 | 0.12 |
| (1,2179) | 1:A:106:ALA:HB2 | 1:A:115:LEU:HD11 | 18 | 0.12 |
| (1,2179) | 1:A:106:ALA:HB2 | 1:A:115:LEU:HD12 | 18 | 0.12 |
| (1,2179) | 1:A:106:ALA:HB2 | 1:A:115:LEU:HD13 | 18 | 0.12 |
| (1,2179) | 1:A:106:ALA:HB3 | 1:A:115:LEU:HD11 | 18 | 0.12 |
| (1,2179) | 1:A:106:ALA:HB3 | 1:A:115:LEU:HD12 | 18 | 0.12 |
| (1,2179) | 1:A:106:ALA:HB3 | 1:A:115:LEU:HD13 | 18 | 0.12 |
| (1,2162) | 1:A:14:ILE:HG12 | 1:A:111:THR:HG21 | 11 | 0.12 |
| (1,2162) | 1:A:14:ILE:HG12 | 1:A:111:THR:HG22 | 11 | 0.12 |
| (1,2162) | 1:A:14:ILE:HG12 | 1:A:111:THR:HG23 | 11 | 0.12 |
| (1,2162) | 1:A:14:ILE:HG13 | 1:A:111:THR:HG21 | 11 | 0.12 |
| (1,2162) | 1:A:14:ILE:HG13 | 1:A:111:THR:HG22 | 11 | 0.12 |
| (1,2162) | 1:A:14:ILE:HG13 | 1:A:111:THR:HG23 | 11 | 0.12 |
| (1,2136) | 1:A:77:MET:HE1 | 1:A:126:LEU:HA | 3 | 0.12 |
| (1,2136) | 1:A:77:MET:HE2 | 1:A:126:LEU:HA | 3 | 0.12 |
| (1,2136) | 1:A:77:MET:HE3 | 1:A:126:LEU:HA | 3 | 0.12 |
| (1,2136) | 1:A:77:MET:HE1 | 1:A:126:LEU:HA | 12 | 0.12 |
| (1,2136) | 1:A:77:MET:HE2 | 1:A:126:LEU:HA | 12 | 0.12 |
| (1,2136) | 1:A:77:MET:HE3 | 1:A:126:LEU:HA | 12 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2134) | 1:A:70:VAL:HB | 1:A:84:ILE:HG13 | 6 | 0.12 |
| (1,2134) | 1:A:70:VAL:HB | 1:A:84:ILE:HG13 | 10 | 0.12 |
| (1,2134) | 1:A:70:VAL:HB | 1:A:84:ILE:HG13 | 11 | 0.12 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD11 | 4 | 0.12 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD12 | 4 | 0.12 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD13 | 4 | 0.12 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD11 | 4 | 0.12 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD12 | 4 | 0.12 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD13 | 4 | 0.12 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD11 | 7 | 0.12 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD12 | 7 | 0.12 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD13 | 7 | 0.12 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD11 | 7 | 0.12 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD12 | 7 | 0.12 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD13 | 7 | 0.12 |
| (1,2101) | 1:A:73:LEU:HG | 1:A:76:THR:HB | 5 | 0.12 |
| (1,2081) | 1:A:70:VAL:H | 1:A:84:ILE:HD11 | 11 | 0.12 |
| (1,2081) | 1:A:70:VAL:H | 1:A:84:ILE:HD12 | 11 | 0.12 |
| (1,2081) | 1:A:70:VAL:H | 1:A:84:ILE:HD13 | 11 | 0.12 |
| (1,2081) | 1:A:70:VAL:H | 1:A:84:ILE:HD11 | 17 | 0.12 |
| (1,2081) | 1:A:70:VAL:H | 1:A:84:ILE:HD12 | 17 | 0.12 |
| (1,2081) | 1:A:70:VAL:H | 1:A:84:ILE:HD13 | 17 | 0.12 |
| (1,2081) | 1:A:70:VAL:H | 1:A:84:ILE:HD11 | 19 | 0.12 |
| (1,2081) | 1:A:70:VAL:H | 1:A:84:ILE:HD12 | 19 | 0.12 |
| (1,2081) | 1:A:70:VAL:H | 1:A:84:ILE:HD13 | 19 | 0.12 |
| (1,2076) | 1:A:33:ILE:HD11 | 1:A:69:PHE:HZ | 7 | 0.12 |
| (1,2076) | 1:A:33:ILE:HD12 | 1:A:69:PHE:HZ | 7 | 0.12 |
| (1,2076) | 1:A:33:ILE:HD13 | 1:A:69:PHE:HZ | 7 | 0.12 |
| (1,2023) | 1:A:37:ASP:H | 1:A:51:GLU:HA | 6 | 0.12 |
| (1,1996) | 1:A:28:TYR:HB3 | 1:A:59:LYS:HD2 | 12 | 0.12 |
| (1,1996) | 1:A:28:TYR:HB3 | 1:A:59:LYS:HD3 | 12 | 0.12 |
| (1,1995) | 1:A:103:ASP:HB3 | 1:A:106:ALA:HA | 1 | 0.12 |
| (1,1995) | 1:A:103:ASP:HB3 | 1:A:106:ALA:HA | 17 | 0.12 |
| (1,1995) | 1:A:103:ASP:HB3 | 1:A:106:ALA:HA | 19 | 0.12 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 1 | 0.12 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 1 | 0.12 |
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 1 | 0.12 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 12 | 0.12 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 12 | 0.12 |
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 12 | 0.12 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 18 | 0.12 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 18 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 18 | 0.12 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE1 | 6 | 0.12 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE2 | 6 | 0.12 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE3 | 6 | 0.12 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE1 | 9 | 0.12 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE2 | 9 | 0.12 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE3 | 9 | 0.12 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE1 | 15 | 0.12 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE2 | 15 | 0.12 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE3 | 15 | 0.12 |
| (1,1878) | 1:A:56:THR:HA | 1:A:58:PHE:HZ | 11 | 0.12 |
| (1,1872) | 1:A:79:PHE:HB2 | 1:A:128:THR:HA | 13 | 0.12 |
| (1,1836) | 1:A:3:GLN:HB2 | 1:A:4:LEU:H | 16 | 0.12 |
| (1,1836) | 1:A:3:GLN:HB3 | 1:A:4:LEU:H | 16 | 0.12 |
| (1,1797) | 1:A:2:GLN:HB2 | 1:A:5:VAL:H | 17 | 0.12 |
| (1,1797) | 1:A:2:GLN:HB3 | 1:A:5:VAL:H | 17 | 0.12 |
| (1,1761) | 1:A:8:LEU:HB3 | 1:A:110:LYS:HB2 | 14 | 0.12 |
| (1,1761) | 1:A:8:LEU:HB3 | 1:A:110:LYS:HB3 | 14 | 0.12 |
| (1,1758) | 1:A:7:ARG:HD2 | 1:A:8:LEU:HB3 | 16 | 0.12 |
| (1,1758) | 1:A:7:ARG:HD3 | 1:A:8:LEU:HB3 | 16 | 0.12 |
| (1,1683) | 1:A:105:GLU:HA | 1:A:107:ASP:H | 8 | 0.12 |
| (1,1646) | 1:A:110:LYS:HG2 | 1:A:114:GLU:HG3 | 10 | 0.12 |
| (1,1646) | 1:A:110:LYS:HG2 | 1:A:114:GLU:HG3 | 20 | 0.12 |
| (1,1608) | 1:A:101:MET:HA | 1:A:102:LEU:HG | 17 | 0.12 |
| (1,1608) | 1:A:101:MET:HA | 1:A:102:LEU:HG | 20 | 0.12 |
| (1,1603) | 1:A:79:PHE:HZ | 1:A:128:THR:HB | 6 | 0.12 |
| (1,1603) | 1:A:79:PHE:HZ | 1:A:128:THR:HB | 10 | 0.12 |
| (1,1603) | 1:A:79:PHE:HZ | 1:A:128:THR:HB | 14 | 0.12 |
| (1,1601) | 1:A:83:GLN:HG2 | 1:A:128:THR:HB | 5 | 0.12 |
| (1,1601) | 1:A:83:GLN:HG3 | 1:A:128:THR:HB | 5 | 0.12 |
| (1,1547) | 1:A:26:HIS:HE1 | 1:A:27:LEU:HA | 2 | 0.12 |
| (1,1510) | 1:A:22:ARG:HG2 | 1:A:23:GLN:HA | 2 | 0.12 |
| (1,1510) | 1:A:22:ARG:HG3 | 1:A:23:GLN:HA | 2 | 0.12 |
| (1,1494) | 1:A:71:GLN:HG3 | 1:A:72:SER:HA | 19 | 0.12 |
| (1,1464) | 1:A:49:ASP:HA | 1:A:51:GLU:HG2 | 17 | 0.12 |
| (1,1464) | 1:A:49:ASP:HA | 1:A:51:GLU:HG3 | 17 | 0.12 |
| (1,1455) | 1:A:15:GLU:HA | 1:A:18:LYS:HB2 | 19 | 0.12 |
| (1,1455) | 1:A:15:GLU:HA | 1:A:18:LYS:HB3 | 19 | 0.12 |
| (1,1388) | 1:A:36:GLU:HA | 1:A:51:GLU:HB3 | 10 | 0.12 |
| (1,1345) | 1:A:65:SER:HB2 | 1:A:109:ASN:HA | 14 | 0.12 |
| (1,1345) | 1:A:65:SER:HB3 | 1:A:109:ASN:HA | 14 | 0.12 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG11 | 6 | 0.12 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG12 | 6 | 0.12 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG13 | 6 | 0.12 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG11 | 10 | 0.12 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG12 | 10 | 0.12 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG13 | 10 | 0.12 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG11 | 14 | 0.12 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG12 | 14 | 0.12 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG13 | 14 | 0.12 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG11 | 17 | 0.12 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG12 | 17 | 0.12 |
| (1,1301) | 1:A:68:GLU:HA | 1:A:70:VAL:HG13 | 17 | 0.12 |
| (1,1273) | 1:A:87:TRP:HA | 1:A:102:LEU:HD11 | 8 | 0.12 |
| (1,1273) | 1:A:87:TRP:HA | 1:A:102:LEU:HD12 | 8 | 0.12 |
| (1,1273) | 1:A:87:TRP:HA | 1:A:102:LEU:HD13 | 8 | 0.12 |
| (1,1273) | 1:A:87:TRP:HA | 1:A:102:LEU:HD11 | 16 | 0.12 |
| (1,1273) | 1:A:87:TRP:HA | 1:A:102:LEU:HD12 | 16 | 0.12 |
| (1,1273) | 1:A:87:TRP:HA | 1:A:102:LEU:HD13 | 16 | 0.12 |
| (1,1162) | 1:A:30:GLN:HG2 | 1:A:59:LYS:HD2 | 19 | 0.12 |
| (1,1162) | 1:A:30:GLN:HG2 | 1:A:59:LYS:HD3 | 19 | 0.12 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG21 | 11 | 0.12 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG22 | 11 | 0.12 |
| (1,1100) | 1:A:32:GLN:HG2 | 1:A:34:VAL:HG23 | 11 | 0.12 |
| (1,1084) | 1:A:34:VAL:H | 1:A:56:THR:HG21 | 8 | 0.12 |
| (1,1084) | 1:A:34:VAL:H | 1:A:56:THR:HG22 | 8 | 0.12 |
| (1,1084) | 1:A:34:VAL:H | 1:A:56:THR:HG23 | 8 | 0.12 |
| (1,1075) | 1:A:32:GLN:HG3 | 1:A:57:VAL:HG11 | 15 | 0.12 |
| (1,1075) | 1:A:32:GLN:HG3 | 1:A:57:VAL:HG12 | 15 | 0.12 |
| (1,1075) | 1:A:32:GLN:HG3 | 1:A:57:VAL:HG13 | 15 | 0.12 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG21 | 9 | 0.12 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG22 | 9 | 0.12 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG23 | 9 | 0.12 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG11 | 15 | 0.12 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG12 | 15 | 0.12 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG13 | 15 | 0.12 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG11 | 15 | 0.12 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG12 | 15 | 0.12 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG13 | 15 | 0.12 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG11 | 15 | 0.12 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG12 | 15 | 0.12 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG13 | 15 | 0.12 |
| (2,61) | 1:A:9:GLN:O | 1:A:13:ARG:H | 15 | 0.11 |
| (2,61) | 1:A:9:GLN:O | 1:A:13:ARG:H | 20 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (2,57) | 1:A:3:GLN:O | 1:A:7:ARG:H | 2 | 0.11 |
| (2,45) | 1:A:71:GLN:O | 1:A:75:GLN:H | 1 | 0.11 |
| (1,975) | 1:A:28:TYR:HB3 | 1:A:60:VAL:HA | 3 | 0.11 |
| (1,971) | 1:A:34:VAL:HG11 | 1:A:56:THR:HB | 15 | 0.11 |
| (1,971) | 1:A:34:VAL:HG12 | 1:A:56:THR:HB | 15 | 0.11 |
| (1,971) | 1:A:34:VAL:HG13 | 1:A:56:THR:HB | 15 | 0.11 |
| (1,966) | 1:A:33:ILE:H | 1:A:56:THR:HB | 4 | 0.11 |
| (1,948) | 1:A:86:LEU:HA | 1:A:125:PHE:HD1 | 18 | 0.11 |
| (1,907) | 1:A:32:GLN:HG2 | 1:A:33:ILE:HA | 9 | 0.11 |
| (1,907) | 1:A:32:GLN:HG2 | 1:A:33:ILE:HA | 10 | 0.11 |
| (1,861) | 1:A:33:ILE:HD11 | 1:A:125:PHE:HA | 20 | 0.11 |
| (1,861) | 1:A:33:ILE:HD12 | 1:A:125:PHE:HA | 20 | 0.11 |
| (1,861) | 1:A:33:ILE:HD13 | 1:A:125:PHE:HA | 20 | 0.11 |
| (1,826) | 1:A:74:SER:HB3 | 1:A:84:ILE:HD11 | 11 | 0.11 |
| (1,826) | 1:A:74:SER:HB3 | 1:A:84:ILE:HD12 | 11 | 0.11 |
| (1,826) | 1:A:74:SER:HB3 | 1:A:84:ILE:HD13 | 11 | 0.11 |
| (1,826) | 1:A:74:SER:HB3 | 1:A:84:ILE:HD11 | 18 | 0.11 |
| (1,826) | 1:A:74:SER:HB3 | 1:A:84:ILE:HD12 | 18 | 0.11 |
| (1,826) | 1:A:74:SER:HB3 | 1:A:84:ILE:HD13 | 18 | 0.11 |
| (1,816) | 1:A:1:PRO:HG2 | 1:A:2:GLN:HA | 18 | 0.11 |
| (1,816) | 1:A:1:PRO:HG3 | 1:A:2:GLN:HA | 18 | 0.11 |
| (1,808) | 1:A:75:GLN:HB2 | 1:A:75:GLN:HE22 | 3 | 0.11 |
| (1,808) | 1:A:75:GLN:HB2 | 1:A:75:GLN:HE22 | 10 | 0.11 |
| (1,808) | 1:A:75:GLN:HB2 | 1:A:75:GLN:HE22 | 14 | 0.11 |
| (1,808) | 1:A:75:GLN:HB2 | 1:A:75:GLN:HE22 | 16 | 0.11 |
| (1,806) | 1:A:11:GLU:HB2 | 1:A:12:LYS:H | 7 | 0.11 |
| (1,806) | 1:A:11:GLU:HB3 | 1:A:12:LYS:H | 7 | 0.11 |
| (1,734) | 1:A:88:PRO:HD2 | 1:A:102:LEU:HG | 13 | 0.11 |
| (1,729) | 1:A:88:PRO:HG3 | 1:A:122:TRP:HH2 | 12 | 0.11 |
| (1,700) | 1:A:1:PRO:HA | 1:A:4:LEU:HB2 | 11 | 0.11 |
| (1,700) | 1:A:1:PRO:HA | 1:A:4:LEU:HB3 | 11 | 0.11 |
| (1,683) | 1:A:79:PHE:HD1 | 1:A:127:GLU:HG3 | 15 | 0.11 |
| (1,683) | 1:A:79:PHE:HD2 | 1:A:127:GLU:HG3 | 15 | 0.11 |
| (1,683) | 1:A:79:PHE:HD1 | 1:A:127:GLU:HG3 | 18 | 0.11 |
| (1,683) | 1:A:79:PHE:HD2 | 1:A:127:GLU:HG3 | 18 | 0.11 |
| (1,683) | 1:A:79:PHE:HD1 | 1:A:127:GLU:HG3 | 19 | 0.11 |
| (1,683) | 1:A:79:PHE:HD2 | 1:A:127:GLU:HG3 | 19 | 0.11 |
| (1,683) | 1:A:79:PHE:HD1 | 1:A:127:GLU:HG3 | 20 | 0.11 |
| (1,683) | 1:A:79:PHE:HD2 | 1:A:127:GLU:HG3 | 20 | 0.11 |
| (1,659) | 1:A:54:LYS:HG2 | 1:A:54:LYS:HE2 | 2 | 0.11 |
| (1,659) | 1:A:54:LYS:HG2 | 1:A:54:LYS:HE3 | 2 | 0.11 |
| (1,632) | 1:A:80:PRO:HA | 1:A:81:GLN:HG3 | 9 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,632) | 1:A:80:PRO:HA | 1:A:81:GLN:HG3 | 16 | 0.11 |
| (1,632) | 1:A:80:PRO:HA | 1:A:81:GLN:HG3 | 19 | 0.11 |
| (1,575) | 1:A:25:ALA:H | 1:A:61:LEU:HD21 | 9 | 0.11 |
| (1,575) | 1:A:25:ALA:H | 1:A:61:LEU:HD22 | 9 | 0.11 |
| (1,575) | 1:A:25:ALA:H | 1:A:61:LEU:HD23 | 9 | 0.11 |
| (1,566) | 1:A:31:VAL:HB | 1:A:33:ILE:HG12 | 7 | 0.11 |
| (1,555) | 1:A:28:TYR:HE1 | 1:A:61:LEU:HD11 | 18 | 0.11 |
| (1,555) | 1:A:28:TYR:HE1 | 1:A:61:LEU:HD12 | 18 | 0.11 |
| (1,555) | 1:A:28:TYR:HE1 | 1:A:61:LEU:HD13 | 18 | 0.11 |
| (1,555) | 1:A:28:TYR:HE2 | 1:A:61:LEU:HD11 | 18 | 0.11 |
| (1,555) | 1:A:28:TYR:HE2 | 1:A:61:LEU:HD12 | 18 | 0.11 |
| (1,555) | 1:A:28:TYR:HE2 | 1:A:61:LEU:HD13 | 18 | 0.11 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD11 | 14 | 0.11 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD12 | 14 | 0.11 |
| (1,511) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD13 | 14 | 0.11 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD21 | 9 | 0.11 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD22 | 9 | 0.11 |
| (1,503) | 1:A:58:PHE:HE1 | 1:A:73:LEU:HD23 | 9 | 0.11 |
| (1,467) | 1:A:66:LEU:HD21 | 1:A:107:ASP:HA | 6 | 0.11 |
| (1,467) | 1:A:66:LEU:HD22 | 1:A:107:ASP:HA | 6 | 0.11 |
| (1,467) | 1:A:66:LEU:HD23 | 1:A:107:ASP:HA | 6 | 0.11 |
| (1,371) | 1:A:106:ALA:HB1 | 1:A:109:ASN:H | 15 | 0.11 |
| (1,371) | 1:A:106:ALA:HB2 | 1:A:109:ASN:H | 15 | 0.11 |
| (1,371) | 1:A:106:ALA:HB3 | 1:A:109:ASN:H | 15 | 0.11 |
| (1,33) | 1:A:82:ASP:H | 1:A:82:ASP:HB2 | 12 | 0.11 |
| (1,321) | 1:A:59:LYS:H | 1:A:59:LYS:HD2 | 10 | 0.11 |
| (1,321) | 1:A:59:LYS:H | 1:A:59:LYS:HD3 | 10 | 0.11 |
| (1,3026) | 1:A:120:ASN:HB2 | 1:A:122:TRP:HB3 | 12 | 0.11 |
| (1,3026) | 1:A:120:ASN:HB3 | 1:A:122:TRP:HB3 | 12 | 0.11 |
| (1,3026) | 1:A:120:ASN:HB2 | 1:A:122:TRP:HB3 | 16 | 0.11 |
| (1,3026) | 1:A:120:ASN:HB3 | 1:A:122:TRP:HB3 | 16 | 0.11 |
| (1,3005) | 1:A:117:ASP:HB2 | 1:A:119:GLU:HG2 | 17 | 0.11 |
| (1,3005) | 1:A:117:ASP:HB2 | 1:A:119:GLU:HG3 | 17 | 0.11 |
| (1,2926) | 1:A:96:THR:HB | 1:A:97:LYS:HB2 | 14 | 0.11 |
| (1,2926) | 1:A:96:THR:HB | 1:A:97:LYS:HB3 | 14 | 0.11 |
| (1,2869) | 1:A:85:ARG:HD2 | 1:A:87:TRP:HZ2 | 17 | 0.11 |
| (1,2869) | 1:A:85:ARG:HD3 | 1:A:87:TRP:HZ2 | 17 | 0.11 |
| (1,2818) | 1:A:77:MET:H | 1:A:126:LEU:HD11 | 15 | 0.11 |
| (1,2818) | 1:A:77:MET:H | 1:A:126:LEU:HD12 | 15 | 0.11 |
| (1,2818) | 1:A:77:MET:H | 1:A:126:LEU:HD13 | 15 | 0.11 |
| (1,2818) | 1:A:77:MET:H | 1:A:126:LEU:HD21 | 15 | 0.11 |
| (1,2818) | 1:A:77:MET:H | 1:A:126:LEU:HD22 | 15 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2818) | 1:A:77:MET:H | 1:A:126:LEU:HD23 | 15 | 0.11 |
| (1,2805) | 1:A:74:SER:HB2 | 1:A:79:PHE:H | 7 | 0.11 |
| (1,2805) | 1:A:74:SER:HB3 | 1:A:79:PHE:H | 7 | 0.11 |
| (1,2656) | 1:A:59:LYS:HA | 1:A:59:LYS:HE2 | 11 | 0.11 |
| (1,2656) | 1:A:59:LYS:HA | 1:A:59:LYS:HE3 | 11 | 0.11 |
| (1,2649) | 1:A:58:PHE:HB2 | 1:A:73:LEU:HD11 | 13 | 0.11 |
| (1,2649) | 1:A:58:PHE:HB2 | 1:A:73:LEU:HD12 | 13 | 0.11 |
| (1,2649) | 1:A:58:PHE:HB2 | 1:A:73:LEU:HD13 | 13 | 0.11 |
| (1,2649) | 1:A:58:PHE:HB2 | 1:A:73:LEU:HD21 | 13 | 0.11 |
| (1,2649) | 1:A:58:PHE:HB2 | 1:A:73:LEU:HD22 | 13 | 0.11 |
| (1,2649) | 1:A:58:PHE:HB2 | 1:A:73:LEU:HD23 | 13 | 0.11 |
| (1,2648) | 1:A:58:PHE:HA | 1:A:59:LYS:HE2 | 5 | 0.11 |
| (1,2648) | 1:A:58:PHE:HA | 1:A:59:LYS:HE3 | 5 | 0.11 |
| (1,2648) | 1:A:58:PHE:HA | 1:A:59:LYS:HE2 | 8 | 0.11 |
| (1,2648) | 1:A:58:PHE:HA | 1:A:59:LYS:HE3 | 8 | 0.11 |
| (1,2609) | 1:A:38:GLN:HG2 | 1:A:39:PHE:H | 19 | 0.11 |
| (1,2609) | 1:A:38:GLN:HG3 | 1:A:39:PHE:H | 19 | 0.11 |
| (1,2551) | 1:A:31:VAL:HG11 | 1:A:58:PHE:HE1 | 7 | 0.11 |
| (1,2551) | 1:A:31:VAL:HG12 | 1:A:58:PHE:HE1 | 7 | 0.11 |
| (1,2551) | 1:A:31:VAL:HG13 | 1:A:58:PHE:HE1 | 7 | 0.11 |
| (1,2551) | 1:A:31:VAL:HG21 | 1:A:58:PHE:HE1 | 7 | 0.11 |
| (1,2551) | 1:A:31:VAL:HG22 | 1:A:58:PHE:HE1 | 7 | 0.11 |
| (1,2551) | 1:A:31:VAL:HG23 | 1:A:58:PHE:HE1 | 7 | 0.11 |
| (1,2515) | 1:A:28:TYR:HB2 | 1:A:59:LYS:HG2 | 6 | 0.11 |
| (1,2515) | 1:A:28:TYR:HB2 | 1:A:59:LYS:HG3 | 6 | 0.11 |
| (1,2467) | 1:A:18:LYS:HG2 | 1:A:113:ILE:HG21 | 17 | 0.11 |
| (1,2467) | 1:A:18:LYS:HG2 | 1:A:113:ILE:HG22 | 17 | 0.11 |
| (1,2467) | 1:A:18:LYS:HG2 | 1:A:113:ILE:HG23 | 17 | 0.11 |
| (1,2467) | 1:A:18:LYS:HG3 | 1:A:113:ILE:HG21 | 17 | 0.11 |
| (1,2467) | 1:A:18:LYS:HG3 | 1:A:113:ILE:HG22 | 17 | 0.11 |
| (1,2467) | 1:A:18:LYS:HG3 | 1:A:113:ILE:HG23 | 17 | 0.11 |
| (1,2387) | 1:A:87:TRP:HZ2 | 1:A:101:MET:HB2 | 20 | 0.11 |
| (1,2368) | 1:A:32:GLN:HA | 1:A:55:TYR:HE1 | 10 | 0.11 |
| (1,2368) | 1:A:32:GLN:HA | 1:A:55:TYR:HE1 | 12 | 0.11 |
| (1,2361) | 1:A:69:PHE:HD1 | 1:A:70:VAL:H | 15 | 0.11 |
| (1,2354) | 1:A:88:PRO:HD2 | 1:A:122:TRP:HZ2 | 3 | 0.11 |
| (1,2282) | 1:A:28:TYR:HD1 | 1:A:61:LEU:HG | 19 | 0.11 |
| (1,2282) | 1:A:28:TYR:HD2 | 1:A:61:LEU:HG | 19 | 0.11 |
| (1,2275) | 1:A:28:TYR:HD1 | 1:A:29:MET:H | 16 | 0.11 |
| (1,2275) | 1:A:28:TYR:HD2 | 1:A:29:MET:H | 16 | 0.11 |
| (1,2266) | 1:A:32:GLN:HG3 | 1:A:55:TYR:HE1 | 15 | 0.11 |
| (1,2257) | 1:A:48:TYR:HD1 | 1:A:49:ASP:HA | 17 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2256) | 1:A:48:TYR:HD1 | 1:A:53:VAL:HG21 | 12 | 0.11 |
| (1,2256) | 1:A:48:TYR:HD1 | 1:A:53:VAL:HG22 | 12 | 0.11 |
| (1,2256) | 1:A:48:TYR:HD1 | 1:A:53:VAL:HG23 | 12 | 0.11 |
| (1,2239) | 1:A:33:ILE:HG13 | 1:A:73:LEU:HB2 | 12 | 0.11 |
| (1,2221) | 1:A:106:ALA:HB1 | 1:A:114:GLU:HB2 | 20 | 0.11 |
| (1,2221) | 1:A:106:ALA:HB2 | 1:A:114:GLU:HB2 | 20 | 0.11 |
| (1,2221) | 1:A:106:ALA:HB3 | 1:A:114:GLU:HB2 | 20 | 0.11 |
| (1,2212) | 1:A:7:ARG:HB2 | 1:A:106:ALA:HB1 | 9 | 0.11 |
| (1,2212) | 1:A:7:ARG:HB2 | 1:A:106:ALA:HB2 | 9 | 0.11 |
| (1,2212) | 1:A:7:ARG:HB2 | 1:A:106:ALA:HB3 | 9 | 0.11 |
| (1,2212) | 1:A:7:ARG:HB3 | 1:A:106:ALA:HB1 | 9 | 0.11 |
| (1,2212) | 1:A:7:ARG:HB3 | 1:A:106:ALA:HB2 | 9 | 0.11 |
| (1,2212) | 1:A:7:ARG:HB3 | 1:A:106:ALA:HB3 | 9 | 0.11 |
| (1,220) | 1:A:60:VAL:H | 1:A:112:MET:HE1 | 13 | 0.11 |
| (1,220) | 1:A:60:VAL:H | 1:A:112:MET:HE2 | 13 | 0.11 |
| (1,220) | 1:A:60:VAL:H | 1:A:112:MET:HE3 | 13 | 0.11 |
| (1,2162) | 1:A:14:ILE:HG12 | 1:A:111:THR:HG21 | 18 | 0.11 |
| (1,2162) | 1:A:14:ILE:HG12 | 1:A:111:THR:HG22 | 18 | 0.11 |
| (1,2162) | 1:A:14:ILE:HG12 | 1:A:111:THR:HG23 | 18 | 0.11 |
| (1,2162) | 1:A:14:ILE:HG13 | 1:A:111:THR:HG21 | 18 | 0.11 |
| (1,2162) | 1:A:14:ILE:HG13 | 1:A:111:THR:HG22 | 18 | 0.11 |
| (1,2162) | 1:A:14:ILE:HG13 | 1:A:111:THR:HG23 | 18 | 0.11 |
| (1,2136) | 1:A:77:MET:HE1 | 1:A:126:LEU:HA | 18 | 0.11 |
| (1,2136) | 1:A:77:MET:HE2 | 1:A:126:LEU:HA | 18 | 0.11 |
| (1,2136) | 1:A:77:MET:HE3 | 1:A:126:LEU:HA | 18 | 0.11 |
| (1,2134) | 1:A:70:VAL:HB | 1:A:84:ILE:HG13 | 7 | 0.11 |
| (1,2134) | 1:A:70:VAL:HB | 1:A:84:ILE:HG13 | 20 | 0.11 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD11 | 15 | 0.11 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD12 | 15 | 0.11 |
| (1,2108) | 1:A:77:MET:HG2 | 1:A:84:ILE:HD13 | 15 | 0.11 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD11 | 15 | 0.11 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD12 | 15 | 0.11 |
| (1,2108) | 1:A:77:MET:HG3 | 1:A:84:ILE:HD13 | 15 | 0.11 |
| (1,2101) | 1:A:73:LEU:HG | 1:A:76:THR:HB | 1 | 0.11 |
| (1,2101) | 1:A:73:LEU:HG | 1:A:76:THR:HB | 6 | 0.11 |
| (1,2101) | 1:A:73:LEU:HG | 1:A:76:THR:HB | 16 | 0.11 |
| (1,2083) | 1:A:67:ALA:HA | 1:A:71:GLN:HB2 | 20 | 0.11 |
| (1,2083) | 1:A:67:ALA:HA | 1:A:71:GLN:HB3 | 20 | 0.11 |
| (1,2081) | 1:A:70:VAL:H | 1:A:84:ILE:HD11 | 4 | 0.11 |
| (1,2081) | 1:A:70:VAL:H | 1:A:84:ILE:HD12 | 4 | 0.11 |
| (1,2081) | 1:A:70:VAL:H | 1:A:84:ILE:HD13 | 4 | 0.11 |
| (1,2061) | 1:A:63:ASN:H | 1:A:111:THR:HB | 16 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,2035) | 1:A:37:ASP:HA | 1:A:51:GLU:HA | 9 | 0.11 |
| (1,2029) | 1:A:49:ASP:HA | 1:A:53:VAL:HG21 | 11 | 0.11 |
| (1,2029) | 1:A:49:ASP:HA | 1:A:53:VAL:HG22 | 11 | 0.11 |
| (1,2029) | 1:A:49:ASP:HA | 1:A:53:VAL:HG23 | 11 | 0.11 |
| (1,1995) | 1:A:103:ASP:HB3 | 1:A:106:ALA:HA | 6 | 0.11 |
| (1,1953) | 1:A:111:THR:HG21 | 1:A:114:GLU:H | 5 | 0.11 |
| (1,1953) | 1:A:111:THR:HG22 | 1:A:114:GLU:H | 5 | 0.11 |
| (1,1953) | 1:A:111:THR:HG23 | 1:A:114:GLU:H | 5 | 0.11 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE1 | 18 | 0.11 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE2 | 18 | 0.11 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE3 | 18 | 0.11 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE1 | 20 | 0.11 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE2 | 20 | 0.11 |
| (1,1944) | 1:A:69:PHE:H | 1:A:112:MET:HE3 | 20 | 0.11 |
| (1,1941) | 1:A:31:VAL:HA | 1:A:112:MET:HE1 | 17 | 0.11 |
| (1,1941) | 1:A:31:VAL:HA | 1:A:112:MET:HE2 | 17 | 0.11 |
| (1,1941) | 1:A:31:VAL:HA | 1:A:112:MET:HE3 | 17 | 0.11 |
| (1,1906) | 1:A:89:MET:HE1 | 1:A:124:ILE:HB | 14 | 0.11 |
| (1,1906) | 1:A:89:MET:HE2 | 1:A:124:ILE:HB | 14 | 0.11 |
| (1,1906) | 1:A:89:MET:HE3 | 1:A:124:ILE:HB | 14 | 0.11 |
| (1,1906) | 1:A:89:MET:HE1 | 1:A:124:ILE:HB | 15 | 0.11 |
| (1,1906) | 1:A:89:MET:HE2 | 1:A:124:ILE:HB | 15 | 0.11 |
| (1,1906) | 1:A:89:MET:HE3 | 1:A:124:ILE:HB | 15 | 0.11 |
| (1,1869) | 1:A:76:THR:HB | 1:A:78:GLY:H | 4 | 0.11 |
| (1,1843) | 1:A:90:GLN:HA | 1:A:92:ARG:H | 14 | 0.11 |
| (1,179) | 1:A:48:TYR:H | 1:A:48:TYR:HD1 | 7 | 0.11 |
| (1,1754) | 1:A:7:ARG:HG2 | 1:A:8:LEU:HA | 13 | 0.11 |
| (1,1754) | 1:A:7:ARG:HG3 | 1:A:8:LEU:HA | 13 | 0.11 |
| (1,1754) | 1:A:7:ARG:HG2 | 1:A:8:LEU:HA | 14 | 0.11 |
| (1,1754) | 1:A:7:ARG:HG3 | 1:A:8:LEU:HA | 14 | 0.11 |
| (1,1603) | 1:A:79:PHE:HZ | 1:A:128:THR:HB | 2 | 0.11 |
| (1,1601) | 1:A:83:GLN:HG2 | 1:A:128:THR:HB | 3 | 0.11 |
| (1,1601) | 1:A:83:GLN:HG3 | 1:A:128:THR:HB | 3 | 0.11 |
| (1,1599) | 1:A:84:ILE:HA | 1:A:128:THR:HG21 | 6 | 0.11 |
| (1,1599) | 1:A:84:ILE:HA | 1:A:128:THR:HG22 | 6 | 0.11 |
| (1,1599) | 1:A:84:ILE:HA | 1:A:128:THR:HG23 | 6 | 0.11 |
| (1,1535) | 1:A:64:SER:HB3 | 1:A:68:GLU:HG2 | 7 | 0.11 |
| (1,1535) | 1:A:64:SER:HB3 | 1:A:68:GLU:HG3 | 7 | 0.11 |
| (1,1492) | 1:A:1:PRO:HA | 1:A:3:GLN:HB2 | 7 | 0.11 |
| (1,1492) | 1:A:1:PRO:HA | 1:A:3:GLN:HB3 | 7 | 0.11 |
| (1,1381) | 1:A:36:GLU:HG3 | 1:A:39:PHE:HD1 | 11 | 0.11 |
| (1,1381) | 1:A:36:GLU:HG3 | 1:A:39:PHE:HD2 | 11 | 0.11 |

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| Key | Atom-1 | Atom-2 | Model ID | Violation (Å) |
|---|---|---|---|---|
| (1,1353) | 1:A:28:TYR:HE1 | 1:A:59:LYS:HD2 | 3 | 0.11 |
| (1,1353) | 1:A:28:TYR:HE1 | 1:A:59:LYS:HD3 | 3 | 0.11 |
| (1,1353) | 1:A:28:TYR:HE2 | 1:A:59:LYS:HD2 | 3 | 0.11 |
| (1,1353) | 1:A:28:TYR:HE2 | 1:A:59:LYS:HD3 | 3 | 0.11 |
| (1,1331) | 1:A:48:TYR:HA | 1:A:48:TYR:HE1 | 18 | 0.11 |
| (1,1325) | 1:A:49:ASP:HB3 | 1:A:52:LYS:HD2 | 3 | 0.11 |
| (1,1325) | 1:A:49:ASP:HB3 | 1:A:52:LYS:HD3 | 3 | 0.11 |
| (1,1212) | 1:A:113:ILE:HA | 1:A:118:ASN:HD21 | 6 | 0.11 |
| (1,1183) | 1:A:72:SER:HB2 | 1:A:73:LEU:HG | 20 | 0.11 |
| (1,1172) | 1:A:30:GLN:HB2 | 1:A:59:LYS:HA | 9 | 0.11 |
| (1,1157) | 1:A:30:GLN:HG2 | 1:A:57:VAL:HA | 11 | 0.11 |
| (1,1108) | 1:A:32:GLN:HA | 1:A:57:VAL:HG11 | 18 | 0.11 |
| (1,1108) | 1:A:32:GLN:HA | 1:A:57:VAL:HG12 | 18 | 0.11 |
| (1,1108) | 1:A:32:GLN:HA | 1:A:57:VAL:HG13 | 18 | 0.11 |
| (1,1038) | 1:A:32:GLN:HB3 | 1:A:124:ILE:HG21 | 14 | 0.11 |
| (1,1038) | 1:A:32:GLN:HB3 | 1:A:124:ILE:HG22 | 14 | 0.11 |
| (1,1038) | 1:A:32:GLN:HB3 | 1:A:124:ILE:HG23 | 14 | 0.11 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG21 | 17 | 0.11 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG22 | 17 | 0.11 |
| (1,1034) | 1:A:87:TRP:H | 1:A:124:ILE:HG23 | 17 | 0.11 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG11 | 20 | 0.11 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG12 | 20 | 0.11 |
| (1,1016) | 1:A:29:MET:HE1 | 1:A:31:VAL:HG13 | 20 | 0.11 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG11 | 20 | 0.11 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG12 | 20 | 0.11 |
| (1,1016) | 1:A:29:MET:HE2 | 1:A:31:VAL:HG13 | 20 | 0.11 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG11 | 20 | 0.11 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG12 | 20 | 0.11 |
| (1,1016) | 1:A:29:MET:HE3 | 1:A:31:VAL:HG13 | 20 | 0.11 |

# 10 Dihedral-angle violation analysis

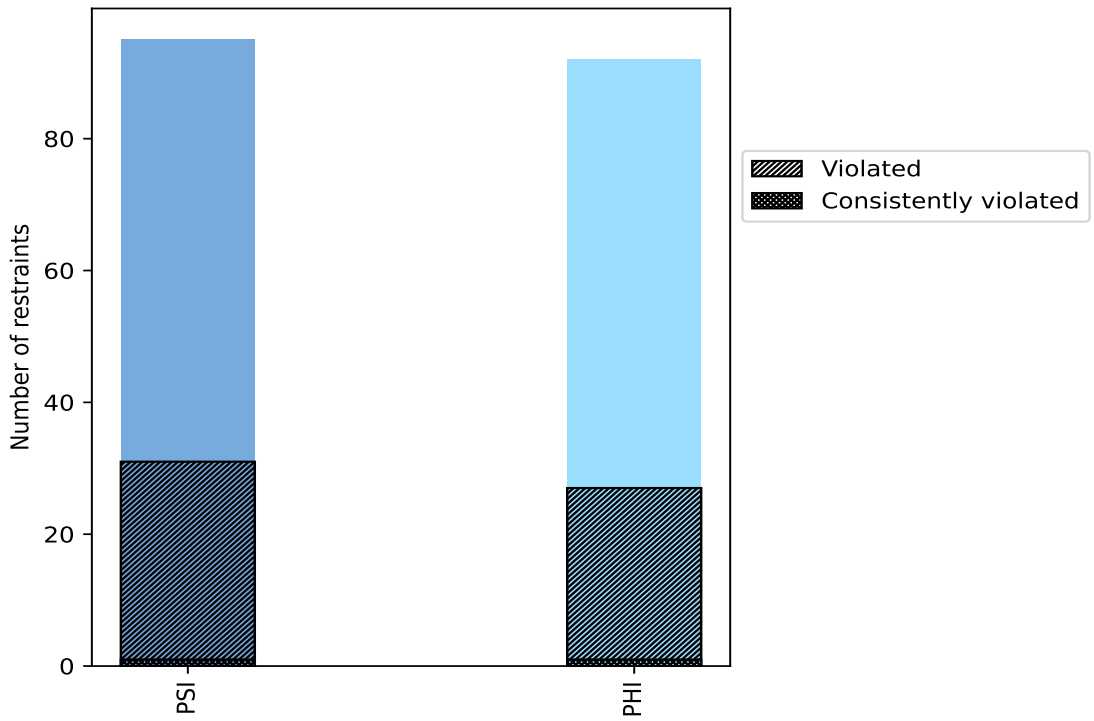
## 10.1 Summary of dihedral-angle violations

The following table provides the summary of dihedral-angle violations in different dihedral-angle types. Violations less than 1° are not included in the calculation.

| Angle type | Count | %[1] | Violated[3] | | | Consistently Violated[4] | | |
|---|---|---|---|---|---|---|---|---|
| | | | Count | %[2] | %[1] | Count | %[2] | %[1] |
| PSI | 95 | 50.8 | 31 | 32.6 | 16.6 | 1 | 1.1 | 0.5 |
| PHI | 92 | 49.2 | 27 | 29.3 | 14.4 | 1 | 1.1 | 0.5 |
| Total | 187 | 100.0 | 58 | 31.0 | 31.0 | 2 | 1.1 | 1.1 |

[1] percentage calculated with respect to total number of dihedral-angle restraints, [2] percentage calculated with respect to number of restraints in a particular dihedral-angle type, [3] violated in at least one model, [4] violated in all the models

### 10.1.1 Bar chart : Distribution of dihedral-angles and violations



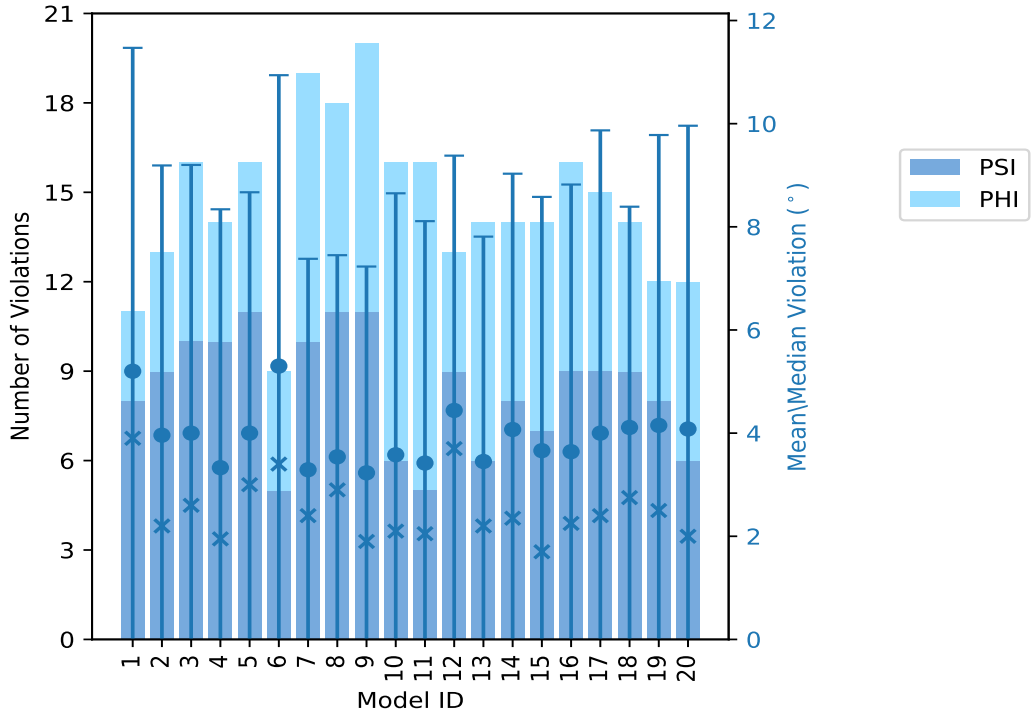

Violated and consistently violated restraints are shown using different hatch patterns in their respective categories

## 10.2 Dihedral-angle violation statistics for each model (i)

The following table provides the dihedral-angle violation statistics for each model in the ensemble. Violations less than 1° are not included in the statistics.

| Model ID | Number of violations | | | Mean (°) | Max (°) | SD (°) | Median (°) |
|---|---|---|---|---|---|---|---|
| | PSI | PHI | Total | | | | |
| 1 | 8 | 3 | 11 | 5.2 | 24.4 | 6.27 | 3.9 |
| 2 | 9 | 4 | 13 | 3.96 | 21.6 | 5.23 | 2.2 |
| 3 | 10 | 6 | 16 | 4.0 | 23.3 | 5.2 | 2.6 |
| 4 | 10 | 4 | 14 | 3.33 | 21.3 | 5.01 | 1.95 |
| 5 | 11 | 5 | 16 | 4.0 | 21.6 | 4.67 | 3.0 |
| 6 | 5 | 4 | 9 | 5.3 | 20.8 | 5.64 | 3.4 |
| 7 | 10 | 9 | 19 | 3.29 | 20.1 | 4.09 | 2.4 |
| 8 | 11 | 7 | 18 | 3.54 | 19.2 | 3.91 | 2.9 |
| 9 | 11 | 9 | 20 | 3.23 | 19.9 | 4.0 | 1.9 |
| 10 | 6 | 10 | 16 | 3.58 | 22.8 | 5.07 | 2.1 |
| 11 | 5 | 11 | 16 | 3.42 | 21.2 | 4.69 | 2.05 |
| 12 | 9 | 4 | 13 | 4.44 | 21.1 | 4.94 | 3.7 |
| 13 | 6 | 8 | 14 | 3.45 | 18.8 | 4.36 | 2.2 |
| 14 | 8 | 6 | 14 | 4.07 | 21.2 | 4.96 | 2.35 |
| 15 | 7 | 7 | 14 | 3.66 | 20.8 | 4.92 | 1.7 |
| 16 | 9 | 7 | 16 | 3.64 | 23.3 | 5.18 | 2.25 |
| 17 | 9 | 6 | 15 | 4.0 | 25.6 | 5.87 | 2.4 |
| 18 | 9 | 5 | 14 | 4.11 | 18.6 | 4.28 | 2.75 |
| 19 | 8 | 4 | 12 | 4.15 | 22.5 | 5.63 | 2.5 |
| 20 | 6 | 6 | 12 | 4.08 | 23.1 | 5.88 | 2.0 |

### 10.2.1 Bar graph : Dihedral violation statistics for each model (i)




The mean(dot),median(x) and the standard deviation are shown in blue with respect to the y axis on the right

## 10.3 Dihedral-angle violation statistics for the ensemble (i)

Violation analysis may find that some restraints are violated in very few models and some are violated in most of models. The following table provides this information as number of violated restraints for a given fraction of ensemble.

| Number of violated restraints | | | Fraction of the ensemble | |
|---|---|---|---|---|
| PSI | PHI | Total | Count[1] | % |
| 7 | 4 | 11 | 1 | 5.0 |
| 1 | 4 | 5 | 2 | 10.0 |
| 6 | 6 | 12 | 3 | 15.0 |
| 5 | 5 | 10 | 4 | 20.0 |
| 2 | 1 | 3 | 5 | 25.0 |
| 1 | 0 | 1 | 6 | 30.0 |
| 0 | 2 | 2 | 7 | 35.0 |
| 2 | 1 | 3 | 8 | 40.0 |
| 2 | 2 | 4 | 9 | 45.0 |
| 0 | 1 | 1 | 10 | 50.0 |
| 1 | 0 | 1 | 11 | 55.0 |

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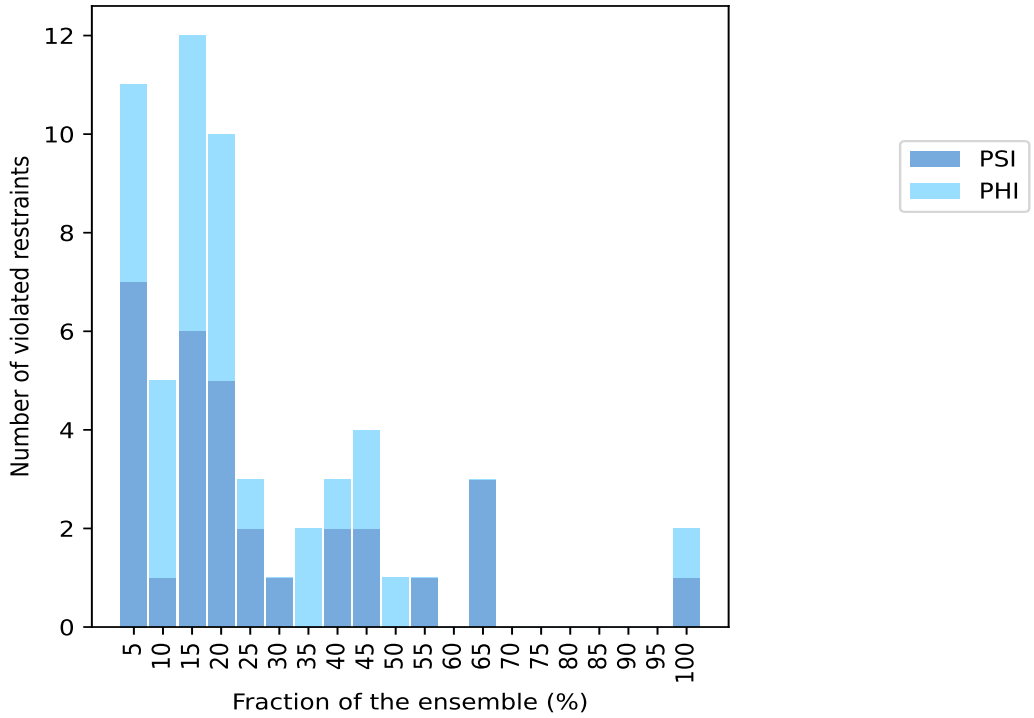
| Number of violated restraints | | | Fraction of the ensemble | |
|---|---|---|---|---|
| PSI | PHI | Total | Count[1] | % |
| 0 | 0 | 0 | 12 | 60.0 |
| 3 | 0 | 3 | 13 | 65.0 |
| 0 | 0 | 0 | 14 | 70.0 |
| 0 | 0 | 0 | 15 | 75.0 |
| 0 | 0 | 0 | 16 | 80.0 |
| 0 | 0 | 0 | 17 | 85.0 |
| 0 | 0 | 0 | 18 | 90.0 |
| 0 | 0 | 0 | 19 | 95.0 |
| 1 | 1 | 2 | 20 | 100.0 |

[1] Number of models with violations

### 10.3.1 Bar graph : Dihedral-angle Violation statistics for the ensemble

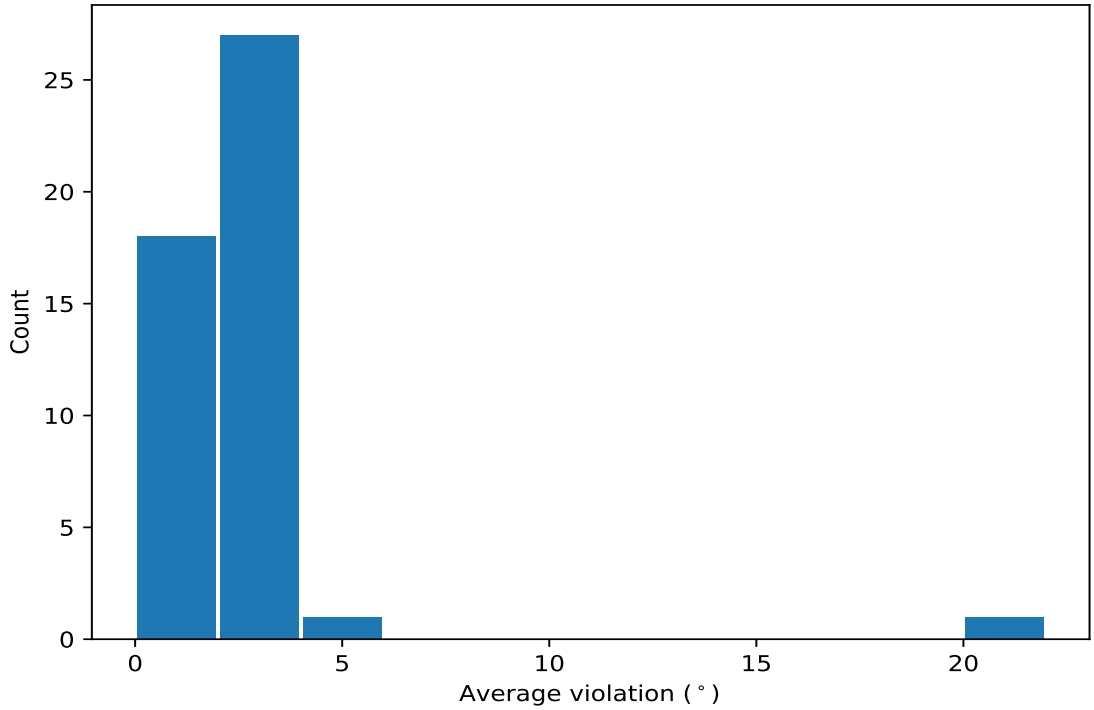



## 10.4 Most violated dihedral-angle restraints in the ensemble

### 10.4.1 Histogram : Distribution of mean dihedral-angle violations

The following histogram shows the distribution of the average value of the violation. The average is calculated for each restraint that is violated in more than one model over all the violated models

in the ensemble




### 10.4.2 Table: Most violated dihedral-angle restraints

The following table provides the mean and the standard deviation of the violation for each restraint sorted by number of violated models and the mean value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint.

| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Models[1] | Mean | SD[2] | Median |
|---|---|---|---|---|---|---|---|---|
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 20 | 21.56 | 1.79 | 21.25 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 20 | 3.96 | 1.04 | 4.15 |
| (1,156) | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 1:A:110:LYS:N | 13 | 4.17 | 1.57 | 5.0 |
| (1,20) | 1:A:12:LYS:N | 1:A:12:LYS:CA | 1:A:12:LYS:C | 1:A:13:ARG:N | 13 | 3.76 | 1.41 | 3.9 |
| (1,78) | 1:A:59:LYS:N | 1:A:59:LYS:CA | 1:A:59:LYS:C | 1:A:60:VAL:N | 13 | 2.86 | 1.09 | 2.5 |
| (1,117) | 1:A:80:PRO:N | 1:A:80:PRO:CA | 1:A:80:PRO:C | 1:A:81:GLN:N | 11 | 2.33 | 1.09 | 2.1 |
| (1,155) | 1:A:108:GLY:C | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 10 | 2.55 | 1.27 | 1.95 |
| (1,175) | 1:A:121:PRO:N | 1:A:121:PRO:CA | 1:A:121:PRO:C | 1:A:122:TRP:N | 9 | 2.61 | 0.86 | 2.9 |
| (1,63) | 1:A:51:GLU:C | 1:A:52:LYS:N | 1:A:52:LYS:CA | 1:A:52:LYS:C | 9 | 2.4 | 1.09 | 2.4 |
| (1,46) | 1:A:33:ILE:N | 1:A:33:ILE:CA | 1:A:33:ILE:C | 1:A:34:VAL:N | 9 | 2.19 | 1.05 | 2.2 |
| (1,147) | 1:A:102:LEU:C | 1:A:103:ASP:N | 1:A:103:ASP:CA | 1:A:103:ASP:C | 9 | 1.66 | 0.42 | 1.5 |
| (1,34) | 1:A:25:ALA:N | 1:A:25:ALA:CA | 1:A:25:ALA:C | 1:A:26:HIS:N | 8 | 2.55 | 1.11 | 2.45 |
| (1,121) | 1:A:82:ASP:N | 1:A:82:ASP:CA | 1:A:82:ASP:C | 1:A:83:GLN:N | 8 | 2.2 | 0.6 | 1.9 |
| (1,43) | 1:A:31:VAL:C | 1:A:32:GLN:N | 1:A:32:GLN:CA | 1:A:32:GLN:C | 8 | 1.7 | 0.62 | 1.5 |
| (1,33) | 1:A:24:GLU:C | 1:A:25:ALA:N | 1:A:25:ALA:CA | 1:A:25:ALA:C | 7 | 2.79 | 0.71 | 2.8 |
| (1,51) | 1:A:36:GLU:C | 1:A:37:ASP:N | 1:A:37:ASP:CA | 1:A:37:ASP:C | 7 | 1.81 | 0.21 | 1.8 |
| (1,139) | 1:A:94:ASN:N | 1:A:94:ASN:CA | 1:A:94:ASN:C | 1:A:95:GLY:N | 6 | 2.75 | 0.95 | 2.55 |
| (1,32) | 1:A:24:GLU:N | 1:A:24:GLU:CA | 1:A:24:GLU:C | 1:A:25:ALA:N | 5 | 3.1 | 1.14 | 3.1 |
| (1,131) | 1:A:87:TRP:N | 1:A:87:TRP:CA | 1:A:87:TRP:C | 1:A:88:PRO:N | 5 | 2.64 | 1.16 | 2.2 |
| (1,27) | 1:A:17:GLN:C | 1:A:18:LYS:N | 1:A:18:LYS:CA | 1:A:18:LYS:C | 5 | 2.44 | 0.98 | 2.2 |

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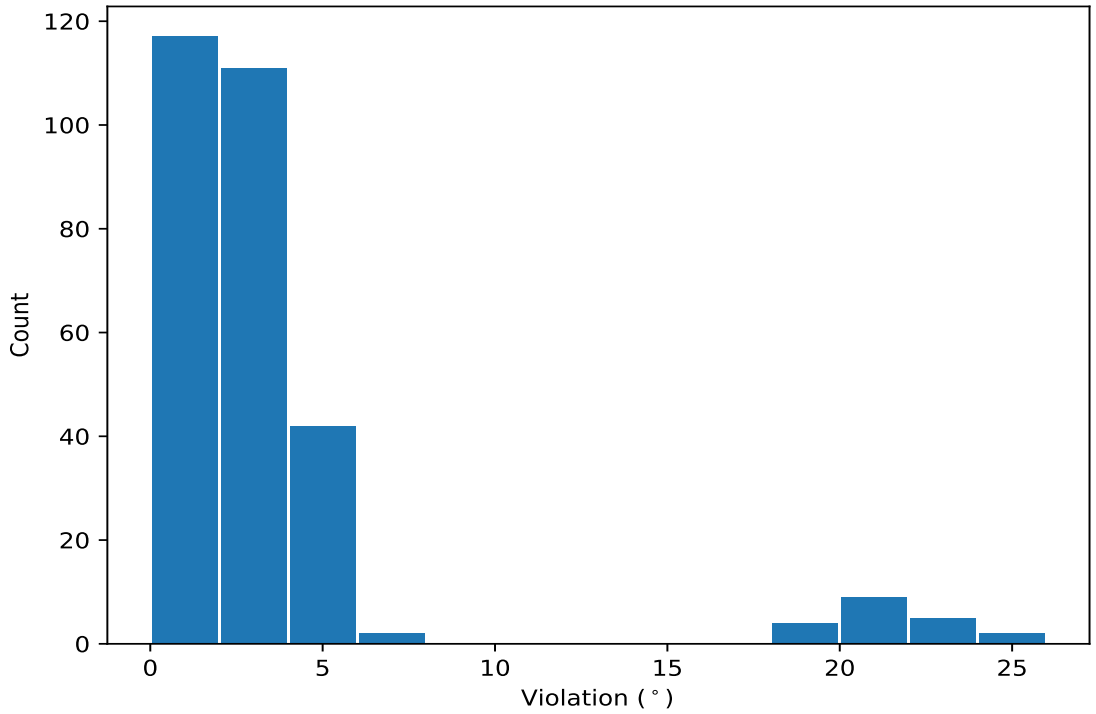
| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Models[1] | Mean | SD[2] | Median |
|---|---|---|---|---|---|---|---|---|
| (1,137) | 1:A:93:SER:N | 1:A:93:SER:CA | 1:A:93:SER:C | 1:A:94:ASN:N | 4 | 3.8 | 1.24 | 3.45 |
| (1,30) | 1:A:19:ARG:N | 1:A:19:ARG:CA | 1:A:19:ARG:C | 1:A:20:LYS:N | 4 | 3.53 | 1.08 | 3.9 |
| (1,71) | 1:A:55:TYR:C | 1:A:56:THR:N | 1:A:56:THR:CA | 1:A:56:THR:C | 4 | 2.88 | 1.06 | 2.95 |
| (1,73) | 1:A:56:THR:C | 1:A:57:VAL:N | 1:A:57:VAL:CA | 1:A:57:VAL:C | 4 | 2.55 | 0.38 | 2.6 |
| (1,138) | 1:A:93:SER:C | 1:A:94:ASN:N | 1:A:94:ASN:CA | 1:A:94:ASN:C | 4 | 2.45 | 1.67 | 1.65 |
| (1,50) | 1:A:35:ALA:N | 1:A:35:ALA:CA | 1:A:35:ALA:C | 1:A:36:GLU:N | 4 | 2.02 | 0.38 | 2.0 |
| (1,140) | 1:A:99:PRO:N | 1:A:99:PRO:CA | 1:A:99:PRO:C | 1:A:100:ALA:N | 4 | 1.75 | 0.61 | 1.45 |
| (1,8) | 1:A:5:VAL:N | 1:A:5:VAL:CA | 1:A:5:VAL:C | 1:A:6:GLU:N | 4 | 1.67 | 0.51 | 1.6 |
| (1,161) | 1:A:111:THR:C | 1:A:112:MET:N | 1:A:112:MET:CA | 1:A:112:MET:C | 4 | 1.42 | 0.29 | 1.4 |
| (1,178) | 1:A:122:TRP:C | 1:A:123:THR:N | 1:A:123:THR:CA | 1:A:123:THR:C | 4 | 1.38 | 0.33 | 1.25 |
| (1,31) | 1:A:23:GLN:C | 1:A:24:GLU:N | 1:A:24:GLU:CA | 1:A:24:GLU:C | 3 | 2.93 | 0.05 | 2.9 |
| (1,154) | 1:A:107:ASP:N | 1:A:107:ASP:CA | 1:A:107:ASP:C | 1:A:108:GLY:N | 3 | 2.7 | 0.24 | 2.7 |
| (1,167) | 1:A:114:GLU:C | 1:A:115:LEU:N | 1:A:115:LEU:CA | 1:A:115:LEU:C | 3 | 2.23 | 0.29 | 2.2 |
| (1,66) | 1:A:53:VAL:N | 1:A:53:VAL:CA | 1:A:53:VAL:C | 1:A:54:LYS:N | 3 | 2.1 | 0.54 | 2.2 |
| (1,22) | 1:A:13:ARG:N | 1:A:13:ARG:CA | 1:A:13:ARG:C | 1:A:14:ILE:N | 3 | 2.07 | 0.71 | 2.3 |
| (1,64) | 1:A:52:LYS:N | 1:A:52:LYS:CA | 1:A:52:LYS:C | 1:A:53:VAL:N | 3 | 1.97 | 0.45 | 2.0 |
| (1,52) | 1:A:37:ASP:N | 1:A:37:ASP:CA | 1:A:37:ASP:C | 1:A:38:GLN:N | 3 | 1.93 | 0.19 | 1.8 |
| (1,150) | 1:A:105:GLU:N | 1:A:105:GLU:CA | 1:A:105:GLU:C | 1:A:106:ALA:N | 3 | 1.87 | 0.54 | 2.2 |
| (1,7) | 1:A:4:LEU:C | 1:A:5:VAL:N | 1:A:5:VAL:CA | 1:A:5:VAL:C | 3 | 1.6 | 0.24 | 1.6 |
| (1,149) | 1:A:104:ASN:C | 1:A:105:GLU:N | 1:A:105:GLU:CA | 1:A:105:GLU:C | 3 | 1.43 | 0.09 | 1.5 |
| (1,173) | 1:A:119:GLU:C | 1:A:120:ASN:N | 1:A:120:ASN:CA | 1:A:120:ASN:C | 3 | 1.4 | 0.22 | 1.5 |
| (1,17) | 1:A:10:GLU:C | 1:A:11:GLU:N | 1:A:11:GLU:CA | 1:A:11:GLU:C | 3 | 1.33 | 0.26 | 1.2 |
| (1,41) | 1:A:30:GLN:C | 1:A:31:VAL:N | 1:A:31:VAL:CA | 1:A:31:VAL:C | 2 | 2.0 | 0.6 | 2.0 |
| (1,128) | 1:A:85:ARG:C | 1:A:86:LEU:N | 1:A:86:LEU:CA | 1:A:86:LEU:C | 2 | 1.75 | 0.55 | 1.75 |
| (1,157) | 1:A:109:ASN:C | 1:A:110:LYS:N | 1:A:110:LYS:CA | 1:A:110:LYS:C | 2 | 1.7 | 0.5 | 1.7 |
| (1,141) | 1:A:99:PRO:C | 1:A:100:ALA:N | 1:A:100:ALA:CA | 1:A:100:ALA:C | 2 | 1.35 | 0.25 | 1.35 |
| (1,158) | 1:A:110:LYS:N | 1:A:110:LYS:CA | 1:A:110:LYS:C | 1:A:111:THR:N | 2 | 1.25 | 0.15 | 1.25 |

[1] Number of violated models, [2]Standard deviation, All angle values are in degree (°)

## 10.5 All violated dihedral-angle restraints (i)

### 10.5.1 Histogram : Distribution of violations (i)

The following histogram shows the distribution of the absolute value of the violation for all violated restraints in the ensemble.




### 10.5.2 Table: All violated dihedral-angle restraints

The following table lists the absolute value of the violation for each restraint in the ensemble sorted by its value. The Key (restraint list ID, restraint ID) is the unique identifier for a given restraint.

| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---|---|---|---|---|---|---|
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 17 | 25.6 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 1 | 24.4 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 3 | 23.3 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 16 | 23.3 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 20 | 23.1 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 10 | 22.8 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 19 | 22.5 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 2 | 21.6 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 5 | 21.6 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 4 | 21.3 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 11 | 21.2 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 14 | 21.2 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 12 | 21.1 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 6 | 20.8 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 15 | 20.8 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 7 | 20.1 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 9 | 19.9 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 8 | 19.2 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 13 | 18.8 |
| (1,36) | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 1:A:29:MET:N | 18 | 18.6 |
| (1,156) | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 1:A:110:LYS:N | 1 | 6.3 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---|---|---|---|---|---|---|
| (1,20) | 1:A:12:LYS:N | 1:A:12:LYS:CA | 1:A:12:LYS:C | 1:A:13:ARG:N | 3 | 6.2 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 14 | 5.8 |
| (1,156) | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 1:A:110:LYS:N | 3 | 5.8 |
| (1,137) | 1:A:93:SER:N | 1:A:93:SER:CA | 1:A:93:SER:C | 1:A:94:ASN:N | 10 | 5.8 |
| (1,20) | 1:A:12:LYS:N | 1:A:12:LYS:CA | 1:A:12:LYS:C | 1:A:13:ARG:N | 14 | 5.4 |
| (1,156) | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 1:A:110:LYS:N | 2 | 5.4 |
| (1,156) | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 1:A:110:LYS:N | 18 | 5.4 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 9 | 5.3 |
| (1,155) | 1:A:108:GLY:C | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 6 | 5.3 |
| (1,138) | 1:A:93:SER:C | 1:A:94:ASN:N | 1:A:94:ASN:CA | 1:A:94:ASN:C | 7 | 5.3 |
| (1,156) | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 1:A:110:LYS:N | 6 | 5.2 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 15 | 5.1 |
| (1,20) | 1:A:12:LYS:N | 1:A:12:LYS:CA | 1:A:12:LYS:C | 1:A:13:ARG:N | 18 | 5.1 |
| (1,63) | 1:A:51:GLU:C | 1:A:52:LYS:N | 1:A:52:LYS:CA | 1:A:52:LYS:C | 18 | 5.0 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 16 | 5.0 |
| (1,156) | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 1:A:110:LYS:N | 5 | 5.0 |
| (1,156) | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 1:A:110:LYS:N | 17 | 5.0 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 19 | 4.7 |
| (1,32) | 1:A:24:GLU:N | 1:A:24:GLU:CA | 1:A:24:GLU:C | 1:A:25:ALA:N | 15 | 4.7 |
| (1,78) | 1:A:59:LYS:N | 1:A:59:LYS:CA | 1:A:59:LYS:C | 1:A:60:VAL:N | 1 | 4.6 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 18 | 4.6 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 20 | 4.6 |
| (1,20) | 1:A:12:LYS:N | 1:A:12:LYS:CA | 1:A:12:LYS:C | 1:A:13:ARG:N | 2 | 4.6 |
| (1,46) | 1:A:33:ILE:N | 1:A:33:ILE:CA | 1:A:33:ILE:C | 1:A:34:VAL:N | 11 | 4.5 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 1 | 4.5 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 13 | 4.5 |
| (1,30) | 1:A:19:ARG:N | 1:A:19:ARG:CA | 1:A:19:ARG:C | 1:A:20:LYS:N | 20 | 4.5 |
| (1,20) | 1:A:12:LYS:N | 1:A:12:LYS:CA | 1:A:12:LYS:C | 1:A:13:ARG:N | 12 | 4.5 |
| (1,156) | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 1:A:110:LYS:N | 8 | 4.5 |
| (1,139) | 1:A:94:ASN:N | 1:A:94:ASN:CA | 1:A:94:ASN:C | 1:A:95:GLY:N | 5 | 4.5 |
| (1,34) | 1:A:25:ALA:N | 1:A:25:ALA:CA | 1:A:25:ALA:C | 1:A:26:HIS:N | 12 | 4.4 |
| (1,30) | 1:A:19:ARG:N | 1:A:19:ARG:CA | 1:A:19:ARG:C | 1:A:20:LYS:N | 1 | 4.4 |
| (1,71) | 1:A:55:TYR:C | 1:A:56:THR:N | 1:A:56:THR:CA | 1:A:56:THR:C | 9 | 4.3 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 5 | 4.3 |
| (1,27) | 1:A:17:GLN:C | 1:A:18:LYS:N | 1:A:18:LYS:CA | 1:A:18:LYS:C | 20 | 4.3 |
| (1,131) | 1:A:87:TRP:N | 1:A:87:TRP:CA | 1:A:87:TRP:C | 1:A:88:PRO:N | 16 | 4.3 |
| (1,117) | 1:A:80:PRO:N | 1:A:80:PRO:CA | 1:A:80:PRO:C | 1:A:81:GLN:N | 14 | 4.3 |
| (1,78) | 1:A:59:LYS:N | 1:A:59:LYS:CA | 1:A:59:LYS:C | 1:A:60:VAL:N | 12 | 4.2 |
| (1,78) | 1:A:59:LYS:N | 1:A:59:LYS:CA | 1:A:59:LYS:C | 1:A:60:VAL:N | 8 | 4.1 |
| (1,78) | 1:A:59:LYS:N | 1:A:59:LYS:CA | 1:A:59:LYS:C | 1:A:60:VAL:N | 19 | 4.1 |
| (1,20) | 1:A:12:LYS:N | 1:A:12:LYS:CA | 1:A:12:LYS:C | 1:A:13:ARG:N | 9 | 4.1 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 11 | 4.0 |
| (1,32) | 1:A:24:GLU:N | 1:A:24:GLU:CA | 1:A:24:GLU:C | 1:A:25:ALA:N | 12 | 4.0 |
| (1,20) | 1:A:12:LYS:N | 1:A:12:LYS:CA | 1:A:12:LYS:C | 1:A:13:ARG:N | 1 | 3.9 |
| (1,117) | 1:A:80:PRO:N | 1:A:80:PRO:CA | 1:A:80:PRO:C | 1:A:81:GLN:N | 6 | 3.9 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 12 | 3.8 |
| (1,20) | 1:A:12:LYS:N | 1:A:12:LYS:CA | 1:A:12:LYS:C | 1:A:13:ARG:N | 15 | 3.8 |
| (1,155) | 1:A:108:GLY:C | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 7 | 3.8 |
| (1,137) | 1:A:93:SER:N | 1:A:93:SER:CA | 1:A:93:SER:C | 1:A:94:ASN:N | 3 | 3.8 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 17 | 3.7 |
| (1,33) | 1:A:24:GLU:C | 1:A:25:ALA:N | 1:A:25:ALA:CA | 1:A:25:ALA:C | 12 | 3.7 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---|---|---|---|---|---|---|
| (1,175) | 1:A:121:PRO:N | 1:A:121:PRO:CA | 1:A:121:PRO:C | 1:A:122:TRP:N | 18 | 3.7 |
| (1,155) | 1:A:108:GLY:C | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 8 | 3.7 |
| (1,131) | 1:A:87:TRP:N | 1:A:87:TRP:CA | 1:A:87:TRP:C | 1:A:88:PRO:N | 14 | 3.7 |
| (1,78) | 1:A:59:LYS:N | 1:A:59:LYS:CA | 1:A:59:LYS:C | 1:A:60:VAL:N | 17 | 3.6 |
| (1,40) | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 1:A:31:VAL:N | 13 | 3.6 |
| (1,34) | 1:A:25:ALA:N | 1:A:25:ALA:CA | 1:A:25:ALA:C | 1:A:26:HIS:N | 9 | 3.6 |
| (1,33) | 1:A:24:GLU:C | 1:A:25:ALA:N | 1:A:25:ALA:CA | 1:A:25:ALA:C | 13 | 3.6 |
| (1,175) | 1:A:121:PRO:N | 1:A:121:PRO:CA | 1:A:121:PRO:C | 1:A:122:TRP:N | 7 | 3.6 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 3 | 3.4 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 6 | 3.4 |
| (1,30) | 1:A:19:ARG:N | 1:A:19:ARG:CA | 1:A:19:ARG:C | 1:A:20:LYS:N | 3 | 3.4 |
| (1,20) | 1:A:12:LYS:N | 1:A:12:LYS:CA | 1:A:12:LYS:C | 1:A:13:ARG:N | 6 | 3.4 |
| (1,156) | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 1:A:110:LYS:N | 12 | 3.4 |
| (1,46) | 1:A:33:ILE:N | 1:A:33:ILE:CA | 1:A:33:ILE:C | 1:A:34:VAL:N | 9 | 3.3 |
| (1,34) | 1:A:25:ALA:N | 1:A:25:ALA:CA | 1:A:25:ALA:C | 1:A:26:HIS:N | 5 | 3.3 |
| (1,139) | 1:A:94:ASN:N | 1:A:94:ASN:CA | 1:A:94:ASN:C | 1:A:95:GLY:N | 8 | 3.3 |
| (1,78) | 1:A:59:LYS:N | 1:A:59:LYS:CA | 1:A:59:LYS:C | 1:A:60:VAL:N | 6 | 3.2 |
| (1,117) | 1:A:80:PRO:N | 1:A:80:PRO:CA | 1:A:80:PRO:C | 1:A:81:GLN:N | 18 | 3.2 |
| (1,63) | 1:A:51:GLU:C | 1:A:52:LYS:N | 1:A:52:LYS:CA | 1:A:52:LYS:C | 10 | 3.1 |
| (1,32) | 1:A:24:GLU:N | 1:A:24:GLU:CA | 1:A:24:GLU:C | 1:A:25:ALA:N | 5 | 3.1 |
| (1,175) | 1:A:121:PRO:N | 1:A:121:PRO:CA | 1:A:121:PRO:C | 1:A:122:TRP:N | 4 | 3.1 |
| (1,175) | 1:A:121:PRO:N | 1:A:121:PRO:CA | 1:A:121:PRO:C | 1:A:122:TRP:N | 5 | 3.1 |
| (1,137) | 1:A:93:SER:N | 1:A:93:SER:CA | 1:A:93:SER:C | 1:A:94:ASN:N | 5 | 3.1 |
| (1,121) | 1:A:82:ASP:N | 1:A:82:ASP:CA | 1:A:82:ASP:C | 1:A:83:GLN:N | 16 | 3.1 |
| (1,121) | 1:A:82:ASP:N | 1:A:82:ASP:CA | 1:A:82:ASP:C | 1:A:83:GLN:N | 17 | 3.1 |
| (1,73) | 1:A:56:THR:C | 1:A:57:VAL:N | 1:A:57:VAL:CA | 1:A:57:VAL:C | 7 | 3.0 |
| (1,71) | 1:A:55:TYR:C | 1:A:56:THR:N | 1:A:56:THR:CA | 1:A:56:THR:C | 8 | 3.0 |
| (1,43) | 1:A:31:VAL:C | 1:A:32:GLN:N | 1:A:32:GLN:CA | 1:A:32:GLN:C | 19 | 3.0 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 8 | 3.0 |
| (1,34) | 1:A:25:ALA:N | 1:A:25:ALA:CA | 1:A:25:ALA:C | 1:A:26:HIS:N | 8 | 3.0 |
| (1,31) | 1:A:23:GLN:C | 1:A:24:GLU:N | 1:A:24:GLU:CA | 1:A:24:GLU:C | 10 | 3.0 |
| (1,154) | 1:A:107:ASP:N | 1:A:107:ASP:CA | 1:A:107:ASP:C | 1:A:108:GLY:N | 8 | 3.0 |
| (1,71) | 1:A:55:TYR:C | 1:A:56:THR:N | 1:A:56:THR:CA | 1:A:56:THR:C | 11 | 2.9 |
| (1,31) | 1:A:23:GLN:C | 1:A:24:GLU:N | 1:A:24:GLU:CA | 1:A:24:GLU:C | 3 | 2.9 |
| (1,31) | 1:A:23:GLN:C | 1:A:24:GLU:N | 1:A:24:GLU:CA | 1:A:24:GLU:C | 17 | 2.9 |
| (1,175) | 1:A:121:PRO:N | 1:A:121:PRO:CA | 1:A:121:PRO:C | 1:A:122:TRP:N | 11 | 2.9 |
| (1,155) | 1:A:108:GLY:C | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 5 | 2.9 |
| (1,73) | 1:A:56:THR:C | 1:A:57:VAL:N | 1:A:57:VAL:CA | 1:A:57:VAL:C | 11 | 2.8 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 2 | 2.8 |
| (1,33) | 1:A:24:GLU:C | 1:A:25:ALA:N | 1:A:25:ALA:CA | 1:A:25:ALA:C | 1 | 2.8 |
| (1,33) | 1:A:24:GLU:C | 1:A:25:ALA:N | 1:A:25:ALA:CA | 1:A:25:ALA:C | 10 | 2.8 |
| (1,33) | 1:A:24:GLU:C | 1:A:25:ALA:N | 1:A:25:ALA:CA | 1:A:25:ALA:C | 15 | 2.8 |
| (1,22) | 1:A:13:ARG:N | 1:A:13:ARG:CA | 1:A:13:ARG:C | 1:A:14:ILE:N | 19 | 2.8 |
| (1,140) | 1:A:99:PRO:N | 1:A:99:PRO:CA | 1:A:99:PRO:C | 1:A:100:ALA:N | 19 | 2.8 |
| (1,139) | 1:A:94:ASN:N | 1:A:94:ASN:CA | 1:A:94:ASN:C | 1:A:95:GLY:N | 17 | 2.8 |
| (1,117) | 1:A:80:PRO:N | 1:A:80:PRO:CA | 1:A:80:PRO:C | 1:A:81:GLN:N | 7 | 2.8 |
| (1,117) | 1:A:80:PRO:N | 1:A:80:PRO:CA | 1:A:80:PRO:C | 1:A:81:GLN:N | 8 | 2.8 |
| (1,66) | 1:A:53:VAL:N | 1:A:53:VAL:CA | 1:A:53:VAL:C | 1:A:54:LYS:N | 3 | 2.7 |
| (1,20) | 1:A:12:LYS:N | 1:A:12:LYS:CA | 1:A:12:LYS:C | 1:A:13:ARG:N | 8 | 2.7 |
| (1,175) | 1:A:121:PRO:N | 1:A:121:PRO:CA | 1:A:121:PRO:C | 1:A:122:TRP:N | 9 | 2.7 |
| (1,154) | 1:A:107:ASP:N | 1:A:107:ASP:CA | 1:A:107:ASP:C | 1:A:108:GLY:N | 2 | 2.7 |

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*Continued from previous page...*

| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---|---|---|---|---|---|---|
| (1,68) | 1:A:54:LYS:N | 1:A:54:LYS:CA | 1:A:54:LYS:C | 1:A:55:TYR:N | 16 | 2.6 |
| (1,41) | 1:A:30:GLN:C | 1:A:31:VAL:N | 1:A:31:VAL:CA | 1:A:31:VAL:C | 9 | 2.6 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 4 | 2.6 |
| (1,167) | 1:A:114:GLU:C | 1:A:115:LEU:N | 1:A:115:LEU:CA | 1:A:115:LEU:C | 16 | 2.6 |
| (1,156) | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 1:A:110:LYS:N | 7 | 2.6 |
| (1,78) | 1:A:59:LYS:N | 1:A:59:LYS:CA | 1:A:59:LYS:C | 1:A:60:VAL:N | 7 | 2.5 |
| (1,64) | 1:A:52:LYS:N | 1:A:52:LYS:CA | 1:A:52:LYS:C | 1:A:53:VAL:N | 3 | 2.5 |
| (1,63) | 1:A:51:GLU:C | 1:A:52:LYS:N | 1:A:52:LYS:CA | 1:A:52:LYS:C | 7 | 2.5 |
| (1,50) | 1:A:35:ALA:N | 1:A:35:ALA:CA | 1:A:35:ALA:C | 1:A:36:GLU:N | 2 | 2.5 |
| (1,137) | 1:A:93:SER:N | 1:A:93:SER:CA | 1:A:93:SER:C | 1:A:94:ASN:N | 15 | 2.5 |
| (1,121) | 1:A:82:ASP:N | 1:A:82:ASP:CA | 1:A:82:ASP:C | 1:A:83:GLN:N | 5 | 2.5 |
| (1,8) | 1:A:5:VAL:N | 1:A:5:VAL:CA | 1:A:5:VAL:C | 1:A:6:GLU:N | 4 | 2.4 |
| (1,73) | 1:A:56:THR:C | 1:A:57:VAL:N | 1:A:57:VAL:CA | 1:A:57:VAL:C | 8 | 2.4 |
| (1,63) | 1:A:51:GLU:C | 1:A:52:LYS:N | 1:A:52:LYS:CA | 1:A:52:LYS:C | 13 | 2.4 |
| (1,63) | 1:A:51:GLU:C | 1:A:52:LYS:N | 1:A:52:LYS:CA | 1:A:52:LYS:C | 14 | 2.4 |
| (1,33) | 1:A:24:GLU:C | 1:A:25:ALA:N | 1:A:25:ALA:CA | 1:A:25:ALA:C | 17 | 2.4 |
| (1,27) | 1:A:17:GLN:C | 1:A:18:LYS:N | 1:A:18:LYS:CA | 1:A:18:LYS:C | 14 | 2.4 |
| (1,156) | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 1:A:110:LYS:N | 10 | 2.4 |
| (1,154) | 1:A:107:ASP:N | 1:A:107:ASP:CA | 1:A:107:ASP:C | 1:A:108:GLY:N | 7 | 2.4 |
| (1,147) | 1:A:102:LEU:C | 1:A:103:ASP:N | 1:A:103:ASP:CA | 1:A:103:ASP:C | 5 | 2.4 |
| (1,50) | 1:A:35:ALA:N | 1:A:35:ALA:CA | 1:A:35:ALA:C | 1:A:36:GLU:N | 9 | 2.3 |
| (1,46) | 1:A:33:ILE:N | 1:A:33:ILE:CA | 1:A:33:ILE:C | 1:A:34:VAL:N | 14 | 2.3 |
| (1,22) | 1:A:13:ARG:N | 1:A:13:ARG:CA | 1:A:13:ARG:C | 1:A:14:ILE:N | 13 | 2.3 |
| (1,20) | 1:A:12:LYS:N | 1:A:12:LYS:CA | 1:A:12:LYS:C | 1:A:13:ARG:N | 16 | 2.3 |
| (1,150) | 1:A:105:GLU:N | 1:A:105:GLU:CA | 1:A:105:GLU:C | 1:A:106:ALA:N | 18 | 2.3 |
| (1,139) | 1:A:94:ASN:N | 1:A:94:ASN:CA | 1:A:94:ASN:C | 1:A:95:GLY:N | 13 | 2.3 |
| (1,128) | 1:A:85:ARG:C | 1:A:86:LEU:N | 1:A:86:LEU:CA | 1:A:86:LEU:C | 16 | 2.3 |
| (1,66) | 1:A:53:VAL:N | 1:A:53:VAL:CA | 1:A:53:VAL:C | 1:A:54:LYS:N | 4 | 2.2 |
| (1,52) | 1:A:37:ASP:N | 1:A:37:ASP:CA | 1:A:37:ASP:C | 1:A:38:GLN:N | 10 | 2.2 |
| (1,51) | 1:A:36:GLU:C | 1:A:37:ASP:N | 1:A:37:ASP:CA | 1:A:37:ASP:C | 5 | 2.2 |
| (1,46) | 1:A:33:ILE:N | 1:A:33:ILE:CA | 1:A:33:ILE:C | 1:A:34:VAL:N | 4 | 2.2 |
| (1,46) | 1:A:33:ILE:N | 1:A:33:ILE:CA | 1:A:33:ILE:C | 1:A:34:VAL:N | 16 | 2.2 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 10 | 2.2 |
| (1,27) | 1:A:17:GLN:C | 1:A:18:LYS:N | 1:A:18:LYS:CA | 1:A:18:LYS:C | 11 | 2.2 |
| (1,167) | 1:A:114:GLU:C | 1:A:115:LEU:N | 1:A:115:LEU:CA | 1:A:115:LEU:C | 18 | 2.2 |
| (1,157) | 1:A:109:ASN:C | 1:A:110:LYS:N | 1:A:110:LYS:CA | 1:A:110:LYS:C | 19 | 2.2 |
| (1,150) | 1:A:105:GLU:N | 1:A:105:GLU:CA | 1:A:105:GLU:C | 1:A:106:ALA:N | 2 | 2.2 |
| (1,131) | 1:A:87:TRP:N | 1:A:87:TRP:CA | 1:A:87:TRP:C | 1:A:88:PRO:N | 2 | 2.2 |
| (1,78) | 1:A:59:LYS:N | 1:A:59:LYS:CA | 1:A:59:LYS:C | 1:A:60:VAL:N | 20 | 2.1 |
| (1,63) | 1:A:51:GLU:C | 1:A:52:LYS:N | 1:A:52:LYS:CA | 1:A:52:LYS:C | 4 | 2.1 |
| (1,43) | 1:A:31:VAL:C | 1:A:32:GLN:N | 1:A:32:GLN:CA | 1:A:32:GLN:C | 13 | 2.1 |
| (1,43) | 1:A:31:VAL:C | 1:A:32:GLN:N | 1:A:32:GLN:CA | 1:A:32:GLN:C | 20 | 2.1 |
| (1,155) | 1:A:108:GLY:C | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 1 | 2.1 |
| (1,147) | 1:A:102:LEU:C | 1:A:103:ASP:N | 1:A:103:ASP:CA | 1:A:103:ASP:C | 11 | 2.1 |
| (1,147) | 1:A:102:LEU:C | 1:A:103:ASP:N | 1:A:103:ASP:CA | 1:A:103:ASP:C | 17 | 2.1 |
| (1,117) | 1:A:80:PRO:N | 1:A:80:PRO:CA | 1:A:80:PRO:C | 1:A:81:GLN:N | 19 | 2.1 |
| (1,78) | 1:A:59:LYS:N | 1:A:59:LYS:CA | 1:A:59:LYS:C | 1:A:60:VAL:N | 14 | 2.0 |
| (1,73) | 1:A:56:THR:C | 1:A:57:VAL:N | 1:A:57:VAL:CA | 1:A:57:VAL:C | 2 | 2.0 |
| (1,64) | 1:A:52:LYS:N | 1:A:52:LYS:CA | 1:A:52:LYS:C | 1:A:53:VAL:N | 11 | 2.0 |
| (1,51) | 1:A:36:GLU:C | 1:A:37:ASP:N | 1:A:37:ASP:CA | 1:A:37:ASP:C | 9 | 2.0 |
| (1,32) | 1:A:24:GLU:N | 1:A:24:GLU:CA | 1:A:24:GLU:C | 1:A:25:ALA:N | 18 | 2.0 |

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*Continued from previous page...*

| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---|---|---|---|---|---|---|
| (1,138) | 1:A:93:SER:C | 1:A:94:ASN:N | 1:A:94:ASN:CA | 1:A:94:ASN:C | 10 | 2.0 |
| (1,8) | 1:A:5:VAL:N | 1:A:5:VAL:CA | 1:A:5:VAL:C | 1:A:6:GLU:N | 7 | 1.9 |
| (1,78) | 1:A:59:LYS:N | 1:A:59:LYS:CA | 1:A:59:LYS:C | 1:A:60:VAL:N | 10 | 1.9 |
| (1,7) | 1:A:4:LEU:C | 1:A:5:VAL:N | 1:A:5:VAL:CA | 1:A:5:VAL:C | 7 | 1.9 |
| (1,39) | 1:A:29:MET:C | 1:A:30:GLN:N | 1:A:30:GLN:CA | 1:A:30:GLN:C | 7 | 1.9 |
| (1,34) | 1:A:25:ALA:N | 1:A:25:ALA:CA | 1:A:25:ALA:C | 1:A:26:HIS:N | 17 | 1.9 |
| (1,178) | 1:A:122:TRP:C | 1:A:123:THR:N | 1:A:123:THR:CA | 1:A:123:THR:C | 7 | 1.9 |
| (1,167) | 1:A:114:GLU:C | 1:A:115:LEU:N | 1:A:115:LEU:CA | 1:A:115:LEU:C | 12 | 1.9 |
| (1,142) | 1:A:100:ALA:N | 1:A:100:ALA:CA | 1:A:100:ALA:C | 1:A:101:MET:N | 17 | 1.9 |
| (1,121) | 1:A:82:ASP:N | 1:A:82:ASP:CA | 1:A:82:ASP:C | 1:A:83:GLN:N | 3 | 1.9 |
| (1,121) | 1:A:82:ASP:N | 1:A:82:ASP:CA | 1:A:82:ASP:C | 1:A:83:GLN:N | 8 | 1.9 |
| (1,121) | 1:A:82:ASP:N | 1:A:82:ASP:CA | 1:A:82:ASP:C | 1:A:83:GLN:N | 12 | 1.9 |
| (1,121) | 1:A:82:ASP:N | 1:A:82:ASP:CA | 1:A:82:ASP:C | 1:A:83:GLN:N | 20 | 1.9 |
| (1,78) | 1:A:59:LYS:N | 1:A:59:LYS:CA | 1:A:59:LYS:C | 1:A:60:VAL:N | 4 | 1.8 |
| (1,52) | 1:A:37:ASP:N | 1:A:37:ASP:CA | 1:A:37:ASP:C | 1:A:38:GLN:N | 5 | 1.8 |
| (1,52) | 1:A:37:ASP:N | 1:A:37:ASP:CA | 1:A:37:ASP:C | 1:A:38:GLN:N | 12 | 1.8 |
| (1,51) | 1:A:36:GLU:C | 1:A:37:ASP:N | 1:A:37:ASP:CA | 1:A:37:ASP:C | 10 | 1.8 |
| (1,51) | 1:A:36:GLU:C | 1:A:37:ASP:N | 1:A:37:ASP:CA | 1:A:37:ASP:C | 15 | 1.8 |
| (1,30) | 1:A:19:ARG:N | 1:A:19:ARG:CA | 1:A:19:ARG:C | 1:A:20:LYS:N | 4 | 1.8 |
| (1,27) | 1:A:17:GLN:C | 1:A:18:LYS:N | 1:A:18:LYS:CA | 1:A:18:LYS:C | 9 | 1.8 |
| (1,161) | 1:A:111:THR:C | 1:A:112:MET:N | 1:A:112:MET:CA | 1:A:112:MET:C | 3 | 1.8 |
| (1,155) | 1:A:108:GLY:C | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 14 | 1.8 |
| (1,139) | 1:A:94:ASN:N | 1:A:94:ASN:CA | 1:A:94:ASN:C | 1:A:95:GLY:N | 12 | 1.8 |
| (1,139) | 1:A:94:ASN:N | 1:A:94:ASN:CA | 1:A:94:ASN:C | 1:A:95:GLY:N | 16 | 1.8 |
| (1,51) | 1:A:36:GLU:C | 1:A:37:ASP:N | 1:A:37:ASP:CA | 1:A:37:ASP:C | 8 | 1.7 |
| (1,51) | 1:A:36:GLU:C | 1:A:37:ASP:N | 1:A:37:ASP:CA | 1:A:37:ASP:C | 11 | 1.7 |
| (1,50) | 1:A:35:ALA:N | 1:A:35:ALA:CA | 1:A:35:ALA:C | 1:A:36:GLU:N | 18 | 1.7 |
| (1,32) | 1:A:24:GLU:N | 1:A:24:GLU:CA | 1:A:24:GLU:C | 1:A:25:ALA:N | 16 | 1.7 |
| (1,180) | 1:A:123:THR:C | 1:A:124:ILE:N | 1:A:124:ILE:CA | 1:A:124:ILE:C | 13 | 1.7 |
| (1,17) | 1:A:10:GLU:C | 1:A:11:GLU:N | 1:A:11:GLU:CA | 1:A:11:GLU:C | 11 | 1.7 |
| (1,155) | 1:A:108:GLY:C | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 4 | 1.7 |
| (1,147) | 1:A:102:LEU:C | 1:A:103:ASP:N | 1:A:103:ASP:CA | 1:A:103:ASP:C | 9 | 1.7 |
| (1,10) | 1:A:6:GLU:N | 1:A:6:GLU:CA | 1:A:6:GLU:C | 1:A:7:ARG:N | 5 | 1.7 |
| (1,78) | 1:A:59:LYS:N | 1:A:59:LYS:CA | 1:A:59:LYS:C | 1:A:60:VAL:N | 2 | 1.6 |
| (1,7) | 1:A:4:LEU:C | 1:A:5:VAL:N | 1:A:5:VAL:CA | 1:A:5:VAL:C | 13 | 1.6 |
| (1,63) | 1:A:51:GLU:C | 1:A:52:LYS:N | 1:A:52:LYS:CA | 1:A:52:LYS:C | 8 | 1.6 |
| (1,50) | 1:A:35:ALA:N | 1:A:35:ALA:CA | 1:A:35:ALA:C | 1:A:36:GLU:N | 4 | 1.6 |
| (1,43) | 1:A:31:VAL:C | 1:A:32:GLN:N | 1:A:32:GLN:CA | 1:A:32:GLN:C | 11 | 1.6 |
| (1,34) | 1:A:25:ALA:N | 1:A:25:ALA:CA | 1:A:25:ALA:C | 1:A:26:HIS:N | 1 | 1.6 |
| (1,20) | 1:A:12:LYS:N | 1:A:12:LYS:CA | 1:A:12:LYS:C | 1:A:13:ARG:N | 19 | 1.6 |
| (1,175) | 1:A:121:PRO:N | 1:A:121:PRO:CA | 1:A:121:PRO:C | 1:A:122:TRP:N | 14 | 1.6 |
| (1,173) | 1:A:119:GLU:C | 1:A:120:ASN:N | 1:A:120:ASN:CA | 1:A:120:ASN:C | 19 | 1.6 |
| (1,161) | 1:A:111:THR:C | 1:A:112:MET:N | 1:A:112:MET:CA | 1:A:112:MET:C | 10 | 1.6 |
| (1,156) | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 1:A:110:LYS:N | 9 | 1.6 |
| (1,156) | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 1:A:110:LYS:N | 16 | 1.6 |
| (1,155) | 1:A:108:GLY:C | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 2 | 1.6 |
| (1,141) | 1:A:99:PRO:C | 1:A:100:ALA:N | 1:A:100:ALA:CA | 1:A:100:ALA:C | 10 | 1.6 |
| (1,131) | 1:A:87:TRP:N | 1:A:87:TRP:CA | 1:A:87:TRP:C | 1:A:88:PRO:N | 15 | 1.6 |
| (1,78) | 1:A:59:LYS:N | 1:A:59:LYS:CA | 1:A:59:LYS:C | 1:A:60:VAL:N | 9 | 1.5 |
| (1,69) | 1:A:54:LYS:C | 1:A:55:TYR:N | 1:A:55:TYR:CA | 1:A:55:TYR:C | 14 | 1.5 |
| (1,51) | 1:A:36:GLU:C | 1:A:37:ASP:N | 1:A:37:ASP:CA | 1:A:37:ASP:C | 20 | 1.5 |

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| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---|---|---|---|---|---|---|
| (1,46) | 1:A:33:ILE:N | 1:A:33:ILE:CA | 1:A:33:ILE:C | 1:A:34:VAL:N | 8 | 1.5 |
| (1,34) | 1:A:25:ALA:N | 1:A:25:ALA:CA | 1:A:25:ALA:C | 1:A:26:HIS:N | 10 | 1.5 |
| (1,27) | 1:A:17:GLN:C | 1:A:18:LYS:N | 1:A:18:LYS:CA | 1:A:18:LYS:C | 7 | 1.5 |
| (1,175) | 1:A:121:PRO:N | 1:A:121:PRO:CA | 1:A:121:PRO:C | 1:A:122:TRP:N | 1 | 1.5 |
| (1,173) | 1:A:119:GLU:C | 1:A:120:ASN:N | 1:A:120:ASN:CA | 1:A:120:ASN:C | 15 | 1.5 |
| (1,149) | 1:A:104:ASN:C | 1:A:105:GLU:N | 1:A:105:GLU:CA | 1:A:105:GLU:C | 9 | 1.5 |
| (1,149) | 1:A:104:ASN:C | 1:A:105:GLU:N | 1:A:105:GLU:CA | 1:A:105:GLU:C | 16 | 1.5 |
| (1,147) | 1:A:102:LEU:C | 1:A:103:ASP:N | 1:A:103:ASP:CA | 1:A:103:ASP:C | 13 | 1.5 |
| (1,140) | 1:A:99:PRO:N | 1:A:99:PRO:CA | 1:A:99:PRO:C | 1:A:100:ALA:N | 14 | 1.5 |
| (1,117) | 1:A:80:PRO:N | 1:A:80:PRO:CA | 1:A:80:PRO:C | 1:A:81:GLN:N | 15 | 1.5 |
| (1,66) | 1:A:53:VAL:N | 1:A:53:VAL:CA | 1:A:53:VAL:C | 1:A:54:LYS:N | 9 | 1.4 |
| (1,64) | 1:A:52:LYS:N | 1:A:52:LYS:CA | 1:A:52:LYS:C | 1:A:53:VAL:N | 20 | 1.4 |
| (1,44) | 1:A:32:GLN:N | 1:A:32:GLN:CA | 1:A:32:GLN:C | 1:A:33:ILE:N | 7 | 1.4 |
| (1,43) | 1:A:31:VAL:C | 1:A:32:GLN:N | 1:A:32:GLN:CA | 1:A:32:GLN:C | 15 | 1.4 |
| (1,41) | 1:A:30:GLN:C | 1:A:31:VAL:N | 1:A:31:VAL:CA | 1:A:31:VAL:C | 10 | 1.4 |
| (1,33) | 1:A:24:GLU:C | 1:A:25:ALA:N | 1:A:25:ALA:CA | 1:A:25:ALA:C | 6 | 1.4 |
| (1,178) | 1:A:122:TRP:C | 1:A:123:THR:N | 1:A:123:THR:CA | 1:A:123:THR:C | 3 | 1.4 |
| (1,158) | 1:A:110:LYS:N | 1:A:110:LYS:CA | 1:A:110:LYS:C | 1:A:111:THR:N | 4 | 1.4 |
| (1,155) | 1:A:108:GLY:C | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 11 | 1.4 |
| (1,147) | 1:A:102:LEU:C | 1:A:103:ASP:N | 1:A:103:ASP:CA | 1:A:103:ASP:C | 15 | 1.4 |
| (1,147) | 1:A:102:LEU:C | 1:A:103:ASP:N | 1:A:103:ASP:CA | 1:A:103:ASP:C | 16 | 1.4 |
| (1,140) | 1:A:99:PRO:N | 1:A:99:PRO:CA | 1:A:99:PRO:C | 1:A:100:ALA:N | 17 | 1.4 |
| (1,131) | 1:A:87:TRP:N | 1:A:87:TRP:CA | 1:A:87:TRP:C | 1:A:88:PRO:N | 13 | 1.4 |
| (1,117) | 1:A:80:PRO:N | 1:A:80:PRO:CA | 1:A:80:PRO:C | 1:A:81:GLN:N | 9 | 1.4 |
| (1,8) | 1:A:5:VAL:N | 1:A:5:VAL:CA | 1:A:5:VAL:C | 1:A:6:GLU:N | 8 | 1.3 |
| (1,71) | 1:A:55:TYR:C | 1:A:56:THR:N | 1:A:56:THR:CA | 1:A:56:THR:C | 3 | 1.3 |
| (1,7) | 1:A:4:LEU:C | 1:A:5:VAL:N | 1:A:5:VAL:CA | 1:A:5:VAL:C | 15 | 1.3 |
| (1,63) | 1:A:51:GLU:C | 1:A:52:LYS:N | 1:A:52:LYS:CA | 1:A:52:LYS:C | 11 | 1.3 |
| (1,48) | 1:A:34:VAL:N | 1:A:34:VAL:CA | 1:A:34:VAL:C | 1:A:35:ALA:N | 4 | 1.3 |
| (1,46) | 1:A:33:ILE:N | 1:A:33:ILE:CA | 1:A:33:ILE:C | 1:A:34:VAL:N | 3 | 1.3 |
| (1,46) | 1:A:33:ILE:N | 1:A:33:ILE:CA | 1:A:33:ILE:C | 1:A:34:VAL:N | 5 | 1.3 |
| (1,20) | 1:A:12:LYS:N | 1:A:12:LYS:CA | 1:A:12:LYS:C | 1:A:13:ARG:N | 7 | 1.3 |
| (1,181) | 1:A:124:ILE:N | 1:A:124:ILE:CA | 1:A:124:ILE:C | 1:A:125:PHE:N | 9 | 1.3 |
| (1,175) | 1:A:121:PRO:N | 1:A:121:PRO:CA | 1:A:121:PRO:C | 1:A:122:TRP:N | 19 | 1.3 |
| (1,149) | 1:A:104:ASN:C | 1:A:105:GLU:N | 1:A:105:GLU:CA | 1:A:105:GLU:C | 18 | 1.3 |
| (1,140) | 1:A:99:PRO:N | 1:A:99:PRO:CA | 1:A:99:PRO:C | 1:A:100:ALA:N | 18 | 1.3 |
| (1,138) | 1:A:93:SER:C | 1:A:94:ASN:N | 1:A:94:ASN:CA | 1:A:94:ASN:C | 16 | 1.3 |
| (1,121) | 1:A:82:ASP:N | 1:A:82:ASP:CA | 1:A:82:ASP:C | 1:A:83:GLN:N | 13 | 1.3 |
| (1,63) | 1:A:51:GLU:C | 1:A:52:LYS:N | 1:A:52:LYS:CA | 1:A:52:LYS:C | 16 | 1.2 |
| (1,43) | 1:A:31:VAL:C | 1:A:32:GLN:N | 1:A:32:GLN:CA | 1:A:32:GLN:C | 17 | 1.2 |
| (1,37) | 1:A:28:TYR:C | 1:A:29:MET:N | 1:A:29:MET:CA | 1:A:29:MET:C | 17 | 1.2 |
| (1,35) | 1:A:27:LEU:C | 1:A:28:TYR:N | 1:A:28:TYR:CA | 1:A:28:TYR:C | 10 | 1.2 |
| (1,17) | 1:A:10:GLU:C | 1:A:11:GLU:N | 1:A:11:GLU:CA | 1:A:11:GLU:C | 9 | 1.2 |
| (1,161) | 1:A:111:THR:C | 1:A:112:MET:N | 1:A:112:MET:CA | 1:A:112:MET:C | 13 | 1.2 |
| (1,157) | 1:A:109:ASN:C | 1:A:110:LYS:N | 1:A:110:LYS:CA | 1:A:110:LYS:C | 11 | 1.2 |
| (1,155) | 1:A:108:GLY:C | 1:A:109:ASN:N | 1:A:109:ASN:CA | 1:A:109:ASN:C | 3 | 1.2 |
| (1,147) | 1:A:102:LEU:C | 1:A:103:ASP:N | 1:A:103:ASP:CA | 1:A:103:ASP:C | 12 | 1.2 |
| (1,138) | 1:A:93:SER:C | 1:A:94:ASN:N | 1:A:94:ASN:CA | 1:A:94:ASN:C | 5 | 1.2 |
| (1,128) | 1:A:85:ARG:C | 1:A:86:LEU:N | 1:A:86:LEU:CA | 1:A:86:LEU:C | 20 | 1.2 |
| (1,117) | 1:A:80:PRO:N | 1:A:80:PRO:CA | 1:A:80:PRO:C | 1:A:81:GLN:N | 2 | 1.2 |
| (1,117) | 1:A:80:PRO:N | 1:A:80:PRO:CA | 1:A:80:PRO:C | 1:A:81:GLN:N | 11 | 1.2 |

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*Continued from previous page...*

| Key | Atom-1 | Atom-2 | Atom-3 | Atom-4 | Model ID | Violation (°) |
|---|---|---|---|---|---|---|
| (1,117) | 1:A:80:PRO:N | 1:A:80:PRO:CA | 1:A:80:PRO:C | 1:A:81:GLN:N | 17 | 1.2 |
| (1,8) | 1:A:5:VAL:N | 1:A:5:VAL:CA | 1:A:5:VAL:C | 1:A:6:GLU:N | 20 | 1.1 |
| (1,46) | 1:A:33:ILE:N | 1:A:33:ILE:CA | 1:A:33:ILE:C | 1:A:34:VAL:N | 19 | 1.1 |
| (1,43) | 1:A:31:VAL:C | 1:A:32:GLN:N | 1:A:32:GLN:CA | 1:A:32:GLN:C | 8 | 1.1 |
| (1,43) | 1:A:31:VAL:C | 1:A:32:GLN:N | 1:A:32:GLN:CA | 1:A:32:GLN:C | 9 | 1.1 |
| (1,34) | 1:A:25:ALA:N | 1:A:25:ALA:CA | 1:A:25:ALA:C | 1:A:26:HIS:N | 7 | 1.1 |
| (1,22) | 1:A:13:ARG:N | 1:A:13:ARG:CA | 1:A:13:ARG:C | 1:A:14:ILE:N | 3 | 1.1 |
| (1,178) | 1:A:122:TRP:C | 1:A:123:THR:N | 1:A:123:THR:CA | 1:A:123:THR:C | 4 | 1.1 |
| (1,178) | 1:A:122:TRP:C | 1:A:123:THR:N | 1:A:123:THR:CA | 1:A:123:THR:C | 18 | 1.1 |
| (1,173) | 1:A:119:GLU:C | 1:A:120:ASN:N | 1:A:120:ASN:CA | 1:A:120:ASN:C | 2 | 1.1 |
| (1,17) | 1:A:10:GLU:C | 1:A:11:GLU:N | 1:A:11:GLU:CA | 1:A:11:GLU:C | 7 | 1.1 |
| (1,161) | 1:A:111:THR:C | 1:A:112:MET:N | 1:A:112:MET:CA | 1:A:112:MET:C | 6 | 1.1 |
| (1,158) | 1:A:110:LYS:N | 1:A:110:LYS:CA | 1:A:110:LYS:C | 1:A:111:THR:N | 15 | 1.1 |
| (1,150) | 1:A:105:GLU:N | 1:A:105:GLU:CA | 1:A:105:GLU:C | 1:A:106:ALA:N | 1 | 1.1 |
| (1,147) | 1:A:102:LEU:C | 1:A:103:ASP:N | 1:A:103:ASP:CA | 1:A:103:ASP:C | 20 | 1.1 |
| (1,141) | 1:A:99:PRO:C | 1:A:100:ALA:N | 1:A:100:ALA:CA | 1:A:100:ALA:C | 14 | 1.1 |