



# Full wwPDB NMR Structure Validation Report ⓘ

Nov 28, 2023 – 04:21 PM EST

PDB ID : 2L9C  
BMRB ID : 16840  
Title : Structural insights into the specificity of darcin, an atypical major urinary protein.  
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Deposited on : 2011-02-07

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

Cyrange : Kirchner and Güntert (2011)  
NmrClust : Kelley et al. (1996)  
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) : 2.36

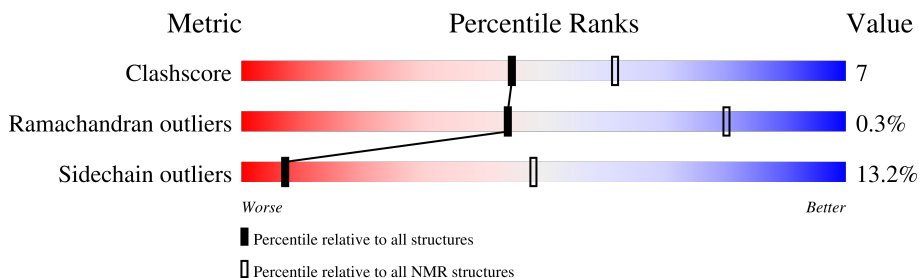
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*SOLUTION NMR*

The overall completeness of chemical shifts assignment is 95%.

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<br>(#Entries) | NMR archive<br>(#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  $\geq 3$ , 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  $\leq 5\%$

| Mol | Chain | Length | Quality of chain |
|-----|-------|--------|------------------|
| 1   | A     | 176    |                  |

## 2 Ensemble composition and analysis

This entry contains 20 models. Model 10 is the overall representative, medoid model (most similar to other models). The authors have identified model 1 as representative, based on the following criterion: *closest to the average*.

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:30-A:171 (142)      | 0.49              | 10           |

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 and 6 single-model clusters were found.

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

### 3 Entry composition

There is only 1 type of molecule in this entry. The entry contains 2822 atoms, of which 1380 are hydrogens and 0 are deuteriums.

- Molecule 1 is a protein called Darcin.

| Mol | Chain | Residues | Atoms |     |      |     |     | Trace |   |
|-----|-------|----------|-------|-----|------|-----|-----|-------|---|
|     |       |          | Total | C   | H    | N   | O   |       | S |
| 1   | A     | 176      | 2822  | 902 | 1380 | 247 | 285 | 8     | 0 |

There are 14 discrepancies between the modelled and reference sequences:

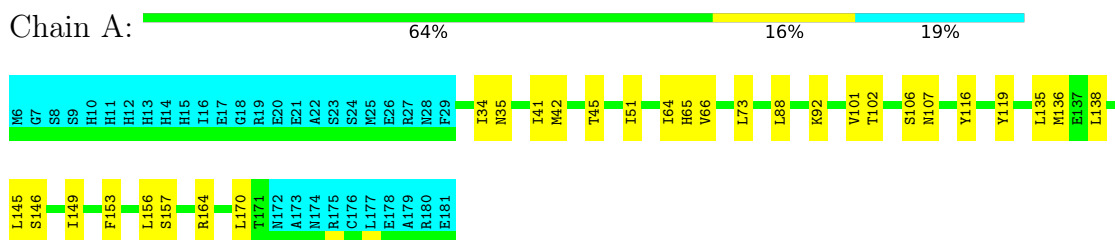
| Chain | Residue | Modelled | Actual | Comment        | Reference  |
|-------|---------|----------|--------|----------------|------------|
| A     | 6       | MET      | -      | expression tag | UNP Q5FW60 |
| A     | 7       | GLY      | -      | expression tag | UNP Q5FW60 |
| A     | 8       | SER      | -      | expression tag | UNP Q5FW60 |
| A     | 9       | SER      | -      | expression tag | UNP Q5FW60 |
| A     | 10      | HIS      | -      | expression tag | UNP Q5FW60 |
| A     | 11      | HIS      | -      | expression tag | UNP Q5FW60 |
| A     | 12      | HIS      | -      | expression tag | UNP Q5FW60 |
| A     | 13      | HIS      | -      | expression tag | UNP Q5FW60 |
| A     | 14      | HIS      | -      | expression tag | UNP Q5FW60 |
| A     | 15      | HIS      | -      | expression tag | UNP Q5FW60 |
| A     | 16      | ILE      | -      | expression tag | UNP Q5FW60 |
| A     | 17      | GLU      | -      | expression tag | UNP Q5FW60 |
| A     | 18      | GLY      | -      | expression tag | UNP Q5FW60 |
| A     | 19      | ARG      | -      | expression tag | UNP Q5FW60 |

## 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: Darcin

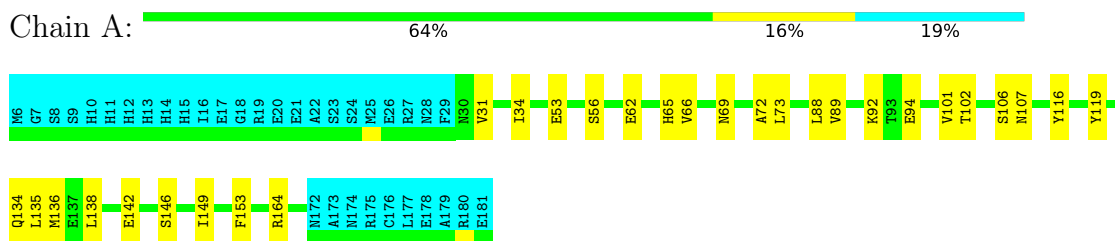


### 4.2 Scores per residue for each member of the ensemble

Colouring as in section 4.1 above.

#### 4.2.1 Score per residue for model 1

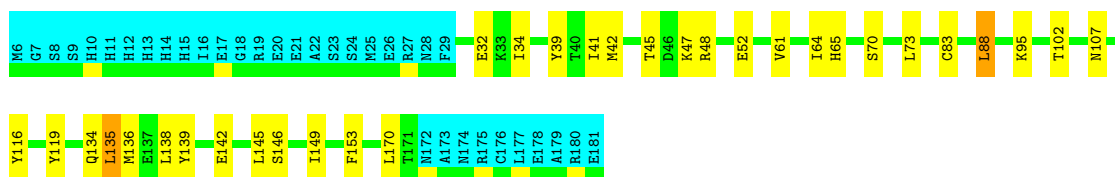
- Molecule 1: Darcin



#### 4.2.2 Score per residue for model 2

- Molecule 1: Darcin

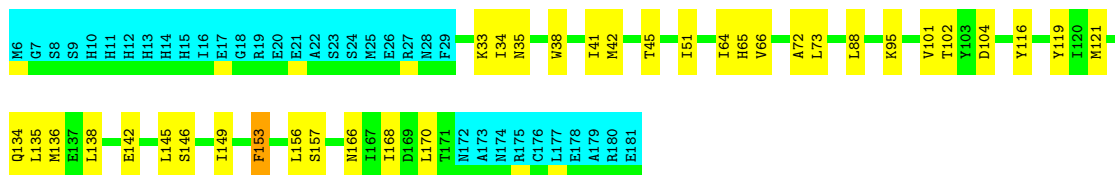




### 4.2.3 Score per residue for model 3

- Molecule 1: Darcin

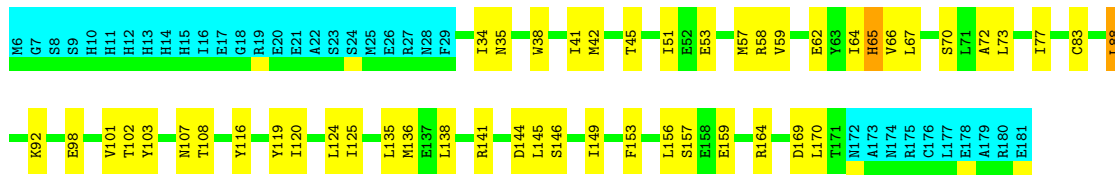
Chain A: 61% 19% 19%



### 4.2.4 Score per residue for model 4

- Molecule 1: Darcin

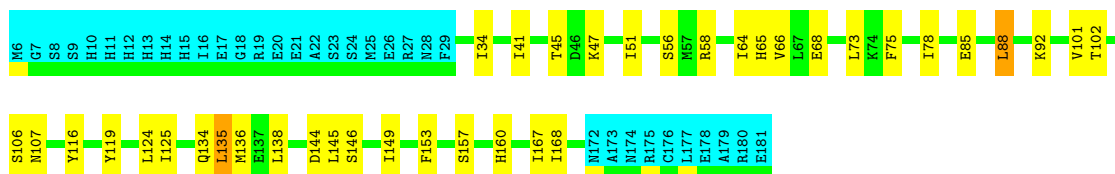
Chain A: 53% 27% 19%



### 4.2.5 Score per residue for model 5

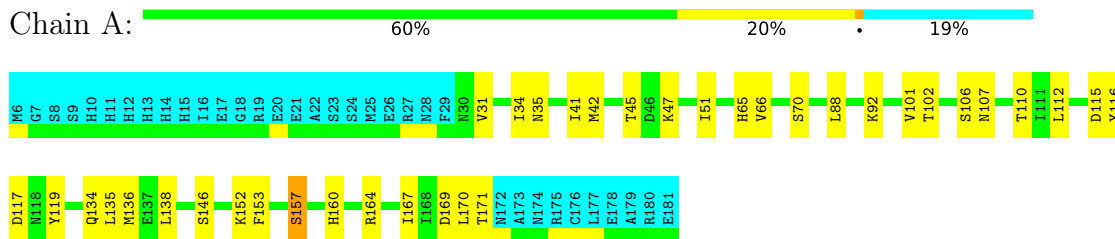
- Molecule 1: Darcin

Chain A: 59% 20% 19%



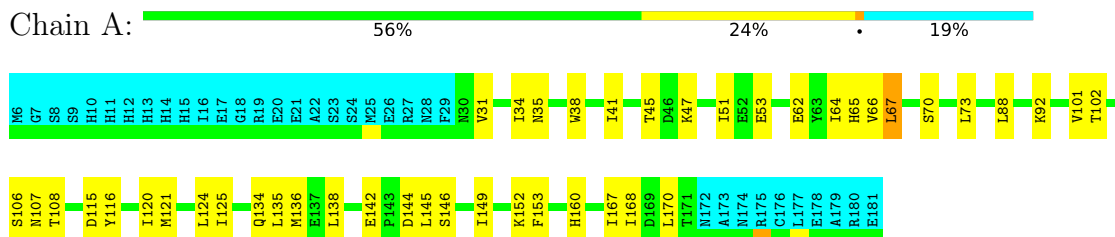
### 4.2.6 Score per residue for model 6

- Molecule 1: Darcin



#### 4.2.7 Score per residue for model 7

- Molecule 1: Darcin



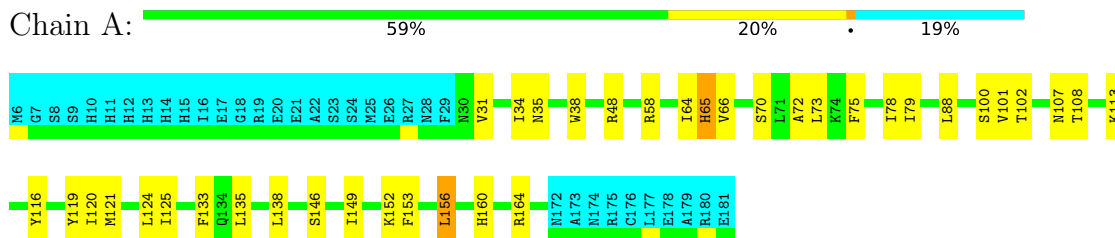
#### 4.2.8 Score per residue for model 8

- Molecule 1: Darcin



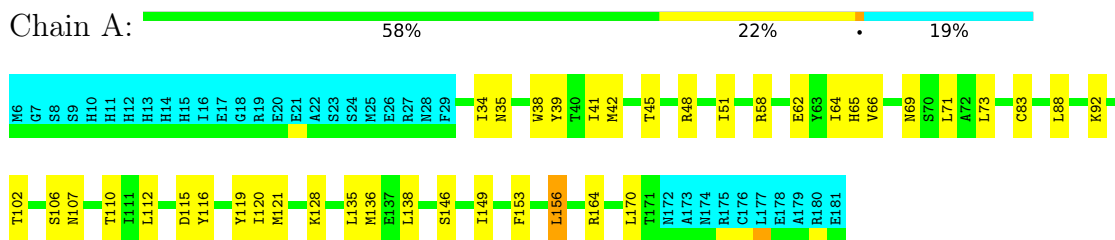
#### 4.2.9 Score per residue for model 9

- Molecule 1: Darcin



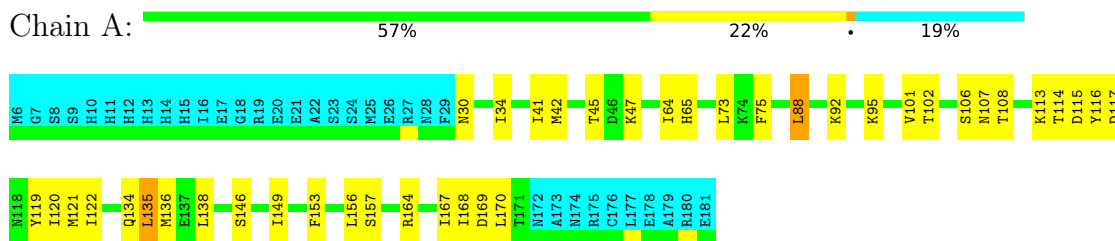
#### 4.2.10 Score per residue for model 10 (medoid)

- Molecule 1: Darcin



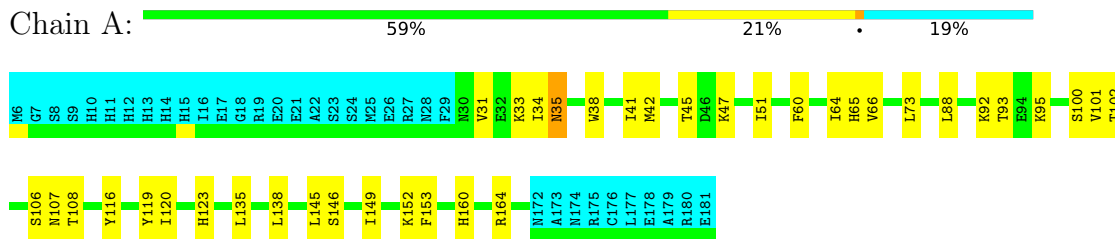
#### 4.2.11 Score per residue for model 11

- Molecule 1: Darcin



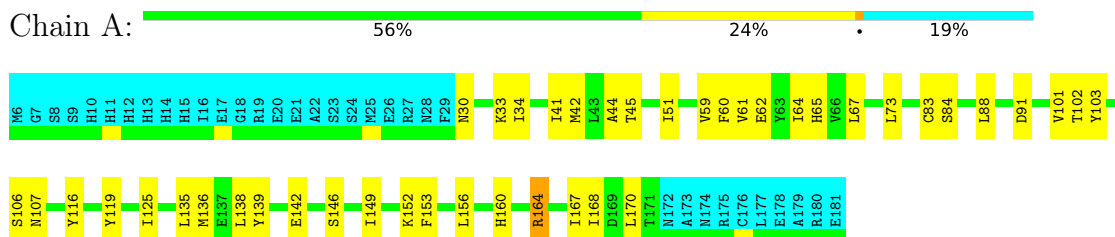
#### 4.2.12 Score per residue for model 12

- Molecule 1: Darcin



#### 4.2.13 Score per residue for model 13

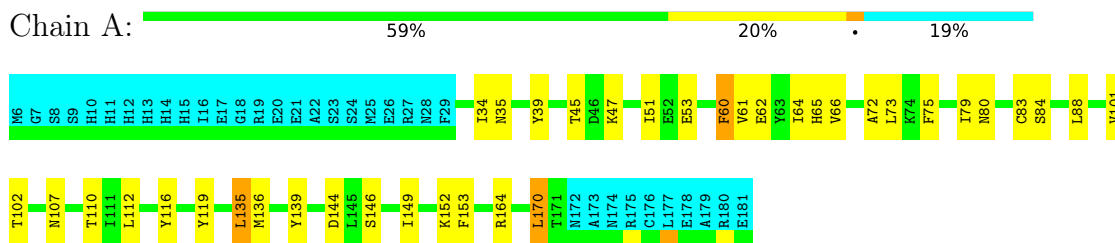
- Molecule 1: Darcin





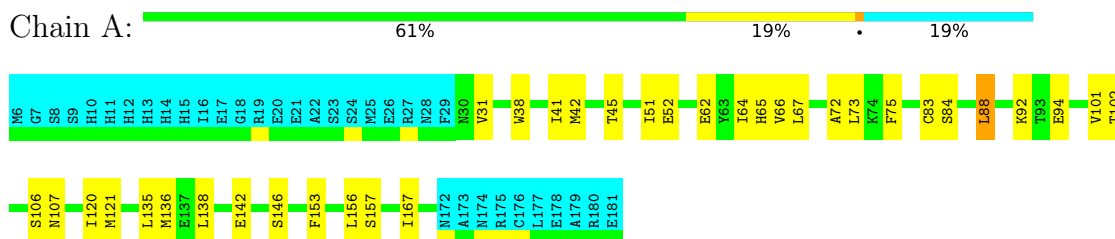
## 4.2.14 Score per residue for model 14

- Molecule 1: Darcin



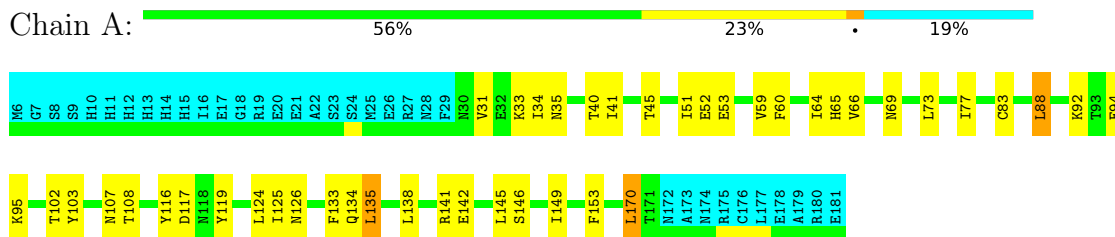
## 4.2.15 Score per residue for model 15

- Molecule 1: Darcin



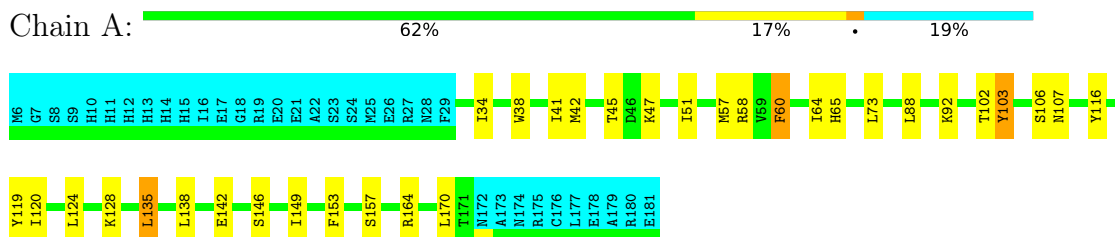
## 4.2.16 Score per residue for model 16

- Molecule 1: Darcin



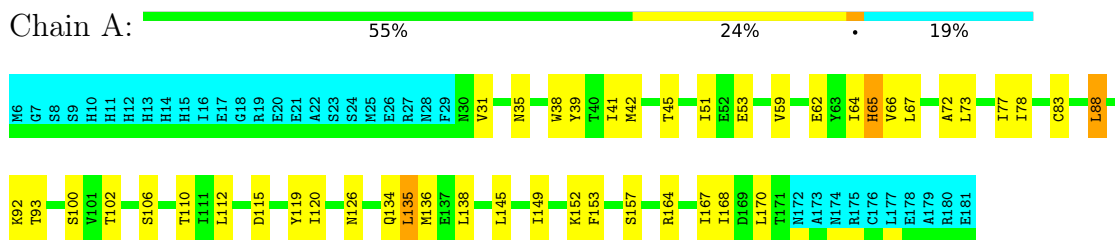
## 4.2.17 Score per residue for model 17

- Molecule 1: Darcin



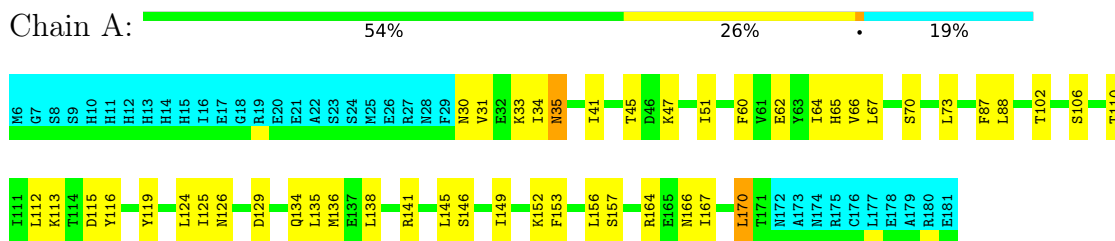
#### 4.2.18 Score per residue for model 18

- Molecule 1: Darcin



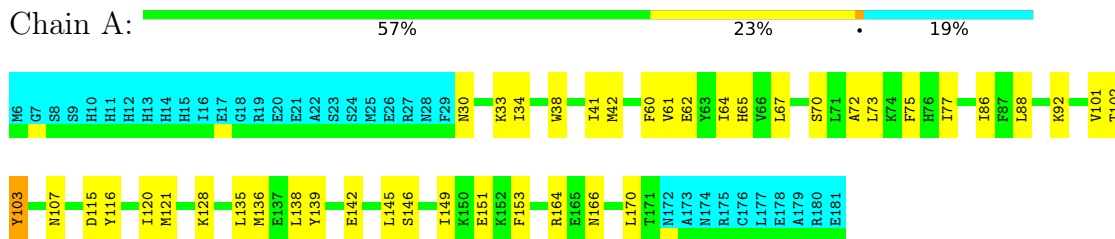
#### 4.2.19 Score per residue for model 19

- Molecule 1: Darcin



#### 4.2.20 Score per residue for model 20

- Molecule 1: Darcin



## 5 Refinement protocol and experimental data overview

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

Of the 100 calculated structures, 20 were deposited, based on the following criterion: *structures with the lowest energy*.

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

| Software name | Classification     | Version   |
|---------------|--------------------|-----------|
| CYANA         | structure solution | 2.1 and 3 |
| CYANA         | refinement         | 2.1 and 3 |

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                       | 2169           |
| Number of shifts mapped to atoms             | 2169           |
| Number of unparsed shifts                    | 0              |
| Number of shifts with mapping errors         | 0              |
| Number of shifts with mapping warnings       | 0              |
| Assignment completeness (well-defined parts) | 95%            |

## 6 Model quality i

### 6.1 Standard geometry i

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 i

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     | 1164  | 1138     | 1138     | 16±3    |
| All | All   | 23280 | 22760    | 22760    | 314     |

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 7.

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

| Atom-1           | Atom-2           | Clash(Å) | Distance(Å) | Models |       |
|------------------|------------------|----------|-------------|--------|-------|
|                  |                  |          |             | Worst  | Total |
| 1:A:88:LEU:HD12  | 1:A:101:VAL:HG21 | 0.89     | 1.42        | 15     | 13    |
| 1:A:41:ILE:HB    | 1:A:138:LEU:HD23 | 0.65     | 1.69        | 15     | 3     |
| 1:A:64:ILE:HG23  | 1:A:73:LEU:HD21  | 0.64     | 1.68        | 13     | 15    |
| 1:A:67:LEU:HD12  | 1:A:70:SER:OG    | 0.63     | 1.93        | 8      | 2     |
| 1:A:31:VAL:HG13  | 1:A:66:VAL:HG11  | 0.63     | 1.69        | 19     | 2     |
| 1:A:31:VAL:HG22  | 1:A:66:VAL:HG11  | 0.62     | 1.70        | 9      | 6     |
| 1:A:88:LEU:HD12  | 1:A:101:VAL:CG2  | 0.61     | 2.25        | 7      | 6     |
| 1:A:169:ASP:OD1  | 1:A:171:THR:HG23 | 0.60     | 1.96        | 6      | 1     |
| 1:A:64:ILE:HG23  | 1:A:73:LEU:CD2   | 0.60     | 2.27        | 15     | 15    |
| 1:A:119:TYR:CD1  | 1:A:138:LEU:HD11 | 0.59     | 2.32        | 19     | 16    |
| 1:A:86:ILE:HD13  | 1:A:103:TYR:OH   | 0.59     | 1.98        | 20     | 1     |
| 1:A:119:TYR:CE2  | 1:A:149:ILE:HG23 | 0.59     | 2.33        | 10     | 15    |
| 1:A:59:VAL:HG11  | 1:A:103:TYR:OH   | 0.59     | 1.98        | 4      | 3     |
| 1:A:149:ILE:HD13 | 1:A:152:LYS:HE2  | 0.58     | 1.75        | 12     | 2     |

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| Atom-1           | Atom-2           | Clash(Å) | Distance(Å) | Models |       |
|------------------|------------------|----------|-------------|--------|-------|
|                  |                  |          |             | Worst  | Total |
| 1:A:35:ASN:CG    | 1:A:66:VAL:HG22  | 0.57     | 2.20        | 8      | 4     |
| 1:A:31:VAL:HG23  | 1:A:34:ILE:HD11  | 0.57     | 1.76        | 12     | 2     |
| 1:A:125:ILE:HD11 | 1:A:160:HIS:CE1  | 0.57     | 2.34        | 13     | 1     |
| 1:A:145:LEU:HD13 | 1:A:149:ILE:HG21 | 0.57     | 1.75        | 8      | 9     |
| 1:A:41:ILE:HG22  | 1:A:42:MET:HG3   | 0.57     | 1.75        | 12     | 13    |
| 1:A:60:PHE:CE2   | 1:A:170:LEU:HD11 | 0.56     | 2.35        | 19     | 3     |
| 1:A:65:HIS:HB2   | 1:A:72:ALA:HB3   | 0.56     | 1.77        | 3      | 1     |
| 1:A:31:VAL:CG1   | 1:A:66:VAL:HG11  | 0.56     | 2.30        | 19     | 1     |
| 1:A:135:LEU:HD23 | 1:A:136:MET:N    | 0.55     | 2.16        | 4      | 11    |
| 1:A:124:LEU:C    | 1:A:125:ILE:HD12 | 0.55     | 2.22        | 5      | 4     |
| 1:A:38:TRP:CD1   | 1:A:64:ILE:HD12  | 0.55     | 2.37        | 7      | 2     |
| 1:A:58:ARG:HD3   | 1:A:78:ILE:HD13  | 0.55     | 1.78        | 5      | 1     |
| 1:A:61:VAL:HG12  | 1:A:139:TYR:CZ   | 0.55     | 2.37        | 14     | 4     |
| 1:A:157:SER:CB   | 1:A:167:ILE:HD11 | 0.55     | 2.32        | 15     | 6     |
| 1:A:67:LEU:HD22  | 1:A:70:SER:OG    | 0.54     | 2.02        | 7      | 1     |
| 1:A:135:LEU:HD13 | 1:A:136:MET:N    | 0.54     | 2.18        | 14     | 5     |
| 1:A:89:VAL:O     | 1:A:101:VAL:HG23 | 0.54     | 2.02        | 1      | 1     |
| 1:A:31:VAL:CG2   | 1:A:66:VAL:HG11  | 0.54     | 2.33        | 6      | 7     |
| 1:A:59:VAL:HG12  | 1:A:77:ILE:HB    | 0.54     | 1.80        | 16     | 3     |
| 1:A:60:PHE:CE2   | 1:A:170:LEU:HD22 | 0.53     | 2.39        | 17     | 1     |
| 1:A:45:THR:HG21  | 1:A:51:ILE:HG23  | 0.53     | 1.80        | 18     | 14    |
| 1:A:87:PHE:C     | 1:A:88:LEU:HD22  | 0.53     | 2.24        | 19     | 1     |
| 1:A:41:ILE:HG21  | 1:A:145:LEU:HD12 | 0.53     | 1.80        | 5      | 4     |
| 1:A:167:ILE:O    | 1:A:168:ILE:HD13 | 0.52     | 2.03        | 13     | 5     |
| 1:A:110:THR:HG23 | 1:A:112:LEU:HD11 | 0.52     | 1.79        | 18     | 1     |
| 1:A:35:ASN:ND2   | 1:A:66:VAL:HG22  | 0.52     | 2.19        | 4      | 2     |
| 1:A:57:MET:HB3   | 1:A:135:LEU:HD11 | 0.52     | 1.80        | 17     | 1     |
| 1:A:65:HIS:HB3   | 1:A:72:ALA:HB3   | 0.51     | 1.83        | 4      | 2     |
| 1:A:79:ILE:HG22  | 1:A:80:ASN:ND2   | 0.51     | 2.20        | 14     | 1     |
| 1:A:149:ILE:HD13 | 1:A:152:LYS:CE   | 0.51     | 2.35        | 13     | 2     |
| 1:A:65:HIS:CB    | 1:A:72:ALA:HB3   | 0.51     | 2.35        | 3      | 2     |
| 1:A:157:SER:OG   | 1:A:167:ILE:HD11 | 0.51     | 2.05        | 6      | 1     |
| 1:A:93:THR:HG22  | 1:A:100:SER:CB   | 0.50     | 2.36        | 18     | 2     |
| 1:A:110:THR:HG23 | 1:A:112:LEU:CD2  | 0.50     | 2.36        | 10     | 4     |
| 1:A:31:VAL:CG1   | 1:A:66:VAL:HG21  | 0.50     | 2.37        | 8      | 1     |
| 1:A:166:ASN:O    | 1:A:168:ILE:HD12 | 0.49     | 2.06        | 3      | 1     |
| 1:A:88:LEU:HD12  | 1:A:88:LEU:O     | 0.49     | 2.07        | 10     | 5     |
| 1:A:34:ILE:HG23  | 1:A:116:TYR:CE1  | 0.49     | 2.43        | 14     | 17    |
| 1:A:45:THR:HB    | 1:A:135:LEU:HD22 | 0.49     | 1.85        | 11     | 5     |
| 1:A:75:PHE:CD1   | 1:A:88:LEU:HD21  | 0.49     | 2.43        | 5      | 6     |
| 1:A:45:THR:HG21  | 1:A:51:ILE:CG2   | 0.48     | 2.38        | 13     | 8     |

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| Atom-1           | Atom-2           | Clash(Å) | Distance(Å) | Models |       |
|------------------|------------------|----------|-------------|--------|-------|
|                  |                  |          |             | Worst  | Total |
| 1:A:58:ARG:CZ    | 1:A:78:ILE:HD12  | 0.48     | 2.39        | 8      | 1     |
| 1:A:38:TRP:CZ3   | 1:A:120:ILE:HG22 | 0.48     | 2.44        | 20     | 9     |
| 1:A:40:THR:HB    | 1:A:170:LEU:HD21 | 0.47     | 1.87        | 8      | 1     |
| 1:A:156:LEU:HD13 | 1:A:159:GLU:CD   | 0.47     | 2.30        | 4      | 1     |
| 1:A:113:LYS:HE3  | 1:A:156:LEU:HD21 | 0.47     | 1.86        | 11     | 2     |
| 1:A:164:ARG:HA   | 1:A:167:ILE:HD12 | 0.47     | 1.86        | 13     | 1     |
| 1:A:72:ALA:O     | 1:A:73:LEU:HD23  | 0.46     | 2.10        | 14     | 5     |
| 1:A:125:ILE:HG23 | 1:A:133:PHE:O    | 0.46     | 2.11        | 9      | 2     |
| 1:A:121:MET:CE   | 1:A:156:LEU:HD13 | 0.45     | 2.42        | 10     | 2     |
| 1:A:40:THR:OG1   | 1:A:170:LEU:HD13 | 0.44     | 2.12        | 16     | 1     |
| 1:A:67:LEU:HD12  | 1:A:70:SER:CB    | 0.44     | 2.42        | 19     | 1     |
| 1:A:110:THR:HG23 | 1:A:112:LEU:CD1  | 0.43     | 2.43        | 18     | 1     |
| 1:A:66:VAL:HG12  | 1:A:71:LEU:HD22  | 0.43     | 1.91        | 10     | 1     |
| 1:A:75:PHE:HD1   | 1:A:88:LEU:HD21  | 0.43     | 1.74        | 11     | 3     |
| 1:A:124:LEU:C    | 1:A:124:LEU:HD13 | 0.43     | 2.34        | 16     | 3     |
| 1:A:110:THR:HG23 | 1:A:112:LEU:HD21 | 0.42     | 1.91        | 10     | 1     |
| 1:A:88:LEU:HD22  | 1:A:88:LEU:N     | 0.42     | 2.30        | 19     | 1     |
| 1:A:100:SER:HB2  | 1:A:108:THR:HG22 | 0.42     | 1.92        | 9      | 1     |
| 1:A:66:VAL:O     | 1:A:66:VAL:HG23  | 0.41     | 2.15        | 5      | 1     |
| 1:A:121:MET:O    | 1:A:122:ILE:HD13 | 0.41     | 2.15        | 11     | 1     |
| 1:A:35:ASN:OD1   | 1:A:66:VAL:HG22  | 0.41     | 2.16        | 12     | 2     |
| 1:A:78:ILE:O     | 1:A:79:ILE:HD13  | 0.41     | 2.16        | 9      | 1     |
| 1:A:87:PHE:O     | 1:A:88:LEU:HD13  | 0.41     | 2.15        | 19     | 1     |
| 1:A:77:ILE:CG2   | 1:A:86:ILE:HD11  | 0.41     | 2.45        | 20     | 1     |
| 1:A:121:MET:HE2  | 1:A:153:PHE:HB2  | 0.40     | 1.92        | 3      | 1     |
| 1:A:44:ALA:HB2   | 1:A:167:ILE:HG12 | 0.40     | 1.94        | 13     | 1     |
| 1:A:133:PHE:CE2  | 1:A:135:LEU:HD12 | 0.40     | 2.50        | 16     | 1     |
| 1:A:114:THR:OG1  | 1:A:120:ILE:HD12 | 0.40     | 2.16        | 11     | 1     |
| 1:A:120:ILE:O    | 1:A:120:ILE:HG23 | 0.40     | 2.17        | 20     | 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     | 142/176 (81%) | 131±1 (92±1%) | 10±2 (7±1%) | 0±0 (0±0%) | 44 80       |

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| Mol | Chain | Analysed        | Favoured   | Allowed  | Outliers | Percentiles |
|-----|-------|-----------------|------------|----------|----------|-------------|
| All | All   | 2840/3520 (81%) | 2623 (92%) | 209 (7%) | 8 (0%)   | 44 80       |

All 2 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     | 35  | ASN  | 7              |
| 1   | A     | 103 | TYR  | 1              |

### 6.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all PDB entries followed by that with respect to all 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     | 130/159 (82%)   | 113±3 (87±2%) | 17±3 (13±2%) | 7 48        |
| All | All   | 2600/3180 (82%) | 2257 (87%)    | 343 (13%)    | 7 48        |

All 56 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     | 102 | THR  | 20             |
| 1   | A     | 153 | PHE  | 20             |
| 1   | A     | 65  | HIS  | 19             |
| 1   | A     | 146 | SER  | 19             |
| 1   | A     | 107 | ASN  | 17             |
| 1   | A     | 92  | LYS  | 13             |
| 1   | A     | 106 | SER  | 13             |
| 1   | A     | 164 | ARG  | 13             |
| 1   | A     | 170 | LEU  | 13             |
| 1   | A     | 62  | GLU  | 10             |
| 1   | A     | 134 | GLN  | 10             |
| 1   | A     | 142 | GLU  | 9              |
| 1   | A     | 47  | LYS  | 9              |
| 1   | A     | 135 | LEU  | 9              |
| 1   | A     | 83  | CYS  | 8              |
| 1   | A     | 53  | GLU  | 7              |
| 1   | A     | 88  | LEU  | 7              |

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| Mol | Chain | Res | Type | Models (Total) |
|-----|-------|-----|------|----------------|
| 1   | A     | 115 | ASP  | 7              |
| 1   | A     | 152 | LYS  | 7              |
| 1   | A     | 95  | LYS  | 6              |
| 1   | A     | 33  | LYS  | 6              |
| 1   | A     | 156 | LEU  | 6              |
| 1   | A     | 67  | LEU  | 6              |
| 1   | A     | 70  | SER  | 5              |
| 1   | A     | 157 | SER  | 5              |
| 1   | A     | 108 | THR  | 5              |
| 1   | A     | 144 | ASP  | 5              |
| 1   | A     | 160 | HIS  | 5              |
| 1   | A     | 60  | PHE  | 5              |
| 1   | A     | 69  | ASN  | 4              |
| 1   | A     | 58  | ARG  | 4              |
| 1   | A     | 30  | ASN  | 4              |
| 1   | A     | 94  | GLU  | 3              |
| 1   | A     | 48  | ARG  | 3              |
| 1   | A     | 52  | GLU  | 3              |
| 1   | A     | 141 | ARG  | 3              |
| 1   | A     | 117 | ASP  | 3              |
| 1   | A     | 121 | MET  | 3              |
| 1   | A     | 128 | LYS  | 3              |
| 1   | A     | 84  | SER  | 3              |
| 1   | A     | 126 | ASN  | 3              |
| 1   | A     | 56  | SER  | 2              |
| 1   | A     | 57  | MET  | 2              |
| 1   | A     | 169 | ASP  | 2              |
| 1   | A     | 103 | TYR  | 2              |
| 1   | A     | 166 | ASN  | 2              |
| 1   | A     | 32  | GLU  | 1              |
| 1   | A     | 104 | ASP  | 1              |
| 1   | A     | 98  | GLU  | 1              |
| 1   | A     | 68  | GLU  | 1              |
| 1   | A     | 85  | GLU  | 1              |
| 1   | A     | 113 | LYS  | 1              |
| 1   | A     | 123 | HIS  | 1              |
| 1   | A     | 91  | ASP  | 1              |
| 1   | A     | 129 | ASP  | 1              |
| 1   | A     | 151 | GLU  | 1              |



### 6.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 6.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

### 6.6 Ligand geometry [i](#)

There are no ligands in this entry.

### 6.7 Other polymers [i](#)

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 [i](#)

The completeness of assignment taking into account all chemical shift lists is 95% for the well-defined parts and 89% for the entire structure.

### 7.1 Chemical shift list 1

File name: working\_cs.cif

Chemical shift list name: 16840\_old.str

#### 7.1.1 Bookkeeping [i](#)

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                  | 2169 |
| Number of shifts mapped to atoms        | 2169 |
| Number of unparsed shifts               | 0    |
| Number of shifts with mapping errors    | 0    |
| Number of shifts with mapping warnings  | 0    |
| Number of shift outliers (ShiftChecker) | 9    |

#### 7.1.2 Chemical shift referencing [i](#)

The following table shows the suggested chemical shift referencing corrections.

| Nucleus                | # values | Correction $\pm$ precision, ppm | Suggested action        |
|------------------------|----------|---------------------------------|-------------------------|
| $^{13}\text{C}_\alpha$ | 166      | -0.04 $\pm$ 0.11                | None needed (< 0.5 ppm) |
| $^{13}\text{C}_\beta$  | 157      | -0.07 $\pm$ 0.14                | None needed (< 0.5 ppm) |
| $^{13}\text{C}'$       | 165      | 0.19 $\pm$ 0.14                 | None needed (< 0.5 ppm) |
| $^{15}\text{N}$        | 164      | -0.05 $\pm$ 0.22                | None needed (< 0.5 ppm) |

#### 7.1.3 Completeness of resonance assignments [i](#)

The following table shows the completeness of the chemical shift assignments for the well-defined regions of the structure. The overall completeness is 95%, i.e. 1891 atoms were assigned a chemical shift out of a possible 1986. 0 out of 19 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

|           | Total           | $^1\text{H}$   | $^{13}\text{C}$ | $^{15}\text{N}$ |
|-----------|-----------------|----------------|-----------------|-----------------|
| Backbone  | 714/715 (100%)  | 290/290 (100%) | 283/284 (100%)  | 141/141 (100%)  |
| Sidechain | 1033/1101 (94%) | 691/712 (97%)  | 328/356 (92%)   | 14/33 (42%)     |

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|          | Total           | <sup>1</sup> H  | <sup>13</sup> C | <sup>15</sup> N |
|----------|-----------------|-----------------|-----------------|-----------------|
| Aromatic | 144/170 (85%)   | 72/84 (86%)     | 71/80 (89%)     | 1/6 (17%)       |
| Overall  | 1891/1986 (95%) | 1053/1086 (97%) | 682/720 (95%)   | 156/180 (87%)   |

The following table shows the completeness of the chemical shift assignments for the full structure. The overall completeness is 89%, i.e. 2169 atoms were assigned a chemical shift out of a possible 2439. 0 out of 20 assigned methyl groups (LEU and VAL) were assigned stereospecifically.

|           | Total           | <sup>1</sup> H  | <sup>13</sup> C | <sup>15</sup> N |
|-----------|-----------------|-----------------|-----------------|-----------------|
| Backbone  | 833/887 (94%)   | 338/360 (94%)   | 331/352 (94%)   | 164/175 (94%)   |
| Sidechain | 1190/1330 (89%) | 791/857 (92%)   | 378/425 (89%)   | 21/48 (44%)     |
| Aromatic  | 146/222 (66%)   | 73/113 (65%)    | 72/97 (74%)     | 1/12 (8%)       |
| Overall   | 2169/2439 (89%) | 1202/1330 (90%) | 781/874 (89%)   | 186/235 (79%)   |

#### 7.1.4 Statistically unusual chemical shifts [i](#)

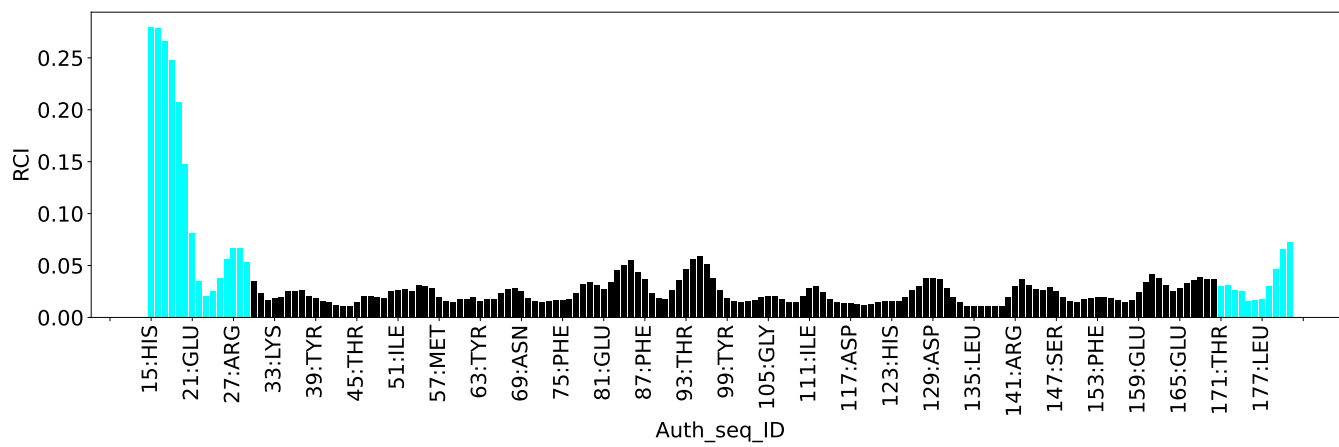
The following table lists the statistically unusual chemical shifts. These are statistical measures, and large deviations from the mean do not necessarily imply incorrect assignments. Molecules containing paramagnetic centres or hemes are expected to give rise to anomalous chemical shifts.

| List Id | Chain | Res | Type | Atom | Shift, ppm | Expected range, ppm | Z-score |
|---------|-------|-----|------|------|------------|---------------------|---------|
| 1       | A     | 74  | LYS  | HB3  | -0.13      | 0.46 – 3.04         | -7.3    |
| 1       | A     | 126 | ASN  | HB2  | 0.75       | 1.27 – 4.34         | -6.7    |
| 1       | A     | 140 | GLY  | HA3  | 6.25       | 2.08 – 5.71         | 6.5     |
| 1       | A     | 138 | LEU  | HB2  | -0.49      | -0.07 – 3.30        | -6.2    |
| 1       | A     | 141 | ARG  | HD3  | 1.55       | 1.81 – 4.39         | -6.0    |
| 1       | A     | 104 | ASP  | HB2  | 1.24       | 1.41 – 4.01         | -5.7    |
| 1       | A     | 99  | TYR  | HB2  | 0.92       | 1.09 – 4.72         | -5.5    |
| 1       | A     | 62  | GLU  | HB2  | 0.96       | 1.00 – 3.05         | -5.2    |
| 1       | A     | 74  | LYS  | HG2  | 0.12       | 0.13 – 2.61         | -5.0    |

#### 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:



## 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                                | 2946  |
| Intra-residue ( $ i-j =0$ )                              | 716   |
| Sequential ( $ i-j =1$ )                                 | 746   |
| Medium range ( $ i-j >1$ and $ i-j <5$ )                 | 343   |
| Long range ( $ i-j \geq 5$ )                             | 1141  |
| Inter-chain  | 0     |
| Hydrogen bond restraints                                 | 0     |
| Disulfide bond restraints                                | 0     |
| Total dihedral-angle restraints                          | 616   |
| Number of unmapped restraints                            | 0     |
| Number of restraints per residue                         | 20.2  |
| Number of long range restraints per residue <sup>1</sup> | 6.5   |

<sup>1</sup>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)  | 2.5                                    | 0.2     |
| 0.2-0.5 (Medium) | 1.9                                    | 0.5     |
| >0.5 (Large)     | 138.5                                  | 17.2    |

### 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)   | 2.9                                    | 9.99    |
| 10.0-20.0 (Medium) | 2.1                                    | 18.54   |
| >20.0 (Large)      | 11.4                                   | 139.67  |

## 9 Distance violation analysis [i](#)

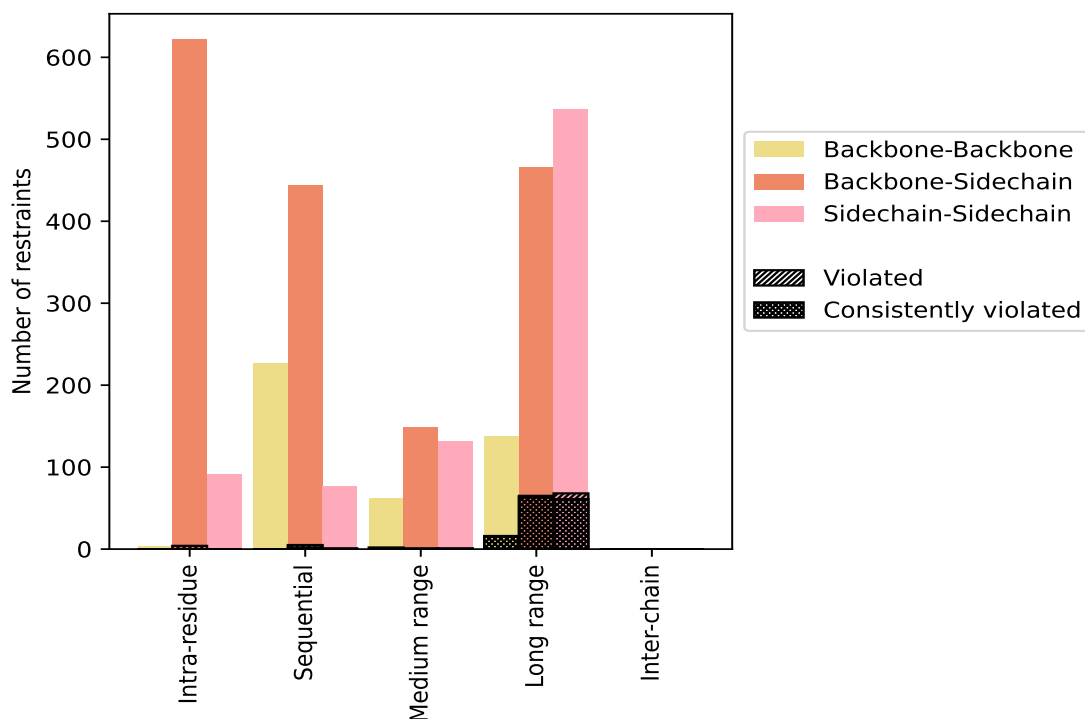
### 9.1 Summary of distance violations [i](#)

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.

| Restrains type  | Count       | % <sup>1</sup> | Violated <sup>3</sup> |                |                | Consistently Violated <sup>4</sup> |                |                |
|---|-------------|----------------|-----------------------|----------------|----------------|------------------------------------|----------------|----------------|
|   |             |                | Count                 | % <sup>2</sup> | % <sup>1</sup> | Count                              | % <sup>2</sup> | % <sup>1</sup> |
| <b>Intra-residue (<math> i-j =0</math>)</b>                                 | <b>716</b>  | <b>24.3</b>    | <b>4</b>              | <b>0.6</b>     | <b>0.1</b>     | <b>0</b>                           | <b>0.0</b>     | <b>0.0</b>     |
| Backbone-Backbone   | 3           | 0.1            | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| Backbone-Sidechain  | 622         | 21.1           | 4                     | 0.6            | 0.1            | 0                                  | 0.0            | 0.0            |
| Sidechain-Sidechain   | 91          | 3.1            | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| <b>Sequential (<math> i-j =1</math>)</b>                                    | <b>746</b>  | <b>25.3</b>    | <b>6</b>              | <b>0.8</b>     | <b>0.2</b>     | <b>2</b>                           | <b>0.3</b>     | <b>0.1</b>     |
| Backbone-Backbone   | 226         | 7.7            | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| Backbone-Sidechain  | 444         | 15.1           | 5                     | 1.1            | 0.2            | 2                                  | 0.5            | 0.1            |
| Sidechain-Sidechain   | 76          | 2.6            | 1                     | 1.3            | 0.0            | 0                                  | 0.0            | 0.0            |
| <b>Medium range (<math> i-j &gt;1</math> &amp; <math> i-j &lt;5</math>)</b> | <b>343</b>  | <b>11.6</b>    | <b>4</b>              | <b>1.2</b>     | <b>0.1</b>     | <b>0</b>                           | <b>0.0</b>     | <b>0.0</b>     |
| Backbone-Backbone   | 62          | 2.1            | 2                     | 3.2            | 0.1            | 0                                  | 0.0            | 0.0            |
| Backbone-Sidechain  | 149         | 5.1            | 1                     | 0.7            | 0.0            | 0                                  | 0.0            | 0.0            |
| Sidechain-Sidechain   | 132         | 4.5            | 1                     | 0.8            | 0.0            | 0                                  | 0.0            | 0.0            |
| <b>Long range (<math> i-j \geq 5</math>)</b>                                | <b>1141</b> | <b>38.7</b>    | <b>149</b>            | <b>13.1</b>    | <b>5.1</b>     | <b>139</b>                         | <b>12.2</b>    | <b>4.7</b>     |
| Backbone-Backbone   | 138         | 4.7            | 16                    | 11.6           | 0.5            | 15                                 | 10.9           | 0.5            |
| Backbone-Sidechain  | 466         | 15.8           | 65                    | 13.9           | 2.2            | 63                                 | 13.5           | 2.1            |
| Sidechain-Sidechain   | 537         | 18.2           | 68                    | 12.7           | 2.3            | 61                                 | 11.4           | 2.1            |
| <b>Inter-chain</b>  | <b>0</b>    | <b>0.0</b>     | <b>0</b>              | <b>0.0</b>     | <b>0.0</b>     | <b>0</b>                           | <b>0.0</b>     | <b>0.0</b>     |
| 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            |
| <b>Hydrogen bond</b>  | <b>0</b>    | <b>0.0</b>     | <b>0</b>              | <b>0.0</b>     | <b>0.0</b>     | <b>0</b>                           | <b>0.0</b>     | <b>0.0</b>     |
| <b>Disulfide bond</b>   | <b>0</b>    | <b>0.0</b>     | <b>0</b>              | <b>0.0</b>     | <b>0.0</b>     | <b>0</b>                           | <b>0.0</b>     | <b>0.0</b>     |
| <b>Total</b>  | <b>2946</b> | <b>100.0</b>   | <b>163</b>            | <b>5.5</b>     | <b>5.5</b>     | <b>141</b>                         | <b>4.8</b>     | <b>4.8</b>     |
| Backbone-Backbone   | 429         | 14.6           | 18                    | 4.2            | 0.6            | 15                                 | 3.5            | 0.5            |
| Backbone-Sidechain  | 1681        | 57.1           | 75                    | 4.5            | 2.5            | 65                                 | 3.9            | 2.2            |
| Sidechain-Sidechain   | 836         | 28.4           | 70                    | 8.4            | 2.4            | 61                                 | 7.3            | 2.1            |

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

### 9.1.1 Bar chart : Distribution of distance restraints and violations [i](#)



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

## 9.2 Distance violation statistics for each model [i](#)

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 <sup>6</sup> (Å) | Median (Å) |
|----------|----------------------|-----------------|-----------------|-----------------|-----------------|-------|----------|---------|---------------------|------------|
|          | IR <sup>1</sup>      | SQ <sup>2</sup> | MR <sup>3</sup> | LR <sup>4</sup> | IC <sup>5</sup> | Total |          |         |                     |            |
| 1        | 0                    | 2               | 0               | 140             | 0               | 142   | 7.47     | 16.96   | 4.23                | 6.68       |
| 2        | 1                    | 3               | 0               | 139             | 0               | 143   | 7.53     | 16.88   | 4.28                | 6.63       |
| 3        | 0                    | 2               | 0               | 140             | 0               | 142   | 7.63     | 17.08   | 4.24                | 7.0        |
| 4        | 0                    | 2               | 0               | 141             | 0               | 143   | 7.42     | 16.67   | 4.26                | 6.55       |
| 5        | 0                    | 3               | 1               | 139             | 0               | 143   | 7.13     | 16.54   | 4.31                | 6.19       |
| 6        | 0                    | 3               | 0               | 139             | 0               | 142   | 7.37     | 16.93   | 4.24                | 6.46       |
| 7        | 0                    | 2               | 1               | 140             | 0               | 143   | 7.3      | 16.64   | 4.32                | 6.29       |
| 8        | 0                    | 2               | 2               | 140             | 0               | 144   | 7.39     | 17.2    | 4.38                | 6.61       |
| 9        | 0                    | 2               | 0               | 139             | 0               | 141   | 7.32     | 17.15   | 4.19                | 6.34       |
| 10       | 0                    | 2               | 0               | 139             | 0               | 141   | 7.54     | 16.96   | 4.31                | 6.96       |
| 11       | 0                    | 2               | 0               | 139             | 0               | 141   | 7.46     | 16.83   | 4.35                | 6.53       |

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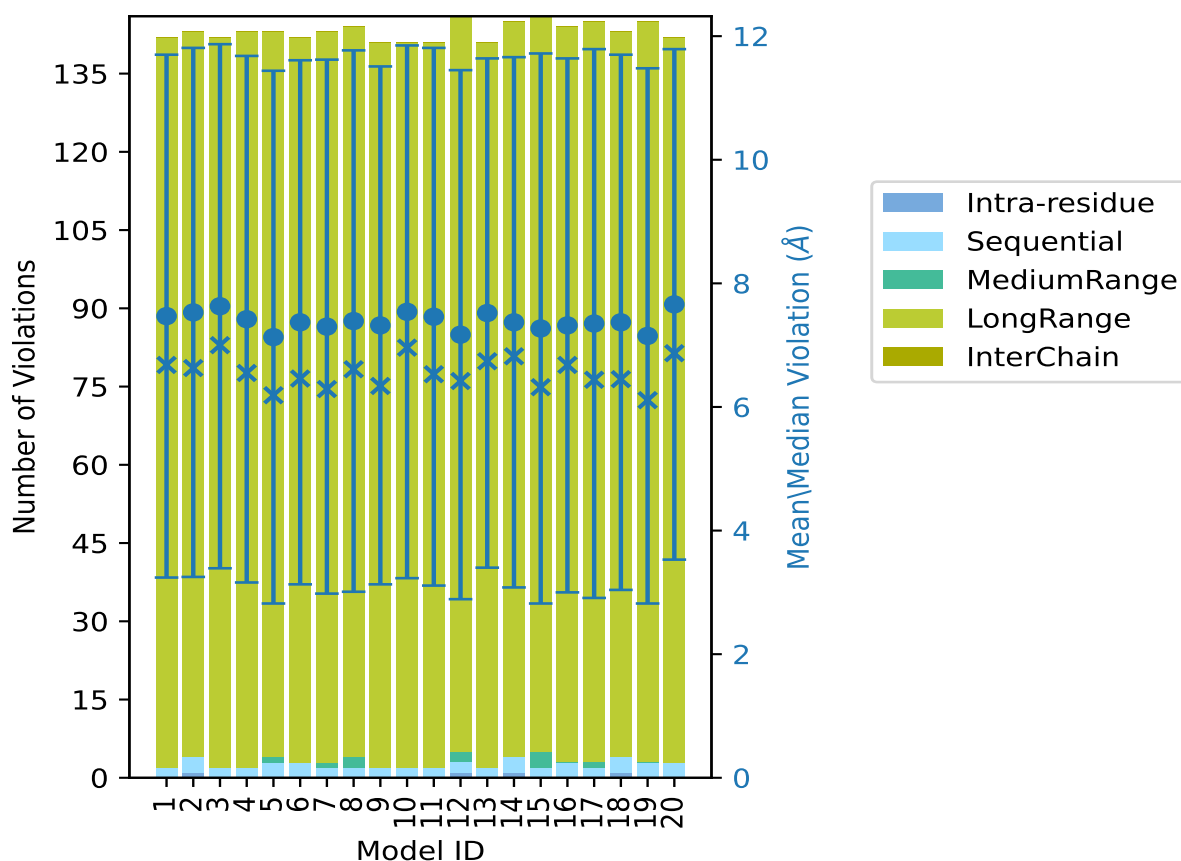


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| Model ID | Number of violations |                 |                 |                 |                 |       | Mean (Å) | Max (Å) | SD <sup>6</sup> (Å) | Median (Å) |
|----------|----------------------|-----------------|-----------------|-----------------|-----------------|-------|----------|---------|---------------------|------------|
|          | IR <sup>1</sup>      | SQ <sup>2</sup> | MR <sup>3</sup> | LR <sup>4</sup> | IC <sup>5</sup> | Total |          |         |                     |            |
| 12       | 1                    | 2               | 2               | 141             | 0               | 146   | 7.17     | 16.94   | 4.28                | 6.42       |
| 13       | 0                    | 2               | 0               | 139             | 0               | 141   | 7.52     | 16.98   | 4.12                | 6.74       |
| 14       | 1                    | 3               | 0               | 141             | 0               | 145   | 7.37     | 17.17   | 4.29                | 6.82       |
| 15       | 0                    | 2               | 3               | 141             | 0               | 146   | 7.27     | 16.96   | 4.45                | 6.32       |
| 16       | 0                    | 3               | 0               | 141             | 0               | 144   | 7.32     | 17.13   | 4.32                | 6.68       |
| 17       | 0                    | 2               | 1               | 142             | 0               | 145   | 7.35     | 17.15   | 4.44                | 6.44       |
| 18       | 1                    | 3               | 0               | 139             | 0               | 143   | 7.37     | 17.19   | 4.33                | 6.45       |
| 19       | 0                    | 3               | 0               | 142             | 0               | 145   | 7.15     | 16.66   | 4.33                | 6.11       |
| 20       | 0                    | 3               | 0               | 139             | 0               | 142   | 7.66     | 17.16   | 4.13                | 6.87       |

<sup>1</sup>Intra-residue restraints, <sup>2</sup>Sequential restraints, <sup>3</sup>Medium range restraints, <sup>4</sup>Long range restraints, <sup>5</sup>Inter-chain restraints, <sup>6</sup>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

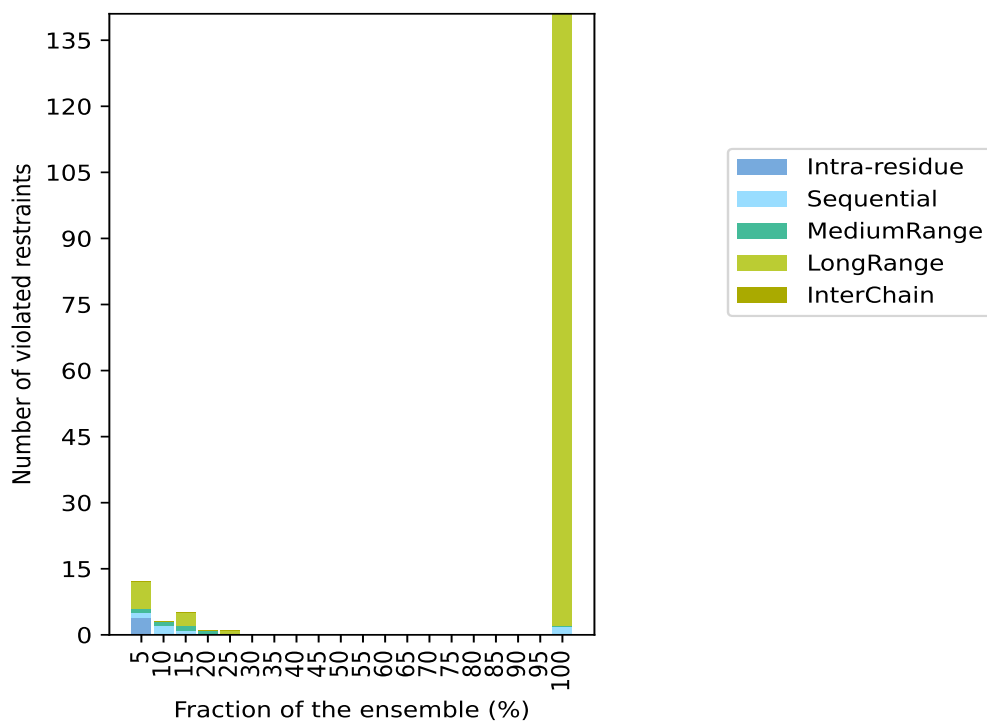
### 9.3 Distance violation statistics for the ensemble

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, 2783(IR:712, SQ:740, MR:339, LR:992, IC:0) restraints are not violated in the ensemble.

| Number of violated restraints |                 |                 |                 |                 |       | Fraction of the ensemble |       |
|-------------------------------|-----------------|-----------------|-----------------|-----------------|-------|--------------------------|-------|
| IR <sup>1</sup>               | SQ <sup>2</sup> | MR <sup>3</sup> | LR <sup>4</sup> | IC <sup>5</sup> | Total | Count <sup>6</sup>       | %     |
| 4                             | 1               | 1               | 6               | 0               | 12    | 1                        | 5.0   |
| 0                             | 2               | 1               | 0               | 0               | 3     | 2                        | 10.0  |
| 0                             | 1               | 1               | 3               | 0               | 5     | 3                        | 15.0  |
| 0                             | 0               | 1               | 0               | 0               | 1     | 4                        | 20.0  |
| 0                             | 0               | 0               | 1               | 0               | 1     | 5                        | 25.0  |
| 0                             | 0               | 0               | 0               | 0               | 0     | 6                        | 30.0  |
| 0                             | 0               | 0               | 0               | 0               | 0     | 7                        | 35.0  |
| 0                             | 0               | 0               | 0               | 0               | 0     | 8                        | 40.0  |
| 0                             | 0               | 0               | 0               | 0               | 0     | 9                        | 45.0  |
| 0                             | 0               | 0               | 0               | 0               | 0     | 10                       | 50.0  |
| 0                             | 0               | 0               | 0               | 0               | 0     | 11                       | 55.0  |
| 0                             | 0               | 0               | 0               | 0               | 0     | 12                       | 60.0  |
| 0                             | 0               | 0               | 0               | 0               | 0     | 13                       | 65.0  |
| 0                             | 0               | 0               | 0               | 0               | 0     | 14                       | 70.0  |
| 0                             | 0               | 0               | 0               | 0               | 0     | 15                       | 75.0  |
| 0                             | 0               | 0               | 0               | 0               | 0     | 16                       | 80.0  |
| 0                             | 0               | 0               | 0               | 0               | 0     | 17                       | 85.0  |
| 0                             | 0               | 0               | 0               | 0               | 0     | 18                       | 90.0  |
| 0                             | 0               | 0               | 0               | 0               | 0     | 19                       | 95.0  |
| 0                             | 2               | 0               | 139             | 0               | 141   | 20                       | 100.0 |

<sup>1</sup>Intra-residue restraints, <sup>2</sup>Sequential restraints, <sup>3</sup>Medium range restraints, <sup>4</sup>Long range restraints, <sup>5</sup>Inter-chain restraints, <sup>6</sup> Number of models with violations

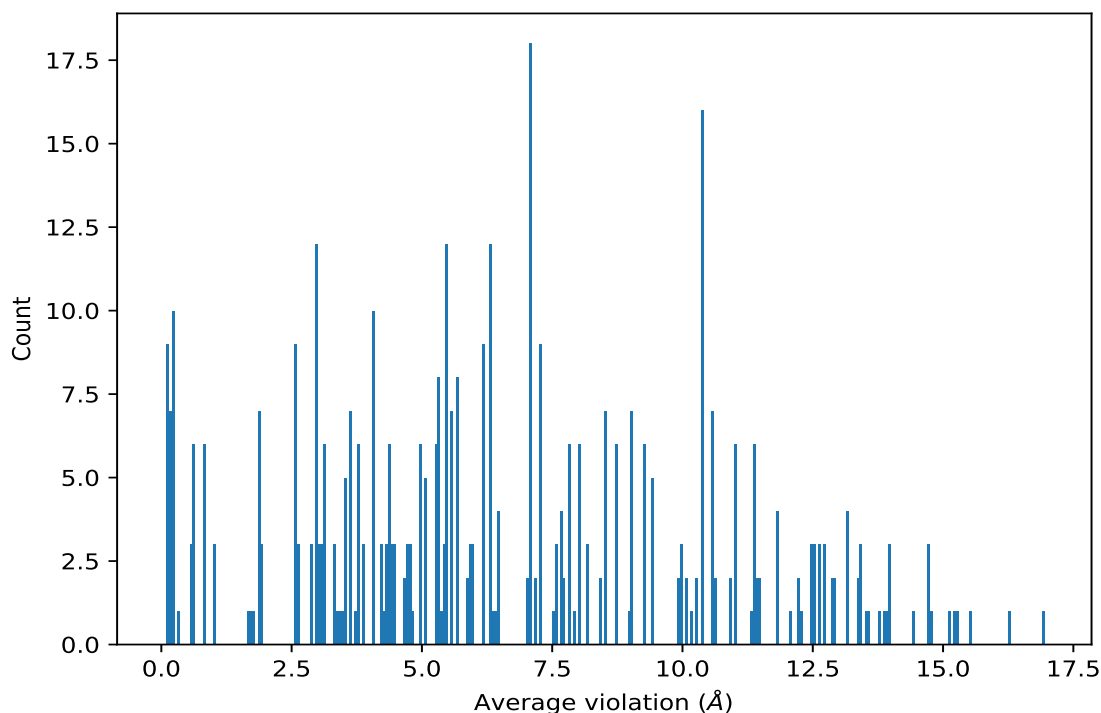
### 9.3.1 Bar graph : Distance violation statistics for the ensemble [i](#)



## 9.4 Most violated distance restraints in the ensemble [i](#)

### 9.4.1 Histogram : Distribution of mean distance violations [i](#)

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 <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|----------------|------------------|---------------------|----------|---------------------|------------|
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB   | 20                  | 16.94    | 0.2                 | 16.96      |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB   | 20                  | 16.29    | 0.22                | 16.3       |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 20                  | 15.51    | 0.07                | 15.52      |
| (1,1267) | 1:20:A:GLU:HA  | 1:26:A:GLU:H     | 20                  | 15.27    | 1.39                | 15.51      |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 20                  | 15.24    | 0.09                | 15.25      |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 20                  | 15.11    | 0.18                | 15.1       |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 20                  | 14.79    | 0.07                | 14.77      |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 20                  | 14.71    | 0.11                | 14.73      |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 20                  | 14.71    | 0.11                | 14.73      |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 20                  | 14.71    | 0.11                | 14.73      |
| (1,8)    | 1:20:A:GLU:HA  | 1:26:A:GLU:HA    | 20                  | 14.42    | 1.74                | 14.88      |
| (1,1322) | 1:38:A:TRP:HE1 | 1:125:A:ILE:HG21 | 20                  | 13.98    | 0.18                | 14.04      |
| (1,1322) | 1:38:A:TRP:HE1 | 1:125:A:ILE:HG22 | 20                  | 13.98    | 0.18                | 14.04      |
| (1,1322) | 1:38:A:TRP:HE1 | 1:125:A:ILE:HG23 | 20                  | 13.98    | 0.18                | 14.04      |
| (1,1753) | 1:115:A:ASP:H  | 1:125:A:ILE:HG13 | 20                  | 13.93    | 0.1                 | 13.92      |
| (1,1804) | 1:124:A:LEU:H  | 1:142:A:GLU:H    | 20                  | 13.87    | 0.14                | 13.83      |

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| Key      | Atom-1          | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|-----------------|------------------|---------------------|----------|---------------------|------------|
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 20                  | 13.75    | 0.12                | 13.77      |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 20                  | 13.58    | 0.18                | 13.59      |
| (1,1268) | 1:20:A:GLU:H    | 1:26:A:GLU:H     | 20                  | 13.53    | 1.81                | 13.76      |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 20                  | 13.42    | 0.11                | 13.42      |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 20                  | 13.42    | 0.11                | 13.42      |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 20                  | 13.42    | 0.11                | 13.42      |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 20                  | 13.39    | 0.08                | 13.38      |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 20                  | 13.39    | 0.08                | 13.38      |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG21 | 20                  | 13.19    | 0.18                | 13.24      |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG22 | 20                  | 13.19    | 0.18                | 13.24      |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG23 | 20                  | 13.19    | 0.18                | 13.24      |
| (1,666)  | 1:123:A:HIS:HA  | 1:142:A:GLU:H    | 20                  | 13.16    | 0.12                | 13.18      |
| (1,1335) | 1:39:A:TYR:HB3  | 1:45:A:THR:H     | 20                  | 12.95    | 0.1                 | 12.94      |
| (1,1335) | 1:39:A:TYR:HB2  | 1:45:A:THR:H     | 20                  | 12.95    | 0.1                 | 12.94      |
| (1,1339) | 1:39:A:TYR:HD1  | 1:45:A:THR:H     | 20                  | 12.88    | 0.08                | 12.89      |
| (1,1339) | 1:39:A:TYR:HD2  | 1:45:A:THR:H     | 20                  | 12.88    | 0.08                | 12.89      |
| (1,379)  | 1:34:A:ILE:HA   | 1:125:A:ILE:HD11 | 20                  | 12.71    | 0.44                | 12.88      |
| (1,379)  | 1:34:A:ILE:HA   | 1:125:A:ILE:HD12 | 20                  | 12.71    | 0.44                | 12.88      |
| (1,379)  | 1:34:A:ILE:HA   | 1:125:A:ILE:HD13 | 20                  | 12.71    | 0.44                | 12.88      |
| (1,839)  | 1:38:A:TRP:HB3  | 1:125:A:ILE:HG21 | 20                  | 12.63    | 0.1                 | 12.62      |
| (1,839)  | 1:38:A:TRP:HB3  | 1:125:A:ILE:HG22 | 20                  | 12.63    | 0.1                 | 12.62      |
| (1,839)  | 1:38:A:TRP:HB3  | 1:125:A:ILE:HG23 | 20                  | 12.63    | 0.1                 | 12.62      |
| (1,375)  | 1:38:A:TRP:HZ2  | 1:125:A:ILE:HD11 | 20                  | 12.52    | 0.4                 | 12.68      |
| (1,375)  | 1:38:A:TRP:HZ2  | 1:125:A:ILE:HD12 | 20                  | 12.52    | 0.4                 | 12.68      |
| (1,375)  | 1:38:A:TRP:HZ2  | 1:125:A:ILE:HD13 | 20                  | 12.52    | 0.4                 | 12.68      |
| (1,383)  | 1:34:A:ILE:HB   | 1:125:A:ILE:HD11 | 20                  | 12.47    | 0.46                | 12.63      |
| (1,383)  | 1:34:A:ILE:HB   | 1:125:A:ILE:HD12 | 20                  | 12.47    | 0.46                | 12.63      |
| (1,383)  | 1:34:A:ILE:HB   | 1:125:A:ILE:HD13 | 20                  | 12.47    | 0.46                | 12.63      |
| (1,1337) | 1:39:A:TYR:H    | 1:45:A:THR:H     | 20                  | 12.27    | 0.08                | 12.26      |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 20                  | 12.22    | 0.09                | 12.22      |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 20                  | 12.22    | 0.09                | 12.22      |
| (1,482)  | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 20                  | 12.06    | 0.2                 | 12.1       |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 20                  | 11.85    | 0.43                | 12.05      |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 20                  | 11.85    | 0.43                | 12.05      |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 20                  | 11.85    | 0.43                | 12.05      |
| (1,264)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG13 | 20                  | 11.83    | 0.12                | 11.82      |
| (1,2137) | 1:20:A:GLU:HB2  | 1:26:A:GLU:H     | 20                  | 11.47    | 1.23                | 11.66      |
| (1,2137) | 1:20:A:GLU:HB3  | 1:26:A:GLU:H     | 20                  | 11.47    | 1.23                | 11.66      |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 20                  | 11.41    | 0.09                | 11.4       |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 20                  | 11.41    | 0.09                | 11.4       |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 20                  | 11.36    | 0.38                | 11.52      |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 20                  | 11.36    | 0.38                | 11.52      |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,376)  | 1:116:A:TYR:HD1  | 1:125:A:ILE:HD13 | 20                  | 11.36    | 0.38                | 11.52      |
| (1,376)  | 1:116:A:TYR:HD2  | 1:125:A:ILE:HD11 | 20                  | 11.36    | 0.38                | 11.52      |
| (1,376)  | 1:116:A:TYR:HD2  | 1:125:A:ILE:HD12 | 20                  | 11.36    | 0.38                | 11.52      |
| (1,376)  | 1:116:A:TYR:HD2  | 1:125:A:ILE:HD13 | 20                  | 11.36    | 0.38                | 11.52      |
| (1,1028) | 1:30:A:ASN:HA    | 1:37:A:GLU:HB2   | 20                  | 11.31    | 0.18                | 11.38      |
| (1,377)  | 1:116:A:TYR:HE1  | 1:125:A:ILE:HD11 | 20                  | 11.02    | 0.41                | 11.18      |
| (1,377)  | 1:116:A:TYR:HE1  | 1:125:A:ILE:HD12 | 20                  | 11.02    | 0.41                | 11.18      |
| (1,377)  | 1:116:A:TYR:HE1  | 1:125:A:ILE:HD13 | 20                  | 11.02    | 0.41                | 11.18      |
| (1,377)  | 1:116:A:TYR:HE2  | 1:125:A:ILE:HD11 | 20                  | 11.02    | 0.41                | 11.18      |
| (1,377)  | 1:116:A:TYR:HE2  | 1:125:A:ILE:HD12 | 20                  | 11.02    | 0.41                | 11.18      |
| (1,377)  | 1:116:A:TYR:HE2  | 1:125:A:ILE:HD13 | 20                  | 11.02    | 0.41                | 11.18      |
| (1,2670) | 1:122:A:ILE:HB   | 1:142:A:GLU:HB2  | 20                  | 10.93    | 0.13                | 10.93      |
| (1,2670) | 1:122:A:ILE:HB   | 1:142:A:GLU:HB3  | 20                  | 10.93    | 0.13                | 10.93      |
| (1,1132) | 1:119:A:TYR:HE1  | 1:125:A:ILE:HA   | 20                  | 10.61    | 0.16                | 10.58      |
| (1,1132) | 1:119:A:TYR:HE2  | 1:125:A:ILE:HA   | 20                  | 10.61    | 0.16                | 10.58      |
| (1,1871) | 1:122:A:ILE:HB   | 1:142:A:GLU:H    | 20                  | 10.59    | 0.14                | 10.6       |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 20                  | 10.55    | 0.15                | 10.61      |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 20                  | 10.55    | 0.15                | 10.61      |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 20                  | 10.55    | 0.15                | 10.61      |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 20                  | 10.55    | 0.15                | 10.61      |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 20                  | 10.55    | 0.15                | 10.61      |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 20                  | 10.55    | 0.15                | 10.61      |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD11 | 20                  | 10.37    | 0.37                | 10.51      |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD12 | 20                  | 10.37    | 0.37                | 10.51      |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD13 | 20                  | 10.37    | 0.37                | 10.51      |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD11 | 20                  | 10.37    | 0.37                | 10.51      |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD12 | 20                  | 10.37    | 0.37                | 10.51      |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD13 | 20                  | 10.37    | 0.37                | 10.51      |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD11 | 20                  | 10.37    | 0.37                | 10.51      |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD12 | 20                  | 10.37    | 0.37                | 10.51      |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD13 | 20                  | 10.37    | 0.37                | 10.51      |
| (1,105)  | 1:60:A:PHE:HZ    | 1:142:A:GLU:HA   | 20                  | 10.37    | 0.15                | 10.36      |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD11 | 20                  | 10.36    | 0.44                | 10.49      |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD12 | 20                  | 10.36    | 0.44                | 10.49      |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD13 | 20                  | 10.36    | 0.44                | 10.49      |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD11 | 20                  | 10.36    | 0.44                | 10.49      |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD12 | 20                  | 10.36    | 0.44                | 10.49      |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD13 | 20                  | 10.36    | 0.44                | 10.49      |
| (1,1870) | 1:136:A:MET:HB3  | 1:142:A:GLU:H    | 20                  | 10.28    | 0.12                | 10.28      |
| (1,1870) | 1:136:A:MET:HB2  | 1:142:A:GLU:H    | 20                  | 10.28    | 0.12                | 10.28      |
| (1,433)  | 1:114:A:THR:HB   | 1:125:A:ILE:HG12 | 20                  | 10.15    | 0.74                | 9.82       |
| (1,2360) | 1:60:A:PHE:HA    | 1:142:A:GLU:HG2  | 20                  | 10.09    | 0.15                | 10.11      |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2360) | 1:60:A:PHE:HA    | 1:142:A:GLU:HG3  | 20                  | 10.09    | 0.15                | 10.11      |
| (1,533)  | 1:40:A:THR:HG21  | 1:66:A:VAL:H     | 20                  | 9.97     | 0.16                | 9.91       |
| (1,533)  | 1:40:A:THR:HG22  | 1:66:A:VAL:H     | 20                  | 9.97     | 0.16                | 9.91       |
| (1,533)  | 1:40:A:THR:HG23  | 1:66:A:VAL:H     | 20                  | 9.97     | 0.16                | 9.91       |
| (1,2366) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HG2  | 20                  | 9.92     | 0.15                | 9.92       |
| (1,2366) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HG3  | 20                  | 9.92     | 0.15                | 9.92       |
| (1,2164) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HB2   | 20                  | 9.45     | 0.68                | 9.49       |
| (1,2164) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HB2   | 20                  | 9.45     | 0.68                | 9.49       |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H    | 20                  | 9.44     | 0.15                | 9.47       |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H    | 20                  | 9.44     | 0.15                | 9.47       |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H    | 20                  | 9.44     | 0.15                | 9.47       |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2  | 20                  | 9.27     | 0.14                | 9.32       |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3  | 20                  | 9.27     | 0.14                | 9.32       |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2  | 20                  | 9.27     | 0.14                | 9.32       |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3  | 20                  | 9.27     | 0.14                | 9.32       |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2  | 20                  | 9.27     | 0.14                | 9.32       |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3  | 20                  | 9.27     | 0.14                | 9.32       |
| (1,768)  | 1:136:A:MET:HE1  | 1:142:A:GLU:H    | 20                  | 9.03     | 0.27                | 9.0        |
| (1,768)  | 1:136:A:MET:HE2  | 1:142:A:GLU:H    | 20                  | 9.03     | 0.27                | 9.0        |
| (1,768)  | 1:136:A:MET:HE3  | 1:142:A:GLU:H    | 20                  | 9.03     | 0.27                | 9.0        |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG2  | 20                  | 9.0      | 0.13                | 8.98       |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG3  | 20                  | 9.0      | 0.13                | 8.98       |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG2  | 20                  | 9.0      | 0.13                | 8.98       |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG3  | 20                  | 9.0      | 0.13                | 8.98       |
| (1,2106) | 1:30:A:ASN:HA    | 1:37:A:GLU:H     | 20                  | 8.99     | 0.14                | 9.02       |
| (1,2255) | 1:43:A:LEU:HD11  | 1:142:A:GLU:HA   | 20                  | 8.73     | 0.09                | 8.72       |
| (1,2255) | 1:43:A:LEU:HD12  | 1:142:A:GLU:HA   | 20                  | 8.73     | 0.09                | 8.72       |
| (1,2255) | 1:43:A:LEU:HD13  | 1:142:A:GLU:HA   | 20                  | 8.73     | 0.09                | 8.72       |
| (1,2255) | 1:43:A:LEU:HD21  | 1:142:A:GLU:HA   | 20                  | 8.73     | 0.09                | 8.72       |
| (1,2255) | 1:43:A:LEU:HD22  | 1:142:A:GLU:HA   | 20                  | 8.73     | 0.09                | 8.72       |
| (1,2255) | 1:43:A:LEU:HD23  | 1:142:A:GLU:HA   | 20                  | 8.73     | 0.09                | 8.72       |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG11  | 20                  | 8.54     | 0.21                | 8.54       |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG12  | 20                  | 8.54     | 0.21                | 8.54       |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG13  | 20                  | 8.54     | 0.21                | 8.54       |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG2   | 20                  | 8.53     | 0.62                | 8.6        |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG3   | 20                  | 8.53     | 0.62                | 8.6        |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG2   | 20                  | 8.53     | 0.62                | 8.6        |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG3   | 20                  | 8.53     | 0.62                | 8.6        |
| (1,2365) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HB2  | 20                  | 8.45     | 0.15                | 8.5        |
| (1,2365) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HB3  | 20                  | 8.45     | 0.15                | 8.5        |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD11 | 20                  | 8.19     | 0.38                | 8.32       |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD12 | 20                  | 8.19     | 0.38                | 8.32       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD13 | 20                  | 8.19     | 0.38                | 8.32       |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 20                  | 8.01     | 0.16                | 8.04       |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 20                  | 8.01     | 0.16                | 8.04       |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 20                  | 8.01     | 0.16                | 8.04       |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3  | 20                  | 8.01     | 0.16                | 8.04       |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2  | 20                  | 8.01     | 0.16                | 8.04       |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3  | 20                  | 8.01     | 0.16                | 8.04       |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 20                  | 7.9      | 0.26                | 7.8        |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 20                  | 7.82     | 0.2                 | 7.79       |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 20                  | 7.82     | 0.2                 | 7.79       |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 20                  | 7.82     | 0.2                 | 7.79       |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 20                  | 7.82     | 0.2                 | 7.79       |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 20                  | 7.82     | 0.2                 | 7.79       |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 20                  | 7.82     | 0.2                 | 7.79       |
| (1,2065) | 1:174:A:ASN:HA   | 1:180:A:ARG:H    | 20                  | 7.72     | 0.66                | 7.7        |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H    | 20                  | 7.71     | 0.27                | 7.76       |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 20                  | 7.65     | 0.14                | 7.7        |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 20                  | 7.65     | 0.14                | 7.7        |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 20                  | 7.65     | 0.14                | 7.7        |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 20                  | 7.65     | 0.14                | 7.7        |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 20                  | 7.57     | 0.52                | 7.78       |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 20                  | 7.57     | 0.52                | 7.78       |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 20                  | 7.57     | 0.52                | 7.78       |
| (1,2090) | 1:171:A:THR:HA   | 1:180:A:ARG:HE   | 20                  | 7.51     | 1.32                | 7.62       |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 20                  | 7.3      | 0.36                | 7.44       |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 20                  | 7.3      | 0.36                | 7.44       |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 20                  | 7.3      | 0.36                | 7.44       |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 20                  | 7.3      | 0.36                | 7.44       |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 20                  | 7.3      | 0.36                | 7.44       |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 20                  | 7.3      | 0.36                | 7.44       |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 20                  | 7.3      | 0.36                | 7.44       |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 20                  | 7.3      | 0.36                | 7.44       |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 20                  | 7.3      | 0.36                | 7.44       |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG2  | 20                  | 7.15     | 0.6                 | 7.22       |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG3  | 20                  | 7.15     | 0.6                 | 7.22       |
| (1,527)  | 1:40:A:THR:HG21  | 1:66:A:VAL:HG21  | 20                  | 7.1      | 0.17                | 7.1        |
| (1,527)  | 1:40:A:THR:HG21  | 1:66:A:VAL:HG22  | 20                  | 7.1      | 0.17                | 7.1        |
| (1,527)  | 1:40:A:THR:HG21  | 1:66:A:VAL:HG23  | 20                  | 7.1      | 0.17                | 7.1        |
| (1,527)  | 1:40:A:THR:HG22  | 1:66:A:VAL:HG21  | 20                  | 7.1      | 0.17                | 7.1        |
| (1,527)  | 1:40:A:THR:HG22  | 1:66:A:VAL:HG22  | 20                  | 7.1      | 0.17                | 7.1        |
| (1,527)  | 1:40:A:THR:HG22  | 1:66:A:VAL:HG23  | 20                  | 7.1      | 0.17                | 7.1        |
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG21  | 20                  | 7.1      | 0.17                | 7.1        |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG22  | 20                  | 7.1      | 0.17                | 7.1        |
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG23  | 20                  | 7.1      | 0.17                | 7.1        |
| (1,527)  | 1:40:A:THR:HG21  | 1:66:A:VAL:HG11  | 20                  | 7.1      | 0.17                | 7.1        |
| (1,527)  | 1:40:A:THR:HG21  | 1:66:A:VAL:HG12  | 20                  | 7.1      | 0.17                | 7.1        |
| (1,527)  | 1:40:A:THR:HG21  | 1:66:A:VAL:HG13  | 20                  | 7.1      | 0.17                | 7.1        |
| (1,527)  | 1:40:A:THR:HG22  | 1:66:A:VAL:HG11  | 20                  | 7.1      | 0.17                | 7.1        |
| (1,527)  | 1:40:A:THR:HG22  | 1:66:A:VAL:HG12  | 20                  | 7.1      | 0.17                | 7.1        |
| (1,527)  | 1:40:A:THR:HG22  | 1:66:A:VAL:HG13  | 20                  | 7.1      | 0.17                | 7.1        |
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG11  | 20                  | 7.1      | 0.17                | 7.1        |
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG12  | 20                  | 7.1      | 0.17                | 7.1        |
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG13  | 20                  | 7.1      | 0.17                | 7.1        |
| (1,2171) | 1:31:A:VAL:HA    | 1:37:A:GLU:HG2   | 20                  | 7.03     | 0.21                | 7.05       |
| (1,2171) | 1:31:A:VAL:HA    | 1:37:A:GLU:HG3   | 20                  | 7.03     | 0.21                | 7.05       |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 20                  | 6.48     | 0.12                | 6.48       |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 20                  | 6.48     | 0.12                | 6.48       |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD2  | 20                  | 6.48     | 0.96                | 6.54       |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD3  | 20                  | 6.48     | 0.96                | 6.54       |
| (1,1980) | 1:161:A:GLY:H    | 1:167:A:ILE:HB   | 20                  | 6.42     | 0.39                | 6.45       |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 20                  | 6.36     | 0.19                | 6.34       |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG2   | 20                  | 6.35     | 0.56                | 6.08       |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG3   | 20                  | 6.35     | 0.56                | 6.08       |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG2   | 20                  | 6.35     | 0.56                | 6.08       |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG3   | 20                  | 6.35     | 0.56                | 6.08       |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG2   | 20                  | 6.35     | 0.56                | 6.08       |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG3   | 20                  | 6.35     | 0.56                | 6.08       |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG2   | 20                  | 6.35     | 0.56                | 6.08       |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG3   | 20                  | 6.35     | 0.56                | 6.08       |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG2   | 20                  | 6.35     | 0.56                | 6.08       |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG3   | 20                  | 6.35     | 0.56                | 6.08       |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG2   | 20                  | 6.35     | 0.56                | 6.08       |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG3   | 20                  | 6.35     | 0.56                | 6.08       |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 20                  | 6.15     | 0.39                | 6.3        |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 20                  | 6.15     | 0.39                | 6.3        |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 20                  | 6.15     | 0.39                | 6.3        |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 20                  | 6.15     | 0.39                | 6.3        |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 20                  | 6.15     | 0.39                | 6.3        |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 20                  | 6.15     | 0.39                | 6.3        |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 20                  | 6.15     | 0.39                | 6.3        |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 20                  | 6.15     | 0.39                | 6.3        |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 20                  | 6.15     | 0.39                | 6.3        |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG11  | 20                  | 5.97     | 0.22                | 6.02       |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG12  | 20                  | 5.97     | 0.22                | 6.02       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG13  | 20                  | 5.97     | 0.22                | 6.02       |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 20                  | 5.91     | 0.52                | 6.12       |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 20                  | 5.91     | 0.52                | 6.12       |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 20                  | 5.91     | 0.52                | 6.12       |
| (1,2911) | 1:174:A:ASN:HB2  | 1:180:A:ARG:H    | 20                  | 5.86     | 0.64                | 5.92       |
| (1,2911) | 1:174:A:ASN:HB3  | 1:180:A:ARG:H    | 20                  | 5.86     | 0.64                | 5.92       |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB2  | 20                  | 5.68     | 1.0                 | 5.88       |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB3  | 20                  | 5.68     | 1.0                 | 5.88       |
| (1,2173) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HA    | 20                  | 5.66     | 0.51                | 5.46       |
| (1,2173) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HA    | 20                  | 5.66     | 0.51                | 5.46       |
| (1,2173) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HA    | 20                  | 5.66     | 0.51                | 5.46       |
| (1,2173) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HA    | 20                  | 5.66     | 0.51                | 5.46       |
| (1,2173) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HA    | 20                  | 5.66     | 0.51                | 5.46       |
| (1,2173) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HA    | 20                  | 5.66     | 0.51                | 5.46       |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 20                  | 5.6      | 0.19                | 5.62       |
| (1,2172) | 1:31:A:VAL:HG11  | 1:37:A:GLU:H     | 20                  | 5.58     | 0.51                | 5.36       |
| (1,2172) | 1:31:A:VAL:HG12  | 1:37:A:GLU:H     | 20                  | 5.58     | 0.51                | 5.36       |
| (1,2172) | 1:31:A:VAL:HG13  | 1:37:A:GLU:H     | 20                  | 5.58     | 0.51                | 5.36       |
| (1,2172) | 1:31:A:VAL:HG21  | 1:37:A:GLU:H     | 20                  | 5.58     | 0.51                | 5.36       |
| (1,2172) | 1:31:A:VAL:HG22  | 1:37:A:GLU:H     | 20                  | 5.58     | 0.51                | 5.36       |
| (1,2172) | 1:31:A:VAL:HG23  | 1:37:A:GLU:H     | 20                  | 5.58     | 0.51                | 5.36       |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB2   | 20                  | 5.46     | 0.48                | 5.26       |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB2   | 20                  | 5.46     | 0.48                | 5.26       |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB2   | 20                  | 5.46     | 0.48                | 5.26       |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB2   | 20                  | 5.46     | 0.48                | 5.26       |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB2   | 20                  | 5.46     | 0.48                | 5.26       |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB2   | 20                  | 5.46     | 0.48                | 5.26       |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB3   | 20                  | 5.46     | 0.48                | 5.26       |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB3   | 20                  | 5.46     | 0.48                | 5.26       |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB3   | 20                  | 5.46     | 0.48                | 5.26       |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB3   | 20                  | 5.46     | 0.48                | 5.26       |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB3   | 20                  | 5.46     | 0.48                | 5.26       |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB3   | 20                  | 5.46     | 0.48                | 5.26       |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG21  | 20                  | 5.4      | 0.2                 | 5.35       |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG22  | 20                  | 5.4      | 0.2                 | 5.35       |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG23  | 20                  | 5.4      | 0.2                 | 5.35       |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 20                  | 5.38     | 0.18                | 5.4        |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 20                  | 5.31     | 0.35                | 5.46       |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 20                  | 5.31     | 0.35                | 5.46       |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 20                  | 5.31     | 0.81                | 5.58       |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 20                  | 5.31     | 0.81                | 5.58       |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 20                  | 5.31     | 0.81                | 5.58       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 20                  | 5.31     | 0.81                | 5.58       |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 20                  | 5.31     | 0.81                | 5.58       |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 20                  | 5.31     | 0.81                | 5.58       |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 20                  | 5.29     | 0.56                | 5.4        |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 20                  | 5.29     | 0.56                | 5.4        |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 20                  | 5.29     | 0.56                | 5.4        |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 20                  | 5.29     | 0.56                | 5.4        |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 20                  | 5.29     | 0.56                | 5.4        |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 20                  | 5.29     | 0.56                | 5.4        |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG21 | 20                  | 5.1      | 0.2                 | 5.14       |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG22 | 20                  | 5.1      | 0.2                 | 5.14       |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG23 | 20                  | 5.1      | 0.2                 | 5.14       |
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 20                  | 5.08     | 0.66                | 5.22       |
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 20                  | 5.08     | 0.66                | 5.22       |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 20                  | 4.97     | 0.2                 | 5.02       |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 20                  | 4.97     | 0.2                 | 5.02       |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 20                  | 4.97     | 0.2                 | 5.02       |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 20                  | 4.97     | 0.2                 | 5.02       |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 20                  | 4.97     | 0.2                 | 5.02       |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 20                  | 4.97     | 0.2                 | 5.02       |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 20                  | 4.81     | 0.34                | 4.84       |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 20                  | 4.8      | 0.17                | 4.78       |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 20                  | 4.8      | 0.17                | 4.78       |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 20                  | 4.8      | 0.17                | 4.78       |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 20                  | 4.72     | 0.46                | 4.65       |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 20                  | 4.72     | 0.46                | 4.65       |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 20                  | 4.71     | 0.25                | 4.7        |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 20                  | 4.68     | 0.32                | 4.63       |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 20                  | 4.68     | 0.32                | 4.63       |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 20                  | 4.47     | 0.18                | 4.49       |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 20                  | 4.46     | 0.15                | 4.47       |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 20                  | 4.46     | 0.15                | 4.47       |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 20                  | 4.41     | 0.18                | 4.44       |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 20                  | 4.41     | 0.18                | 4.44       |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 20                  | 4.41     | 0.18                | 4.44       |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 20                  | 4.36     | 0.28                | 4.31       |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 20                  | 4.36     | 0.28                | 4.31       |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 20                  | 4.36     | 0.28                | 4.31       |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 20                  | 4.36     | 0.28                | 4.31       |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 20                  | 4.36     | 0.28                | 4.31       |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 20                  | 4.36     | 0.28                | 4.31       |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 20                  | 4.35     | 0.22                | 4.36       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 20                  | 4.35     | 0.22                | 4.36       |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 20                  | 4.35     | 0.22                | 4.36       |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 20                  | 4.28     | 0.3                 | 4.35       |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 20                  | 4.2      | 0.41                | 4.31       |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 20                  | 4.2      | 0.41                | 4.31       |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 20                  | 4.2      | 0.41                | 4.31       |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 20                  | 4.09     | 0.6                 | 4.08       |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 20                  | 4.09     | 0.6                 | 4.08       |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 20                  | 4.09     | 0.6                 | 4.08       |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 20                  | 4.09     | 0.6                 | 4.08       |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 20                  | 4.09     | 0.6                 | 4.08       |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 20                  | 4.09     | 0.6                 | 4.08       |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 20                  | 4.09     | 0.23                | 4.06       |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 20                  | 4.09     | 0.23                | 4.06       |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 20                  | 4.09     | 0.23                | 4.06       |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 20                  | 4.08     | 0.26                | 4.03       |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 20                  | 3.87     | 0.32                | 3.94       |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 20                  | 3.87     | 0.32                | 3.94       |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 20                  | 3.87     | 0.32                | 3.94       |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 20                  | 3.8      | 0.52                | 3.91       |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 20                  | 3.8      | 0.52                | 3.91       |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 20                  | 3.8      | 0.52                | 3.91       |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 20                  | 3.8      | 0.52                | 3.91       |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 20                  | 3.8      | 0.52                | 3.91       |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 20                  | 3.8      | 0.52                | 3.91       |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 20                  | 3.71     | 0.15                | 3.73       |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 20                  | 3.64     | 0.48                | 3.56       |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 20                  | 3.64     | 0.48                | 3.56       |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 20                  | 3.64     | 0.48                | 3.56       |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 20                  | 3.64     | 0.11                | 3.63       |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 20                  | 3.64     | 0.11                | 3.63       |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 20                  | 3.64     | 0.11                | 3.63       |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 20                  | 3.6      | 0.21                | 3.56       |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 20                  | 3.53     | 0.17                | 3.53       |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 20                  | 3.53     | 0.17                | 3.53       |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 20                  | 3.5      | 0.14                | 3.54       |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 20                  | 3.5      | 0.14                | 3.54       |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 20                  | 3.5      | 0.14                | 3.54       |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 20                  | 3.48     | 0.34                | 3.4        |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 20                  | 3.42     | 0.35                | 3.5        |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 20                  | 3.4      | 0.26                | 3.4        |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 20                  | 3.34     | 0.14                | 3.35       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 20                  | 3.34     | 0.14                | 3.35       |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 20                  | 3.34     | 0.14                | 3.35       |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG21 | 20                  | 3.12     | 0.25                | 3.14       |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 20                  | 3.12     | 0.25                | 3.14       |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 20                  | 3.12     | 0.25                | 3.14       |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 20                  | 3.12     | 0.12                | 3.14       |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 20                  | 3.12     | 0.12                | 3.14       |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 20                  | 3.12     | 0.12                | 3.14       |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD11 | 20                  | 3.06     | 0.25                | 3.07       |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD12 | 20                  | 3.06     | 0.25                | 3.07       |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD13 | 20                  | 3.06     | 0.25                | 3.07       |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD11 | 20                  | 3.05     | 0.36                | 3.01       |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD12 | 20                  | 3.05     | 0.36                | 3.01       |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD13 | 20                  | 3.05     | 0.36                | 3.01       |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 20                  | 2.99     | 0.77                | 3.12       |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 20                  | 2.99     | 0.77                | 3.12       |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 20                  | 2.99     | 0.77                | 3.12       |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 20                  | 2.99     | 0.77                | 3.12       |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 20                  | 2.99     | 0.77                | 3.12       |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 20                  | 2.99     | 0.77                | 3.12       |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 20                  | 2.99     | 0.77                | 3.12       |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 20                  | 2.99     | 0.77                | 3.12       |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 20                  | 2.99     | 0.77                | 3.12       |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 20                  | 2.99     | 0.77                | 3.12       |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 20                  | 2.99     | 0.77                | 3.12       |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 20                  | 2.99     | 0.77                | 3.12       |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD11 | 20                  | 2.89     | 0.13                | 2.9        |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD12 | 20                  | 2.89     | 0.13                | 2.9        |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD13 | 20                  | 2.89     | 0.13                | 2.9        |
| (1,1042) | 1:38:A:TRP:HD1   | 1:66:A:VAL:HG21  | 20                  | 2.63     | 0.2                 | 2.6        |
| (1,1042) | 1:38:A:TRP:HD1   | 1:66:A:VAL:HG22  | 20                  | 2.63     | 0.2                 | 2.6        |
| (1,1042) | 1:38:A:TRP:HD1   | 1:66:A:VAL:HG23  | 20                  | 2.63     | 0.2                 | 2.6        |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG21 | 20                  | 2.58     | 0.17                | 2.58       |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG22 | 20                  | 2.58     | 0.17                | 2.58       |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG23 | 20                  | 2.58     | 0.17                | 2.58       |
| (1,2852) | 1:160:A:HIS:HB2  | 1:167:A:ILE:HD11 | 20                  | 2.56     | 0.14                | 2.51       |
| (1,2852) | 1:160:A:HIS:HB2  | 1:167:A:ILE:HD12 | 20                  | 2.56     | 0.14                | 2.51       |
| (1,2852) | 1:160:A:HIS:HB2  | 1:167:A:ILE:HD13 | 20                  | 2.56     | 0.14                | 2.51       |
| (1,2852) | 1:160:A:HIS:HB3  | 1:167:A:ILE:HD11 | 20                  | 2.56     | 0.14                | 2.51       |
| (1,2852) | 1:160:A:HIS:HB3  | 1:167:A:ILE:HD12 | 20                  | 2.56     | 0.14                | 2.51       |
| (1,2852) | 1:160:A:HIS:HB3  | 1:167:A:ILE:HD13 | 20                  | 2.56     | 0.14                | 2.51       |
| (1,411)  | 1:161:A:GLY:H    | 1:167:A:ILE:HD11 | 20                  | 1.94     | 0.36                | 1.99       |

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| Key      | Atom-1           | Atom-2           | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|------------------|------------------|---------------------|----------|---------------------|------------|
| (1,411)  | 1:161:A:GLY:H    | 1:167:A:ILE:HD12 | 20                  | 1.94     | 0.36                | 1.99       |
| (1,411)  | 1:161:A:GLY:H    | 1:167:A:ILE:HD13 | 20                  | 1.94     | 0.36                | 1.99       |
| (1,738)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG13 | 20                  | 1.88     | 0.25                | 1.87       |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD11 | 20                  | 1.88     | 0.17                | 1.86       |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD12 | 20                  | 1.88     | 0.17                | 1.86       |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD13 | 20                  | 1.88     | 0.17                | 1.86       |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG21 | 20                  | 1.85     | 0.25                | 1.8        |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG22 | 20                  | 1.85     | 0.25                | 1.8        |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG23 | 20                  | 1.85     | 0.25                | 1.8        |
| (1,735)  | 1:157:A:SER:HB2  | 1:167:A:ILE:HB   | 20                  | 1.75     | 0.29                | 1.65       |
| (1,540)  | 1:45:A:THR:HA    | 1:167:A:ILE:HG12 | 20                  | 1.71     | 0.16                | 1.74       |
| (1,760)  | 1:157:A:SER:HB3  | 1:167:A:ILE:HB   | 20                  | 1.68     | 0.24                | 1.63       |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD11 | 20                  | 1.04     | 0.23                | 0.98       |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD12 | 20                  | 1.04     | 0.23                | 0.98       |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD13 | 20                  | 1.04     | 0.23                | 0.98       |
| (1,2838) | 1:157:A:SER:HB2  | 1:167:A:ILE:HG21 | 20                  | 0.82     | 0.25                | 0.86       |
| (1,2838) | 1:157:A:SER:HB2  | 1:167:A:ILE:HG22 | 20                  | 0.82     | 0.25                | 0.86       |
| (1,2838) | 1:157:A:SER:HB2  | 1:167:A:ILE:HG23 | 20                  | 0.82     | 0.25                | 0.86       |
| (1,2838) | 1:157:A:SER:HB3  | 1:167:A:ILE:HG21 | 20                  | 0.82     | 0.25                | 0.86       |
| (1,2838) | 1:157:A:SER:HB3  | 1:167:A:ILE:HG22 | 20                  | 0.82     | 0.25                | 0.86       |
| (1,2838) | 1:157:A:SER:HB3  | 1:167:A:ILE:HG23 | 20                  | 0.82     | 0.25                | 0.86       |
| (1,2742) | 1:136:A:MET:HB2  | 1:167:A:ILE:HD11 | 20                  | 0.61     | 0.11                | 0.63       |
| (1,2742) | 1:136:A:MET:HB2  | 1:167:A:ILE:HD12 | 20                  | 0.61     | 0.11                | 0.63       |
| (1,2742) | 1:136:A:MET:HB2  | 1:167:A:ILE:HD13 | 20                  | 0.61     | 0.11                | 0.63       |
| (1,2742) | 1:136:A:MET:HB3  | 1:167:A:ILE:HD11 | 20                  | 0.61     | 0.11                | 0.63       |
| (1,2742) | 1:136:A:MET:HB3  | 1:167:A:ILE:HD12 | 20                  | 0.61     | 0.11                | 0.63       |
| (1,2742) | 1:136:A:MET:HB3  | 1:167:A:ILE:HD13 | 20                  | 0.61     | 0.11                | 0.63       |
| (1,409)  | 1:44:A:ALA:H     | 1:167:A:ILE:HD11 | 20                  | 0.59     | 0.14                | 0.58       |
| (1,409)  | 1:44:A:ALA:H     | 1:167:A:ILE:HD12 | 20                  | 0.59     | 0.14                | 0.58       |
| (1,409)  | 1:44:A:ALA:H     | 1:167:A:ILE:HD13 | 20                  | 0.59     | 0.14                | 0.58       |
| (1,1029) | 1:67:A:LEU:HA    | 1:68:A:GLU:HB2   | 20                  | 0.31     | 0.08                | 0.29       |
| (1,500)  | 1:65:A:HIS:HA    | 1:66:A:VAL:HB    | 20                  | 0.19     | 0.01                | 0.19       |
| (1,131)  | 1:44:A:ALA:HA    | 1:167:A:ILE:HG21 | 5                   | 0.22     | 0.06                | 0.24       |
| (1,131)  | 1:44:A:ALA:HA    | 1:167:A:ILE:HG22 | 5                   | 0.22     | 0.06                | 0.24       |
| (1,131)  | 1:44:A:ALA:HA    | 1:167:A:ILE:HG23 | 5                   | 0.22     | 0.06                | 0.24       |
| (1,2064) | 1:175:A:ARG:H    | 1:177:A:LEU:H    | 4                   | 0.16     | 0.04                | 0.16       |
| (1,2892) | 1:170:A:LEU:HD11 | 1:171:A:THR:HA   | 3                   | 0.24     | 0.01                | 0.23       |
| (1,2892) | 1:170:A:LEU:HD12 | 1:171:A:THR:HA   | 3                   | 0.24     | 0.01                | 0.23       |
| (1,2892) | 1:170:A:LEU:HD13 | 1:171:A:THR:HA   | 3                   | 0.24     | 0.01                | 0.23       |
| (1,2892) | 1:170:A:LEU:HD21 | 1:171:A:THR:HA   | 3                   | 0.24     | 0.01                | 0.23       |
| (1,2892) | 1:170:A:LEU:HD22 | 1:171:A:THR:HA   | 3                   | 0.24     | 0.01                | 0.23       |
| (1,2892) | 1:170:A:LEU:HD23 | 1:171:A:THR:HA   | 3                   | 0.24     | 0.01                | 0.23       |

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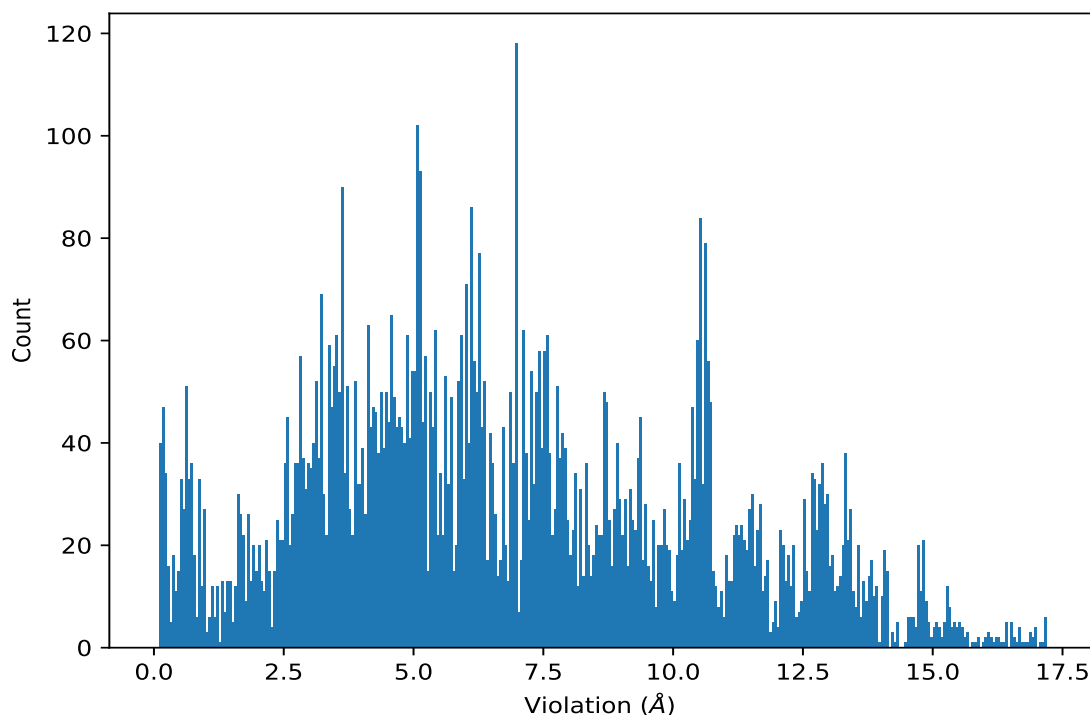
| Key      | Atom-1          | Atom-2          | Models <sup>1</sup> | Mean (Å) | SD <sup>1</sup> (Å) | Median (Å) |
|----------|-----------------|-----------------|---------------------|----------|---------------------|------------|
| (1,1351) | 1:42:A:MET:H    | 1:169:A:ASP:HA  | 3                   | 0.2      | 0.01                | 0.2        |
| (1,811)  | 1:42:A:MET:HG2  | 1:170:A:LEU:HG  | 3                   | 0.18     | 0.01                | 0.19       |
| (1,2564) | 1:92:A:LYS:HG2  | 1:99:A:TYR:HE1  | 3                   | 0.17     | 0.05                | 0.16       |
| (1,2564) | 1:92:A:LYS:HG2  | 1:99:A:TYR:HE2  | 3                   | 0.17     | 0.05                | 0.16       |
| (1,2564) | 1:92:A:LYS:HG3  | 1:99:A:TYR:HE1  | 3                   | 0.17     | 0.05                | 0.16       |
| (1,2564) | 1:92:A:LYS:HG3  | 1:99:A:TYR:HE2  | 3                   | 0.17     | 0.05                | 0.16       |
| (1,2066) | 1:174:A:ASN:HA  | 1:176:A:CYS:H   | 3                   | 0.14     | 0.02                | 0.12       |
| (1,2418) | 1:68:A:GLU:HB2  | 1:69:A:ASN:HD21 | 2                   | 0.13     | 0.02                | 0.13       |
| (1,2418) | 1:68:A:GLU:HB2  | 1:69:A:ASN:HD22 | 2                   | 0.13     | 0.02                | 0.13       |
| (1,2418) | 1:68:A:GLU:HB3  | 1:69:A:ASN:HD21 | 2                   | 0.13     | 0.02                | 0.13       |
| (1,2418) | 1:68:A:GLU:HB3  | 1:69:A:ASN:HD22 | 2                   | 0.13     | 0.02                | 0.13       |
| (1,1125) | 1:119:A:TYR:HD1 | 1:121:A:MET:HG2 | 2                   | 0.12     | 0.0                 | 0.12       |
| (1,1125) | 1:119:A:TYR:HD2 | 1:121:A:MET:HG2 | 2                   | 0.12     | 0.0                 | 0.12       |
| (1,2104) | 1:152:A:LYS:H   | 1:153:A:PHE:HD1 | 2                   | 0.1      | 0.0                 | 0.1        |
| (1,2104) | 1:152:A:LYS:H   | 1:153:A:PHE:HD2 | 2                   | 0.1      | 0.0                 | 0.1        |

<sup>1</sup>Number of violated models, <sup>2</sup>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) |
|----------|----------------|----------------|----------|---------------|
| (1,1267) | 1:20:A:GLU:HA  | 1:26:A:GLU:H   | 8        | 17.2          |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 18       | 17.19         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 14       | 17.17         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 20       | 17.16         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 9        | 17.15         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 17       | 17.15         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 16       | 17.13         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 3        | 17.08         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 13       | 16.98         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 1        | 16.96         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 10       | 16.96         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 15       | 16.96         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 12       | 16.94         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 6        | 16.93         |
| (1,1267) | 1:20:A:GLU:HA  | 1:26:A:GLU:H   | 10       | 16.89         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 8        | 16.89         |

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| Key      | Atom-1         | Atom-2         | Model ID | Violation (Å) |
|----------|----------------|----------------|----------|---------------|
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 2        | 16.88         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 11       | 16.83         |
| (1,1267) | 1:20:A:GLU:HA  | 1:26:A:GLU:H   | 15       | 16.75         |
| (1,1267) | 1:20:A:GLU:HA  | 1:26:A:GLU:H   | 17       | 16.71         |
| (1,1267) | 1:20:A:GLU:HA  | 1:26:A:GLU:H   | 2        | 16.69         |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 17       | 16.69         |
| (1,1267) | 1:20:A:GLU:HA  | 1:26:A:GLU:H   | 4        | 16.67         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 19       | 16.66         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 7        | 16.64         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 4        | 16.58         |
| (1,8)    | 1:20:A:GLU:HA  | 1:26:A:GLU:HA  | 8        | 16.56         |
| (1,478)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HB | 5        | 16.54         |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 9        | 16.54         |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 20       | 16.53         |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 14       | 16.5          |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 18       | 16.5          |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 12       | 16.44         |
| (1,8)    | 1:20:A:GLU:HA  | 1:26:A:GLU:HA  | 3        | 16.44         |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 13       | 16.42         |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 3        | 16.4          |
| (1,8)    | 1:20:A:GLU:HA  | 1:26:A:GLU:HA  | 17       | 16.4          |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 6        | 16.38         |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 16       | 16.32         |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 15       | 16.29         |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 11       | 16.25         |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 8        | 16.24         |
| (1,1268) | 1:20:A:GLU:H   | 1:26:A:GLU:H   | 15       | 16.21         |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 10       | 16.17         |
| (1,1267) | 1:20:A:GLU:HA  | 1:26:A:GLU:H   | 7        | 16.14         |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 1        | 16.1          |
| (1,1267) | 1:20:A:GLU:HA  | 1:26:A:GLU:H   | 11       | 16.07         |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 2        | 16.07         |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 4        | 16.06         |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 5        | 16.04         |
| (1,8)    | 1:20:A:GLU:HA  | 1:26:A:GLU:HA  | 2        | 16.01         |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 19       | 15.97         |
| (1,1267) | 1:20:A:GLU:HA  | 1:26:A:GLU:H   | 3        | 15.89         |
| (1,1267) | 1:20:A:GLU:HA  | 1:26:A:GLU:H   | 1        | 15.87         |
| (1,477)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HB | 7        | 15.8          |
| (1,1268) | 1:20:A:GLU:H   | 1:26:A:GLU:H   | 7        | 15.77         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H  | 18       | 15.69         |
| (1,8)    | 1:20:A:GLU:HA  | 1:26:A:GLU:HA  | 5        | 15.66         |

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| Key      | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (1,8)    | 1:20:A:GLU:HA  | 1:26:A:GLU:HA    | 10       | 15.66         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 14       | 15.63         |
| (1,1268) | 1:20:A:GLU:H   | 1:26:A:GLU:H     | 11       | 15.63         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 3        | 15.56         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 20       | 15.56         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 4        | 15.55         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 19       | 15.55         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 7        | 15.54         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 11       | 15.54         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 17       | 15.54         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 10       | 15.53         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 9        | 15.52         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 13       | 15.49         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 2        | 15.48         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 5        | 15.47         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 1        | 15.46         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 8        | 15.44         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 16       | 15.44         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 12       | 15.42         |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 7        | 15.41         |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 15       | 15.4          |
| (1,1775) | 1:119:A:TYR:HA | 1:125:A:ILE:H    | 6        | 15.38         |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 19       | 15.37         |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 20       | 15.35         |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 18       | 15.35         |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 18       | 15.33         |
| (1,1268) | 1:20:A:GLU:H   | 1:26:A:GLU:H     | 2        | 15.32         |
| (1,1268) | 1:20:A:GLU:H   | 1:26:A:GLU:H     | 17       | 15.31         |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 9        | 15.31         |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 20       | 15.31         |
| (1,8)    | 1:20:A:GLU:HA  | 1:26:A:GLU:HA    | 20       | 15.31         |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 8        | 15.3          |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 14       | 15.3          |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 16       | 15.29         |
| (1,8)    | 1:20:A:GLU:HA  | 1:26:A:GLU:HA    | 7        | 15.29         |
| (1,8)    | 1:20:A:GLU:HA  | 1:26:A:GLU:HA    | 16       | 15.29         |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 4        | 15.28         |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 13       | 15.28         |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 14       | 15.28         |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 11       | 15.27         |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 17       | 15.26         |
| (1,1268) | 1:20:A:GLU:H   | 1:26:A:GLU:H     | 10       | 15.25         |

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| Key      | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 2        | 15.25         |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 6        | 15.25         |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 15       | 15.25         |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 3        | 15.24         |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 5        | 15.24         |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 10       | 15.21         |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 13       | 15.21         |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 3        | 15.21         |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 1        | 15.19         |
| (1,1267) | 1:20:A:GLU:HA  | 1:26:A:GLU:H     | 5        | 15.15         |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 9        | 15.1          |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 12       | 15.1          |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 1        | 15.1          |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 2        | 15.1          |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 17       | 15.09         |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 15       | 15.09         |
| (1,655)  | 1:115:A:ASP:H  | 1:125:A:ILE:HA   | 16       | 15.08         |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 12       | 15.08         |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 11       | 15.07         |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 6        | 15.04         |
| (1,1267) | 1:20:A:GLU:HA  | 1:26:A:GLU:H     | 16       | 15.03         |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 10       | 15.03         |
| (1,8)    | 1:20:A:GLU:HA  | 1:26:A:GLU:HA    | 15       | 15.02         |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 8        | 14.96         |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 19       | 14.95         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 18       | 14.93         |
| (1,1268) | 1:20:A:GLU:H   | 1:26:A:GLU:H     | 1        | 14.92         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 17       | 14.91         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 17       | 14.91         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 17       | 14.91         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 14       | 14.88         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 19       | 14.88         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 20       | 14.88         |
| (1,1267) | 1:20:A:GLU:HA  | 1:26:A:GLU:H     | 18       | 14.86         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 7        | 14.85         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 11       | 14.85         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 4        | 14.85         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 4        | 14.85         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 4        | 14.85         |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 7        | 14.84         |
| (1,1267) | 1:20:A:GLU:HA  | 1:26:A:GLU:H     | 19       | 14.83         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 13       | 14.83         |

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| Key      | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 13       | 14.83         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 13       | 14.83         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 10       | 14.82         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 5        | 14.82         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 5        | 14.82         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 5        | 14.82         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 4        | 14.81         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 18       | 14.81         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 18       | 14.81         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 18       | 14.81         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 3        | 14.8          |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 4        | 14.8          |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 14       | 14.8          |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 14       | 14.8          |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 14       | 14.8          |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 20       | 14.8          |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 20       | 14.8          |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 20       | 14.8          |
| (1,1268) | 1:20:A:GLU:H   | 1:26:A:GLU:H     | 8        | 14.79         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 5        | 14.78         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 13       | 14.77         |
| (1,451)  | 1:38:A:TRP:HH2 | 1:125:A:ILE:HG13 | 5        | 14.76         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 19       | 14.76         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 19       | 14.76         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 19       | 14.76         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 8        | 14.75         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 9        | 14.75         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 9        | 14.75         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 9        | 14.75         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 2        | 14.74         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 15       | 14.74         |
| (1,8)    | 1:20:A:GLU:HA  | 1:26:A:GLU:HA    | 11       | 14.74         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 12       | 14.73         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 17       | 14.73         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 3        | 14.73         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 3        | 14.73         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 3        | 14.73         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 6        | 14.73         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 6        | 14.73         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 6        | 14.73         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 9        | 14.72         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 1        | 14.71         |

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| Key      | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 11       | 14.71         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 11       | 14.71         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 11       | 14.71         |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 16       | 14.7          |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 12       | 14.7          |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 12       | 14.7          |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 12       | 14.7          |
| (1,1767) | 1:119:A:TYR:H  | 1:125:A:ILE:H    | 6        | 14.66         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 15       | 14.66         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 15       | 14.66         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 15       | 14.66         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 7        | 14.63         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 7        | 14.63         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 7        | 14.63         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 8        | 14.62         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 8        | 14.62         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 8        | 14.62         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 2        | 14.56         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 2        | 14.56         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 2        | 14.56         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 16       | 14.56         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 16       | 14.56         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 16       | 14.56         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 10       | 14.53         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 10       | 14.53         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 10       | 14.53         |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG21 | 1        | 14.5          |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG22 | 1        | 14.5          |
| (1,92)   | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HG23 | 1        | 14.5          |
| (1,1268) | 1:20:A:GLU:H   | 1:26:A:GLU:H     | 4        | 14.49         |
| (1,1322) | 1:38:A:TRP:HE1 | 1:125:A:ILE:HG21 | 17       | 14.33         |
| (1,1322) | 1:38:A:TRP:HE1 | 1:125:A:ILE:HG22 | 17       | 14.33         |
| (1,1322) | 1:38:A:TRP:HE1 | 1:125:A:ILE:HG23 | 17       | 14.33         |
| (1,1268) | 1:20:A:GLU:H   | 1:26:A:GLU:H     | 3        | 14.31         |
| (1,8)    | 1:20:A:GLU:HA  | 1:26:A:GLU:HA    | 18       | 14.31         |
| (1,8)    | 1:20:A:GLU:HA  | 1:26:A:GLU:HA    | 19       | 14.27         |
| (1,1267) | 1:20:A:GLU:HA  | 1:26:A:GLU:H     | 20       | 14.21         |
| (1,1804) | 1:124:A:LEU:H  | 1:142:A:GLU:H    | 18       | 14.2          |
| (1,8)    | 1:20:A:GLU:HA  | 1:26:A:GLU:HA    | 4        | 14.2          |
| (1,1753) | 1:115:A:ASP:H  | 1:125:A:ILE:HG13 | 20       | 14.14         |
| (1,1322) | 1:38:A:TRP:HE1 | 1:125:A:ILE:HG21 | 13       | 14.14         |
| (1,1322) | 1:38:A:TRP:HE1 | 1:125:A:ILE:HG22 | 13       | 14.14         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 13       | 14.14         |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 4        | 14.13         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 4        | 14.13         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 4        | 14.13         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 4        | 14.13         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 5        | 14.13         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 5        | 14.13         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 5        | 14.13         |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 14       | 14.11         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 6        | 14.1          |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 6        | 14.1          |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 6        | 14.1          |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 20       | 14.09         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 20       | 14.09         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 20       | 14.09         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 20       | 14.09         |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 18       | 14.08         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 18       | 14.08         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 18       | 14.08         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 18       | 14.08         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 12       | 14.06         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 12       | 14.06         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 12       | 14.06         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 14       | 14.06         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 14       | 14.06         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 14       | 14.06         |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 13       | 14.05         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 9        | 14.05         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 9        | 14.05         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 9        | 14.05         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 12       | 14.05         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 4        | 14.04         |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 16       | 14.04         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 11       | 14.03         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 11       | 14.03         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 11       | 14.03         |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 9        | 14.02         |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 19       | 14.02         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 3        | 14.0          |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 3        | 14.0          |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 3        | 14.0          |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 14       | 13.97         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 3        | 13.94         |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 11       | 13.94         |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 12       | 13.93         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 15       | 13.93         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 15       | 13.93         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 15       | 13.93         |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 6        | 13.91         |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 15       | 13.91         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 19       | 13.91         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 19       | 13.91         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 19       | 13.91         |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 10       | 13.9          |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 13       | 13.89         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 8        | 13.89         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 8        | 13.89         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 8        | 13.89         |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 2        | 13.88         |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 7        | 13.88         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 14       | 13.87         |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 17       | 13.87         |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 1        | 13.86         |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 15       | 13.85         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 7        | 13.84         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 15       | 13.84         |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 3        | 13.84         |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 17       | 13.83         |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 19       | 13.83         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 10       | 13.82         |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 2        | 13.82         |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 9        | 13.82         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 1        | 13.81         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 17       | 13.81         |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 16       | 13.81         |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 4        | 13.81         |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 6        | 13.81         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 14       | 13.81         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 20       | 13.8          |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 1        | 13.8          |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 5        | 13.8          |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 8        | 13.79         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 9        | 13.78         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 13       | 13.78         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 6        | 13.77         |
| (1,1753) | 1:115:A:ASP:H   | 1:125:A:ILE:HG13 | 10       | 13.77         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 10       | 13.76         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 10       | 13.76         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 10       | 13.76         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 18       | 13.75         |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 8        | 13.75         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 16       | 13.75         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 16       | 13.75         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 16       | 13.75         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 11       | 13.75         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 2        | 13.74         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 2        | 13.74         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 2        | 13.74         |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 5        | 13.73         |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 11       | 13.73         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 3        | 13.72         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 19       | 13.72         |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 7        | 13.72         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 18       | 13.71         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 16       | 13.69         |
| (1,1804) | 1:124:A:LEU:H   | 1:142:A:GLU:H    | 12       | 13.69         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 19       | 13.69         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 8        | 13.68         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 4        | 13.68         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 16       | 13.68         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 7        | 13.67         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 7        | 13.67         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 7        | 13.67         |
| (1,1267) | 1:20:A:GLU:HA   | 1:26:A:GLU:H     | 12       | 13.66         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG21 | 1        | 13.65         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG22 | 1        | 13.65         |
| (1,1322) | 1:38:A:TRP:HE1  | 1:125:A:ILE:HG23 | 1        | 13.65         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 2        | 13.64         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 18       | 13.63         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 18       | 13.63         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 18       | 13.63         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 10       | 13.62         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 6        | 13.6          |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 5        | 13.59         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 17       | 13.59         |
| (1,8)    | 1:20:A:GLU:HA   | 1:26:A:GLU:HA    | 6        | 13.58         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 18       | 13.57         |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 18       | 13.57         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 4        | 13.57         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 4        | 13.57         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 4        | 13.57         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 11       | 13.56         |
| (1,1267) | 1:20:A:GLU:HA   | 1:26:A:GLU:H     | 14       | 13.56         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG21 | 17       | 13.56         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG22 | 17       | 13.56         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG23 | 17       | 13.56         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 1        | 13.56         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 3        | 13.56         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 5        | 13.55         |
| (1,1873) | 1:136:A:MET:HA  | 1:142:A:GLU:H    | 12       | 13.55         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 5        | 13.55         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 5        | 13.55         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 5        | 13.55         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 17       | 13.54         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 17       | 13.54         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 17       | 13.54         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 20       | 13.54         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 20       | 13.54         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 20       | 13.54         |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 11       | 13.51         |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 11       | 13.51         |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 14       | 13.48         |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 14       | 13.48         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 6        | 13.47         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 6        | 13.47         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 6        | 13.47         |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 10       | 13.45         |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 10       | 13.45         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 14       | 13.45         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 14       | 13.45         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 14       | 13.45         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 9        | 13.45         |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 3        | 13.44         |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 3        | 13.44         |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 4        | 13.44         |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 4        | 13.44         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 13       | 13.44         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 13       | 13.44         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 13       | 13.44         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 19       | 13.44         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 19       | 13.44         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 19       | 13.44         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 15       | 13.44         |
| (1,666)  | 1:123:A:HIS:HA  | 1:142:A:GLU:H    | 4        | 13.44         |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 19       | 13.42         |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 19       | 13.42         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 3        | 13.42         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 3        | 13.42         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 3        | 13.42         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 2        | 13.42         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 15       | 13.41         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 15       | 13.41         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 15       | 13.41         |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 7        | 13.4          |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 7        | 13.4          |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 17       | 13.4          |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 17       | 13.4          |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 20       | 13.4          |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 20       | 13.4          |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 20       | 13.38         |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 9        | 13.37         |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 9        | 13.37         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 2        | 13.37         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 2        | 13.37         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 2        | 13.37         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 10       | 13.37         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 10       | 13.37         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 10       | 13.37         |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 5        | 13.36         |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 5        | 13.36         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG21 | 5        | 13.36         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG22 | 5        | 13.36         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG23 | 5        | 13.36         |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 2        | 13.35         |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 2        | 13.35         |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 13       | 13.35         |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 13       | 13.35         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 11       | 13.35         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 11       | 13.35         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 11       | 13.35         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 1        | 13.34         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 1        | 13.34         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 1        | 13.34         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG21 | 6        | 13.34         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG22 | 6        | 13.34         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG23 | 6        | 13.34         |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 1        | 13.33         |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 1        | 13.33         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 9        | 13.33         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 9        | 13.33         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 9        | 13.33         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG21 | 4        | 13.33         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG22 | 4        | 13.33         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG23 | 4        | 13.33         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG21 | 13       | 13.33         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG22 | 13       | 13.33         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG23 | 13       | 13.33         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 7        | 13.33         |
| (1,1267) | 1:20:A:GLU:HA   | 1:26:A:GLU:H     | 6        | 13.32         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG21 | 18       | 13.32         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG22 | 18       | 13.32         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG23 | 18       | 13.32         |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 8        | 13.31         |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 8        | 13.31         |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 16       | 13.31         |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 16       | 13.31         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 7        | 13.31         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 7        | 13.31         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 7        | 13.31         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 13       | 13.31         |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 12       | 13.3          |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 12       | 13.3          |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 8        | 13.3          |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 8        | 13.3          |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 8        | 13.3          |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG21 | 20       | 13.3          |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG22 | 20       | 13.3          |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG23 | 20       | 13.3          |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 16       | 13.29         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 16       | 13.29         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 16       | 13.29         |
| (1,699)  | 1:136:A:MET:HG2 | 1:142:A:GLU:H    | 8        | 13.29         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,666)  | 1:123:A:HIS:HA  | 1:142:A:GLU:H    | 16       | 13.29         |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 6        | 13.27         |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 6        | 13.27         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG21 | 14       | 13.27         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG22 | 14       | 13.27         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG23 | 14       | 13.27         |
| (1,1773) | 1:119:A:TYR:HB3 | 1:125:A:ILE:H    | 15       | 13.26         |
| (1,1773) | 1:119:A:TYR:HB2 | 1:125:A:ILE:H    | 15       | 13.26         |
| (1,666)  | 1:123:A:HIS:HA  | 1:142:A:GLU:H    | 14       | 13.26         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG21 | 9        | 13.25         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG22 | 9        | 13.25         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG23 | 9        | 13.25         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG21 | 12       | 13.25         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG22 | 12       | 13.25         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG23 | 12       | 13.25         |
| (1,666)  | 1:123:A:HIS:HA  | 1:142:A:GLU:H    | 6        | 13.25         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG21 | 11       | 13.24         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG22 | 11       | 13.24         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG23 | 11       | 13.24         |
| (1,666)  | 1:123:A:HIS:HA  | 1:142:A:GLU:H    | 12       | 13.24         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG21 | 3        | 13.23         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG22 | 3        | 13.23         |
| (1,1043) | 1:38:A:TRP:HD1  | 1:125:A:ILE:HG23 | 3        | 13.23         |
| (1,666)  | 1:123:A:HIS:HA  | 1:142:A:GLU:H    | 18       | 13.23         |
| (1,666)  | 1:123:A:HIS:HA  | 1:142:A:GLU:H    | 17       | 13.22         |
| (1,2137) | 1:20:A:GLU:HB2  | 1:26:A:GLU:H     | 10       | 13.21         |
| (1,2137) | 1:20:A:GLU:HB3  | 1:26:A:GLU:H     | 10       | 13.21         |
| (1,1268) | 1:20:A:GLU:H    | 1:26:A:GLU:H     | 20       | 13.21         |
| (1,666)  | 1:123:A:HIS:HA  | 1:142:A:GLU:H    | 9        | 13.21         |
| (1,666)  | 1:123:A:HIS:HA  | 1:142:A:GLU:H    | 13       | 13.21         |
| (1,1335) | 1:39:A:TYR:HB3  | 1:45:A:THR:H     | 14       | 13.19         |
| (1,1335) | 1:39:A:TYR:HB2  | 1:45:A:THR:H     | 14       | 13.19         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG21 | 12       | 13.19         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG22 | 12       | 13.19         |
| (1,1330) | 1:39:A:TYR:H    | 1:125:A:ILE:HG23 | 12       | 13.19         |
| (1,8)    | 1:20:A:GLU:HA   | 1:26:A:GLU:HA    | 1        | 13.19         |
| (1,666)  | 1:123:A:HIS:HA  | 1:142:A:GLU:H    | 10       | 13.18         |
| (1,1267) | 1:20:A:GLU:HA   | 1:26:A:GLU:H     | 13       | 13.17         |
| (1,666)  | 1:123:A:HIS:HA  | 1:142:A:GLU:H    | 20       | 13.17         |
| (1,379)  | 1:34:A:ILE:HA   | 1:125:A:ILE:HD11 | 11       | 13.16         |
| (1,379)  | 1:34:A:ILE:HA   | 1:125:A:ILE:HD12 | 11       | 13.16         |
| (1,379)  | 1:34:A:ILE:HA   | 1:125:A:ILE:HD13 | 11       | 13.16         |

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| Key      | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG21 | 15       | 13.14         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG22 | 15       | 13.14         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG23 | 15       | 13.14         |
| (1,666)  | 1:123:A:HIS:HA | 1:142:A:GLU:H    | 5        | 13.13         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD11 | 13       | 13.13         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD12 | 13       | 13.13         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD13 | 13       | 13.13         |
| (1,666)  | 1:123:A:HIS:HA | 1:142:A:GLU:H    | 19       | 13.12         |
| (1,666)  | 1:123:A:HIS:HA | 1:142:A:GLU:H    | 15       | 13.11         |
| (1,2137) | 1:20:A:GLU:HB2 | 1:26:A:GLU:H     | 2        | 13.1          |
| (1,2137) | 1:20:A:GLU:HB3 | 1:26:A:GLU:H     | 2        | 13.1          |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG21 | 8        | 13.09         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG22 | 8        | 13.09         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG23 | 8        | 13.09         |
| (1,666)  | 1:123:A:HIS:HA | 1:142:A:GLU:H    | 1        | 13.09         |
| (1,666)  | 1:123:A:HIS:HA | 1:142:A:GLU:H    | 11       | 13.09         |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 19       | 13.08         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 19       | 13.08         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG21 | 19       | 13.08         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG22 | 19       | 13.08         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG23 | 19       | 13.08         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD11 | 3        | 13.08         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD12 | 3        | 13.08         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD13 | 3        | 13.08         |
| (1,666)  | 1:123:A:HIS:HA | 1:142:A:GLU:H    | 3        | 13.07         |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 14       | 13.05         |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 14       | 13.05         |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 16       | 13.05         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 16       | 13.05         |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 9        | 13.04         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 9        | 13.04         |
| (1,666)  | 1:123:A:HIS:HA | 1:142:A:GLU:H    | 2        | 13.04         |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 3        | 13.03         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 3        | 13.03         |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 18       | 13.03         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 18       | 13.03         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD11 | 2        | 13.03         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD12 | 2        | 13.03         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD13 | 2        | 13.03         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG21 | 10       | 13.02         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG22 | 10       | 13.02         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG23 | 10       | 13.02         |

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| Key      | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD11 | 14       | 13.0          |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD12 | 14       | 13.0          |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD13 | 14       | 13.0          |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 2        | 12.98         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 2        | 12.98         |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 10       | 12.98         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 10       | 12.98         |
| (1,666)  | 1:123:A:HIS:HA | 1:142:A:GLU:H    | 8        | 12.98         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD11 | 6        | 12.98         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD12 | 6        | 12.98         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD13 | 6        | 12.98         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD11 | 8        | 12.98         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD12 | 8        | 12.98         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD13 | 8        | 12.98         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG21 | 2        | 12.97         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG22 | 2        | 12.97         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG23 | 2        | 12.97         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD11 | 18       | 12.97         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD12 | 18       | 12.97         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD13 | 18       | 12.97         |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 9        | 12.96         |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 9        | 12.96         |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 18       | 12.96         |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 18       | 12.96         |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 1        | 12.96         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 1        | 12.96         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG21 | 16       | 12.96         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG22 | 16       | 12.96         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG23 | 16       | 12.96         |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 3        | 12.95         |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 3        | 12.95         |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 6        | 12.95         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 6        | 12.95         |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 13       | 12.94         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 13       | 12.94         |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 20       | 12.94         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 20       | 12.94         |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 15       | 12.93         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 15       | 12.93         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 13       | 12.93         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 13       | 12.93         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 13       | 12.93         |

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| Key      | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 12       | 12.92         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 12       | 12.92         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD11 | 11       | 12.92         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD12 | 11       | 12.92         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD13 | 11       | 12.92         |
| (1,8)    | 1:20:A:GLU:HA  | 1:26:A:GLU:HA    | 9        | 12.92         |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 19       | 12.91         |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 19       | 12.91         |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 4        | 12.91         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 4        | 12.91         |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 8        | 12.91         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 8        | 12.91         |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 1        | 12.9          |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 1        | 12.9          |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 2        | 12.9          |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 2        | 12.9          |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD11 | 13       | 12.9          |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD12 | 13       | 12.9          |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD13 | 13       | 12.9          |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 6        | 12.89         |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 6        | 12.89         |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 12       | 12.89         |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 12       | 12.89         |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 16       | 12.89         |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 16       | 12.89         |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 17       | 12.89         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 17       | 12.89         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD11 | 12       | 12.89         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD12 | 12       | 12.89         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD13 | 12       | 12.89         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD11 | 20       | 12.89         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD12 | 20       | 12.89         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD13 | 20       | 12.89         |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 10       | 12.88         |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 10       | 12.88         |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 20       | 12.88         |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 20       | 12.88         |
| (1,666)  | 1:123:A:HIS:HA | 1:142:A:GLU:H    | 7        | 12.88         |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 13       | 12.87         |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 13       | 12.87         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG21 | 1        | 12.87         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG22 | 1        | 12.87         |

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| Key      | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG23 | 1        | 12.87         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD11 | 16       | 12.87         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD12 | 16       | 12.87         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD13 | 16       | 12.87         |
| (1,2137) | 1:20:A:GLU:HB2 | 1:26:A:GLU:H     | 11       | 12.86         |
| (1,2137) | 1:20:A:GLU:HB3 | 1:26:A:GLU:H     | 11       | 12.86         |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 8        | 12.86         |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 8        | 12.86         |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 15       | 12.86         |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 15       | 12.86         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 17       | 12.85         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 17       | 12.85         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 17       | 12.85         |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 11       | 12.84         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 11       | 12.84         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD11 | 3        | 12.84         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD12 | 3        | 12.84         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD13 | 3        | 12.84         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD11 | 17       | 12.84         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD12 | 17       | 12.84         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD13 | 17       | 12.84         |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 4        | 12.83         |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 4        | 12.83         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD11 | 18       | 12.83         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD12 | 18       | 12.83         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD13 | 18       | 12.83         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 11       | 12.83         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 11       | 12.83         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 11       | 12.83         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG21 | 7        | 12.81         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG22 | 7        | 12.81         |
| (1,1043) | 1:38:A:TRP:HD1 | 1:125:A:ILE:HG23 | 7        | 12.81         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 18       | 12.81         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 18       | 12.81         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 18       | 12.81         |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 11       | 12.8          |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 11       | 12.8          |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 17       | 12.8          |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 17       | 12.8          |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 17       | 12.8          |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 17       | 12.8          |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 17       | 12.8          |

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| Key      | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 18       | 12.8          |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 18       | 12.8          |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 18       | 12.8          |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD11 | 6        | 12.79         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD12 | 6        | 12.79         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD13 | 6        | 12.79         |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 5        | 12.78         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 5        | 12.78         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD11 | 10       | 12.78         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD12 | 10       | 12.78         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD13 | 10       | 12.78         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 4        | 12.76         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 4        | 12.76         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 4        | 12.76         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 5        | 12.76         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 5        | 12.76         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 5        | 12.76         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 20       | 12.76         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 20       | 12.76         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 20       | 12.76         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD11 | 9        | 12.75         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD12 | 9        | 12.75         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD13 | 9        | 12.75         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 14       | 12.75         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 14       | 12.75         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 14       | 12.75         |
| (1,1335) | 1:39:A:TYR:HB3 | 1:45:A:THR:H     | 7        | 12.74         |
| (1,1335) | 1:39:A:TYR:HB2 | 1:45:A:THR:H     | 7        | 12.74         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD11 | 2        | 12.74         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD12 | 2        | 12.74         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD13 | 2        | 12.74         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 8        | 12.74         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 8        | 12.74         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 8        | 12.74         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 20       | 12.73         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 20       | 12.73         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 20       | 12.73         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD11 | 8        | 12.73         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD12 | 8        | 12.73         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD13 | 8        | 12.73         |
| (1,2137) | 1:20:A:GLU:HB2 | 1:26:A:GLU:H     | 4        | 12.72         |
| (1,2137) | 1:20:A:GLU:HB3 | 1:26:A:GLU:H     | 4        | 12.72         |

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| Key      | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 5        | 12.72         |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 5        | 12.72         |
| (1,1268) | 1:20:A:GLU:H   | 1:26:A:GLU:H     | 19       | 12.72         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD11 | 14       | 12.72         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD12 | 14       | 12.72         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD13 | 14       | 12.72         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 6        | 12.72         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 6        | 12.72         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 6        | 12.72         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 3        | 12.71         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 3        | 12.71         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 3        | 12.71         |
| (1,1339) | 1:39:A:TYR:HD1 | 1:45:A:THR:H     | 7        | 12.7          |
| (1,1339) | 1:39:A:TYR:HD2 | 1:45:A:THR:H     | 7        | 12.7          |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD11 | 15       | 12.7          |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD12 | 15       | 12.7          |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD13 | 15       | 12.7          |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 14       | 12.69         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 14       | 12.69         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 14       | 12.69         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD11 | 1        | 12.69         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD12 | 1        | 12.69         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD13 | 1        | 12.69         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 6        | 12.68         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 6        | 12.68         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 6        | 12.68         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 9        | 12.68         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 9        | 12.68         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 9        | 12.68         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 12       | 12.68         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 12       | 12.68         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 12       | 12.68         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 15       | 12.68         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 15       | 12.68         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 15       | 12.68         |
| (1,1267) | 1:20:A:GLU:HA  | 1:26:A:GLU:H     | 9        | 12.67         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 3        | 12.67         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 3        | 12.67         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 3        | 12.67         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 13       | 12.67         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 13       | 12.67         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 13       | 12.67         |

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| Key      | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD11 | 12       | 12.66         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD12 | 12       | 12.66         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD13 | 12       | 12.66         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 2        | 12.66         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 2        | 12.66         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 2        | 12.66         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD11 | 16       | 12.65         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD12 | 16       | 12.65         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD13 | 16       | 12.65         |
| (1,2137) | 1:20:A:GLU:HB2 | 1:26:A:GLU:H     | 15       | 12.64         |
| (1,2137) | 1:20:A:GLU:HB3 | 1:26:A:GLU:H     | 15       | 12.64         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 19       | 12.63         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 19       | 12.63         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 19       | 12.63         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 11       | 12.61         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 11       | 12.61         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 11       | 12.61         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD11 | 20       | 12.61         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD12 | 20       | 12.61         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD13 | 20       | 12.61         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 9        | 12.59         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 9        | 12.59         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 9        | 12.59         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 10       | 12.59         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 10       | 12.59         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 10       | 12.59         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 15       | 12.58         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 15       | 12.58         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 15       | 12.58         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 2        | 12.57         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 2        | 12.57         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 2        | 12.57         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD11 | 17       | 12.57         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD12 | 17       | 12.57         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD13 | 17       | 12.57         |
| (1,2137) | 1:20:A:GLU:HB2 | 1:26:A:GLU:H     | 7        | 12.54         |
| (1,2137) | 1:20:A:GLU:HB3 | 1:26:A:GLU:H     | 7        | 12.54         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD11 | 9        | 12.53         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD12 | 9        | 12.53         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD13 | 9        | 12.53         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD11 | 10       | 12.53         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD12 | 10       | 12.53         |

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| Key      | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD13 | 10       | 12.53         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 8        | 12.52         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 8        | 12.52         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 8        | 12.52         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 16       | 12.52         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 16       | 12.52         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 16       | 12.52         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 1        | 12.51         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 1        | 12.51         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 1        | 12.51         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 7        | 12.51         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 7        | 12.51         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 7        | 12.51         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 16       | 12.51         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 16       | 12.51         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 16       | 12.51         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 1        | 12.51         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 1        | 12.51         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 1        | 12.51         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD11 | 15       | 12.5          |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD12 | 15       | 12.5          |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD13 | 15       | 12.5          |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 10       | 12.48         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 10       | 12.48         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 10       | 12.48         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG21 | 12       | 12.47         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG22 | 12       | 12.47         |
| (1,839)  | 1:38:A:TRP:HB3 | 1:125:A:ILE:HG23 | 12       | 12.47         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD11 | 1        | 12.45         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD12 | 1        | 12.45         |
| (1,383)  | 1:34:A:ILE:HB  | 1:125:A:ILE:HD13 | 1        | 12.45         |
| (1,2137) | 1:20:A:GLU:HB2 | 1:26:A:GLU:H     | 8        | 12.44         |
| (1,2137) | 1:20:A:GLU:HB3 | 1:26:A:GLU:H     | 8        | 12.44         |
| (1,2137) | 1:20:A:GLU:HB2 | 1:26:A:GLU:H     | 17       | 12.44         |
| (1,2137) | 1:20:A:GLU:HB3 | 1:26:A:GLU:H     | 17       | 12.44         |
| (1,1268) | 1:20:A:GLU:H   | 1:26:A:GLU:H     | 18       | 12.44         |
| (1,8)    | 1:20:A:GLU:HA  | 1:26:A:GLU:HA    | 13       | 12.43         |
| (1,1337) | 1:39:A:TYR:H   | 1:45:A:THR:H     | 14       | 12.42         |
| (1,1337) | 1:39:A:TYR:H   | 1:45:A:THR:H     | 19       | 12.39         |
| (1,1337) | 1:39:A:TYR:H   | 1:45:A:THR:H     | 9        | 12.37         |
| (1,482)  | 1:114:A:THR:HB | 1:125:A:ILE:HB   | 20       | 12.37         |
| (1,1337) | 1:39:A:TYR:H   | 1:45:A:THR:H     | 17       | 12.35         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 19       | 12.35         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 19       | 12.35         |
| (1,1337) | 1:39:A:TYR:H    | 1:45:A:THR:H     | 3        | 12.34         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 10       | 12.34         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 10       | 12.34         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 14       | 12.34         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 14       | 12.34         |
| (1,1337) | 1:39:A:TYR:H    | 1:45:A:THR:H     | 12       | 12.33         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 20       | 12.33         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 20       | 12.33         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 7        | 12.32         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 7        | 12.32         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 17       | 12.32         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 17       | 12.32         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 17       | 12.32         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 18       | 12.31         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 18       | 12.31         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 13       | 12.31         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 13       | 12.31         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 13       | 12.31         |
| (1,1337) | 1:39:A:TYR:H    | 1:45:A:THR:H     | 18       | 12.3          |
| (1,1268) | 1:20:A:GLU:H    | 1:26:A:GLU:H     | 16       | 12.3          |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 11       | 12.28         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 11       | 12.28         |
| (1,482)  | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 18       | 12.28         |
| (1,1337) | 1:39:A:TYR:H    | 1:45:A:THR:H     | 6        | 12.27         |
| (1,1337) | 1:39:A:TYR:H    | 1:45:A:THR:H     | 8        | 12.27         |
| (1,1337) | 1:39:A:TYR:H    | 1:45:A:THR:H     | 13       | 12.27         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 15       | 12.27         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 15       | 12.27         |
| (1,482)  | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 16       | 12.26         |
| (1,1337) | 1:39:A:TYR:H    | 1:45:A:THR:H     | 15       | 12.25         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 4        | 12.25         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 4        | 12.25         |
| (1,1337) | 1:39:A:TYR:H    | 1:45:A:THR:H     | 2        | 12.24         |
| (1,1337) | 1:39:A:TYR:H    | 1:45:A:THR:H     | 5        | 12.23         |
| (1,1337) | 1:39:A:TYR:H    | 1:45:A:THR:H     | 11       | 12.23         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 5        | 12.23         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 5        | 12.23         |
| (1,482)  | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 9        | 12.23         |
| (1,482)  | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 14       | 12.23         |
| (1,2137) | 1:20:A:GLU:HB2  | 1:26:A:GLU:H     | 3        | 12.21         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2137) | 1:20:A:GLU:HB3  | 1:26:A:GLU:H     | 3        | 12.21         |
| (1,1337) | 1:39:A:TYR:H    | 1:45:A:THR:H     | 10       | 12.21         |
| (1,1337) | 1:39:A:TYR:H    | 1:45:A:THR:H     | 16       | 12.21         |
| (1,1337) | 1:39:A:TYR:H    | 1:45:A:THR:H     | 20       | 12.21         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 13       | 12.21         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 13       | 12.21         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 11       | 12.21         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 11       | 12.21         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 11       | 12.21         |
| (1,1337) | 1:39:A:TYR:H    | 1:45:A:THR:H     | 1        | 12.2          |
| (1,1268) | 1:20:A:GLU:H    | 1:26:A:GLU:H     | 6        | 12.19         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 1        | 12.19         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 1        | 12.19         |
| (1,482)  | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 12       | 12.19         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 3        | 12.18         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 3        | 12.18         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 8        | 12.18         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 8        | 12.18         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 2        | 12.17         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 2        | 12.17         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 17       | 12.16         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 17       | 12.16         |
| (1,1337) | 1:39:A:TYR:H    | 1:45:A:THR:H     | 4        | 12.15         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 6        | 12.14         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 6        | 12.14         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 6        | 12.14         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 6        | 12.14         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 6        | 12.14         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 9        | 12.13         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 9        | 12.13         |
| (1,482)  | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 3        | 12.13         |
| (1,482)  | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 15       | 12.13         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 18       | 12.13         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 18       | 12.13         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 18       | 12.13         |
| (1,482)  | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 17       | 12.12         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 12       | 12.11         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 12       | 12.11         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 12       | 12.11         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 20       | 12.11         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 20       | 12.11         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 20       | 12.11         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,482)  | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 13       | 12.1          |
| (1,482)  | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 6        | 12.09         |
| (1,482)  | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 1        | 12.08         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 14       | 12.07         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 14       | 12.07         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 14       | 12.07         |
| (1,264)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG13 | 19       | 12.07         |
| (1,1337) | 1:39:A:TYR:H    | 1:45:A:THR:H     | 7        | 12.06         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 12       | 12.06         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 12       | 12.06         |
| (1,1124) | 1:119:A:TYR:HD1 | 1:125:A:ILE:HA   | 16       | 12.06         |
| (1,1124) | 1:119:A:TYR:HD2 | 1:125:A:ILE:HA   | 16       | 12.06         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 8        | 12.06         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 8        | 12.06         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 8        | 12.06         |
| (1,482)  | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 8        | 12.05         |
| (1,482)  | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 10       | 12.05         |
| (1,482)  | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 11       | 12.05         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 3        | 12.05         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 3        | 12.05         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 3        | 12.05         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 9        | 12.05         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 9        | 12.05         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 9        | 12.05         |
| (1,264)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG13 | 20       | 12.03         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 15       | 12.01         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 15       | 12.01         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 15       | 12.01         |
| (1,482)  | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 2        | 11.98         |
| (1,379)  | 1:34:A:ILE:HA   | 1:125:A:ILE:HD11 | 19       | 11.98         |
| (1,379)  | 1:34:A:ILE:HA   | 1:125:A:ILE:HD12 | 19       | 11.98         |
| (1,379)  | 1:34:A:ILE:HA   | 1:125:A:ILE:HD13 | 19       | 11.98         |
| (1,264)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG13 | 7        | 11.97         |
| (1,379)  | 1:34:A:ILE:HA   | 1:125:A:ILE:HD11 | 7        | 11.95         |
| (1,379)  | 1:34:A:ILE:HA   | 1:125:A:ILE:HD12 | 7        | 11.95         |
| (1,379)  | 1:34:A:ILE:HA   | 1:125:A:ILE:HD13 | 7        | 11.95         |
| (1,264)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG13 | 18       | 11.95         |
| (1,264)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG13 | 16       | 11.92         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 2        | 11.91         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 2        | 11.91         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 2        | 11.91         |
| (1,264)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG13 | 13       | 11.9          |

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| Key      | Atom-1         | Atom-2           | Model ID | Violation (Å) |
|----------|----------------|------------------|----------|---------------|
| (1,264)  | 1:114:A:THR:HB | 1:125:A:ILE:HG13 | 9        | 11.89         |
| (1,1268) | 1:20:A:GLU:H   | 1:26:A:GLU:H     | 13       | 11.86         |
| (1,264)  | 1:114:A:THR:HB | 1:125:A:ILE:HG13 | 14       | 11.85         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD11 | 5        | 11.83         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD12 | 5        | 11.83         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD13 | 5        | 11.83         |
| (1,264)  | 1:114:A:THR:HB | 1:125:A:ILE:HG13 | 4        | 11.83         |
| (1,264)  | 1:114:A:THR:HB | 1:125:A:ILE:HG13 | 5        | 11.83         |
| (1,482)  | 1:114:A:THR:HB | 1:125:A:ILE:HB   | 19       | 11.82         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 4        | 11.82         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 4        | 11.82         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 4        | 11.82         |
| (1,264)  | 1:114:A:THR:HB | 1:125:A:ILE:HG13 | 12       | 11.82         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 5        | 11.81         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 5        | 11.81         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 5        | 11.81         |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD11 | 19       | 11.8          |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD12 | 19       | 11.8          |
| (1,375)  | 1:38:A:TRP:HZ2 | 1:125:A:ILE:HD13 | 19       | 11.8          |
| (1,264)  | 1:114:A:THR:HB | 1:125:A:ILE:HG13 | 11       | 11.8          |
| (1,433)  | 1:114:A:THR:HB | 1:125:A:ILE:HG12 | 19       | 11.77         |
| (1,373)  | 1:38:A:TRP:HE1 | 1:125:A:ILE:HD11 | 16       | 11.77         |
| (1,373)  | 1:38:A:TRP:HE1 | 1:125:A:ILE:HD12 | 16       | 11.77         |
| (1,373)  | 1:38:A:TRP:HE1 | 1:125:A:ILE:HD13 | 16       | 11.77         |
| (1,264)  | 1:114:A:THR:HB | 1:125:A:ILE:HG13 | 15       | 11.77         |
| (1,482)  | 1:114:A:THR:HB | 1:125:A:ILE:HB   | 7        | 11.76         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD11 | 4        | 11.76         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD12 | 4        | 11.76         |
| (1,379)  | 1:34:A:ILE:HA  | 1:125:A:ILE:HD13 | 4        | 11.76         |
| (1,373)  | 1:38:A:TRP:HE1 | 1:125:A:ILE:HD11 | 10       | 11.76         |
| (1,373)  | 1:38:A:TRP:HE1 | 1:125:A:ILE:HD12 | 10       | 11.76         |
| (1,373)  | 1:38:A:TRP:HE1 | 1:125:A:ILE:HD13 | 10       | 11.76         |
| (1,264)  | 1:114:A:THR:HB | 1:125:A:ILE:HG13 | 3        | 11.76         |
| (1,264)  | 1:114:A:THR:HB | 1:125:A:ILE:HG13 | 17       | 11.75         |
| (1,2137) | 1:20:A:GLU:HB2 | 1:26:A:GLU:H     | 19       | 11.74         |
| (1,2137) | 1:20:A:GLU:HB3 | 1:26:A:GLU:H     | 19       | 11.74         |
| (1,264)  | 1:114:A:THR:HB | 1:125:A:ILE:HG13 | 2        | 11.74         |
| (1,373)  | 1:38:A:TRP:HE1 | 1:125:A:ILE:HD11 | 1        | 11.73         |
| (1,373)  | 1:38:A:TRP:HE1 | 1:125:A:ILE:HD12 | 1        | 11.73         |
| (1,373)  | 1:38:A:TRP:HE1 | 1:125:A:ILE:HD13 | 1        | 11.73         |
| (1,264)  | 1:114:A:THR:HB | 1:125:A:ILE:HG13 | 1        | 11.72         |
| (1,264)  | 1:114:A:THR:HB | 1:125:A:ILE:HG13 | 6        | 11.72         |

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| Key     | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|---------|-----------------|------------------|----------|---------------|
| (1,383) | 1:34:A:ILE:HB   | 1:125:A:ILE:HD11 | 19       | 11.7          |
| (1,383) | 1:34:A:ILE:HB   | 1:125:A:ILE:HD12 | 19       | 11.7          |
| (1,383) | 1:34:A:ILE:HB   | 1:125:A:ILE:HD13 | 19       | 11.7          |
| (1,383) | 1:34:A:ILE:HB   | 1:125:A:ILE:HD11 | 7        | 11.69         |
| (1,383) | 1:34:A:ILE:HB   | 1:125:A:ILE:HD12 | 7        | 11.69         |
| (1,383) | 1:34:A:ILE:HB   | 1:125:A:ILE:HD13 | 7        | 11.69         |
| (1,433) | 1:114:A:THR:HB  | 1:125:A:ILE:HG12 | 7        | 11.67         |
| (1,376) | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 11       | 11.66         |
| (1,376) | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 11       | 11.66         |
| (1,376) | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 11       | 11.66         |
| (1,376) | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 11       | 11.66         |
| (1,376) | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 11       | 11.66         |
| (1,376) | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 11       | 11.66         |
| (1,376) | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 2        | 11.65         |
| (1,376) | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 2        | 11.65         |
| (1,376) | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 2        | 11.65         |
| (1,376) | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 2        | 11.65         |
| (1,376) | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 2        | 11.65         |
| (1,376) | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 2        | 11.65         |
| (1,376) | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 13       | 11.65         |
| (1,376) | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 13       | 11.65         |
| (1,376) | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 13       | 11.65         |
| (1,376) | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 13       | 11.65         |
| (1,376) | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 13       | 11.65         |
| (1,376) | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 13       | 11.65         |
| (1,376) | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 20       | 11.65         |
| (1,376) | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 20       | 11.65         |
| (1,376) | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 20       | 11.65         |
| (1,376) | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 20       | 11.65         |
| (1,376) | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 20       | 11.65         |
| (1,376) | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 20       | 11.65         |
| (1,8)   | 1:20:A:GLU:HA   | 1:26:A:GLU:HA    | 14       | 11.64         |
| (1,376) | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 18       | 11.63         |
| (1,376) | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 18       | 11.63         |
| (1,376) | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 18       | 11.63         |
| (1,376) | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 18       | 11.63         |
| (1,376) | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 18       | 11.63         |
| (1,376) | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 18       | 11.63         |
| (1,264) | 1:114:A:THR:HB  | 1:125:A:ILE:HG13 | 8        | 11.63         |
| (1,482) | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 5        | 11.62         |
| (1,264) | 1:114:A:THR:HB  | 1:125:A:ILE:HG13 | 10       | 11.62         |
| (1,482) | 1:114:A:THR:HB  | 1:125:A:ILE:HB   | 4        | 11.61         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 8        | 11.61         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 8        | 11.61         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 8        | 11.61         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 8        | 11.61         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 8        | 11.61         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 8        | 11.61         |
| (1,383)  | 1:34:A:ILE:HB   | 1:125:A:ILE:HD11 | 5        | 11.6          |
| (1,383)  | 1:34:A:ILE:HB   | 1:125:A:ILE:HD12 | 5        | 11.6          |
| (1,383)  | 1:34:A:ILE:HB   | 1:125:A:ILE:HD13 | 5        | 11.6          |
| (1,375)  | 1:38:A:TRP:HZ2  | 1:125:A:ILE:HD11 | 7        | 11.6          |
| (1,375)  | 1:38:A:TRP:HZ2  | 1:125:A:ILE:HD12 | 7        | 11.6          |
| (1,375)  | 1:38:A:TRP:HZ2  | 1:125:A:ILE:HD13 | 7        | 11.6          |
| (1,2137) | 1:20:A:GLU:HB2  | 1:26:A:GLU:H     | 1        | 11.58         |
| (1,2137) | 1:20:A:GLU:HB3  | 1:26:A:GLU:H     | 1        | 11.58         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 14       | 11.57         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 15       | 11.56         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 15       | 11.56         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 15       | 11.56         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 15       | 11.56         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 15       | 11.56         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 15       | 11.56         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 11       | 11.55         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 14       | 11.55         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 14       | 11.55         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 14       | 11.55         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 14       | 11.55         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 14       | 11.55         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 14       | 11.55         |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 14       | 11.54         |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 14       | 11.54         |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 20       | 11.54         |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 20       | 11.54         |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 19       | 11.53         |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 19       | 11.53         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 3        | 11.53         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 3        | 11.53         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 3        | 11.53         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 3        | 11.53         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 3        | 11.53         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 3        | 11.53         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 6        | 11.53         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 6        | 11.53         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 6        | 11.53         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 6        | 11.53         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 6        | 11.53         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 6        | 11.53         |
| (1,433)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG12 | 5        | 11.52         |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 18       | 11.51         |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 18       | 11.51         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 7        | 11.51         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 1        | 11.51         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 1        | 11.51         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 1        | 11.51         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 1        | 11.51         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 1        | 11.51         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 1        | 11.51         |
| (1,1268) | 1:20:A:GLU:H    | 1:26:A:GLU:H     | 5        | 11.5          |
| (1,433)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG12 | 4        | 11.5          |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 10       | 11.49         |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 10       | 11.49         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 10       | 11.49         |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 7        | 11.48         |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 7        | 11.48         |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 11       | 11.48         |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 11       | 11.48         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 1        | 11.48         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 9        | 11.48         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 9        | 11.48         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 9        | 11.48         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 9        | 11.48         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 9        | 11.48         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 9        | 11.48         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 12       | 11.47         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 12       | 11.47         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 12       | 11.47         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 12       | 11.47         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 12       | 11.47         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 12       | 11.47         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 3        | 11.46         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 16       | 11.45         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 16       | 11.45         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 16       | 11.45         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 16       | 11.45         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 16       | 11.45         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 16       | 11.45         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 2        | 11.44         |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 15       | 11.43         |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 15       | 11.43         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 17       | 11.42         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 17       | 11.42         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 17       | 11.42         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 17       | 11.42         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 17       | 11.42         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 17       | 11.42         |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 5        | 11.41         |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 5        | 11.41         |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 4        | 11.4          |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 4        | 11.4          |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 9        | 11.4          |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 9        | 11.4          |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 4        | 11.4          |
| (1,383)  | 1:34:A:ILE:HB   | 1:125:A:ILE:HD11 | 4        | 11.4          |
| (1,383)  | 1:34:A:ILE:HB   | 1:125:A:ILE:HD12 | 4        | 11.4          |
| (1,383)  | 1:34:A:ILE:HB   | 1:125:A:ILE:HD13 | 4        | 11.4          |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 13       | 11.39         |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 13       | 11.39         |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 17       | 11.39         |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 17       | 11.39         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 10       | 11.39         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 10       | 11.39         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 10       | 11.39         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 10       | 11.39         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 10       | 11.39         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 10       | 11.39         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 6        | 11.38         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 17       | 11.38         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 12       | 11.37         |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 3        | 11.35         |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 3        | 11.35         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 11       | 11.35         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 11       | 11.35         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 11       | 11.35         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 11       | 11.35         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 11       | 11.35         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 11       | 11.35         |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 12       | 11.34         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 12       | 11.34         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 20       | 11.34         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 20       | 11.34         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 20       | 11.34         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 20       | 11.34         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 20       | 11.34         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 20       | 11.34         |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 1        | 11.33         |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 1        | 11.33         |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 16       | 11.33         |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 16       | 11.33         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 2        | 11.32         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 2        | 11.32         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 2        | 11.32         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 2        | 11.32         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 2        | 11.32         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 2        | 11.32         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 13       | 11.32         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 13       | 11.32         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 13       | 11.32         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 13       | 11.32         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 13       | 11.32         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 13       | 11.32         |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 2        | 11.29         |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 2        | 11.29         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 8        | 11.29         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 8        | 11.29         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 8        | 11.29         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 8        | 11.29         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 8        | 11.29         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 8        | 11.29         |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 8        | 11.28         |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 8        | 11.28         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 18       | 11.28         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 18       | 11.28         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 18       | 11.28         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 18       | 11.28         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 18       | 11.28         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 18       | 11.28         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 6        | 11.25         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 6        | 11.25         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 6        | 11.25         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 6        | 11.25         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 6        | 11.25         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 6        | 11.25         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 15       | 11.24         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 15       | 11.24         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 15       | 11.24         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 15       | 11.24         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 15       | 11.24         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 15       | 11.24         |
| (1,1268) | 1:20:A:GLU:H    | 1:26:A:GLU:H     | 14       | 11.23         |
| (1,1123) | 1:119:A:TYR:HD1 | 1:125:A:ILE:H    | 6        | 11.23         |
| (1,1123) | 1:119:A:TYR:HD2 | 1:125:A:ILE:H    | 6        | 11.23         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 5        | 11.23         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 5        | 11.23         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 5        | 11.23         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 15       | 11.22         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 16       | 11.22         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 20       | 11.21         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 14       | 11.2          |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 14       | 11.2          |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 14       | 11.2          |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 14       | 11.2          |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 14       | 11.2          |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 14       | 11.2          |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 4        | 11.2          |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 4        | 11.2          |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 4        | 11.2          |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 4        | 11.18         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 4        | 11.18         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 8        | 11.18         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 3        | 11.18         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 3        | 11.18         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 3        | 11.18         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 3        | 11.18         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 3        | 11.18         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 3        | 11.18         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 19       | 11.17         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 1        | 11.17         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 1        | 11.17         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 1        | 11.17         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 1        | 11.17         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 1        | 11.17         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 1        | 11.17         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 12       | 11.16         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 12       | 11.16         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 12       | 11.16         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 12       | 11.16         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 12       | 11.16         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 12       | 11.16         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 9        | 11.14         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 9        | 11.14         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 9        | 11.14         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 9        | 11.14         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 9        | 11.14         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 9        | 11.14         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 16       | 11.14         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 16       | 11.14         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 16       | 11.14         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 16       | 11.14         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 16       | 11.14         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 16       | 11.14         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 5        | 11.1          |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 6        | 11.08         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 6        | 11.08         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 17       | 11.07         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 17       | 11.07         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 17       | 11.07         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 17       | 11.07         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 17       | 11.07         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 17       | 11.07         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 19       | 11.07         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 19       | 11.07         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 19       | 11.07         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 2        | 11.05         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 2        | 11.05         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 13       | 11.04         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 3        | 11.03         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 3        | 11.03         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 10       | 11.03         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 10       | 11.03         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 9        | 11.03         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 10       | 11.02         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 10       | 11.02         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 10       | 11.02         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 10       | 11.02         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 10       | 11.02         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 10       | 11.02         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 1        | 11.01         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 1        | 11.01         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 9        | 11.01         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 9        | 11.01         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 18       | 11.01         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 18       | 11.01         |
| (1,1268) | 1:20:A:GLU:H    | 1:26:A:GLU:H     | 12       | 10.98         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 17       | 10.97         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 17       | 10.97         |
| (1,1132) | 1:119:A:TYR:HE1 | 1:125:A:ILE:HA   | 20       | 10.95         |
| (1,1132) | 1:119:A:TYR:HE2 | 1:125:A:ILE:HA   | 20       | 10.95         |
| (1,1028) | 1:30:A:ASN:HA   | 1:37:A:GLU:HB2   | 18       | 10.95         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 8        | 10.94         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 8        | 10.94         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 13       | 10.93         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 13       | 10.93         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 15       | 10.93         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 15       | 10.93         |
| (1,2137) | 1:20:A:GLU:HB2  | 1:26:A:GLU:H     | 18       | 10.92         |
| (1,2137) | 1:20:A:GLU:HB3  | 1:26:A:GLU:H     | 18       | 10.92         |
| (1,1871) | 1:122:A:ILE:HB  | 1:142:A:GLU:H    | 4        | 10.92         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 14       | 10.91         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 14       | 10.91         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 16       | 10.89         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 16       | 10.89         |
| (1,1132) | 1:119:A:TYR:HE1 | 1:125:A:ILE:HA   | 7        | 10.89         |
| (1,1132) | 1:119:A:TYR:HE2 | 1:125:A:ILE:HA   | 7        | 10.89         |
| (1,1132) | 1:119:A:TYR:HE1 | 1:125:A:ILE:HA   | 15       | 10.89         |
| (1,1132) | 1:119:A:TYR:HE2 | 1:125:A:ILE:HA   | 15       | 10.89         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 5        | 10.86         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 5        | 10.86         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 12       | 10.84         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 12       | 10.84         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD11 | 18       | 10.83         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD12 | 18       | 10.83         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD13 | 18       | 10.83         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD11 | 18       | 10.83         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD12 | 18       | 10.83         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD13 | 18       | 10.83         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 19       | 10.81         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 19       | 10.81         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 20       | 10.81         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 20       | 10.81         |
| (1,1132) | 1:119:A:TYR:HE1 | 1:125:A:ILE:HA   | 19       | 10.79         |
| (1,1132) | 1:119:A:TYR:HE2 | 1:125:A:ILE:HA   | 19       | 10.79         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 11       | 10.78         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 11       | 10.78         |
| (1,1132) | 1:119:A:TYR:HE1 | 1:125:A:ILE:HA   | 10       | 10.78         |
| (1,1132) | 1:119:A:TYR:HE2 | 1:125:A:ILE:HA   | 10       | 10.78         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD11 | 13       | 10.77         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD12 | 13       | 10.77         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD13 | 13       | 10.77         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD11 | 13       | 10.77         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD12 | 13       | 10.77         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD13 | 13       | 10.77         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD11 | 7        | 10.75         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD12 | 7        | 10.75         |
| (1,373)  | 1:38:A:TRP:HE1  | 1:125:A:ILE:HD13 | 7        | 10.75         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD11 | 6        | 10.73         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD12 | 6        | 10.73         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD13 | 6        | 10.73         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD11 | 6        | 10.73         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD12 | 6        | 10.73         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD13 | 6        | 10.73         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD11 | 11       | 10.73         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD12 | 11       | 10.73         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD13 | 11       | 10.73         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD11 | 11       | 10.73         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD12 | 11       | 10.73         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD13 | 11       | 10.73         |
| (1,1871) | 1:122:A:ILE:HB  | 1:142:A:GLU:H    | 18       | 10.72         |
| (1,1132) | 1:119:A:TYR:HE1 | 1:125:A:ILE:HA   | 14       | 10.72         |
| (1,1132) | 1:119:A:TYR:HE2 | 1:125:A:ILE:HA   | 14       | 10.72         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 7        | 10.72         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 7        | 10.72         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 7        | 10.72         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 7        | 10.72         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 7        | 10.72         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 7        | 10.72         |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD11 | 13       | 10.72         |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD12 | 13       | 10.72         |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD13 | 13       | 10.72         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD11 | 13       | 10.72         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD12 | 13       | 10.72         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD13 | 13       | 10.72         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD11 | 13       | 10.72         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD12 | 13       | 10.72         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD13 | 13       | 10.72         |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 10       | 10.71         |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 10       | 10.71         |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 10       | 10.71         |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 10       | 10.71         |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 10       | 10.71         |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 10       | 10.71         |
| (1,376)  | 1:116:A:TYR:HD1  | 1:125:A:ILE:HD11 | 19       | 10.71         |
| (1,376)  | 1:116:A:TYR:HD1  | 1:125:A:ILE:HD12 | 19       | 10.71         |
| (1,376)  | 1:116:A:TYR:HD1  | 1:125:A:ILE:HD13 | 19       | 10.71         |
| (1,376)  | 1:116:A:TYR:HD2  | 1:125:A:ILE:HD11 | 19       | 10.71         |
| (1,376)  | 1:116:A:TYR:HD2  | 1:125:A:ILE:HD12 | 19       | 10.71         |
| (1,376)  | 1:116:A:TYR:HD2  | 1:125:A:ILE:HD13 | 19       | 10.71         |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 7        | 10.7          |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 7        | 10.7          |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 7        | 10.7          |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 7        | 10.7          |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 7        | 10.7          |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 7        | 10.7          |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 17       | 10.69         |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 17       | 10.69         |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 17       | 10.69         |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 17       | 10.69         |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 17       | 10.69         |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 17       | 10.69         |
| (1,1871) | 1:122:A:ILE:HB   | 1:142:A:GLU:H    | 6        | 10.69         |
| (1,1871) | 1:122:A:ILE:HB   | 1:142:A:GLU:H    | 9        | 10.69         |
| (1,1870) | 1:136:A:MET:HB3  | 1:142:A:GLU:H    | 4        | 10.69         |
| (1,1870) | 1:136:A:MET:HB2  | 1:142:A:GLU:H    | 4        | 10.69         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD11 | 8        | 10.69         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD12 | 8        | 10.69         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD13 | 8        | 10.69         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD11 | 8        | 10.69         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD12 | 8        | 10.69         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD13 | 8        | 10.69         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD11 | 8        | 10.69         |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD12 | 8        | 10.69         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD13 | 8        | 10.69         |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD11 | 3        | 10.68         |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD12 | 3        | 10.68         |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD13 | 3        | 10.68         |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD11 | 3        | 10.68         |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD12 | 3        | 10.68         |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD13 | 3        | 10.68         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD11 | 18       | 10.68         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD12 | 18       | 10.68         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD13 | 18       | 10.68         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD11 | 18       | 10.68         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD12 | 18       | 10.68         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD13 | 18       | 10.68         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD11 | 18       | 10.68         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD12 | 18       | 10.68         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD13 | 18       | 10.68         |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 15       | 10.67         |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 15       | 10.67         |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 15       | 10.67         |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 15       | 10.67         |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 15       | 10.67         |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 15       | 10.67         |
| (1,2137) | 1:20:A:GLU:HB2   | 1:26:A:GLU:H     | 20       | 10.67         |
| (1,2137) | 1:20:A:GLU:HB3   | 1:26:A:GLU:H     | 20       | 10.67         |
| (1,1871) | 1:122:A:ILE:HB   | 1:142:A:GLU:H    | 13       | 10.67         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD11 | 11       | 10.67         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD12 | 11       | 10.67         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD13 | 11       | 10.67         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD11 | 11       | 10.67         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD12 | 11       | 10.67         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD13 | 11       | 10.67         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD11 | 11       | 10.67         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD12 | 11       | 10.67         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD13 | 11       | 10.67         |
| (1,1871) | 1:122:A:ILE:HB   | 1:142:A:GLU:H    | 10       | 10.65         |
| (1,1871) | 1:122:A:ILE:HB   | 1:142:A:GLU:H    | 17       | 10.65         |
| (1,1132) | 1:119:A:TYR:HE1  | 1:125:A:ILE:HA   | 11       | 10.65         |
| (1,1132) | 1:119:A:TYR:HE2  | 1:125:A:ILE:HA   | 11       | 10.65         |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 1        | 10.64         |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 1        | 10.64         |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 1        | 10.64         |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 1        | 10.64         |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 1        | 10.64         |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 1        | 10.64         |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 3        | 10.64         |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 3        | 10.64         |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 3        | 10.64         |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 3        | 10.64         |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 3        | 10.64         |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 3        | 10.64         |
| (1,1871) | 1:122:A:ILE:HB   | 1:142:A:GLU:H    | 3        | 10.64         |
| (1,1132) | 1:119:A:TYR:HE1  | 1:125:A:ILE:HA   | 5        | 10.64         |
| (1,1132) | 1:119:A:TYR:HE2  | 1:125:A:ILE:HA   | 5        | 10.64         |
| (1,105)  | 1:60:A:PHE:HZ    | 1:142:A:GLU:HA   | 10       | 10.64         |
| (1,105)  | 1:60:A:PHE:HZ    | 1:142:A:GLU:HA   | 14       | 10.64         |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 6        | 10.63         |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 6        | 10.63         |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 6        | 10.63         |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 6        | 10.63         |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 6        | 10.63         |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 6        | 10.63         |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 18       | 10.63         |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 18       | 10.63         |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 18       | 10.63         |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 18       | 10.63         |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 18       | 10.63         |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 18       | 10.63         |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 20       | 10.63         |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 20       | 10.63         |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 20       | 10.63         |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 20       | 10.63         |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 20       | 10.63         |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 20       | 10.63         |
| (1,1871) | 1:122:A:ILE:HB   | 1:142:A:GLU:H    | 2        | 10.63         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD11 | 6        | 10.63         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD12 | 6        | 10.63         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD13 | 6        | 10.63         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD11 | 6        | 10.63         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD12 | 6        | 10.63         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD13 | 6        | 10.63         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD11 | 6        | 10.63         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD12 | 6        | 10.63         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD13 | 6        | 10.63         |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 14       | 10.62         |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 14       | 10.62         |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 14       | 10.62         |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 14       | 10.62         |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 14       | 10.62         |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 14       | 10.62         |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD11 | 8        | 10.62         |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD12 | 8        | 10.62         |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD13 | 8        | 10.62         |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD11 | 8        | 10.62         |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD12 | 8        | 10.62         |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD13 | 8        | 10.62         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD11 | 3        | 10.62         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD12 | 3        | 10.62         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD13 | 3        | 10.62         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD11 | 3        | 10.62         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD12 | 3        | 10.62         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD13 | 3        | 10.62         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD11 | 3        | 10.62         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD12 | 3        | 10.62         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD13 | 3        | 10.62         |
| (1,1871) | 1:122:A:ILE:HB   | 1:142:A:GLU:H    | 14       | 10.61         |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 9        | 10.6          |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 9        | 10.6          |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 9        | 10.6          |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 9        | 10.6          |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 9        | 10.6          |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 9        | 10.6          |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 13       | 10.6          |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 13       | 10.6          |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 13       | 10.6          |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 13       | 10.6          |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 13       | 10.6          |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 13       | 10.6          |
| (1,1871) | 1:122:A:ILE:HB   | 1:142:A:GLU:H    | 1        | 10.59         |
| (1,1132) | 1:119:A:TYR:HE1  | 1:125:A:ILE:HA   | 4        | 10.59         |
| (1,1132) | 1:119:A:TYR:HE2  | 1:125:A:ILE:HA   | 4        | 10.59         |
| (1,1132) | 1:119:A:TYR:HE1  | 1:125:A:ILE:HA   | 13       | 10.58         |
| (1,1132) | 1:119:A:TYR:HE2  | 1:125:A:ILE:HA   | 13       | 10.58         |
| (1,105)  | 1:60:A:PHE:HZ    | 1:142:A:GLU:HA   | 7        | 10.58         |
| (1,1871) | 1:122:A:ILE:HB   | 1:142:A:GLU:H    | 8        | 10.57         |
| (1,1871) | 1:122:A:ILE:HB   | 1:142:A:GLU:H    | 16       | 10.57         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1132) | 1:119:A:TYR:HE1 | 1:125:A:ILE:HA   | 18       | 10.57         |
| (1,1132) | 1:119:A:TYR:HE2 | 1:125:A:ILE:HA   | 18       | 10.57         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD11 | 12       | 10.55         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD12 | 12       | 10.55         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD13 | 12       | 10.55         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD11 | 12       | 10.55         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD12 | 12       | 10.55         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD13 | 12       | 10.55         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD11 | 16       | 10.55         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD12 | 16       | 10.55         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD13 | 16       | 10.55         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD11 | 16       | 10.55         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD12 | 16       | 10.55         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD13 | 16       | 10.55         |
| (1,1871) | 1:122:A:ILE:HB  | 1:142:A:GLU:H    | 12       | 10.55         |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD11 | 2        | 10.55         |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD12 | 2        | 10.55         |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD13 | 2        | 10.55         |
| (1,34)   | 1:34:A:ILE:HG22 | 1:125:A:ILE:HD11 | 2        | 10.55         |
| (1,34)   | 1:34:A:ILE:HG22 | 1:125:A:ILE:HD12 | 2        | 10.55         |
| (1,34)   | 1:34:A:ILE:HG22 | 1:125:A:ILE:HD13 | 2        | 10.55         |
| (1,34)   | 1:34:A:ILE:HG23 | 1:125:A:ILE:HD11 | 2        | 10.55         |
| (1,34)   | 1:34:A:ILE:HG23 | 1:125:A:ILE:HD12 | 2        | 10.55         |
| (1,34)   | 1:34:A:ILE:HG23 | 1:125:A:ILE:HD13 | 2        | 10.55         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB2  | 7        | 10.54         |
| (1,2670) | 1:122:A:ILE:HB  | 1:142:A:GLU:HB3  | 7        | 10.54         |
| (1,2137) | 1:20:A:GLU:HB2  | 1:26:A:GLU:H     | 13       | 10.54         |
| (1,2137) | 1:20:A:GLU:HB3  | 1:26:A:GLU:H     | 13       | 10.54         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 4        | 10.54         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 4        | 10.54         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 4        | 10.54         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 4        | 10.54         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 4        | 10.54         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 4        | 10.54         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD11 | 5        | 10.54         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD12 | 5        | 10.54         |
| (1,376)  | 1:116:A:TYR:HD1 | 1:125:A:ILE:HD13 | 5        | 10.54         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD11 | 5        | 10.54         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD12 | 5        | 10.54         |
| (1,376)  | 1:116:A:TYR:HD2 | 1:125:A:ILE:HD13 | 5        | 10.54         |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD11 | 20       | 10.54         |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD12 | 20       | 10.54         |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD13 | 20       | 10.54         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD11 | 20       | 10.54         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD12 | 20       | 10.54         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD13 | 20       | 10.54         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD11 | 20       | 10.54         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD12 | 20       | 10.54         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD13 | 20       | 10.54         |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD11 | 2        | 10.53         |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD12 | 2        | 10.53         |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD13 | 2        | 10.53         |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD11 | 2        | 10.53         |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD12 | 2        | 10.53         |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD13 | 2        | 10.53         |
| (1,1871) | 1:122:A:ILE:HB   | 1:142:A:GLU:H    | 5        | 10.53         |
| (1,1132) | 1:119:A:TYR:HE1  | 1:125:A:ILE:HA   | 1        | 10.53         |
| (1,1132) | 1:119:A:TYR:HE2  | 1:125:A:ILE:HA   | 1        | 10.53         |
| (1,1132) | 1:119:A:TYR:HE1  | 1:125:A:ILE:HA   | 8        | 10.53         |
| (1,1132) | 1:119:A:TYR:HE2  | 1:125:A:ILE:HA   | 8        | 10.53         |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 4        | 10.52         |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 4        | 10.52         |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 4        | 10.52         |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 4        | 10.52         |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 4        | 10.52         |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 4        | 10.52         |
| (1,1871) | 1:122:A:ILE:HB   | 1:142:A:GLU:H    | 20       | 10.52         |
| (1,1132) | 1:119:A:TYR:HE1  | 1:125:A:ILE:HA   | 17       | 10.51         |
| (1,1132) | 1:119:A:TYR:HE2  | 1:125:A:ILE:HA   | 17       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD11 | 12       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD12 | 12       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD13 | 12       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD11 | 12       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD12 | 12       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD13 | 12       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD11 | 12       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD12 | 12       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD13 | 12       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD11 | 14       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD12 | 14       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD13 | 14       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD11 | 14       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD12 | 14       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD13 | 14       | 10.51         |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD11 | 14       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD12 | 14       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD13 | 14       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD11 | 16       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD12 | 16       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD13 | 16       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD11 | 16       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD12 | 16       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD13 | 16       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD11 | 16       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD12 | 16       | 10.51         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD13 | 16       | 10.51         |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 19       | 10.5          |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 19       | 10.5          |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 19       | 10.5          |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 19       | 10.5          |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 19       | 10.5          |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 19       | 10.5          |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD11 | 15       | 10.5          |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD12 | 15       | 10.5          |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD13 | 15       | 10.5          |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD11 | 15       | 10.5          |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD12 | 15       | 10.5          |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD13 | 15       | 10.5          |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 2        | 10.49         |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 2        | 10.49         |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 2        | 10.49         |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 2        | 10.49         |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 2        | 10.49         |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 2        | 10.49         |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 16       | 10.49         |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 16       | 10.49         |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 16       | 10.49         |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 16       | 10.49         |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 16       | 10.49         |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 16       | 10.49         |
| (1,1871) | 1:122:A:ILE:HB   | 1:142:A:GLU:H    | 19       | 10.49         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD11 | 15       | 10.49         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD12 | 15       | 10.49         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD13 | 15       | 10.49         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD11 | 15       | 10.49         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD12 | 15       | 10.49         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,34)   | 1:34:A:ILE:HG22 | 1:125:A:ILE:HD13 | 15       | 10.49         |
| (1,34)   | 1:34:A:ILE:HG23 | 1:125:A:ILE:HD11 | 15       | 10.49         |
| (1,34)   | 1:34:A:ILE:HG23 | 1:125:A:ILE:HD12 | 15       | 10.49         |
| (1,34)   | 1:34:A:ILE:HG23 | 1:125:A:ILE:HD13 | 15       | 10.49         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD11 | 9        | 10.48         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD12 | 9        | 10.48         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD13 | 9        | 10.48         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD11 | 9        | 10.48         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD12 | 9        | 10.48         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD13 | 9        | 10.48         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD11 | 14       | 10.48         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD12 | 14       | 10.48         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD13 | 14       | 10.48         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD11 | 14       | 10.48         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD12 | 14       | 10.48         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD13 | 14       | 10.48         |
| (1,1871) | 1:122:A:ILE:HB  | 1:142:A:GLU:H    | 15       | 10.48         |
| (1,1132) | 1:119:A:TYR:HE1 | 1:125:A:ILE:HA   | 9        | 10.48         |
| (1,1132) | 1:119:A:TYR:HE2 | 1:125:A:ILE:HA   | 9        | 10.48         |
| (1,1132) | 1:119:A:TYR:HE1 | 1:125:A:ILE:HA   | 2        | 10.47         |
| (1,1132) | 1:119:A:TYR:HE2 | 1:125:A:ILE:HA   | 2        | 10.47         |
| (1,1132) | 1:119:A:TYR:HE1 | 1:125:A:ILE:HA   | 3        | 10.47         |
| (1,1132) | 1:119:A:TYR:HE2 | 1:125:A:ILE:HA   | 3        | 10.47         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD11 | 20       | 10.46         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD12 | 20       | 10.46         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD13 | 20       | 10.46         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD11 | 20       | 10.46         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD12 | 20       | 10.46         |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD13 | 20       | 10.46         |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD11 | 9        | 10.46         |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD12 | 9        | 10.46         |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD13 | 9        | 10.46         |
| (1,34)   | 1:34:A:ILE:HG22 | 1:125:A:ILE:HD11 | 9        | 10.46         |
| (1,34)   | 1:34:A:ILE:HG22 | 1:125:A:ILE:HD12 | 9        | 10.46         |
| (1,34)   | 1:34:A:ILE:HG22 | 1:125:A:ILE:HD13 | 9        | 10.46         |
| (1,34)   | 1:34:A:ILE:HG23 | 1:125:A:ILE:HD11 | 9        | 10.46         |
| (1,34)   | 1:34:A:ILE:HG23 | 1:125:A:ILE:HD12 | 9        | 10.46         |
| (1,34)   | 1:34:A:ILE:HG23 | 1:125:A:ILE:HD13 | 9        | 10.46         |
| (1,2164) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HB2   | 14       | 10.45         |
| (1,2164) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HB2   | 14       | 10.45         |
| (1,105)  | 1:60:A:PHE:HZ   | 1:142:A:GLU:HA   | 11       | 10.45         |
| (1,105)  | 1:60:A:PHE:HZ   | 1:142:A:GLU:HA   | 15       | 10.45         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,105)  | 1:60:A:PHE:HZ   | 1:142:A:GLU:HA   | 1        | 10.44         |
| (1,105)  | 1:60:A:PHE:HZ   | 1:142:A:GLU:HA   | 2        | 10.44         |
| (1,1871) | 1:122:A:ILE:HB  | 1:142:A:GLU:H    | 11       | 10.43         |
| (1,1132) | 1:119:A:TYR:HE1 | 1:125:A:ILE:HA   | 6        | 10.43         |
| (1,1132) | 1:119:A:TYR:HE2 | 1:125:A:ILE:HA   | 6        | 10.43         |
| (1,1132) | 1:119:A:TYR:HE1 | 1:125:A:ILE:HA   | 12       | 10.42         |
| (1,1132) | 1:119:A:TYR:HE2 | 1:125:A:ILE:HA   | 12       | 10.42         |
| (1,105)  | 1:60:A:PHE:HZ   | 1:142:A:GLU:HA   | 6        | 10.42         |
| (1,1870) | 1:136:A:MET:HB3 | 1:142:A:GLU:H    | 12       | 10.41         |
| (1,1870) | 1:136:A:MET:HB2 | 1:142:A:GLU:H    | 12       | 10.41         |
| (1,1132) | 1:119:A:TYR:HE1 | 1:125:A:ILE:HA   | 16       | 10.41         |
| (1,1132) | 1:119:A:TYR:HE2 | 1:125:A:ILE:HA   | 16       | 10.41         |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD11 | 1        | 10.4          |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD12 | 1        | 10.4          |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD13 | 1        | 10.4          |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD11 | 1        | 10.4          |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD12 | 1        | 10.4          |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD13 | 1        | 10.4          |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD11 | 17       | 10.4          |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD12 | 17       | 10.4          |
| (1,2191) | 1:34:A:ILE:HG12 | 1:125:A:ILE:HD13 | 17       | 10.4          |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD11 | 17       | 10.4          |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD12 | 17       | 10.4          |
| (1,2191) | 1:34:A:ILE:HG13 | 1:125:A:ILE:HD13 | 17       | 10.4          |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD11 | 17       | 10.4          |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD12 | 17       | 10.4          |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD13 | 17       | 10.4          |
| (1,34)   | 1:34:A:ILE:HG22 | 1:125:A:ILE:HD11 | 17       | 10.4          |
| (1,34)   | 1:34:A:ILE:HG22 | 1:125:A:ILE:HD12 | 17       | 10.4          |
| (1,34)   | 1:34:A:ILE:HG22 | 1:125:A:ILE:HD13 | 17       | 10.4          |
| (1,34)   | 1:34:A:ILE:HG23 | 1:125:A:ILE:HD11 | 17       | 10.4          |
| (1,34)   | 1:34:A:ILE:HG23 | 1:125:A:ILE:HD12 | 17       | 10.4          |
| (1,34)   | 1:34:A:ILE:HG23 | 1:125:A:ILE:HD13 | 17       | 10.4          |
| (1,105)  | 1:60:A:PHE:HZ   | 1:142:A:GLU:HA   | 3        | 10.39         |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD11 | 1        | 10.39         |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD12 | 1        | 10.39         |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD13 | 1        | 10.39         |
| (1,34)   | 1:34:A:ILE:HG22 | 1:125:A:ILE:HD11 | 1        | 10.39         |
| (1,34)   | 1:34:A:ILE:HG22 | 1:125:A:ILE:HD12 | 1        | 10.39         |
| (1,34)   | 1:34:A:ILE:HG22 | 1:125:A:ILE:HD13 | 1        | 10.39         |
| (1,34)   | 1:34:A:ILE:HG23 | 1:125:A:ILE:HD11 | 1        | 10.39         |
| (1,34)   | 1:34:A:ILE:HG23 | 1:125:A:ILE:HD12 | 1        | 10.39         |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD13 | 1        | 10.39         |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD11 | 10       | 10.38         |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD12 | 10       | 10.38         |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD13 | 10       | 10.38         |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD11 | 10       | 10.38         |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD12 | 10       | 10.38         |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD13 | 10       | 10.38         |
| (1,2164) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HB2   | 7        | 10.38         |
| (1,2164) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HB2   | 7        | 10.38         |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 11       | 10.37         |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 11       | 10.37         |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 11       | 10.37         |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 11       | 10.37         |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 11       | 10.37         |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 11       | 10.37         |
| (1,105)  | 1:60:A:PHE:HZ    | 1:142:A:GLU:HA   | 18       | 10.37         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD11 | 10       | 10.37         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD12 | 10       | 10.37         |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD13 | 10       | 10.37         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD11 | 10       | 10.37         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD12 | 10       | 10.37         |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD13 | 10       | 10.37         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD11 | 10       | 10.37         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD12 | 10       | 10.37         |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD13 | 10       | 10.37         |
| (1,1870) | 1:136:A:MET:HB3  | 1:142:A:GLU:H    | 7        | 10.36         |
| (1,1870) | 1:136:A:MET:HB2  | 1:142:A:GLU:H    | 7        | 10.36         |
| (1,1870) | 1:136:A:MET:HB3  | 1:142:A:GLU:H    | 15       | 10.36         |
| (1,1870) | 1:136:A:MET:HB2  | 1:142:A:GLU:H    | 15       | 10.36         |
| (1,105)  | 1:60:A:PHE:HZ    | 1:142:A:GLU:HA   | 19       | 10.36         |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA   | 8        | 10.35         |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA   | 8        | 10.35         |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA   | 8        | 10.35         |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA   | 8        | 10.35         |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA   | 8        | 10.35         |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA   | 8        | 10.35         |
| (1,2360) | 1:60:A:PHE:HA    | 1:142:A:GLU:HG2  | 10       | 10.35         |
| (1,2360) | 1:60:A:PHE:HA    | 1:142:A:GLU:HG3  | 10       | 10.35         |
| (1,1870) | 1:136:A:MET:HB3  | 1:142:A:GLU:H    | 6        | 10.34         |
| (1,1870) | 1:136:A:MET:HB2  | 1:142:A:GLU:H    | 6        | 10.34         |
| (1,105)  | 1:60:A:PHE:HZ    | 1:142:A:GLU:HA   | 8        | 10.34         |
| (1,105)  | 1:60:A:PHE:HZ    | 1:142:A:GLU:HA   | 20       | 10.34         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1870) | 1:136:A:MET:HB3 | 1:142:A:GLU:H    | 16       | 10.33         |
| (1,1870) | 1:136:A:MET:HB2 | 1:142:A:GLU:H    | 16       | 10.33         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 7        | 10.33         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 7        | 10.33         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 7        | 10.33         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 7        | 10.33         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 7        | 10.33         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 7        | 10.33         |
| (1,1870) | 1:136:A:MET:HB3 | 1:142:A:GLU:H    | 9        | 10.32         |
| (1,1870) | 1:136:A:MET:HB2 | 1:142:A:GLU:H    | 9        | 10.32         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 19       | 10.32         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 19       | 10.32         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 19       | 10.32         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 19       | 10.32         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 19       | 10.32         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 19       | 10.32         |
| (1,105)  | 1:60:A:PHE:HZ   | 1:142:A:GLU:HA   | 16       | 10.32         |
| (1,1870) | 1:136:A:MET:HB3 | 1:142:A:GLU:H    | 14       | 10.31         |
| (1,1870) | 1:136:A:MET:HB2 | 1:142:A:GLU:H    | 14       | 10.31         |
| (1,105)  | 1:60:A:PHE:HZ   | 1:142:A:GLU:HA   | 4        | 10.31         |
| (1,105)  | 1:60:A:PHE:HZ   | 1:142:A:GLU:HA   | 13       | 10.31         |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG2  | 14       | 10.29         |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG3  | 14       | 10.29         |
| (1,1870) | 1:136:A:MET:HB3 | 1:142:A:GLU:H    | 17       | 10.29         |
| (1,1870) | 1:136:A:MET:HB2 | 1:142:A:GLU:H    | 17       | 10.29         |
| (1,1870) | 1:136:A:MET:HB3 | 1:142:A:GLU:H    | 20       | 10.29         |
| (1,1870) | 1:136:A:MET:HB2 | 1:142:A:GLU:H    | 20       | 10.29         |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG2  | 15       | 10.28         |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG3  | 15       | 10.28         |
| (1,2164) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HB2   | 3        | 10.28         |
| (1,2164) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HB2   | 3        | 10.28         |
| (1,1870) | 1:136:A:MET:HB3 | 1:142:A:GLU:H    | 10       | 10.28         |
| (1,1870) | 1:136:A:MET:HB2 | 1:142:A:GLU:H    | 10       | 10.28         |
| (1,2137) | 1:20:A:GLU:HB2  | 1:26:A:GLU:H     | 5        | 10.27         |
| (1,2137) | 1:20:A:GLU:HB3  | 1:26:A:GLU:H     | 5        | 10.27         |
| (1,1870) | 1:136:A:MET:HB3 | 1:142:A:GLU:H    | 1        | 10.26         |
| (1,1870) | 1:136:A:MET:HB2 | 1:142:A:GLU:H    | 1        | 10.26         |
| (1,1268) | 1:20:A:GLU:H    | 1:26:A:GLU:H     | 9        | 10.26         |
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 20       | 10.26         |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 20       | 10.26         |
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 20       | 10.26         |
| (1,105)  | 1:60:A:PHE:HZ   | 1:142:A:GLU:HA   | 9        | 10.25         |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (1,2137) | 1:20:A:GLU:HB2   | 1:26:A:GLU:H    | 6        | 10.24         |
| (1,2137) | 1:20:A:GLU:HB3   | 1:26:A:GLU:H    | 6        | 10.24         |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA  | 5        | 10.23         |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA  | 5        | 10.23         |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA  | 5        | 10.23         |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA  | 5        | 10.23         |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA  | 5        | 10.23         |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA  | 5        | 10.23         |
| (1,2360) | 1:60:A:PHE:HA    | 1:142:A:GLU:HG2 | 7        | 10.23         |
| (1,2360) | 1:60:A:PHE:HA    | 1:142:A:GLU:HG3 | 7        | 10.23         |
| (1,2360) | 1:60:A:PHE:HA    | 1:142:A:GLU:HG2 | 1        | 10.22         |
| (1,2360) | 1:60:A:PHE:HA    | 1:142:A:GLU:HG3 | 1        | 10.22         |
| (1,2741) | 1:135:A:LEU:HD11 | 1:142:A:GLU:HA  | 12       | 10.21         |
| (1,2741) | 1:135:A:LEU:HD12 | 1:142:A:GLU:HA  | 12       | 10.21         |
| (1,2741) | 1:135:A:LEU:HD13 | 1:142:A:GLU:HA  | 12       | 10.21         |
| (1,2741) | 1:135:A:LEU:HD21 | 1:142:A:GLU:HA  | 12       | 10.21         |
| (1,2741) | 1:135:A:LEU:HD22 | 1:142:A:GLU:HA  | 12       | 10.21         |
| (1,2741) | 1:135:A:LEU:HD23 | 1:142:A:GLU:HA  | 12       | 10.21         |
| (1,2366) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HG2 | 10       | 10.2          |
| (1,2366) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HG3 | 10       | 10.2          |
| (1,2360) | 1:60:A:PHE:HA    | 1:142:A:GLU:HG2 | 20       | 10.2          |
| (1,2360) | 1:60:A:PHE:HA    | 1:142:A:GLU:HG3 | 20       | 10.2          |
| (1,1870) | 1:136:A:MET:HB3  | 1:142:A:GLU:H   | 13       | 10.2          |
| (1,1870) | 1:136:A:MET:HB2  | 1:142:A:GLU:H   | 13       | 10.2          |
| (1,1870) | 1:136:A:MET:HB3  | 1:142:A:GLU:H   | 19       | 10.2          |
| (1,1870) | 1:136:A:MET:HB2  | 1:142:A:GLU:H   | 19       | 10.2          |
| (1,533)  | 1:40:A:THR:HG21  | 1:66:A:VAL:H    | 13       | 10.2          |
| (1,533)  | 1:40:A:THR:HG22  | 1:66:A:VAL:H    | 13       | 10.2          |
| (1,533)  | 1:40:A:THR:HG23  | 1:66:A:VAL:H    | 13       | 10.2          |
| (1,2164) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HB2  | 2        | 10.19         |
| (1,2164) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HB2  | 2        | 10.19         |
| (1,1871) | 1:122:A:ILE:HB   | 1:142:A:GLU:H   | 7        | 10.19         |
| (1,1870) | 1:136:A:MET:HB3  | 1:142:A:GLU:H   | 11       | 10.19         |
| (1,1870) | 1:136:A:MET:HB2  | 1:142:A:GLU:H   | 11       | 10.19         |
| (1,1870) | 1:136:A:MET:HB3  | 1:142:A:GLU:H   | 18       | 10.19         |
| (1,1870) | 1:136:A:MET:HB2  | 1:142:A:GLU:H   | 18       | 10.19         |
| (1,533)  | 1:40:A:THR:HG21  | 1:66:A:VAL:H    | 11       | 10.19         |
| (1,533)  | 1:40:A:THR:HG22  | 1:66:A:VAL:H    | 11       | 10.19         |
| (1,533)  | 1:40:A:THR:HG23  | 1:66:A:VAL:H    | 11       | 10.19         |
| (1,1870) | 1:136:A:MET:HB3  | 1:142:A:GLU:H   | 5        | 10.18         |
| (1,1870) | 1:136:A:MET:HB2  | 1:142:A:GLU:H   | 5        | 10.18         |
| (1,2360) | 1:60:A:PHE:HA    | 1:142:A:GLU:HG2 | 2        | 10.17         |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG3  | 2        | 10.17         |
| (1,2090) | 1:171:A:THR:HA  | 1:180:A:ARG:HE   | 15       | 10.17         |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG2  | 3        | 10.16         |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG3  | 3        | 10.16         |
| (1,1870) | 1:136:A:MET:HB3 | 1:142:A:GLU:H    | 3        | 10.16         |
| (1,1870) | 1:136:A:MET:HB2 | 1:142:A:GLU:H    | 3        | 10.16         |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG2  | 6        | 10.14         |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG3  | 6        | 10.14         |
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 17       | 10.14         |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 17       | 10.14         |
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 17       | 10.14         |
| (1,1870) | 1:136:A:MET:HB3 | 1:142:A:GLU:H    | 8        | 10.13         |
| (1,1870) | 1:136:A:MET:HB2 | 1:142:A:GLU:H    | 8        | 10.13         |
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 3        | 10.13         |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 3        | 10.13         |
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 3        | 10.13         |
| (1,105)  | 1:60:A:PHE:HZ   | 1:142:A:GLU:HA   | 12       | 10.13         |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG2  | 14       | 10.12         |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG3  | 14       | 10.12         |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG2  | 18       | 10.12         |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG3  | 18       | 10.12         |
| (1,1870) | 1:136:A:MET:HB3 | 1:142:A:GLU:H    | 2        | 10.12         |
| (1,1870) | 1:136:A:MET:HB2 | 1:142:A:GLU:H    | 2        | 10.12         |
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 14       | 10.12         |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 14       | 10.12         |
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 14       | 10.12         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 5        | 10.12         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 5        | 10.12         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 5        | 10.12         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 5        | 10.12         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 5        | 10.12         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 5        | 10.12         |
| (1,2137) | 1:20:A:GLU:HB2  | 1:26:A:GLU:H     | 16       | 10.11         |
| (1,2137) | 1:20:A:GLU:HB3  | 1:26:A:GLU:H     | 16       | 10.11         |
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 1        | 10.11         |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 1        | 10.11         |
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 1        | 10.11         |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG2  | 15       | 10.1          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG3  | 15       | 10.1          |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG2  | 13       | 10.1          |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG3  | 13       | 10.1          |
| (1,105)  | 1:60:A:PHE:HZ   | 1:142:A:GLU:HA   | 17       | 10.1          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG2  | 7        | 10.09         |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG3  | 7        | 10.09         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD11 | 4        | 10.09         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD12 | 4        | 10.09         |
| (1,377)  | 1:116:A:TYR:HE1 | 1:125:A:ILE:HD13 | 4        | 10.09         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD11 | 4        | 10.09         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD12 | 4        | 10.09         |
| (1,377)  | 1:116:A:TYR:HE2 | 1:125:A:ILE:HD13 | 4        | 10.09         |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG2  | 1        | 10.08         |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG3  | 1        | 10.08         |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG2  | 11       | 10.08         |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG3  | 11       | 10.08         |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG2  | 8        | 10.06         |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG3  | 8        | 10.06         |
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 5        | 10.05         |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 5        | 10.05         |
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 5        | 10.05         |
| (1,105)  | 1:60:A:PHE:HZ   | 1:142:A:GLU:HA   | 5        | 10.05         |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG2  | 4        | 10.04         |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG3  | 4        | 10.04         |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG2  | 3        | 10.02         |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG3  | 3        | 10.02         |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG2  | 2        | 10.01         |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG3  | 2        | 10.01         |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG2  | 9        | 10.0          |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG3  | 9        | 10.0          |
| (1,433)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG12 | 20       | 10.0          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG2  | 6        | 9.99          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG3  | 6        | 9.99          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG2  | 11       | 9.99          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG3  | 11       | 9.99          |
| (1,2164) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HB2   | 8        | 9.99          |
| (1,2164) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HB2   | 8        | 9.99          |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG2  | 12       | 9.96          |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG3  | 12       | 9.96          |
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 8        | 9.96          |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 8        | 9.96          |
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 8        | 9.96          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG2  | 8        | 9.94          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG3  | 8        | 9.94          |
| (1,2137) | 1:20:A:GLU:HB2  | 1:26:A:GLU:H     | 9        | 9.94          |
| (1,2137) | 1:20:A:GLU:HB3  | 1:26:A:GLU:H     | 9        | 9.94          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 19       | 9.93          |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 19       | 9.93          |
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 19       | 9.93          |
| (1,433)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG12 | 18       | 9.92          |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG2  | 19       | 9.91          |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG3  | 19       | 9.91          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG2  | 4        | 9.9           |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG3  | 4        | 9.9           |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG2  | 16       | 9.9           |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG3  | 16       | 9.9           |
| (1,2164) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HB2   | 16       | 9.9           |
| (1,2164) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HB2   | 16       | 9.9           |
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 4        | 9.9           |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 4        | 9.9           |
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 4        | 9.9           |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG2  | 18       | 9.88          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG3  | 18       | 9.88          |
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 10       | 9.88          |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 10       | 9.88          |
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 10       | 9.88          |
| (1,433)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG12 | 16       | 9.88          |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG2  | 17       | 9.86          |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG3  | 17       | 9.86          |
| (1,768)  | 1:136:A:MET:HE1 | 1:142:A:GLU:H    | 12       | 9.86          |
| (1,768)  | 1:136:A:MET:HE2 | 1:142:A:GLU:H    | 12       | 9.86          |
| (1,768)  | 1:136:A:MET:HE3 | 1:142:A:GLU:H    | 12       | 9.86          |
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 18       | 9.86          |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 18       | 9.86          |
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 18       | 9.86          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG2  | 16       | 9.85          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG3  | 16       | 9.85          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG2  | 19       | 9.85          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG3  | 19       | 9.85          |
| (1,433)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG12 | 9        | 9.85          |
| (1,433)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG12 | 14       | 9.85          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG2  | 20       | 9.84          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG3  | 20       | 9.84          |
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 16       | 9.84          |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 16       | 9.84          |
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 16       | 9.84          |
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 9        | 9.83          |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 9        | 9.83          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 9        | 9.83          |
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 15       | 9.83          |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 15       | 9.83          |
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 15       | 9.83          |
| (1,433)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG12 | 13       | 9.83          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG2  | 13       | 9.82          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG3  | 13       | 9.82          |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG2  | 5        | 9.81          |
| (1,2360) | 1:60:A:PHE:HA   | 1:142:A:GLU:HG3  | 5        | 9.81          |
| (1,2164) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HB2   | 18       | 9.81          |
| (1,2164) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HB2   | 18       | 9.81          |
| (1,2137) | 1:20:A:GLU:HB2  | 1:26:A:GLU:H     | 14       | 9.81          |
| (1,2137) | 1:20:A:GLU:HB3  | 1:26:A:GLU:H     | 14       | 9.81          |
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 2        | 9.81          |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 2        | 9.81          |
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 2        | 9.81          |
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 12       | 9.81          |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 12       | 9.81          |
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 12       | 9.81          |
| (1,433)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG12 | 12       | 9.8           |
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 6        | 9.79          |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 6        | 9.79          |
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 6        | 9.79          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG2  | 9        | 9.78          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG3  | 9        | 9.78          |
| (1,433)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG12 | 11       | 9.77          |
| (1,533)  | 1:40:A:THR:HG21 | 1:66:A:VAL:H     | 7        | 9.76          |
| (1,533)  | 1:40:A:THR:HG22 | 1:66:A:VAL:H     | 7        | 9.76          |
| (1,533)  | 1:40:A:THR:HG23 | 1:66:A:VAL:H     | 7        | 9.76          |
| (1,433)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG12 | 3        | 9.76          |
| (1,433)  | 1:114:A:THR:HB  | 1:125:A:ILE:HG12 | 15       | 9.76          |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD11 | 19       | 9.75          |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD12 | 19       | 9.75          |
| (1,34)   | 1:34:A:ILE:HG21 | 1:125:A:ILE:HD13 | 19       | 9.75          |
| (1,34)   | 1:34:A:ILE:HG22 | 1:125:A:ILE:HD11 | 19       | 9.75          |
| (1,34)   | 1:34:A:ILE:HG22 | 1:125:A:ILE:HD12 | 19       | 9.75          |
| (1,34)   | 1:34:A:ILE:HG22 | 1:125:A:ILE:HD13 | 19       | 9.75          |
| (1,34)   | 1:34:A:ILE:HG23 | 1:125:A:ILE:HD11 | 19       | 9.75          |
| (1,34)   | 1:34:A:ILE:HG23 | 1:125:A:ILE:HD12 | 19       | 9.75          |
| (1,34)   | 1:34:A:ILE:HG23 | 1:125:A:ILE:HD13 | 19       | 9.75          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG2  | 12       | 9.74          |
| (1,2366) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HG3  | 12       | 9.74          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD11 | 7        | 9.74          |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD12 | 7        | 9.74          |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD13 | 7        | 9.74          |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD11 | 7        | 9.74          |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD12 | 7        | 9.74          |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD13 | 7        | 9.74          |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD11 | 7        | 9.74          |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD12 | 7        | 9.74          |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD13 | 7        | 9.74          |
| (1,433)  | 1:114:A:THR:HB   | 1:125:A:ILE:HG12 | 6        | 9.73          |
| (1,433)  | 1:114:A:THR:HB   | 1:125:A:ILE:HG12 | 17       | 9.73          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H    | 4        | 9.71          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H    | 4        | 9.71          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H    | 4        | 9.71          |
| (1,433)  | 1:114:A:THR:HB   | 1:125:A:ILE:HG12 | 1        | 9.71          |
| (1,433)  | 1:114:A:THR:HB   | 1:125:A:ILE:HG12 | 2        | 9.71          |
| (1,2366) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HG2  | 17       | 9.7           |
| (1,2366) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HG3  | 17       | 9.7           |
| (1,433)  | 1:114:A:THR:HB   | 1:125:A:ILE:HG12 | 8        | 9.67          |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD11 | 7        | 9.66          |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD12 | 7        | 9.66          |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD13 | 7        | 9.66          |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD11 | 7        | 9.66          |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD12 | 7        | 9.66          |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD13 | 7        | 9.66          |
| (1,433)  | 1:114:A:THR:HB   | 1:125:A:ILE:HG12 | 10       | 9.65          |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD11 | 19       | 9.63          |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD12 | 19       | 9.63          |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD13 | 19       | 9.63          |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD11 | 19       | 9.63          |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD12 | 19       | 9.63          |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD13 | 19       | 9.63          |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD11 | 5        | 9.63          |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD12 | 5        | 9.63          |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD13 | 5        | 9.63          |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD11 | 5        | 9.63          |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD12 | 5        | 9.63          |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD13 | 5        | 9.63          |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD11 | 5        | 9.63          |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD12 | 5        | 9.63          |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD13 | 5        | 9.63          |
| (1,2164) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HB2   | 1        | 9.62          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2164) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HB2   | 1        | 9.62          |
| (1,2366) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HG2  | 5        | 9.6           |
| (1,2366) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HG3  | 5        | 9.6           |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD11 | 5        | 9.6           |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD12 | 5        | 9.6           |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD13 | 5        | 9.6           |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD11 | 5        | 9.6           |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD12 | 5        | 9.6           |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD13 | 5        | 9.6           |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H    | 18       | 9.58          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H    | 18       | 9.58          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H    | 18       | 9.58          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H    | 9        | 9.57          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H    | 9        | 9.57          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H    | 9        | 9.57          |
| (1,8)    | 1:20:A:GLU:HA    | 1:26:A:GLU:HA    | 12       | 9.56          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H    | 2        | 9.55          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H    | 2        | 9.55          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H    | 2        | 9.55          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H    | 13       | 9.55          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H    | 13       | 9.55          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H    | 13       | 9.55          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H    | 6        | 9.54          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H    | 6        | 9.54          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H    | 6        | 9.54          |
| (1,2164) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HB2   | 4        | 9.53          |
| (1,2164) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HB2   | 4        | 9.53          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H    | 17       | 9.52          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H    | 17       | 9.52          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H    | 17       | 9.52          |
| (1,2164) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HB2   | 10       | 9.51          |
| (1,2164) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HB2   | 10       | 9.51          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H    | 3        | 9.51          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H    | 3        | 9.51          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H    | 3        | 9.51          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H    | 8        | 9.51          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H    | 8        | 9.51          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H    | 8        | 9.51          |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD11 | 4        | 9.49          |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD12 | 4        | 9.49          |
| (1,34)   | 1:34:A:ILE:HG21  | 1:125:A:ILE:HD13 | 4        | 9.49          |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD11 | 4        | 9.49          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD12 | 4        | 9.49          |
| (1,34)   | 1:34:A:ILE:HG22  | 1:125:A:ILE:HD13 | 4        | 9.49          |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD11 | 4        | 9.49          |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD12 | 4        | 9.49          |
| (1,34)   | 1:34:A:ILE:HG23  | 1:125:A:ILE:HD13 | 4        | 9.49          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H    | 1        | 9.48          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H    | 1        | 9.48          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H    | 1        | 9.48          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2  | 4        | 9.47          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3  | 4        | 9.47          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2  | 4        | 9.47          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3  | 4        | 9.47          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2  | 4        | 9.47          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3  | 4        | 9.47          |
| (1,2164) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HB2   | 19       | 9.47          |
| (1,2164) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HB2   | 19       | 9.47          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H    | 10       | 9.46          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H    | 10       | 9.46          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H    | 10       | 9.46          |
| (1,2164) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HB2   | 12       | 9.45          |
| (1,2164) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HB2   | 12       | 9.45          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H    | 14       | 9.45          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H    | 14       | 9.45          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H    | 14       | 9.45          |
| (1,768)  | 1:136:A:MET:HE1  | 1:142:A:GLU:H    | 16       | 9.44          |
| (1,768)  | 1:136:A:MET:HE2  | 1:142:A:GLU:H    | 16       | 9.44          |
| (1,768)  | 1:136:A:MET:HE3  | 1:142:A:GLU:H    | 16       | 9.44          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2  | 2        | 9.42          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3  | 2        | 9.42          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2  | 2        | 9.42          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3  | 2        | 9.42          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2  | 2        | 9.42          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3  | 2        | 9.42          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2  | 6        | 9.41          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3  | 6        | 9.41          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2  | 6        | 9.41          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3  | 6        | 9.41          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2  | 6        | 9.41          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3  | 6        | 9.41          |
| (1,2137) | 1:20:A:GLU:HB2   | 1:26:A:GLU:H     | 12       | 9.41          |
| (1,2137) | 1:20:A:GLU:HB3   | 1:26:A:GLU:H     | 12       | 9.41          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H    | 20       | 9.39          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H   | 20       | 9.39          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H   | 20       | 9.39          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2 | 3        | 9.38          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3 | 3        | 9.38          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2 | 3        | 9.38          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3 | 3        | 9.38          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2 | 3        | 9.38          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3 | 3        | 9.38          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H   | 5        | 9.38          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H   | 5        | 9.38          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H   | 5        | 9.38          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H   | 16       | 9.38          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H   | 16       | 9.38          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H   | 16       | 9.38          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2 | 9        | 9.37          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3 | 9        | 9.37          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2 | 9        | 9.37          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3 | 9        | 9.37          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2 | 9        | 9.37          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3 | 9        | 9.37          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2 | 1        | 9.36          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3 | 1        | 9.36          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2 | 1        | 9.36          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3 | 1        | 9.36          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2 | 1        | 9.36          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3 | 1        | 9.36          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2 | 18       | 9.36          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3 | 18       | 9.36          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2 | 18       | 9.36          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3 | 18       | 9.36          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2 | 18       | 9.36          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3 | 18       | 9.36          |
| (1,2164) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HB2  | 17       | 9.36          |
| (1,2164) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HB2  | 17       | 9.36          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H   | 12       | 9.36          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H   | 12       | 9.36          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H   | 12       | 9.36          |
| (1,2090) | 1:171:A:THR:HA   | 1:180:A:ARG:HE  | 12       | 9.35          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H   | 15       | 9.35          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H   | 15       | 9.35          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H   | 15       | 9.35          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H   | 19       | 9.35          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H   | 19       | 9.35          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H   | 19       | 9.35          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2 | 8        | 9.34          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3 | 8        | 9.34          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2 | 8        | 9.34          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3 | 8        | 9.34          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2 | 8        | 9.34          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3 | 8        | 9.34          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2 | 17       | 9.34          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3 | 17       | 9.34          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2 | 17       | 9.34          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3 | 17       | 9.34          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2 | 17       | 9.34          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3 | 17       | 9.34          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG2  | 14       | 9.34          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG3  | 14       | 9.34          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG2  | 14       | 9.34          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG3  | 14       | 9.34          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2 | 10       | 9.33          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3 | 10       | 9.33          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2 | 10       | 9.33          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3 | 10       | 9.33          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2 | 10       | 9.33          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3 | 10       | 9.33          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG2  | 3        | 9.33          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG3  | 3        | 9.33          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG2  | 3        | 9.33          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG3  | 3        | 9.33          |
| (1,2164) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HB2  | 6        | 9.33          |
| (1,2164) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HB2  | 6        | 9.33          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2 | 13       | 9.31          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3 | 13       | 9.31          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2 | 13       | 9.31          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3 | 13       | 9.31          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2 | 13       | 9.31          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3 | 13       | 9.31          |
| (1,768)  | 1:136:A:MET:HE1  | 1:142:A:GLU:H   | 11       | 9.3           |
| (1,768)  | 1:136:A:MET:HE2  | 1:142:A:GLU:H   | 11       | 9.3           |
| (1,768)  | 1:136:A:MET:HE3  | 1:142:A:GLU:H   | 11       | 9.3           |
| (1,768)  | 1:136:A:MET:HE1  | 1:142:A:GLU:H   | 5        | 9.29          |
| (1,768)  | 1:136:A:MET:HE2  | 1:142:A:GLU:H   | 5        | 9.29          |
| (1,768)  | 1:136:A:MET:HE3  | 1:142:A:GLU:H   | 5        | 9.29          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2  | 15       | 9.26          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3  | 15       | 9.26          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2  | 15       | 9.26          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3  | 15       | 9.26          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2  | 15       | 9.26          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3  | 15       | 9.26          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG2   | 10       | 9.26          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG3   | 10       | 9.26          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG2   | 10       | 9.26          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG3   | 10       | 9.26          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2  | 14       | 9.25          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3  | 14       | 9.25          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2  | 14       | 9.25          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3  | 14       | 9.25          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2  | 14       | 9.25          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3  | 14       | 9.25          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG2  | 10       | 9.25          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG3  | 10       | 9.25          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG2  | 10       | 9.25          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG3  | 10       | 9.25          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG2   | 7        | 9.24          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG3   | 7        | 9.24          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG2   | 7        | 9.24          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG3   | 7        | 9.24          |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD11 | 4        | 9.22          |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD12 | 4        | 9.22          |
| (1,2191) | 1:34:A:ILE:HG12  | 1:125:A:ILE:HD13 | 4        | 9.22          |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD11 | 4        | 9.22          |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD12 | 4        | 9.22          |
| (1,2191) | 1:34:A:ILE:HG13  | 1:125:A:ILE:HD13 | 4        | 9.22          |
| (1,2164) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HB2   | 5        | 9.22          |
| (1,2164) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HB2   | 5        | 9.22          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2  | 5        | 9.21          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3  | 5        | 9.21          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2  | 5        | 9.21          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3  | 5        | 9.21          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2  | 5        | 9.21          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3  | 5        | 9.21          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2  | 16       | 9.21          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3  | 16       | 9.21          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2  | 16       | 9.21          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3  | 16       | 9.21          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2 | 16       | 9.21          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3 | 16       | 9.21          |
| (1,2106) | 1:30:A:ASN:HA    | 1:37:A:GLU:H    | 10       | 9.21          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2 | 20       | 9.18          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3 | 20       | 9.18          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2 | 20       | 9.18          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3 | 20       | 9.18          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2 | 20       | 9.18          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3 | 20       | 9.18          |
| (1,2106) | 1:30:A:ASN:HA    | 1:37:A:GLU:H    | 14       | 9.18          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2 | 19       | 9.17          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3 | 19       | 9.17          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2 | 19       | 9.17          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3 | 19       | 9.17          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2 | 19       | 9.17          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3 | 19       | 9.17          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG2 | 15       | 9.17          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG3 | 15       | 9.17          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG2 | 15       | 9.17          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG3 | 15       | 9.17          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2 | 12       | 9.16          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3 | 12       | 9.16          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2 | 12       | 9.16          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3 | 12       | 9.16          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2 | 12       | 9.16          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3 | 12       | 9.16          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG2 | 7        | 9.16          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG3 | 7        | 9.16          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG2 | 7        | 9.16          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG3 | 7        | 9.16          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG2 | 1        | 9.15          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG3 | 1        | 9.15          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG2 | 1        | 9.15          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG3 | 1        | 9.15          |
| (1,2106) | 1:30:A:ASN:HA    | 1:37:A:GLU:H    | 4        | 9.14          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG2 | 14       | 9.12          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG3 | 14       | 9.12          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG2 | 14       | 9.12          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG3 | 14       | 9.12          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG2  | 2        | 9.12          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG3  | 2        | 9.12          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG2  | 2        | 9.12          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG3  | 2        | 9.12          |
| (1,2164) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HB2  | 15       | 9.12          |
| (1,2164) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HB2  | 15       | 9.12          |
| (1,2106) | 1:30:A:ASN:HA    | 1:37:A:GLU:H    | 7        | 9.12          |
| (1,768)  | 1:136:A:MET:HE1  | 1:142:A:GLU:H   | 4        | 9.12          |
| (1,768)  | 1:136:A:MET:HE2  | 1:142:A:GLU:H   | 4        | 9.12          |
| (1,768)  | 1:136:A:MET:HE3  | 1:142:A:GLU:H   | 4        | 9.12          |
| (1,2106) | 1:30:A:ASN:HA    | 1:37:A:GLU:H    | 11       | 9.11          |
| (1,2106) | 1:30:A:ASN:HA    | 1:37:A:GLU:H    | 1        | 9.09          |
| (1,2106) | 1:30:A:ASN:HA    | 1:37:A:GLU:H    | 3        | 9.09          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H   | 7        | 9.09          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H   | 7        | 9.09          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H   | 7        | 9.09          |
| (1,768)  | 1:136:A:MET:HE1  | 1:142:A:GLU:H   | 1        | 9.09          |
| (1,768)  | 1:136:A:MET:HE2  | 1:142:A:GLU:H   | 1        | 9.09          |
| (1,768)  | 1:136:A:MET:HE3  | 1:142:A:GLU:H   | 1        | 9.09          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG2 | 3        | 9.08          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG3 | 3        | 9.08          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG2 | 3        | 9.08          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG3 | 3        | 9.08          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG2 | 2        | 9.07          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG3 | 2        | 9.07          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG2 | 2        | 9.07          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG3 | 2        | 9.07          |
| (1,1872) | 1:122:A:ILE:HG21 | 1:142:A:GLU:H   | 11       | 9.07          |
| (1,1872) | 1:122:A:ILE:HG22 | 1:142:A:GLU:H   | 11       | 9.07          |
| (1,1872) | 1:122:A:ILE:HG23 | 1:142:A:GLU:H   | 11       | 9.07          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG2 | 6        | 9.06          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG3 | 6        | 9.06          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG2 | 6        | 9.06          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG3 | 6        | 9.06          |
| (1,2106) | 1:30:A:ASN:HA    | 1:37:A:GLU:H    | 17       | 9.06          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG2 | 11       | 9.05          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG3 | 11       | 9.05          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG2 | 11       | 9.05          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG3 | 11       | 9.05          |
| (1,2106) | 1:30:A:ASN:HA    | 1:37:A:GLU:H    | 12       | 9.05          |
| (1,2106) | 1:30:A:ASN:HA    | 1:37:A:GLU:H    | 2        | 9.04          |
| (1,768)  | 1:136:A:MET:HE1  | 1:142:A:GLU:H   | 14       | 9.04          |
| (1,768)  | 1:136:A:MET:HE2  | 1:142:A:GLU:H   | 14       | 9.04          |
| (1,768)  | 1:136:A:MET:HE3  | 1:142:A:GLU:H   | 14       | 9.04          |
| (1,768)  | 1:136:A:MET:HE1  | 1:142:A:GLU:H   | 17       | 9.03          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (1,768)  | 1:136:A:MET:HE2  | 1:142:A:GLU:H   | 17       | 9.03          |
| (1,768)  | 1:136:A:MET:HE3  | 1:142:A:GLU:H   | 17       | 9.03          |
| (1,768)  | 1:136:A:MET:HE1  | 1:142:A:GLU:H   | 3        | 9.02          |
| (1,768)  | 1:136:A:MET:HE2  | 1:142:A:GLU:H   | 3        | 9.02          |
| (1,768)  | 1:136:A:MET:HE3  | 1:142:A:GLU:H   | 3        | 9.02          |
| (1,2106) | 1:30:A:ASN:HA    | 1:37:A:GLU:H    | 19       | 9.01          |
| (1,768)  | 1:136:A:MET:HE1  | 1:142:A:GLU:H   | 18       | 9.01          |
| (1,768)  | 1:136:A:MET:HE2  | 1:142:A:GLU:H   | 18       | 9.01          |
| (1,768)  | 1:136:A:MET:HE3  | 1:142:A:GLU:H   | 18       | 9.01          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG2  | 16       | 9.0           |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG3  | 16       | 9.0           |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG2  | 16       | 9.0           |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG3  | 16       | 9.0           |
| (1,2106) | 1:30:A:ASN:HA    | 1:37:A:GLU:H    | 6        | 9.0           |
| (1,768)  | 1:136:A:MET:HE1  | 1:142:A:GLU:H   | 19       | 9.0           |
| (1,768)  | 1:136:A:MET:HE2  | 1:142:A:GLU:H   | 19       | 9.0           |
| (1,768)  | 1:136:A:MET:HE3  | 1:142:A:GLU:H   | 19       | 9.0           |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG2 | 8        | 8.99          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG3 | 8        | 8.99          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG2 | 8        | 8.99          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG3 | 8        | 8.99          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG2 | 18       | 8.98          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG3 | 18       | 8.98          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG2 | 18       | 8.98          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG3 | 18       | 8.98          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG2 | 4        | 8.97          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG3 | 4        | 8.97          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG2 | 4        | 8.97          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG3 | 4        | 8.97          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG2  | 8        | 8.97          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG3  | 8        | 8.97          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG2  | 8        | 8.97          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG3  | 8        | 8.97          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2 | 11       | 8.96          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3 | 11       | 8.96          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2 | 11       | 8.96          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3 | 11       | 8.96          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2 | 11       | 8.96          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3 | 11       | 8.96          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG2 | 20       | 8.96          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG3 | 20       | 8.96          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG2 | 20       | 8.96          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG3 | 20       | 8.96          |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG11 | 14       | 8.96          |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG12 | 14       | 8.96          |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG13 | 14       | 8.96          |
| (1,2106) | 1:30:A:ASN:HA    | 1:37:A:GLU:H    | 15       | 8.94          |
| (1,768)  | 1:136:A:MET:HE1  | 1:142:A:GLU:H   | 6        | 8.94          |
| (1,768)  | 1:136:A:MET:HE2  | 1:142:A:GLU:H   | 6        | 8.94          |
| (1,768)  | 1:136:A:MET:HE3  | 1:142:A:GLU:H   | 6        | 8.94          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB2 | 7        | 8.93          |
| (1,2671) | 1:122:A:ILE:HG21 | 1:142:A:GLU:HB3 | 7        | 8.93          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB2 | 7        | 8.93          |
| (1,2671) | 1:122:A:ILE:HG22 | 1:142:A:GLU:HB3 | 7        | 8.93          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB2 | 7        | 8.93          |
| (1,2671) | 1:122:A:ILE:HG23 | 1:142:A:GLU:HB3 | 7        | 8.93          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG2 | 13       | 8.93          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG3 | 13       | 8.93          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG2 | 13       | 8.93          |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG3 | 13       | 8.93          |
| (1,768)  | 1:136:A:MET:HE1  | 1:142:A:GLU:H   | 2        | 8.93          |
| (1,768)  | 1:136:A:MET:HE2  | 1:142:A:GLU:H   | 2        | 8.93          |
| (1,768)  | 1:136:A:MET:HE3  | 1:142:A:GLU:H   | 2        | 8.93          |
| (1,768)  | 1:136:A:MET:HE1  | 1:142:A:GLU:H   | 10       | 8.93          |
| (1,768)  | 1:136:A:MET:HE2  | 1:142:A:GLU:H   | 10       | 8.93          |
| (1,768)  | 1:136:A:MET:HE3  | 1:142:A:GLU:H   | 10       | 8.93          |
| (1,2106) | 1:30:A:ASN:HA    | 1:37:A:GLU:H    | 5        | 8.91          |
| (1,768)  | 1:136:A:MET:HE1  | 1:142:A:GLU:H   | 9        | 8.91          |
| (1,768)  | 1:136:A:MET:HE2  | 1:142:A:GLU:H   | 9        | 8.91          |
| (1,768)  | 1:136:A:MET:HE3  | 1:142:A:GLU:H   | 9        | 8.91          |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG2 | 16       | 8.9           |
| (1,2363) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HG3 | 16       | 8.9           |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG2 | 16       | 8.9           |
| (1,2363) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HG3 | 16       | 8.9           |
| (1,2255) | 1:43:A:LEU:HD11  | 1:142:A:GLU:HA  | 7        | 8.9           |
| (1,2255) | 1:43:A:LEU:HD12  | 1:142:A:GLU:HA  | 7        | 8.9           |
| (1,2255) | 1:43:A:LEU:HD13  | 1:142:A:GLU:HA  | 7        | 8.9           |
| (1,2255) | 1:43:A:LEU:HD21  | 1:142:A:GLU:HA  | 7        | 8.9           |
| (1,2255) | 1:43:A:LEU:HD22  | 1:142:A:GLU:HA  | 7        | 8.9           |
| (1,2255) | 1:43:A:LEU:HD23  | 1:142:A:GLU:HA  | 7        | 8.9           |
| (1,2255) | 1:43:A:LEU:HD11  | 1:142:A:GLU:HA  | 14       | 8.9           |
| (1,2255) | 1:43:A:LEU:HD12  | 1:142:A:GLU:HA  | 14       | 8.9           |
| (1,2255) | 1:43:A:LEU:HD13  | 1:142:A:GLU:HA  | 14       | 8.9           |
| (1,2255) | 1:43:A:LEU:HD21  | 1:142:A:GLU:HA  | 14       | 8.9           |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 14       | 8.9           |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 14       | 8.9           |
| (1,768)  | 1:136:A:MET:HE1 | 1:142:A:GLU:H   | 8        | 8.89          |
| (1,768)  | 1:136:A:MET:HE2 | 1:142:A:GLU:H   | 8        | 8.89          |
| (1,768)  | 1:136:A:MET:HE3 | 1:142:A:GLU:H   | 8        | 8.89          |
| (1,2363) | 1:60:A:PHE:HE1  | 1:142:A:GLU:HG2 | 9        | 8.88          |
| (1,2363) | 1:60:A:PHE:HE1  | 1:142:A:GLU:HG3 | 9        | 8.88          |
| (1,2363) | 1:60:A:PHE:HE2  | 1:142:A:GLU:HG2 | 9        | 8.88          |
| (1,2363) | 1:60:A:PHE:HE2  | 1:142:A:GLU:HG3 | 9        | 8.88          |
| (1,2363) | 1:60:A:PHE:HE1  | 1:142:A:GLU:HG2 | 19       | 8.88          |
| (1,2363) | 1:60:A:PHE:HE1  | 1:142:A:GLU:HG3 | 19       | 8.88          |
| (1,2363) | 1:60:A:PHE:HE2  | 1:142:A:GLU:HG2 | 19       | 8.88          |
| (1,2363) | 1:60:A:PHE:HE2  | 1:142:A:GLU:HG3 | 19       | 8.88          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG11 | 20       | 8.88          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG12 | 20       | 8.88          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG13 | 20       | 8.88          |
| (1,2164) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HB2  | 11       | 8.87          |
| (1,2164) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HB2  | 11       | 8.87          |
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA  | 10       | 8.86          |
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA  | 10       | 8.86          |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA  | 10       | 8.86          |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA  | 10       | 8.86          |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 10       | 8.86          |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 10       | 8.86          |
| (1,2363) | 1:60:A:PHE:HE1  | 1:142:A:GLU:HG2 | 12       | 8.85          |
| (1,2363) | 1:60:A:PHE:HE1  | 1:142:A:GLU:HG3 | 12       | 8.85          |
| (1,2363) | 1:60:A:PHE:HE2  | 1:142:A:GLU:HG2 | 12       | 8.85          |
| (1,2363) | 1:60:A:PHE:HE2  | 1:142:A:GLU:HG3 | 12       | 8.85          |
| (1,2106) | 1:30:A:ASN:HA   | 1:37:A:GLU:H    | 9        | 8.85          |
| (1,2106) | 1:30:A:ASN:HA   | 1:37:A:GLU:H    | 16       | 8.84          |
| (1,2106) | 1:30:A:ASN:HA   | 1:37:A:GLU:H    | 13       | 8.83          |
| (1,2106) | 1:30:A:ASN:HA   | 1:37:A:GLU:H    | 20       | 8.83          |
| (1,2106) | 1:30:A:ASN:HA   | 1:37:A:GLU:H    | 8        | 8.82          |
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA  | 20       | 8.8           |
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA  | 20       | 8.8           |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA  | 20       | 8.8           |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA  | 20       | 8.8           |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 20       | 8.8           |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 20       | 8.8           |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG11 | 13       | 8.8           |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG12 | 13       | 8.8           |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG13 | 13       | 8.8           |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG11 | 17       | 8.8           |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG12 | 17       | 8.8           |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG13 | 17       | 8.8           |
| (1,2363) | 1:60:A:PHE:HE1  | 1:142:A:GLU:HG2 | 17       | 8.79          |
| (1,2363) | 1:60:A:PHE:HE1  | 1:142:A:GLU:HG3 | 17       | 8.79          |
| (1,2363) | 1:60:A:PHE:HE2  | 1:142:A:GLU:HG2 | 17       | 8.79          |
| (1,2363) | 1:60:A:PHE:HE2  | 1:142:A:GLU:HG3 | 17       | 8.79          |
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA  | 1        | 8.78          |
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA  | 1        | 8.78          |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA  | 1        | 8.78          |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA  | 1        | 8.78          |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 1        | 8.78          |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 1        | 8.78          |
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA  | 15       | 8.77          |
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA  | 15       | 8.77          |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA  | 15       | 8.77          |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA  | 15       | 8.77          |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 15       | 8.77          |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 15       | 8.77          |
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA  | 4        | 8.76          |
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA  | 4        | 8.76          |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA  | 4        | 8.76          |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA  | 4        | 8.76          |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 4        | 8.76          |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 4        | 8.76          |
| (1,768)  | 1:136:A:MET:HE1 | 1:142:A:GLU:H   | 20       | 8.75          |
| (1,768)  | 1:136:A:MET:HE2 | 1:142:A:GLU:H   | 20       | 8.75          |
| (1,768)  | 1:136:A:MET:HE3 | 1:142:A:GLU:H   | 20       | 8.75          |
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA  | 2        | 8.74          |
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA  | 2        | 8.74          |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA  | 2        | 8.74          |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA  | 2        | 8.74          |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 2        | 8.74          |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 2        | 8.74          |
| (1,2165) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HG2  | 18       | 8.74          |
| (1,2165) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HG3  | 18       | 8.74          |
| (1,2165) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HG2  | 18       | 8.74          |
| (1,2165) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HG3  | 18       | 8.74          |
| (1,768)  | 1:136:A:MET:HE1 | 1:142:A:GLU:H   | 15       | 8.74          |
| (1,768)  | 1:136:A:MET:HE2 | 1:142:A:GLU:H   | 15       | 8.74          |
| (1,768)  | 1:136:A:MET:HE3 | 1:142:A:GLU:H   | 15       | 8.74          |
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA  | 11       | 8.73          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA  | 11       | 8.73          |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA  | 11       | 8.73          |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA  | 11       | 8.73          |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 11       | 8.73          |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 11       | 8.73          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB2 | 10       | 8.72          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB3 | 10       | 8.72          |
| (1,2363) | 1:60:A:PHE:HE1  | 1:142:A:GLU:HG2 | 5        | 8.72          |
| (1,2363) | 1:60:A:PHE:HE1  | 1:142:A:GLU:HG3 | 5        | 8.72          |
| (1,2363) | 1:60:A:PHE:HE2  | 1:142:A:GLU:HG2 | 5        | 8.72          |
| (1,2363) | 1:60:A:PHE:HE2  | 1:142:A:GLU:HG3 | 5        | 8.72          |
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA  | 6        | 8.72          |
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA  | 6        | 8.72          |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA  | 6        | 8.72          |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA  | 6        | 8.72          |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 6        | 8.72          |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 6        | 8.72          |
| (1,2065) | 1:174:A:ASN:HA  | 1:180:A:ARG:H   | 12       | 8.72          |
| (1,768)  | 1:136:A:MET:HE1 | 1:142:A:GLU:H   | 7        | 8.72          |
| (1,768)  | 1:136:A:MET:HE2 | 1:142:A:GLU:H   | 7        | 8.72          |
| (1,768)  | 1:136:A:MET:HE3 | 1:142:A:GLU:H   | 7        | 8.72          |
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA  | 16       | 8.71          |
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA  | 16       | 8.71          |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA  | 16       | 8.71          |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA  | 16       | 8.71          |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 16       | 8.71          |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 16       | 8.71          |
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA  | 18       | 8.71          |
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA  | 18       | 8.71          |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA  | 18       | 8.71          |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA  | 18       | 8.71          |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 18       | 8.71          |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 18       | 8.71          |
| (1,2090) | 1:171:A:THR:HA  | 1:180:A:ARG:HE  | 16       | 8.71          |
| (1,2090) | 1:171:A:THR:HA  | 1:180:A:ARG:HE  | 4        | 8.69          |
| (1,2065) | 1:174:A:ASN:HA  | 1:180:A:ARG:H   | 14       | 8.69          |
| (1,2106) | 1:30:A:ASN:HA   | 1:37:A:GLU:H    | 18       | 8.68          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG11 | 5        | 8.68          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG12 | 5        | 8.68          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG13 | 5        | 8.68          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG11 | 11       | 8.68          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG12 | 11       | 8.68          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG13 | 11       | 8.68          |
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA  | 3        | 8.67          |
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA  | 3        | 8.67          |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA  | 3        | 8.67          |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA  | 3        | 8.67          |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 3        | 8.67          |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 3        | 8.67          |
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA  | 9        | 8.67          |
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA  | 9        | 8.67          |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA  | 9        | 8.67          |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA  | 9        | 8.67          |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 9        | 8.67          |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 9        | 8.67          |
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA  | 13       | 8.66          |
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA  | 13       | 8.66          |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA  | 13       | 8.66          |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA  | 13       | 8.66          |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 13       | 8.66          |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 13       | 8.66          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG11 | 1        | 8.66          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG12 | 1        | 8.66          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG13 | 1        | 8.66          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB2 | 15       | 8.65          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB3 | 15       | 8.65          |
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA  | 5        | 8.65          |
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA  | 5        | 8.65          |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA  | 5        | 8.65          |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA  | 5        | 8.65          |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 5        | 8.65          |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 5        | 8.65          |
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA  | 12       | 8.65          |
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA  | 12       | 8.65          |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA  | 12       | 8.65          |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA  | 12       | 8.65          |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 12       | 8.65          |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 12       | 8.65          |
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA  | 19       | 8.65          |
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA  | 19       | 8.65          |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA  | 19       | 8.65          |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA  | 19       | 8.65          |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 19       | 8.65          |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 19       | 8.65          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA  | 8        | 8.64          |
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA  | 8        | 8.64          |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA  | 8        | 8.64          |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA  | 8        | 8.64          |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA  | 8        | 8.64          |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA  | 8        | 8.64          |
| (1,2165) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HG2  | 5        | 8.64          |
| (1,2165) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HG3  | 5        | 8.64          |
| (1,2165) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HG2  | 5        | 8.64          |
| (1,2165) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HG3  | 5        | 8.64          |
| (1,2165) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HG2  | 19       | 8.64          |
| (1,2165) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HG3  | 19       | 8.64          |
| (1,2165) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HG2  | 19       | 8.64          |
| (1,2165) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HG3  | 19       | 8.64          |
| (1,768)  | 1:136:A:MET:HE1 | 1:142:A:GLU:H   | 13       | 8.63          |
| (1,768)  | 1:136:A:MET:HE2 | 1:142:A:GLU:H   | 13       | 8.63          |
| (1,768)  | 1:136:A:MET:HE3 | 1:142:A:GLU:H   | 13       | 8.63          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB2 | 14       | 8.6           |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB3 | 14       | 8.6           |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG11 | 19       | 8.6           |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG12 | 19       | 8.6           |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG13 | 19       | 8.6           |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB2 | 6        | 8.59          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB3 | 6        | 8.59          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG11 | 4        | 8.59          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG12 | 4        | 8.59          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG13 | 4        | 8.59          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG11 | 8        | 8.59          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG12 | 8        | 8.59          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG13 | 8        | 8.59          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB2 | 2        | 8.58          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB3 | 2        | 8.58          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB2 | 11       | 8.58          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB3 | 11       | 8.58          |
| (1,2090) | 1:171:A:THR:HA  | 1:180:A:ARG:HE  | 7        | 8.58          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB2 | 7        | 8.56          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB3 | 7        | 8.56          |
| (1,2165) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HG2  | 4        | 8.56          |
| (1,2165) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HG3  | 4        | 8.56          |
| (1,2165) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HG2  | 4        | 8.56          |
| (1,2165) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HG3  | 4        | 8.56          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB2 | 4        | 8.55          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB3  | 4        | 8.55          |
| (1,2065) | 1:174:A:ASN:HA  | 1:180:A:ARG:H    | 17       | 8.55          |
| (1,1744) | 1:113:A:LYS:H   | 1:125:A:ILE:HG13 | 19       | 8.54          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB2  | 8        | 8.53          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB3  | 8        | 8.53          |
| (1,2255) | 1:43:A:LEU:HD11 | 1:142:A:GLU:HA   | 17       | 8.53          |
| (1,2255) | 1:43:A:LEU:HD12 | 1:142:A:GLU:HA   | 17       | 8.53          |
| (1,2255) | 1:43:A:LEU:HD13 | 1:142:A:GLU:HA   | 17       | 8.53          |
| (1,2255) | 1:43:A:LEU:HD21 | 1:142:A:GLU:HA   | 17       | 8.53          |
| (1,2255) | 1:43:A:LEU:HD22 | 1:142:A:GLU:HA   | 17       | 8.53          |
| (1,2255) | 1:43:A:LEU:HD23 | 1:142:A:GLU:HA   | 17       | 8.53          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD11 | 11       | 8.53          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD12 | 11       | 8.53          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD13 | 11       | 8.53          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD11 | 13       | 8.51          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD12 | 13       | 8.51          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD13 | 13       | 8.51          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB2  | 1        | 8.5           |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB3  | 1        | 8.5           |
| (1,2165) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HG2   | 1        | 8.5           |
| (1,2165) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HG3   | 1        | 8.5           |
| (1,2165) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HG2   | 1        | 8.5           |
| (1,2165) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HG3   | 1        | 8.5           |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG11  | 15       | 8.5           |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG12  | 15       | 8.5           |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG13  | 15       | 8.5           |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB2  | 3        | 8.49          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB3  | 3        | 8.49          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG11  | 3        | 8.48          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG12  | 3        | 8.48          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG13  | 3        | 8.48          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG11  | 16       | 8.48          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG12  | 16       | 8.48          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG13  | 16       | 8.48          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD11 | 2        | 8.48          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD12 | 2        | 8.48          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD13 | 2        | 8.48          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD11 | 18       | 8.47          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD12 | 18       | 8.47          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD13 | 18       | 8.47          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD11 | 20       | 8.47          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD12 | 20       | 8.47          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD13 | 20       | 8.47          |
| (1,2090) | 1:171:A:THR:HA  | 1:180:A:ARG:HE   | 1        | 8.46          |
| (1,2165) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HG2   | 11       | 8.44          |
| (1,2165) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HG3   | 11       | 8.44          |
| (1,2165) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HG2   | 11       | 8.44          |
| (1,2165) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HG3   | 11       | 8.44          |
| (1,2065) | 1:174:A:ASN:HA  | 1:180:A:ARG:H    | 20       | 8.44          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD11 | 8        | 8.44          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD12 | 8        | 8.44          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD13 | 8        | 8.44          |
| (1,2090) | 1:171:A:THR:HA  | 1:180:A:ARG:HE   | 17       | 8.43          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB2  | 16       | 8.4           |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB3  | 16       | 8.4           |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD11 | 14       | 8.4           |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD12 | 14       | 8.4           |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD13 | 14       | 8.4           |
| (1,2164) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HB2   | 20       | 8.38          |
| (1,2164) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HB2   | 20       | 8.38          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB2  | 18       | 8.37          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB3  | 18       | 8.37          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD11 | 6        | 8.37          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD12 | 6        | 8.37          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD13 | 6        | 8.37          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD11 | 15       | 8.37          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD12 | 15       | 8.37          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD13 | 15       | 8.37          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB2  | 19       | 8.36          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB3  | 19       | 8.36          |
| (1,2165) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HG2   | 6        | 8.36          |
| (1,2165) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HG3   | 6        | 8.36          |
| (1,2165) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HG2   | 6        | 8.36          |
| (1,2165) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HG3   | 6        | 8.36          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG11  | 12       | 8.36          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG12  | 12       | 8.36          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG13  | 12       | 8.36          |
| (1,2065) | 1:174:A:ASN:HA  | 1:180:A:ARG:H    | 8        | 8.35          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB2  | 12       | 8.34          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB3  | 12       | 8.34          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB2  | 13       | 8.34          |
| (1,2365) | 1:60:A:PHE:HZ   | 1:142:A:GLU:HB3  | 13       | 8.34          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG11  | 10       | 8.34          |
| (1,575)  | 1:40:A:THR:HA   | 1:66:A:VAL:HG12  | 10       | 8.34          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG13  | 10       | 8.34          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD11 | 3        | 8.34          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD12 | 3        | 8.34          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD13 | 3        | 8.34          |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG11  | 7        | 8.33          |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG12  | 7        | 8.33          |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG13  | 7        | 8.33          |
| (1,2365) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HB2  | 20       | 8.32          |
| (1,2365) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HB3  | 20       | 8.32          |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG11  | 9        | 8.31          |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG12  | 9        | 8.31          |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG13  | 9        | 8.31          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD11 | 12       | 8.31          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD12 | 12       | 8.31          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD13 | 12       | 8.31          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 11       | 8.3           |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 11       | 8.3           |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 11       | 8.3           |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3  | 11       | 8.3           |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2  | 11       | 8.3           |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3  | 11       | 8.3           |
| (1,2090) | 1:171:A:THR:HA   | 1:180:A:ARG:HE   | 2        | 8.3           |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 5        | 8.3           |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 7        | 8.3           |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG11  | 18       | 8.3           |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG12  | 18       | 8.3           |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG13  | 18       | 8.3           |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD11 | 1        | 8.3           |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD12 | 1        | 8.3           |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD13 | 1        | 8.3           |
| (1,2090) | 1:171:A:THR:HA   | 1:180:A:ARG:HE   | 3        | 8.29          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD11 | 16       | 8.28          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD12 | 16       | 8.28          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD13 | 16       | 8.28          |
| (1,2065) | 1:174:A:ASN:HA   | 1:180:A:ARG:H    | 16       | 8.27          |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 4        | 8.27          |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG11  | 6        | 8.26          |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG12  | 6        | 8.26          |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG13  | 6        | 8.26          |
| (1,2365) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HB2  | 9        | 8.25          |
| (1,2365) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HB3  | 9        | 8.25          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD11 | 9        | 8.25          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD12 | 9        | 8.25          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD13 | 9        | 8.25          |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG11  | 2        | 8.24          |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG12  | 2        | 8.24          |
| (1,575)  | 1:40:A:THR:HA    | 1:66:A:VAL:HG13  | 2        | 8.24          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 14       | 8.23          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 14       | 8.23          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 14       | 8.23          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 14       | 8.23          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 14       | 8.23          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 14       | 8.23          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 2        | 8.22          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 2        | 8.22          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 2        | 8.22          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3  | 2        | 8.22          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2  | 2        | 8.22          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3  | 2        | 8.22          |
| (1,2365) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HB2  | 17       | 8.22          |
| (1,2365) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HB3  | 17       | 8.22          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 20       | 8.22          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 20       | 8.22          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 20       | 8.22          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 20       | 8.22          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 20       | 8.22          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 20       | 8.22          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD11 | 10       | 8.22          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD12 | 10       | 8.22          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD13 | 10       | 8.22          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD11 | 17       | 8.22          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD12 | 17       | 8.22          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD13 | 17       | 8.22          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG2  | 14       | 8.2           |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG3  | 14       | 8.2           |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 4        | 8.15          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 4        | 8.15          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 4        | 8.15          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3  | 4        | 8.15          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2  | 4        | 8.15          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3  | 4        | 8.15          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 8        | 8.15          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 8        | 8.15          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 8        | 8.15          |

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| Key      | Atom-1           | Atom-2          | Model ID | Violation (Å) |
|----------|------------------|-----------------|----------|---------------|
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3 | 8        | 8.15          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2 | 8        | 8.15          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3 | 8        | 8.15          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2 | 6        | 8.14          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3 | 6        | 8.14          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2 | 6        | 8.14          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3 | 6        | 8.14          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2 | 6        | 8.14          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3 | 6        | 8.14          |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H   | 2        | 8.14          |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H   | 20       | 8.14          |
| (1,2365) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HB2 | 5        | 8.13          |
| (1,2365) | 1:60:A:PHE:HZ    | 1:142:A:GLU:HB3 | 5        | 8.13          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11 | 13       | 8.13          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12 | 13       | 8.13          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13 | 13       | 8.13          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11 | 13       | 8.13          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12 | 13       | 8.13          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13 | 13       | 8.13          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2 | 9        | 8.12          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3 | 9        | 8.12          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2 | 9        | 8.12          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3 | 9        | 8.12          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2 | 9        | 8.12          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3 | 9        | 8.12          |
| (1,2164) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HB2  | 13       | 8.12          |
| (1,2164) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HB2  | 13       | 8.12          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG2  | 12       | 8.11          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG3  | 12       | 8.11          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG2  | 12       | 8.11          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG3  | 12       | 8.11          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2 | 3        | 8.1           |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3 | 3        | 8.1           |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2 | 3        | 8.1           |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3 | 3        | 8.1           |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2 | 3        | 8.1           |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3 | 3        | 8.1           |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG2  | 17       | 8.09          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG3  | 17       | 8.09          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG2  | 17       | 8.09          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG3  | 17       | 8.09          |
| (1,2065) | 1:174:A:ASN:HA   | 1:180:A:ARG:H   | 3        | 8.09          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 17       | 8.08          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 17       | 8.08          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 17       | 8.08          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3  | 17       | 8.08          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2  | 17       | 8.08          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3  | 17       | 8.08          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 1        | 8.07          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 1        | 8.07          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 1        | 8.07          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3  | 1        | 8.07          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2  | 1        | 8.07          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3  | 1        | 8.07          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 18       | 8.05          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 18       | 8.05          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 18       | 8.05          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3  | 18       | 8.05          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2  | 18       | 8.05          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3  | 18       | 8.05          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 13       | 8.04          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 13       | 8.04          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 13       | 8.04          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3  | 13       | 8.04          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2  | 13       | 8.04          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3  | 13       | 8.04          |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 20       | 8.02          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG2  | 16       | 8.01          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG3  | 16       | 8.01          |
| (1,2164) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HB2   | 9        | 8.01          |
| (1,2164) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HB2   | 9        | 8.01          |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H    | 7        | 8.0           |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 2        | 8.0           |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 2        | 8.0           |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 2        | 8.0           |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 13       | 8.0           |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 13       | 8.0           |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 13       | 8.0           |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG2  | 6        | 7.98          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG3  | 6        | 7.98          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 10       | 7.98          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 10       | 7.98          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 10       | 7.98          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3  | 10       | 7.98          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2  | 10       | 7.98          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3  | 10       | 7.98          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 18       | 7.97          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 18       | 7.97          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 18       | 7.97          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 11       | 7.97          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 11       | 7.97          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 11       | 7.97          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 11       | 7.97          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 11       | 7.97          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 11       | 7.97          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 19       | 7.97          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 19       | 7.97          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 19       | 7.97          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 19       | 7.97          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 19       | 7.97          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 19       | 7.97          |
| (1,2065) | 1:174:A:ASN:HA   | 1:180:A:ARG:H    | 19       | 7.96          |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 13       | 7.96          |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H    | 1        | 7.94          |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 16       | 7.93          |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 18       | 7.93          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 3        | 7.93          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 3        | 7.93          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 3        | 7.93          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 3        | 7.93          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 3        | 7.93          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 3        | 7.93          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 14       | 7.92          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 14       | 7.92          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 14       | 7.92          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3  | 14       | 7.92          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2  | 14       | 7.92          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3  | 14       | 7.92          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 20       | 7.92          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 20       | 7.92          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 20       | 7.92          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3  | 20       | 7.92          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2  | 20       | 7.92          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3  | 20       | 7.92          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG2   | 15       | 7.92          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG3   | 15       | 7.92          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG2   | 15       | 7.92          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG3   | 15       | 7.92          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 15       | 7.91          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 15       | 7.91          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 15       | 7.91          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3  | 15       | 7.91          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2  | 15       | 7.91          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3  | 15       | 7.91          |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H    | 13       | 7.91          |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H    | 16       | 7.91          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 17       | 7.91          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 17       | 7.91          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 17       | 7.91          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 17       | 7.91          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 17       | 7.91          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 17       | 7.91          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 10       | 7.89          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 10       | 7.89          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 10       | 7.89          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 10       | 7.89          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 8        | 7.89          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 8        | 7.89          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 8        | 7.89          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 5        | 7.88          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 5        | 7.88          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 5        | 7.88          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3  | 5        | 7.88          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2  | 5        | 7.88          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3  | 5        | 7.88          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 3        | 7.87          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 3        | 7.87          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 3        | 7.87          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 16       | 7.86          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 16       | 7.86          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 16       | 7.86          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3  | 16       | 7.86          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2  | 16       | 7.86          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3  | 16       | 7.86          |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H    | 4        | 7.86          |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H    | 14       | 7.86          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 20       | 7.86          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 20       | 7.86          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 20       | 7.86          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG2  | 10       | 7.85          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG3  | 10       | 7.85          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 19       | 7.85          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 19       | 7.85          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 19       | 7.85          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3  | 19       | 7.85          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2  | 19       | 7.85          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3  | 19       | 7.85          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 15       | 7.85          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 15       | 7.85          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 15       | 7.85          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 15       | 7.85          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 9        | 7.85          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 9        | 7.85          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 9        | 7.85          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 11       | 7.84          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 11       | 7.84          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 11       | 7.84          |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 12       | 7.82          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 14       | 7.82          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 14       | 7.82          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 14       | 7.82          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 12       | 7.81          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 12       | 7.81          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 12       | 7.81          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3  | 12       | 7.81          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2  | 12       | 7.81          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3  | 12       | 7.81          |
| (1,2065) | 1:174:A:ASN:HA   | 1:180:A:ARG:H    | 18       | 7.81          |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 3        | 7.81          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 4        | 7.81          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 4        | 7.81          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 4        | 7.81          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 4        | 7.81          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 4        | 7.81          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 4        | 7.81          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 5        | 7.81          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 5        | 7.81          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 5        | 7.81          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 5        | 7.81          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 5        | 7.81          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 5        | 7.81          |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H    | 15       | 7.8           |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H    | 18       | 7.8           |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 9        | 7.8           |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 14       | 7.8           |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 1        | 7.8           |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 1        | 7.8           |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 1        | 7.8           |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 1        | 7.8           |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 1        | 7.8           |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 1        | 7.8           |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 17       | 7.79          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 17       | 7.79          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 17       | 7.79          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 6        | 7.78          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 6        | 7.78          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 6        | 7.78          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 6        | 7.78          |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 11       | 7.78          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 12       | 7.78          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 12       | 7.78          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 12       | 7.78          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 12       | 7.78          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 12       | 7.78          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 12       | 7.78          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 8        | 7.77          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 8        | 7.77          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 8        | 7.77          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 8        | 7.77          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 8        | 7.77          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 8        | 7.77          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 16       | 7.77          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 16       | 7.77          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 16       | 7.77          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 16       | 7.77          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 16       | 7.77          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 16       | 7.77          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 2        | 7.76          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 2        | 7.76          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 2        | 7.76          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 2        | 7.76          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 11       | 7.76          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 11       | 7.76          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 11       | 7.76          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 11       | 7.76          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 15       | 7.76          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 15       | 7.76          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 15       | 7.76          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 7        | 7.75          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 7        | 7.75          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 7        | 7.75          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 7        | 7.75          |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 15       | 7.75          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 1        | 7.75          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 1        | 7.75          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 1        | 7.75          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 15       | 7.75          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 15       | 7.75          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 15       | 7.75          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 15       | 7.75          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 15       | 7.75          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 15       | 7.75          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD2  | 20       | 7.74          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD3  | 20       | 7.74          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 4        | 7.74          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 4        | 7.74          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 4        | 7.74          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 4        | 7.74          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 12       | 7.74          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 12       | 7.74          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 12       | 7.74          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 14       | 7.73          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 14       | 7.73          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 14       | 7.73          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 14       | 7.73          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 8        | 7.72          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 8        | 7.72          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 8        | 7.72          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 8        | 7.72          |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H    | 9        | 7.72          |
| (1,2065) | 1:174:A:ASN:HA   | 1:180:A:ARG:H    | 1        | 7.71          |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 2        | 7.71          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 1        | 7.7           |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 1        | 7.7           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 1        | 7.7           |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 1        | 7.7           |
| (1,2065) | 1:174:A:ASN:HA   | 1:180:A:ARG:H    | 10       | 7.7           |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H    | 3        | 7.7           |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 6        | 7.7           |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG2  | 12       | 7.69          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG3  | 12       | 7.69          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 3        | 7.69          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 3        | 7.69          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 3        | 7.69          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 3        | 7.69          |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 8        | 7.69          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 6        | 7.69          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 6        | 7.69          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 6        | 7.69          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 16       | 7.68          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 16       | 7.68          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 16       | 7.68          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 7        | 7.68          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 7        | 7.68          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 7        | 7.68          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 7        | 7.68          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 7        | 7.68          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 7        | 7.68          |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 17       | 7.67          |
| (1,2090) | 1:171:A:THR:HA   | 1:180:A:ARG:HE   | 14       | 7.65          |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 1        | 7.65          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 6        | 7.63          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 6        | 7.63          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 6        | 7.63          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 6        | 7.63          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 6        | 7.63          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 6        | 7.63          |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H    | 11       | 7.62          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB2  | 7        | 7.61          |
| (1,2673) | 1:122:A:ILE:HD11 | 1:142:A:GLU:HB3  | 7        | 7.61          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB2  | 7        | 7.61          |
| (1,2673) | 1:122:A:ILE:HD12 | 1:142:A:GLU:HB3  | 7        | 7.61          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB2  | 7        | 7.61          |
| (1,2673) | 1:122:A:ILE:HD13 | 1:142:A:GLU:HB3  | 7        | 7.61          |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H    | 6        | 7.61          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 18       | 7.61          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 18       | 7.61          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 18       | 7.61          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 18       | 7.61          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 18       | 7.61          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 18       | 7.61          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 2        | 7.6           |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 2        | 7.6           |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 2        | 7.6           |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 2        | 7.6           |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 2        | 7.6           |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 2        | 7.6           |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 2        | 7.6           |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 2        | 7.6           |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 2        | 7.6           |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 13       | 7.6           |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 13       | 7.6           |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 13       | 7.6           |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 13       | 7.6           |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 13       | 7.6           |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 13       | 7.6           |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 13       | 7.6           |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 13       | 7.6           |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 13       | 7.6           |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 18       | 7.59          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 18       | 7.59          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 18       | 7.59          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 18       | 7.59          |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H    | 10       | 7.59          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 10       | 7.59          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 10       | 7.59          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 10       | 7.59          |
| (1,2090) | 1:171:A:THR:HA   | 1:180:A:ARG:HE   | 18       | 7.58          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 9        | 7.58          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 9        | 7.58          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 9        | 7.58          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 9        | 7.58          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 9        | 7.58          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 9        | 7.58          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD11 | 19       | 7.58          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD12 | 19       | 7.58          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD13 | 19       | 7.58          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 8        | 7.58          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 8        | 7.58          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 8        | 7.58          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 8        | 7.58          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 8        | 7.58          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 8        | 7.58          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 8        | 7.58          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 8        | 7.58          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 8        | 7.58          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 11       | 7.58          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 11       | 7.58          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 11       | 7.58          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 11       | 7.58          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 11       | 7.58          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 11       | 7.58          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 11       | 7.58          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 11       | 7.58          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 11       | 7.58          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 12       | 7.57          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 12       | 7.57          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 12       | 7.57          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 12       | 7.57          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 13       | 7.57          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 13       | 7.57          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 13       | 7.57          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 13       | 7.57          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 16       | 7.57          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 16       | 7.57          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 16       | 7.57          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 16       | 7.57          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 20       | 7.57          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 20       | 7.57          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 20       | 7.57          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 20       | 7.57          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 20       | 7.55          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 20       | 7.55          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 20       | 7.55          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 20       | 7.55          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 20       | 7.55          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 20       | 7.55          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 20       | 7.55          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 20       | 7.55          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 20       | 7.55          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2171) | 1:31:A:VAL:HA    | 1:37:A:GLU:HG2   | 11       | 7.54          |
| (1,2171) | 1:31:A:VAL:HA    | 1:37:A:GLU:HG3   | 11       | 7.54          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 18       | 7.54          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 18       | 7.54          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 18       | 7.54          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 18       | 7.54          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 18       | 7.54          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 18       | 7.54          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 18       | 7.54          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 18       | 7.54          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 18       | 7.54          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG2  | 17       | 7.53          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG3  | 17       | 7.53          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG2   | 11       | 7.53          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG3   | 11       | 7.53          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG2   | 11       | 7.53          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG3   | 11       | 7.53          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG2   | 11       | 7.53          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG3   | 11       | 7.53          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG2   | 11       | 7.53          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG3   | 11       | 7.53          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG2   | 11       | 7.53          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG3   | 11       | 7.53          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG2   | 11       | 7.53          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG3   | 11       | 7.53          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 10       | 7.53          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 10       | 7.53          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 10       | 7.53          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 10       | 7.53          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 10       | 7.53          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 10       | 7.53          |
| (1,1744) | 1:113:A:LYS:H    | 1:125:A:ILE:HG13 | 10       | 7.52          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 19       | 7.51          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 19       | 7.51          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 19       | 7.51          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 19       | 7.51          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG2   | 9        | 7.51          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG3   | 9        | 7.51          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG2   | 9        | 7.51          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG3   | 9        | 7.51          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG11  | 2        | 7.51          |
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG12  | 2        | 7.51          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,578)  | 1:60:A:PHE:HD1   | 1:66:A:VAL:HG13  | 2        | 7.51          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG11  | 2        | 7.51          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG12  | 2        | 7.51          |
| (1,578)  | 1:60:A:PHE:HD2   | 1:66:A:VAL:HG13  | 2        | 7.51          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD11 | 7        | 7.5           |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD12 | 7        | 7.5           |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD13 | 7        | 7.5           |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 6        | 7.5           |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 6        | 7.5           |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 6        | 7.5           |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 6        | 7.5           |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 6        | 7.5           |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 6        | 7.5           |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 6        | 7.5           |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 6        | 7.5           |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 6        | 7.5           |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 9        | 7.49          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 9        | 7.49          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 9        | 7.49          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 9        | 7.49          |
| (1,2171) | 1:31:A:VAL:HA    | 1:37:A:GLU:HG2   | 10       | 7.49          |
| (1,2171) | 1:31:A:VAL:HA    | 1:37:A:GLU:HG3   | 10       | 7.49          |
| (1,2065) | 1:174:A:ASN:HA   | 1:180:A:ARG:H    | 6        | 7.49          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 14       | 7.49          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 14       | 7.49          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 14       | 7.49          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 14       | 7.49          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 14       | 7.49          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 14       | 7.49          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 14       | 7.49          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 14       | 7.49          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 14       | 7.49          |
| (1,2065) | 1:174:A:ASN:HA   | 1:180:A:ARG:H    | 4        | 7.47          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 15       | 7.47          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 15       | 7.47          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 15       | 7.47          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 15       | 7.47          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 15       | 7.47          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 15       | 7.47          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 15       | 7.47          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 15       | 7.47          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 15       | 7.47          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD2  | 10       | 7.46          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD3  | 10       | 7.46          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD2  | 12       | 7.46          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD3  | 12       | 7.46          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 3        | 7.45          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 3        | 7.45          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 3        | 7.45          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 3        | 7.45          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 3        | 7.45          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 3        | 7.45          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 3        | 7.45          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 3        | 7.45          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 3        | 7.45          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 17       | 7.44          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 17       | 7.44          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 17       | 7.44          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 17       | 7.44          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 12       | 7.44          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 12       | 7.44          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 12       | 7.44          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 12       | 7.44          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 12       | 7.44          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 12       | 7.44          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 12       | 7.44          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 12       | 7.44          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 12       | 7.44          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 16       | 7.42          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 16       | 7.42          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 16       | 7.42          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 16       | 7.42          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 16       | 7.42          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 16       | 7.42          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 16       | 7.42          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 16       | 7.42          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 16       | 7.42          |
| (1,527)  | 1:40:A:THR:HG21  | 1:66:A:VAL:HG21  | 14       | 7.41          |
| (1,527)  | 1:40:A:THR:HG21  | 1:66:A:VAL:HG22  | 14       | 7.41          |
| (1,527)  | 1:40:A:THR:HG21  | 1:66:A:VAL:HG23  | 14       | 7.41          |
| (1,527)  | 1:40:A:THR:HG22  | 1:66:A:VAL:HG21  | 14       | 7.41          |
| (1,527)  | 1:40:A:THR:HG22  | 1:66:A:VAL:HG22  | 14       | 7.41          |
| (1,527)  | 1:40:A:THR:HG22  | 1:66:A:VAL:HG23  | 14       | 7.41          |
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG21  | 14       | 7.41          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG22  | 14       | 7.41          |
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG23  | 14       | 7.41          |
| (1,527)  | 1:40:A:THR:HG21  | 1:66:A:VAL:HG11  | 14       | 7.41          |
| (1,527)  | 1:40:A:THR:HG21  | 1:66:A:VAL:HG12  | 14       | 7.41          |
| (1,527)  | 1:40:A:THR:HG21  | 1:66:A:VAL:HG13  | 14       | 7.41          |
| (1,527)  | 1:40:A:THR:HG22  | 1:66:A:VAL:HG11  | 14       | 7.41          |
| (1,527)  | 1:40:A:THR:HG22  | 1:66:A:VAL:HG12  | 14       | 7.41          |
| (1,527)  | 1:40:A:THR:HG22  | 1:66:A:VAL:HG13  | 14       | 7.41          |
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG11  | 14       | 7.41          |
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG12  | 14       | 7.41          |
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG13  | 14       | 7.41          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 1        | 7.41          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 1        | 7.41          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 1        | 7.41          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 1        | 7.41          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 1        | 7.41          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 1        | 7.41          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 1        | 7.41          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 1        | 7.41          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 1        | 7.41          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 9        | 7.4           |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 9        | 7.4           |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 9        | 7.4           |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 9        | 7.4           |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 9        | 7.4           |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 9        | 7.4           |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 9        | 7.4           |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 9        | 7.4           |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 9        | 7.4           |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG2   | 20       | 7.39          |
| (1,2165) | 1:30:A:ASN:HD21  | 1:37:A:GLU:HG3   | 20       | 7.39          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG2   | 20       | 7.39          |
| (1,2165) | 1:30:A:ASN:HD22  | 1:37:A:GLU:HG3   | 20       | 7.39          |
| (1,2065) | 1:174:A:ASN:HA   | 1:180:A:ARG:H    | 13       | 7.39          |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H    | 12       | 7.39          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD11 | 5        | 7.38          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD12 | 5        | 7.38          |
| (1,381)  | 1:114:A:THR:HB   | 1:125:A:ILE:HD13 | 5        | 7.38          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB2  | 5        | 7.37          |
| (1,2362) | 1:60:A:PHE:HE1   | 1:142:A:GLU:HB3  | 5        | 7.37          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB2  | 5        | 7.37          |
| (1,2362) | 1:60:A:PHE:HE2   | 1:142:A:GLU:HB3  | 5        | 7.37          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2175) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HG2   | 10       | 7.36          |
| (1,2175) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HG3   | 10       | 7.36          |
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG2   | 10       | 7.36          |
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG3   | 10       | 7.36          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG2   | 10       | 7.36          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG3   | 10       | 7.36          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG2   | 10       | 7.36          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG3   | 10       | 7.36          |
| (1,2175) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HG2   | 10       | 7.36          |
| (1,2175) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HG3   | 10       | 7.36          |
| (1,2175) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HG2   | 10       | 7.36          |
| (1,2175) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HG3   | 10       | 7.36          |
| (1,2165) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HG2   | 13       | 7.36          |
| (1,2165) | 1:30:A:ASN:HD21 | 1:37:A:GLU:HG3   | 13       | 7.36          |
| (1,2165) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HG2   | 13       | 7.36          |
| (1,2165) | 1:30:A:ASN:HD22 | 1:37:A:GLU:HG3   | 13       | 7.36          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21  | 20       | 7.36          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22  | 20       | 7.36          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23  | 20       | 7.36          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21  | 20       | 7.36          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22  | 20       | 7.36          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23  | 20       | 7.36          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21  | 20       | 7.36          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22  | 20       | 7.36          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23  | 20       | 7.36          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11  | 20       | 7.36          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12  | 20       | 7.36          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13  | 20       | 7.36          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11  | 20       | 7.36          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12  | 20       | 7.36          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13  | 20       | 7.36          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11  | 20       | 7.36          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12  | 20       | 7.36          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13  | 20       | 7.36          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD11 | 4        | 7.36          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD12 | 4        | 7.36          |
| (1,381)  | 1:114:A:THR:HB  | 1:125:A:ILE:HD13 | 4        | 7.36          |
| (1,2065) | 1:174:A:ASN:HA  | 1:180:A:ARG:H    | 15       | 7.34          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21  | 13       | 7.34          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22  | 13       | 7.34          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23  | 13       | 7.34          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21  | 13       | 7.34          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,527)  | 1:40:A:THR:HG22  | 1:66:A:VAL:HG22  | 13       | 7.34          |
| (1,527)  | 1:40:A:THR:HG22  | 1:66:A:VAL:HG23  | 13       | 7.34          |
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG21  | 13       | 7.34          |
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG22  | 13       | 7.34          |
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG23  | 13       | 7.34          |
| (1,527)  | 1:40:A:THR:HG21  | 1:66:A:VAL:HG11  | 13       | 7.34          |
| (1,527)  | 1:40:A:THR:HG21  | 1:66:A:VAL:HG12  | 13       | 7.34          |
| (1,527)  | 1:40:A:THR:HG21  | 1:66:A:VAL:HG13  | 13       | 7.34          |
| (1,527)  | 1:40:A:THR:HG22  | 1:66:A:VAL:HG11  | 13       | 7.34          |
| (1,527)  | 1:40:A:THR:HG22  | 1:66:A:VAL:HG12  | 13       | 7.34          |
| (1,527)  | 1:40:A:THR:HG22  | 1:66:A:VAL:HG13  | 13       | 7.34          |
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG11  | 13       | 7.34          |
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG12  | 13       | 7.34          |
| (1,527)  | 1:40:A:THR:HG23  | 1:66:A:VAL:HG13  | 13       | 7.34          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG2  | 8        | 7.33          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG3  | 8        | 7.33          |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H    | 5        | 7.32          |
| (1,1988) | 1:161:A:GLY:H    | 1:167:A:ILE:H    | 8        | 7.32          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 17       | 7.32          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 17       | 7.32          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 17       | 7.32          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 17       | 7.32          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 17       | 7.32          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 17       | 7.32          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 17       | 7.32          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 17       | 7.32          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 17       | 7.32          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD2  | 8        | 7.29          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD3  | 8        | 7.29          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 10       | 7.29          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 10       | 7.29          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 10       | 7.29          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 10       | 7.29          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 10       | 7.29          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 10       | 7.29          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 10       | 7.29          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 10       | 7.29          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 10       | 7.29          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG2  | 4        | 7.28          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG3  | 4        | 7.28          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG2  | 20       | 7.28          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG3  | 20       | 7.28          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,2065) | 1:174:A:ASN:HA  | 1:180:A:ARG:H   | 2        | 7.28          |
| (1,2065) | 1:174:A:ASN:HA  | 1:180:A:ARG:H   | 5        | 7.28          |
| (1,1988) | 1:161:A:GLY:H   | 1:167:A:ILE:H   | 17       | 7.28          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13 | 11       | 7.28          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21 | 17       | 7.27          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22 | 17       | 7.27          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23 | 17       | 7.27          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21 | 17       | 7.27          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22 | 17       | 7.27          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23 | 17       | 7.27          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21 | 17       | 7.27          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22 | 17       | 7.27          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23 | 17       | 7.27          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11 | 17       | 7.27          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12 | 17       | 7.27          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13 | 17       | 7.27          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11 | 17       | 7.27          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12 | 17       | 7.27          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13 | 17       | 7.27          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11 | 17       | 7.27          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12 | 17       | 7.27          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13 | 17       | 7.27          |
| (1,1988) | 1:161:A:GLY:H   | 1:167:A:ILE:H   | 19       | 7.24          |
| (1,2900) | 1:171:A:THR:HA  | 1:180:A:ARG:HD2 | 6        | 7.23          |
| (1,2900) | 1:171:A:THR:HA  | 1:180:A:ARG:HD3 | 6        | 7.23          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21 | 5        | 7.23          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22 | 5        | 7.23          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23 | 5        | 7.23          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21 | 5        | 7.23          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22 | 5        | 7.23          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23 | 5        | 7.23          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21 | 5        | 7.23          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22 | 5        | 7.23          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23 | 5        | 7.23          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11 | 5        | 7.23          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12 | 5        | 7.23          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13 | 5        | 7.23          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11 | 5        | 7.23          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12 | 5        | 7.23          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13 | 5        | 7.23          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11 | 5        | 7.23          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12 | 5        | 7.23          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13 | 5        | 7.23          |
| (1,2904) | 1:173:A:ALA:H   | 1:180:A:ARG:HG2 | 3        | 7.22          |
| (1,2904) | 1:173:A:ALA:H   | 1:180:A:ARG:HG3 | 3        | 7.22          |
| (1,2904) | 1:173:A:ALA:H   | 1:180:A:ARG:HG2 | 11       | 7.21          |
| (1,2904) | 1:173:A:ALA:H   | 1:180:A:ARG:HG3 | 11       | 7.21          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13 | 3        | 7.19          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21 | 1        | 7.18          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22 | 1        | 7.18          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23 | 1        | 7.18          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21 | 1        | 7.18          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22 | 1        | 7.18          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23 | 1        | 7.18          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21 | 1        | 7.18          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22 | 1        | 7.18          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23 | 1        | 7.18          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11 | 1        | 7.18          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12 | 1        | 7.18          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13 | 1        | 7.18          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11 | 1        | 7.18          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12 | 1        | 7.18          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13 | 1        | 7.18          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11 | 1        | 7.18          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12 | 1        | 7.18          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13 | 1        | 7.18          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG2  | 5        | 7.15          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG3  | 5        | 7.15          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG2  | 3        | 7.14          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG3  | 3        | 7.14          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG2  | 6        | 7.14          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG3  | 6        | 7.14          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG2  | 1        | 7.11          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG3  | 1        | 7.11          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21 | 4        | 7.11          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22 | 4        | 7.11          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23 | 4        | 7.11          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21 | 4        | 7.11          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22 | 4        | 7.11          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23 | 4        | 7.11          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21 | 4        | 7.11          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22 | 4        | 7.11          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23 | 4        | 7.11          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11 | 4        | 7.11          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12 | 4        | 7.11          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13 | 4        | 7.11          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11 | 4        | 7.11          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12 | 4        | 7.11          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13 | 4        | 7.11          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11 | 4        | 7.11          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12 | 4        | 7.11          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13 | 4        | 7.11          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21 | 8        | 7.11          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22 | 8        | 7.11          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23 | 8        | 7.11          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21 | 8        | 7.11          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22 | 8        | 7.11          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23 | 8        | 7.11          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21 | 8        | 7.11          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22 | 8        | 7.11          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23 | 8        | 7.11          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11 | 8        | 7.11          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12 | 8        | 7.11          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13 | 8        | 7.11          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11 | 8        | 7.11          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12 | 8        | 7.11          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13 | 8        | 7.11          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11 | 8        | 7.11          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12 | 8        | 7.11          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13 | 8        | 7.11          |
| (1,2904) | 1:173:A:ALA:H   | 1:180:A:ARG:HG2 | 19       | 7.1           |
| (1,2904) | 1:173:A:ALA:H   | 1:180:A:ARG:HG3 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12 | 19       | 7.1           |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13 | 19       | 7.1           |
| (1,2900) | 1:171:A:THR:HA  | 1:180:A:ARG:HD2 | 3        | 7.09          |
| (1,2900) | 1:171:A:THR:HA  | 1:180:A:ARG:HD3 | 3        | 7.09          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG2  | 9        | 7.09          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG3  | 9        | 7.09          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,2900) | 1:171:A:THR:HA  | 1:180:A:ARG:HD2 | 13       | 7.07          |
| (1,2900) | 1:171:A:THR:HA  | 1:180:A:ARG:HD3 | 13       | 7.07          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG2  | 8        | 7.07          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG3  | 8        | 7.07          |
| (1,2900) | 1:171:A:THR:HA  | 1:180:A:ARG:HD2 | 1        | 7.06          |
| (1,2900) | 1:171:A:THR:HA  | 1:180:A:ARG:HD3 | 1        | 7.06          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG2  | 16       | 7.06          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG3  | 16       | 7.06          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG2  | 2        | 7.05          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG3  | 2        | 7.05          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG2  | 19       | 7.05          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG3  | 19       | 7.05          |
| (1,1980) | 1:161:A:GLY:H   | 1:167:A:ILE:HB  | 20       | 7.05          |
| (1,2911) | 1:174:A:ASN:HB2 | 1:180:A:ARG:H   | 8        | 7.04          |
| (1,2911) | 1:174:A:ASN:HB3 | 1:180:A:ARG:H   | 8        | 7.04          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG2  | 7        | 7.04          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG3  | 7        | 7.04          |
| (1,2904) | 1:173:A:ALA:H   | 1:180:A:ARG:HG2 | 13       | 7.03          |
| (1,2904) | 1:173:A:ALA:H   | 1:180:A:ARG:HG3 | 13       | 7.03          |
| (1,1980) | 1:161:A:GLY:H   | 1:167:A:ILE:HB  | 2        | 7.03          |
| (1,2909) | 1:174:A:ASN:HA  | 1:180:A:ARG:HB2 | 14       | 6.99          |
| (1,2909) | 1:174:A:ASN:HA  | 1:180:A:ARG:HB3 | 14       | 6.99          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13 | 16       | 6.99          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21 | 15       | 6.98          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22 | 15       | 6.98          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23 | 15       | 6.98          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21 | 15       | 6.98          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22 | 15       | 6.98          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23 | 15       | 6.98          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21 | 15       | 6.98          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22 | 15       | 6.98          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23 | 15       | 6.98          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11 | 15       | 6.98          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12 | 15       | 6.98          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13 | 15       | 6.98          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11 | 15       | 6.98          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12 | 15       | 6.98          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13 | 15       | 6.98          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11 | 15       | 6.98          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12 | 15       | 6.98          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13 | 15       | 6.98          |
| (1,2909) | 1:174:A:ASN:HA  | 1:180:A:ARG:HB2 | 12       | 6.97          |
| (1,2909) | 1:174:A:ASN:HA  | 1:180:A:ARG:HB3 | 12       | 6.97          |
| (1,2904) | 1:173:A:ALA:H   | 1:180:A:ARG:HG2 | 15       | 6.97          |
| (1,2904) | 1:173:A:ALA:H   | 1:180:A:ARG:HG3 | 15       | 6.97          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13 | 10       | 6.96          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21 | 12       | 6.96          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22 | 12       | 6.96          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23 | 12       | 6.96          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21 | 12       | 6.96          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22 | 12       | 6.96          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23 | 12       | 6.96          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21 | 12       | 6.96          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22 | 12       | 6.96          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23 | 12       | 6.96          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11 | 12       | 6.96          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12 | 12       | 6.96          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13 | 12       | 6.96          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11 | 12       | 6.96          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12 | 12       | 6.96          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13 | 12       | 6.96          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11 | 12       | 6.96          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12 | 12       | 6.96          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13 | 12       | 6.96          |
| (1,2900) | 1:171:A:THR:HA  | 1:180:A:ARG:HD2 | 15       | 6.95          |
| (1,2900) | 1:171:A:THR:HA  | 1:180:A:ARG:HD3 | 15       | 6.95          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG2  | 20       | 6.95          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG3  | 20       | 6.95          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13 | 9        | 6.95          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21 | 18       | 6.95          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22 | 18       | 6.95          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23 | 18       | 6.95          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21 | 18       | 6.95          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22 | 18       | 6.95          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23 | 18       | 6.95          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21 | 18       | 6.95          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22 | 18       | 6.95          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23 | 18       | 6.95          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11 | 18       | 6.95          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12 | 18       | 6.95          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13 | 18       | 6.95          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11 | 18       | 6.95          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12 | 18       | 6.95          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13 | 18       | 6.95          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11 | 18       | 6.95          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12 | 18       | 6.95          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13 | 18       | 6.95          |
| (1,2911) | 1:174:A:ASN:HB2 | 1:180:A:ARG:H   | 14       | 6.94          |
| (1,2911) | 1:174:A:ASN:HB3 | 1:180:A:ARG:H   | 14       | 6.94          |
| (1,2175) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HG2  | 3        | 6.92          |
| (1,2175) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HG3  | 3        | 6.92          |
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG2  | 3        | 6.92          |
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG3  | 3        | 6.92          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG2  | 3        | 6.92          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG3  | 3        | 6.92          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG2  | 3        | 6.92          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG3  | 3        | 6.92          |
| (1,2175) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HG2  | 3        | 6.92          |
| (1,2175) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HG3  | 3        | 6.92          |
| (1,2175) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HG2  | 3        | 6.92          |
| (1,2175) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HG3  | 3        | 6.92          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG2  | 14       | 6.92          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG3  | 14       | 6.92          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG2  | 4        | 6.91          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG3  | 4        | 6.91          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21 | 7        | 6.9           |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22 | 7        | 6.9           |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23 | 7        | 6.9           |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21 | 7        | 6.9           |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22 | 7        | 6.9           |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23 | 7        | 6.9           |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21 | 7        | 6.9           |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22 | 7        | 6.9           |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23 | 7        | 6.9           |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11 | 7        | 6.9           |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12 | 7        | 6.9           |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13 | 7        | 6.9           |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11 | 7        | 6.9           |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12 | 7        | 6.9           |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13 | 7        | 6.9           |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11 | 7        | 6.9           |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12 | 7        | 6.9           |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13 | 7        | 6.9           |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG2  | 13       | 6.89          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG3  | 13       | 6.89          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13 | 2        | 6.88          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG21 | 6        | 6.88          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG22 | 6        | 6.88          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG23 | 6        | 6.88          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG21 | 6        | 6.88          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG22 | 6        | 6.88          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG23 | 6        | 6.88          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG21 | 6        | 6.88          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG22 | 6        | 6.88          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG23 | 6        | 6.88          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG11 | 6        | 6.88          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG12 | 6        | 6.88          |
| (1,527)  | 1:40:A:THR:HG21 | 1:66:A:VAL:HG13 | 6        | 6.88          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG11 | 6        | 6.88          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG12 | 6        | 6.88          |
| (1,527)  | 1:40:A:THR:HG22 | 1:66:A:VAL:HG13 | 6        | 6.88          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG11 | 6        | 6.88          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG12 | 6        | 6.88          |
| (1,527)  | 1:40:A:THR:HG23 | 1:66:A:VAL:HG13 | 6        | 6.88          |
| (1,2175) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HG2  | 2        | 6.85          |
| (1,2175) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HG3  | 2        | 6.85          |
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG2  | 2        | 6.85          |
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG3  | 2        | 6.85          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG2  | 2        | 6.85          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG3  | 2        | 6.85          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG2  | 2        | 6.85          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG3  | 2        | 6.85          |
| (1,2175) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HG2  | 2        | 6.85          |
| (1,2175) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HG3  | 2        | 6.85          |
| (1,2175) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HG2  | 2        | 6.85          |
| (1,2175) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HG3  | 2        | 6.85          |
| (1,2175) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HG2  | 14       | 6.82          |
| (1,2175) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HG3  | 14       | 6.82          |
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG2  | 14       | 6.82          |
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG3  | 14       | 6.82          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG2  | 14       | 6.82          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG3  | 14       | 6.82          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG2  | 14       | 6.82          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG3  | 14       | 6.82          |
| (1,2175) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HG2  | 14       | 6.82          |
| (1,2175) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HG3  | 14       | 6.82          |
| (1,2175) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HG2  | 14       | 6.82          |
| (1,2175) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HG3  | 14       | 6.82          |
| (1,1978) | 1:160:A:HIS:H   | 1:167:A:ILE:HB  | 3        | 6.81          |
| (1,2175) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HG2  | 20       | 6.79          |
| (1,2175) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HG3  | 20       | 6.79          |
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG2  | 20       | 6.79          |
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG3  | 20       | 6.79          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG2  | 20       | 6.79          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG3  | 20       | 6.79          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG2  | 20       | 6.79          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG3  | 20       | 6.79          |
| (1,2175) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HG2  | 20       | 6.79          |
| (1,2175) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HG3  | 20       | 6.79          |
| (1,2175) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HG2  | 20       | 6.79          |
| (1,2175) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HG3  | 20       | 6.79          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG2  | 18       | 6.79          |
| (1,2171) | 1:31:A:VAL:HA   | 1:37:A:GLU:HG3  | 18       | 6.79          |
| (1,2065) | 1:174:A:ASN:HA  | 1:180:A:ARG:H   | 7        | 6.79          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2171) | 1:31:A:VAL:HA    | 1:37:A:GLU:HG2   | 15       | 6.78          |
| (1,2171) | 1:31:A:VAL:HA    | 1:37:A:GLU:HG3   | 15       | 6.78          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB2  | 17       | 6.75          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB3  | 17       | 6.75          |
| (1,1980) | 1:161:A:GLY:H    | 1:167:A:ILE:HB   | 1        | 6.75          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB2  | 16       | 6.74          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB3  | 16       | 6.74          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG2  | 5        | 6.74          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG3  | 5        | 6.74          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG2   | 13       | 6.74          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG3   | 13       | 6.74          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG2   | 13       | 6.74          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG3   | 13       | 6.74          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG2   | 13       | 6.74          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG3   | 13       | 6.74          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG2   | 13       | 6.74          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG3   | 13       | 6.74          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG2   | 13       | 6.74          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG3   | 13       | 6.74          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG2   | 13       | 6.74          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG3   | 13       | 6.74          |
| (1,2171) | 1:31:A:VAL:HA    | 1:37:A:GLU:HG2   | 17       | 6.73          |
| (1,2171) | 1:31:A:VAL:HA    | 1:37:A:GLU:HG3   | 17       | 6.73          |
| (1,1980) | 1:161:A:GLY:H    | 1:167:A:ILE:HB   | 7        | 6.73          |
| (1,1980) | 1:161:A:GLY:H    | 1:167:A:ILE:HB   | 13       | 6.73          |
| (1,2065) | 1:174:A:ASN:HA   | 1:180:A:ARG:H    | 11       | 6.72          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG2   | 4        | 6.71          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG3   | 4        | 6.71          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG2   | 4        | 6.71          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG3   | 4        | 6.71          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG2   | 4        | 6.71          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG3   | 4        | 6.71          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG2   | 4        | 6.71          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG3   | 4        | 6.71          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG2   | 4        | 6.71          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG3   | 4        | 6.71          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG2   | 4        | 6.71          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG3   | 4        | 6.71          |
| (1,1980) | 1:161:A:GLY:H    | 1:167:A:ILE:HB   | 14       | 6.71          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 19       | 6.7           |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 19       | 6.7           |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 19       | 6.7           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 19       | 6.7           |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 19       | 6.7           |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 19       | 6.7           |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 19       | 6.7           |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 19       | 6.7           |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 19       | 6.7           |
| (1,2911) | 1:174:A:ASN:HB2  | 1:180:A:ARG:H    | 16       | 6.69          |
| (1,2911) | 1:174:A:ASN:HB3  | 1:180:A:ARG:H    | 16       | 6.69          |
| (1,1980) | 1:161:A:GLY:H    | 1:167:A:ILE:HB   | 16       | 6.68          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 7        | 6.67          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 7        | 6.67          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 7        | 6.67          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 7        | 6.67          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 7        | 6.67          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 7        | 6.67          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 7        | 6.67          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 7        | 6.67          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 7        | 6.67          |
| (1,2171) | 1:31:A:VAL:HA    | 1:37:A:GLU:HG2   | 12       | 6.66          |
| (1,2171) | 1:31:A:VAL:HA    | 1:37:A:GLU:HG3   | 12       | 6.66          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 4        | 6.66          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 4        | 6.66          |
| (1,2090) | 1:171:A:THR:HA   | 1:180:A:ARG:HE   | 13       | 6.65          |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 20       | 6.64          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 4        | 6.64          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 4        | 6.64          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 4        | 6.64          |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 2        | 6.63          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 10       | 6.62          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 10       | 6.62          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB2  | 8        | 6.61          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB3  | 8        | 6.61          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG2  | 1        | 6.61          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG3  | 1        | 6.61          |
| (1,2090) | 1:171:A:THR:HA   | 1:180:A:ARG:HE   | 10       | 6.61          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 8        | 6.61          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 8        | 6.61          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 7        | 6.59          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 7        | 6.59          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 15       | 6.59          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 15       | 6.59          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD2  | 2        | 6.58          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD3  | 2        | 6.58          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG2   | 17       | 6.58          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG3   | 17       | 6.58          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG2   | 17       | 6.58          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG3   | 17       | 6.58          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG2   | 17       | 6.58          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG3   | 17       | 6.58          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG2   | 17       | 6.58          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG3   | 17       | 6.58          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG2   | 17       | 6.58          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG3   | 17       | 6.58          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG2   | 17       | 6.58          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG3   | 17       | 6.58          |
| (1,1980) | 1:161:A:GLY:H    | 1:167:A:ILE:HB   | 4        | 6.55          |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 9        | 6.55          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 7        | 6.55          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 7        | 6.55          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 7        | 6.55          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 19       | 6.55          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 19       | 6.55          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 19       | 6.55          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 6        | 6.53          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 6        | 6.53          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 11       | 6.53          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 11       | 6.53          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 2        | 6.52          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 2        | 6.52          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 14       | 6.52          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 14       | 6.52          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 5        | 6.52          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 5        | 6.52          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 5        | 6.52          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 5        | 6.52          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 5        | 6.52          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 5        | 6.52          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 5        | 6.52          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 5        | 6.52          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 5        | 6.52          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 2        | 6.51          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 2        | 6.51          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 2        | 6.51          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 2        | 6.51          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 2        | 6.51          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 2        | 6.51          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 2        | 6.51          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 2        | 6.51          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 2        | 6.51          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 13       | 6.51          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 13       | 6.51          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 13       | 6.51          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 13       | 6.51          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 13       | 6.51          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 13       | 6.51          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 13       | 6.51          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 13       | 6.51          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 13       | 6.51          |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 1        | 6.5           |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD2  | 18       | 6.49          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD3  | 18       | 6.49          |
| (1,1980) | 1:161:A:GLY:H    | 1:167:A:ILE:HB   | 9        | 6.49          |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 13       | 6.49          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD11 | 4        | 6.49          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD12 | 4        | 6.49          |
| (1,86)   | 1:114:A:THR:HG21 | 1:125:A:ILE:HD13 | 4        | 6.49          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD11 | 4        | 6.49          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD12 | 4        | 6.49          |
| (1,86)   | 1:114:A:THR:HG22 | 1:125:A:ILE:HD13 | 4        | 6.49          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD11 | 4        | 6.49          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD12 | 4        | 6.49          |
| (1,86)   | 1:114:A:THR:HG23 | 1:125:A:ILE:HD13 | 4        | 6.49          |
| (1,2090) | 1:171:A:THR:HA   | 1:180:A:ARG:HE   | 20       | 6.48          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 1        | 6.48          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 1        | 6.48          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 13       | 6.48          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 13       | 6.48          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD11 | 5        | 6.48          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD12 | 5        | 6.48          |
| (1,974)  | 1:111:A:ILE:HG12 | 1:125:A:ILE:HD13 | 5        | 6.48          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 3        | 6.47          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 3        | 6.47          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 12       | 6.47          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 12       | 6.47          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 18       | 6.47          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 18       | 6.47          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 20       | 6.47          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 20       | 6.47          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 8        | 6.46          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 8        | 6.46          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 8        | 6.46          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 8        | 6.46          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 8        | 6.46          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 8        | 6.46          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 8        | 6.46          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 8        | 6.46          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 8        | 6.46          |
| (1,1980) | 1:161:A:GLY:H    | 1:167:A:ILE:HB   | 3        | 6.45          |
| (1,1980) | 1:161:A:GLY:H    | 1:167:A:ILE:HB   | 11       | 6.45          |
| (1,1980) | 1:161:A:GLY:H    | 1:167:A:ILE:HB   | 18       | 6.45          |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 16       | 6.45          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD2  | 17       | 6.44          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD3  | 17       | 6.44          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 18       | 6.44          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 18       | 6.44          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 18       | 6.44          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 18       | 6.44          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 18       | 6.44          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 18       | 6.44          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 18       | 6.44          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 18       | 6.44          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 18       | 6.44          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG2  | 18       | 6.42          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG3  | 18       | 6.42          |
| (1,2090) | 1:171:A:THR:HA   | 1:180:A:ARG:HE   | 5        | 6.42          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG11  | 14       | 6.4           |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG12  | 14       | 6.4           |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG13  | 14       | 6.4           |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD2  | 16       | 6.39          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD3  | 16       | 6.39          |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 17       | 6.39          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 16       | 6.39          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 16       | 6.39          |
| (1,1980) | 1:161:A:GLY:H    | 1:167:A:ILE:HB   | 6        | 6.38          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 11       | 6.38          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 11       | 6.38          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 11       | 6.38          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 11       | 6.38          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 11       | 6.38          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 11       | 6.38          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 11       | 6.38          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 11       | 6.38          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 11       | 6.38          |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 12       | 6.37          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 1        | 6.36          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 1        | 6.36          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 1        | 6.36          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 1        | 6.36          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 1        | 6.36          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 1        | 6.36          |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 4        | 6.36          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 3        | 6.36          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 3        | 6.36          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 3        | 6.36          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 3        | 6.36          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 3        | 6.36          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 3        | 6.36          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 3        | 6.36          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 3        | 6.36          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 3        | 6.36          |
| (1,2911) | 1:174:A:ASN:HB2  | 1:180:A:ARG:H    | 12       | 6.35          |
| (1,2911) | 1:174:A:ASN:HB3  | 1:180:A:ARG:H    | 12       | 6.35          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 9        | 6.35          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 9        | 6.35          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 9        | 6.35          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 9        | 6.35          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 9        | 6.35          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 9        | 6.35          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 9        | 6.35          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 9        | 6.35          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 9        | 6.35          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 20       | 6.35          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 20       | 6.35          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 20       | 6.35          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 20       | 6.35          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 20       | 6.35          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 20       | 6.35          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 20       | 6.35          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 20       | 6.35          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 20       | 6.35          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2911) | 1:174:A:ASN:HB2  | 1:180:A:ARG:H    | 20       | 6.34          |
| (1,2911) | 1:174:A:ASN:HB3  | 1:180:A:ARG:H    | 20       | 6.34          |
| (1,2090) | 1:171:A:THR:HA   | 1:180:A:ARG:HE   | 8        | 6.34          |
| (1,2090) | 1:171:A:THR:HA   | 1:180:A:ARG:HE   | 11       | 6.34          |
| (1,1980) | 1:161:A:GLY:H    | 1:167:A:ILE:HB   | 15       | 6.34          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 9        | 6.34          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 9        | 6.34          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 2        | 6.34          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 2        | 6.34          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 2        | 6.34          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 13       | 6.34          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 13       | 6.34          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 13       | 6.34          |
| (1,2065) | 1:174:A:ASN:HA   | 1:180:A:ARG:H    | 9        | 6.33          |
| (1,1980) | 1:161:A:GLY:H    | 1:167:A:ILE:HB   | 10       | 6.33          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 19       | 6.33          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 19       | 6.33          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD2  | 19       | 6.32          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD3  | 19       | 6.32          |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 19       | 6.32          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 18       | 6.32          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 18       | 6.32          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 18       | 6.32          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 14       | 6.32          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 14       | 6.32          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 14       | 6.32          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 14       | 6.32          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 14       | 6.32          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 14       | 6.32          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 14       | 6.32          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 14       | 6.32          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 14       | 6.32          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 17       | 6.3           |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 17       | 6.3           |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 12       | 6.3           |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 12       | 6.3           |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 12       | 6.3           |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 12       | 6.3           |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 12       | 6.3           |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 12       | 6.3           |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 12       | 6.3           |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 12       | 6.3           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 12       | 6.3           |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG2  | 7        | 6.29          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG3  | 7        | 6.29          |
| (1,2173) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HA    | 10       | 6.29          |
| (1,2173) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HA    | 10       | 6.29          |
| (1,2173) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HA    | 10       | 6.29          |
| (1,2173) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HA    | 10       | 6.29          |
| (1,2173) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HA    | 10       | 6.29          |
| (1,2173) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HA    | 10       | 6.29          |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 8        | 6.29          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 15       | 6.29          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 15       | 6.29          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 15       | 6.29          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 15       | 6.29          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 15       | 6.29          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 15       | 6.29          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 15       | 6.29          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 15       | 6.29          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 15       | 6.29          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD2  | 14       | 6.28          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD3  | 14       | 6.28          |
| (1,2173) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HA    | 3        | 6.28          |
| (1,2173) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HA    | 3        | 6.28          |
| (1,2173) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HA    | 3        | 6.28          |
| (1,2173) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HA    | 3        | 6.28          |
| (1,2173) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HA    | 3        | 6.28          |
| (1,2173) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HA    | 3        | 6.28          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 1        | 6.28          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 1        | 6.28          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 1        | 6.28          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 1        | 6.28          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 1        | 6.28          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 1        | 6.28          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 1        | 6.28          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 1        | 6.28          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 1        | 6.28          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 16       | 6.28          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 16       | 6.28          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 16       | 6.28          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 16       | 6.28          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 16       | 6.28          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 16       | 6.28          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 16       | 6.28          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 16       | 6.28          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 16       | 6.28          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 17       | 6.28          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 17       | 6.28          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 17       | 6.28          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 17       | 6.28          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 17       | 6.28          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 17       | 6.28          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 17       | 6.28          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 17       | 6.28          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 17       | 6.28          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG2  | 9        | 6.27          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG3  | 9        | 6.27          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 13       | 6.27          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 13       | 6.27          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 13       | 6.27          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 13       | 6.27          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 13       | 6.27          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 13       | 6.27          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 6        | 6.27          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 6        | 6.27          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 6        | 6.27          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 6        | 6.27          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 6        | 6.27          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 6        | 6.27          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 6        | 6.27          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 6        | 6.27          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 6        | 6.27          |
| (1,2173) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HA    | 11       | 6.26          |
| (1,2173) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HA    | 11       | 6.26          |
| (1,2173) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HA    | 11       | 6.26          |
| (1,2173) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HA    | 11       | 6.26          |
| (1,2173) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HA    | 11       | 6.26          |
| (1,2173) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HA    | 11       | 6.26          |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 5        | 6.25          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD2  | 4        | 6.24          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD3  | 4        | 6.24          |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 7        | 6.24          |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 14       | 6.24          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG11  | 17       | 6.24          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG12  | 17       | 6.24          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG13  | 17       | 6.24          |
| (1,2172) | 1:31:A:VAL:HG11  | 1:37:A:GLU:H     | 11       | 6.23          |
| (1,2172) | 1:31:A:VAL:HG12  | 1:37:A:GLU:H     | 11       | 6.23          |
| (1,2172) | 1:31:A:VAL:HG13  | 1:37:A:GLU:H     | 11       | 6.23          |
| (1,2172) | 1:31:A:VAL:HG21  | 1:37:A:GLU:H     | 11       | 6.23          |
| (1,2172) | 1:31:A:VAL:HG22  | 1:37:A:GLU:H     | 11       | 6.23          |
| (1,2172) | 1:31:A:VAL:HG23  | 1:37:A:GLU:H     | 11       | 6.23          |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 6        | 6.23          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG11  | 20       | 6.23          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG12  | 20       | 6.23          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG13  | 20       | 6.23          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 8        | 6.23          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 8        | 6.23          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 8        | 6.23          |
| (1,2173) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HA    | 4        | 6.22          |
| (1,2173) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HA    | 4        | 6.22          |
| (1,2173) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HA    | 4        | 6.22          |
| (1,2173) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HA    | 4        | 6.22          |
| (1,2173) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HA    | 4        | 6.22          |
| (1,2173) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HA    | 4        | 6.22          |
| (1,2173) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HA    | 17       | 6.22          |
| (1,2173) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HA    | 17       | 6.22          |
| (1,2173) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HA    | 17       | 6.22          |
| (1,2173) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HA    | 17       | 6.22          |
| (1,2173) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HA    | 17       | 6.22          |
| (1,2173) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HA    | 17       | 6.22          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG11  | 13       | 6.22          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG12  | 13       | 6.22          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG13  | 13       | 6.22          |
| (1,2172) | 1:31:A:VAL:HG11  | 1:37:A:GLU:H     | 3        | 6.21          |
| (1,2172) | 1:31:A:VAL:HG12  | 1:37:A:GLU:H     | 3        | 6.21          |
| (1,2172) | 1:31:A:VAL:HG13  | 1:37:A:GLU:H     | 3        | 6.21          |
| (1,2172) | 1:31:A:VAL:HG21  | 1:37:A:GLU:H     | 3        | 6.21          |
| (1,2172) | 1:31:A:VAL:HG22  | 1:37:A:GLU:H     | 3        | 6.21          |
| (1,2172) | 1:31:A:VAL:HG23  | 1:37:A:GLU:H     | 3        | 6.21          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 3        | 6.21          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 3        | 6.21          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 3        | 6.21          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 20       | 6.21          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 20       | 6.21          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 20       | 6.21          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 9        | 6.2           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 9        | 6.2           |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 9        | 6.2           |
| (1,2172) | 1:31:A:VAL:HG11  | 1:37:A:GLU:H     | 10       | 6.19          |
| (1,2172) | 1:31:A:VAL:HG12  | 1:37:A:GLU:H     | 10       | 6.19          |
| (1,2172) | 1:31:A:VAL:HG13  | 1:37:A:GLU:H     | 10       | 6.19          |
| (1,2172) | 1:31:A:VAL:HG21  | 1:37:A:GLU:H     | 10       | 6.19          |
| (1,2172) | 1:31:A:VAL:HG22  | 1:37:A:GLU:H     | 10       | 6.19          |
| (1,2172) | 1:31:A:VAL:HG23  | 1:37:A:GLU:H     | 10       | 6.19          |
| (1,1874) | 1:60:A:PHE:HE1   | 1:142:A:GLU:H    | 5        | 6.19          |
| (1,1874) | 1:60:A:PHE:HE2   | 1:142:A:GLU:H    | 5        | 6.19          |
| (1,2173) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HA    | 13       | 6.18          |
| (1,2173) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HA    | 13       | 6.18          |
| (1,2173) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HA    | 13       | 6.18          |
| (1,2173) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HA    | 13       | 6.18          |
| (1,2173) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HA    | 13       | 6.18          |
| (1,2173) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HA    | 13       | 6.18          |
| (1,2173) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HA    | 20       | 6.18          |
| (1,2173) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HA    | 20       | 6.18          |
| (1,2173) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HA    | 20       | 6.18          |
| (1,2173) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HA    | 20       | 6.18          |
| (1,2173) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HA    | 20       | 6.18          |
| (1,2173) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HA    | 20       | 6.18          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 12       | 6.17          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 12       | 6.17          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 12       | 6.17          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 12       | 6.17          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 12       | 6.17          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 12       | 6.17          |
| (1,2173) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HA    | 2        | 6.17          |
| (1,2173) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HA    | 2        | 6.17          |
| (1,2173) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HA    | 2        | 6.17          |
| (1,2173) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HA    | 2        | 6.17          |
| (1,2173) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HA    | 2        | 6.17          |
| (1,2173) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HA    | 2        | 6.17          |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 18       | 6.17          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 11       | 6.17          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 11       | 6.17          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 11       | 6.17          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 14       | 6.17          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 14       | 6.17          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 14       | 6.17          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB2  | 3        | 6.15          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB3  | 3        | 6.15          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 20       | 6.15          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 20       | 6.15          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 20       | 6.15          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 20       | 6.15          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 20       | 6.15          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 20       | 6.15          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 10       | 6.15          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 10       | 6.15          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 10       | 6.15          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 10       | 6.15          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 10       | 6.15          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 10       | 6.15          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 17       | 6.15          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 17       | 6.15          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 17       | 6.15          |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 11       | 6.14          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG2   | 8        | 6.13          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG3   | 8        | 6.13          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG2   | 8        | 6.13          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG3   | 8        | 6.13          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG2   | 8        | 6.13          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG3   | 8        | 6.13          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG2   | 8        | 6.13          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG3   | 8        | 6.13          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG2   | 8        | 6.13          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG3   | 8        | 6.13          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG2   | 8        | 6.13          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG3   | 8        | 6.13          |
| (1,2911) | 1:174:A:ASN:HB2  | 1:180:A:ARG:H    | 3        | 6.12          |
| (1,2911) | 1:174:A:ASN:HB3  | 1:180:A:ARG:H    | 3        | 6.12          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB2  | 20       | 6.12          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB3  | 20       | 6.12          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB2   | 3        | 6.12          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB2   | 3        | 6.12          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB2   | 3        | 6.12          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB2   | 3        | 6.12          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB2   | 3        | 6.12          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB2   | 3        | 6.12          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB3   | 3        | 6.12          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB3   | 3        | 6.12          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB3   | 3        | 6.12          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,2174) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HB3  | 3        | 6.12          |
| (1,2174) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HB3  | 3        | 6.12          |
| (1,2174) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HB3  | 3        | 6.12          |
| (1,2172) | 1:31:A:VAL:HG11 | 1:37:A:GLU:H    | 14       | 6.12          |
| (1,2172) | 1:31:A:VAL:HG12 | 1:37:A:GLU:H    | 14       | 6.12          |
| (1,2172) | 1:31:A:VAL:HG13 | 1:37:A:GLU:H    | 14       | 6.12          |
| (1,2172) | 1:31:A:VAL:HG21 | 1:37:A:GLU:H    | 14       | 6.12          |
| (1,2172) | 1:31:A:VAL:HG22 | 1:37:A:GLU:H    | 14       | 6.12          |
| (1,2172) | 1:31:A:VAL:HG23 | 1:37:A:GLU:H    | 14       | 6.12          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG11 | 4        | 6.12          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG12 | 4        | 6.12          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG13 | 4        | 6.12          |
| (1,2911) | 1:174:A:ASN:HB2 | 1:180:A:ARG:H   | 19       | 6.11          |
| (1,2911) | 1:174:A:ASN:HB3 | 1:180:A:ARG:H   | 19       | 6.11          |
| (1,2173) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HA   | 14       | 6.11          |
| (1,2173) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HA   | 14       | 6.11          |
| (1,2173) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HA   | 14       | 6.11          |
| (1,2173) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HA   | 14       | 6.11          |
| (1,2173) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HA   | 14       | 6.11          |
| (1,2173) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HA   | 14       | 6.11          |
| (1,2172) | 1:31:A:VAL:HG11 | 1:37:A:GLU:H    | 2        | 6.11          |
| (1,2172) | 1:31:A:VAL:HG12 | 1:37:A:GLU:H    | 2        | 6.11          |
| (1,2172) | 1:31:A:VAL:HG13 | 1:37:A:GLU:H    | 2        | 6.11          |
| (1,2172) | 1:31:A:VAL:HG21 | 1:37:A:GLU:H    | 2        | 6.11          |
| (1,2172) | 1:31:A:VAL:HG22 | 1:37:A:GLU:H    | 2        | 6.11          |
| (1,2172) | 1:31:A:VAL:HG23 | 1:37:A:GLU:H    | 2        | 6.11          |
| (1,2172) | 1:31:A:VAL:HG11 | 1:37:A:GLU:H    | 20       | 6.11          |
| (1,2172) | 1:31:A:VAL:HG12 | 1:37:A:GLU:H    | 20       | 6.11          |
| (1,2172) | 1:31:A:VAL:HG13 | 1:37:A:GLU:H    | 20       | 6.11          |
| (1,2172) | 1:31:A:VAL:HG21 | 1:37:A:GLU:H    | 20       | 6.11          |
| (1,2172) | 1:31:A:VAL:HG22 | 1:37:A:GLU:H    | 20       | 6.11          |
| (1,2172) | 1:31:A:VAL:HG23 | 1:37:A:GLU:H    | 20       | 6.11          |
| (1,1978) | 1:160:A:HIS:H   | 1:167:A:ILE:HB  | 10       | 6.11          |
| (1,2172) | 1:31:A:VAL:HG11 | 1:37:A:GLU:H    | 4        | 6.1           |
| (1,2172) | 1:31:A:VAL:HG12 | 1:37:A:GLU:H    | 4        | 6.1           |
| (1,2172) | 1:31:A:VAL:HG13 | 1:37:A:GLU:H    | 4        | 6.1           |
| (1,2172) | 1:31:A:VAL:HG21 | 1:37:A:GLU:H    | 4        | 6.1           |
| (1,2172) | 1:31:A:VAL:HG22 | 1:37:A:GLU:H    | 4        | 6.1           |
| (1,2172) | 1:31:A:VAL:HG23 | 1:37:A:GLU:H    | 4        | 6.1           |
| (1,2172) | 1:31:A:VAL:HG11 | 1:37:A:GLU:H    | 13       | 6.1           |
| (1,2172) | 1:31:A:VAL:HG12 | 1:37:A:GLU:H    | 13       | 6.1           |
| (1,2172) | 1:31:A:VAL:HG13 | 1:37:A:GLU:H    | 13       | 6.1           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2172) | 1:31:A:VAL:HG21  | 1:37:A:GLU:H     | 13       | 6.1           |
| (1,2172) | 1:31:A:VAL:HG22  | 1:37:A:GLU:H     | 13       | 6.1           |
| (1,2172) | 1:31:A:VAL:HG23  | 1:37:A:GLU:H     | 13       | 6.1           |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG11  | 19       | 6.1           |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG12  | 19       | 6.1           |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG13  | 19       | 6.1           |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 15       | 6.1           |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 15       | 6.1           |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 15       | 6.1           |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 10       | 6.1           |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 10       | 6.1           |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 10       | 6.1           |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 10       | 6.1           |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 10       | 6.1           |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 10       | 6.1           |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 10       | 6.1           |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 10       | 6.1           |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 10       | 6.1           |
| (1,1978) | 1:160:A:HIS:H    | 1:167:A:ILE:HB   | 15       | 6.09          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 1        | 6.09          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 1        | 6.09          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 1        | 6.09          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG2  | 2        | 6.08          |
| (1,2904) | 1:173:A:ALA:H    | 1:180:A:ARG:HG3  | 2        | 6.08          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG11  | 8        | 6.08          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG12  | 8        | 6.08          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG13  | 8        | 6.08          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 12       | 6.08          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 12       | 6.08          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 12       | 6.08          |
| (1,2911) | 1:174:A:ASN:HB2  | 1:180:A:ARG:H    | 1        | 6.07          |
| (1,2911) | 1:174:A:ASN:HB3  | 1:180:A:ARG:H    | 1        | 6.07          |
| (1,2090) | 1:171:A:THR:HA   | 1:180:A:ARG:HE   | 6        | 6.07          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG11  | 5        | 6.07          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG12  | 5        | 6.07          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG13  | 5        | 6.07          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB2   | 2        | 6.06          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB2   | 2        | 6.06          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB2   | 2        | 6.06          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB2   | 2        | 6.06          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB2   | 2        | 6.06          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB2   | 2        | 6.06          |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,2174) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HB3  | 2        | 6.06          |
| (1,2174) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HB3  | 2        | 6.06          |
| (1,2174) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HB3  | 2        | 6.06          |
| (1,2174) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HB3  | 2        | 6.06          |
| (1,2174) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HB3  | 2        | 6.06          |
| (1,2174) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HB3  | 2        | 6.06          |
| (1,2172) | 1:31:A:VAL:HG11 | 1:37:A:GLU:H    | 17       | 6.06          |
| (1,2172) | 1:31:A:VAL:HG12 | 1:37:A:GLU:H    | 17       | 6.06          |
| (1,2172) | 1:31:A:VAL:HG13 | 1:37:A:GLU:H    | 17       | 6.06          |
| (1,2172) | 1:31:A:VAL:HG21 | 1:37:A:GLU:H    | 17       | 6.06          |
| (1,2172) | 1:31:A:VAL:HG22 | 1:37:A:GLU:H    | 17       | 6.06          |
| (1,2172) | 1:31:A:VAL:HG23 | 1:37:A:GLU:H    | 17       | 6.06          |
| (1,2090) | 1:171:A:THR:HA  | 1:180:A:ARG:HE  | 9        | 6.05          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG11 | 1        | 6.05          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG12 | 1        | 6.05          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG13 | 1        | 6.05          |
| (1,2174) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HB2  | 14       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HB2  | 14       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HB2  | 14       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HB2  | 14       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HB2  | 14       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HB2  | 14       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HB3  | 14       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HB3  | 14       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HB3  | 14       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HB3  | 14       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HB3  | 14       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HB3  | 14       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HB2  | 20       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HB2  | 20       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HB2  | 20       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HB2  | 20       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HB2  | 20       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HB2  | 20       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HB3  | 20       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HB3  | 20       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HB3  | 20       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HB3  | 20       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HB3  | 20       | 6.04          |
| (1,2174) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HB3  | 20       | 6.04          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG11 | 16       | 6.04          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG12 | 16       | 6.04          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG13  | 16       | 6.04          |
| (1,2911) | 1:174:A:ASN:HB2  | 1:180:A:ARG:H    | 7        | 6.03          |
| (1,2911) | 1:174:A:ASN:HB3  | 1:180:A:ARG:H    | 7        | 6.03          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG2   | 19       | 6.03          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG3   | 19       | 6.03          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG2   | 19       | 6.03          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG3   | 19       | 6.03          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG2   | 19       | 6.03          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG3   | 19       | 6.03          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG2   | 19       | 6.03          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG3   | 19       | 6.03          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG2   | 19       | 6.03          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG3   | 19       | 6.03          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG2   | 19       | 6.03          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG3   | 19       | 6.03          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 6        | 6.03          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 6        | 6.03          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 6        | 6.03          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 8        | 6.02          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 8        | 6.02          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 8        | 6.02          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 8        | 6.02          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 8        | 6.02          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 8        | 6.02          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 16       | 6.02          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 16       | 6.02          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 16       | 6.02          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB2  | 18       | 6.01          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB3  | 18       | 6.01          |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 3        | 6.01          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG2   | 1        | 6.0           |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG3   | 1        | 6.0           |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG2   | 1        | 6.0           |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG3   | 1        | 6.0           |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG2   | 1        | 6.0           |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG3   | 1        | 6.0           |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG2   | 1        | 6.0           |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG3   | 1        | 6.0           |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG2   | 1        | 6.0           |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG3   | 1        | 6.0           |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG2   | 1        | 6.0           |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG3   | 1        | 6.0           |

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| Key      | Atom-1          | Atom-2          | Model ID | Violation (Å) |
|----------|-----------------|-----------------|----------|---------------|
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG11 | 11       | 6.0           |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG12 | 11       | 6.0           |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG13 | 11       | 6.0           |
| (1,2909) | 1:174:A:ASN:HA  | 1:180:A:ARG:HB2 | 4        | 5.99          |
| (1,2909) | 1:174:A:ASN:HA  | 1:180:A:ARG:HB3 | 4        | 5.99          |
| (1,2911) | 1:174:A:ASN:HB2 | 1:180:A:ARG:H   | 18       | 5.98          |
| (1,2911) | 1:174:A:ASN:HB3 | 1:180:A:ARG:H   | 18       | 5.98          |
| (1,2900) | 1:171:A:THR:HA  | 1:180:A:ARG:HD2 | 7        | 5.96          |
| (1,2900) | 1:171:A:THR:HA  | 1:180:A:ARG:HD3 | 7        | 5.96          |
| (1,2174) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HB2  | 17       | 5.96          |
| (1,2174) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HB2  | 17       | 5.96          |
| (1,2174) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HB2  | 17       | 5.96          |
| (1,2174) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HB2  | 17       | 5.96          |
| (1,2174) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HB2  | 17       | 5.96          |
| (1,2174) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HB2  | 17       | 5.96          |
| (1,2174) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HB3  | 17       | 5.96          |
| (1,2174) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HB3  | 17       | 5.96          |
| (1,2174) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HB3  | 17       | 5.96          |
| (1,2174) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HB3  | 17       | 5.96          |
| (1,2174) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HB3  | 17       | 5.96          |
| (1,2174) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HB3  | 17       | 5.96          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG11 | 15       | 5.96          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG12 | 15       | 5.96          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG13 | 15       | 5.96          |
| (1,2175) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HG2  | 5        | 5.95          |
| (1,2175) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HG3  | 5        | 5.95          |
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG2  | 5        | 5.95          |
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG3  | 5        | 5.95          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG2  | 5        | 5.95          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG3  | 5        | 5.95          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG2  | 5        | 5.95          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG3  | 5        | 5.95          |
| (1,2175) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HG2  | 5        | 5.95          |
| (1,2175) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HG3  | 5        | 5.95          |
| (1,2175) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HG2  | 5        | 5.95          |
| (1,2175) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HG3  | 5        | 5.95          |
| (1,2907) | 1:173:A:ALA:HB1 | 1:180:A:ARG:HD2 | 2        | 5.94          |
| (1,2907) | 1:173:A:ALA:HB1 | 1:180:A:ARG:HD3 | 2        | 5.94          |
| (1,2907) | 1:173:A:ALA:HB2 | 1:180:A:ARG:HD2 | 2        | 5.94          |
| (1,2907) | 1:173:A:ALA:HB2 | 1:180:A:ARG:HD3 | 2        | 5.94          |
| (1,2907) | 1:173:A:ALA:HB3 | 1:180:A:ARG:HD2 | 2        | 5.94          |
| (1,2907) | 1:173:A:ALA:HB3 | 1:180:A:ARG:HD3 | 2        | 5.94          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG2   | 6        | 5.94          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG3   | 6        | 5.94          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG2   | 6        | 5.94          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG3   | 6        | 5.94          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG2   | 6        | 5.94          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG3   | 6        | 5.94          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG2   | 6        | 5.94          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG3   | 6        | 5.94          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG2   | 6        | 5.94          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG3   | 6        | 5.94          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG2   | 6        | 5.94          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG3   | 6        | 5.94          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB2   | 4        | 5.94          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB2   | 4        | 5.94          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB2   | 4        | 5.94          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB2   | 4        | 5.94          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB2   | 4        | 5.94          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB2   | 4        | 5.94          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB3   | 4        | 5.94          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB3   | 4        | 5.94          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB3   | 4        | 5.94          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB3   | 4        | 5.94          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB3   | 4        | 5.94          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB3   | 4        | 5.94          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 10       | 5.94          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 10       | 5.94          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 10       | 5.94          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB2  | 19       | 5.93          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB3  | 19       | 5.93          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG2   | 16       | 5.92          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG3   | 16       | 5.92          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG2   | 16       | 5.92          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG3   | 16       | 5.92          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG2   | 16       | 5.92          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG3   | 16       | 5.92          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG2   | 16       | 5.92          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG3   | 16       | 5.92          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG2   | 16       | 5.92          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG3   | 16       | 5.92          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG2   | 16       | 5.92          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG3   | 16       | 5.92          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG2   | 7        | 5.91          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG3   | 7        | 5.91          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG2   | 7        | 5.91          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG3   | 7        | 5.91          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG2   | 7        | 5.91          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG3   | 7        | 5.91          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG2   | 7        | 5.91          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG3   | 7        | 5.91          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG2   | 7        | 5.91          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG3   | 7        | 5.91          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG2   | 7        | 5.91          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG3   | 7        | 5.91          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 20       | 5.9           |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 20       | 5.9           |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG11  | 10       | 5.89          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG12  | 10       | 5.89          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG13  | 10       | 5.89          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 15       | 5.88          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 15       | 5.88          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 15       | 5.88          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 15       | 5.88          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 15       | 5.88          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 15       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB2   | 11       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB2   | 11       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB2   | 11       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB2   | 11       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB2   | 11       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB2   | 11       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB3   | 11       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB3   | 11       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB3   | 11       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB3   | 11       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB3   | 11       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB3   | 11       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB2   | 13       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB2   | 13       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB2   | 13       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB2   | 13       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB2   | 13       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB2   | 13       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB3   | 13       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB3   | 13       | 5.88          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2174) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HB3   | 13       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HB3   | 13       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HB3   | 13       | 5.88          |
| (1,2174) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HB3   | 13       | 5.88          |
| (1,1980) | 1:161:A:GLY:H   | 1:167:A:ILE:HB   | 12       | 5.88          |
| (1,2175) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HG2   | 9        | 5.86          |
| (1,2175) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HG3   | 9        | 5.86          |
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG2   | 9        | 5.86          |
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG3   | 9        | 5.86          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG2   | 9        | 5.86          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG3   | 9        | 5.86          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG2   | 9        | 5.86          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG3   | 9        | 5.86          |
| (1,2175) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HG2   | 9        | 5.86          |
| (1,2175) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HG3   | 9        | 5.86          |
| (1,2175) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HG2   | 9        | 5.86          |
| (1,2175) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HG3   | 9        | 5.86          |
| (1,1980) | 1:161:A:GLY:H   | 1:167:A:ILE:HB   | 17       | 5.86          |
| (1,2911) | 1:174:A:ASN:HB2 | 1:180:A:ARG:H    | 17       | 5.85          |
| (1,2911) | 1:174:A:ASN:HB3 | 1:180:A:ARG:H    | 17       | 5.85          |
| (1,569)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG21  | 20       | 5.85          |
| (1,569)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG22  | 20       | 5.85          |
| (1,569)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG23  | 20       | 5.85          |
| (1,432)  | 1:160:A:HIS:HA  | 1:167:A:ILE:HG13 | 9        | 5.84          |
| (1,2909) | 1:174:A:ASN:HA  | 1:180:A:ARG:HB2  | 10       | 5.83          |
| (1,2909) | 1:174:A:ASN:HA  | 1:180:A:ARG:HB3  | 10       | 5.83          |
| (1,2174) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HB2   | 10       | 5.83          |
| (1,2174) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HB2   | 10       | 5.83          |
| (1,2174) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HB2   | 10       | 5.83          |
| (1,2174) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HB2   | 10       | 5.83          |
| (1,2174) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HB2   | 10       | 5.83          |
| (1,2174) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HB2   | 10       | 5.83          |
| (1,2174) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HB3   | 10       | 5.83          |
| (1,2174) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HB3   | 10       | 5.83          |
| (1,2174) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HB3   | 10       | 5.83          |
| (1,2174) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HB3   | 10       | 5.83          |
| (1,2174) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HB3   | 10       | 5.83          |
| (1,2174) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HB3   | 10       | 5.83          |
| (1,2733) | 1:134:A:GLN:HG2 | 1:167:A:ILE:HG13 | 20       | 5.82          |
| (1,2733) | 1:134:A:GLN:HG3 | 1:167:A:ILE:HG13 | 20       | 5.82          |
| (1,1980) | 1:161:A:GLY:H   | 1:167:A:ILE:HB   | 5        | 5.82          |
| (1,1980) | 1:161:A:GLY:H   | 1:167:A:ILE:HB   | 8        | 5.81          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1980) | 1:161:A:GLY:H    | 1:167:A:ILE:HB   | 19       | 5.81          |
| (1,2911) | 1:174:A:ASN:HB2  | 1:180:A:ARG:H    | 10       | 5.79          |
| (1,2911) | 1:174:A:ASN:HB3  | 1:180:A:ARG:H    | 10       | 5.79          |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 2        | 5.79          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 20       | 5.78          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 20       | 5.78          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG11  | 3        | 5.78          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG12  | 3        | 5.78          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG13  | 3        | 5.78          |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 12       | 5.78          |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 16       | 5.78          |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 20       | 5.78          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 3        | 5.77          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 3        | 5.77          |
| (1,2911) | 1:174:A:ASN:HB2  | 1:180:A:ARG:H    | 5        | 5.75          |
| (1,2911) | 1:174:A:ASN:HB3  | 1:180:A:ARG:H    | 5        | 5.75          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 2        | 5.74          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 2        | 5.74          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 2        | 5.74          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 2        | 5.74          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 2        | 5.74          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 2        | 5.74          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG21  | 14       | 5.74          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG22  | 14       | 5.74          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG23  | 14       | 5.74          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 18       | 5.73          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 18       | 5.73          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 18       | 5.73          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 18       | 5.73          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 18       | 5.73          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 18       | 5.73          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG11  | 6        | 5.73          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG12  | 6        | 5.73          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG13  | 6        | 5.73          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 4        | 5.72          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 4        | 5.72          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 4        | 5.72          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 4        | 5.72          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 4        | 5.72          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 4        | 5.72          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG2   | 15       | 5.72          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG3   | 15       | 5.72          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG2   | 15       | 5.72          |
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG3   | 15       | 5.72          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG2   | 15       | 5.72          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG3   | 15       | 5.72          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG2   | 15       | 5.72          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG3   | 15       | 5.72          |
| (1,2175) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HG2   | 15       | 5.72          |
| (1,2175) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HG3   | 15       | 5.72          |
| (1,2175) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HG2   | 15       | 5.72          |
| (1,2175) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HG3   | 15       | 5.72          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG11  | 18       | 5.72          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG12  | 18       | 5.72          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG13  | 18       | 5.72          |
| (1,2907) | 1:173:A:ALA:HB1 | 1:180:A:ARG:HD2  | 10       | 5.71          |
| (1,2907) | 1:173:A:ALA:HB1 | 1:180:A:ARG:HD3  | 10       | 5.71          |
| (1,2907) | 1:173:A:ALA:HB2 | 1:180:A:ARG:HD2  | 10       | 5.71          |
| (1,2907) | 1:173:A:ALA:HB2 | 1:180:A:ARG:HD3  | 10       | 5.71          |
| (1,2907) | 1:173:A:ALA:HB3 | 1:180:A:ARG:HD2  | 10       | 5.71          |
| (1,2907) | 1:173:A:ALA:HB3 | 1:180:A:ARG:HD3  | 10       | 5.71          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG11  | 2        | 5.71          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG12  | 2        | 5.71          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG13  | 2        | 5.71          |
| (1,432)  | 1:160:A:HIS:HA  | 1:167:A:ILE:HG13 | 5        | 5.7           |
| (1,2733) | 1:134:A:GLN:HG2 | 1:167:A:ILE:HG13 | 6        | 5.69          |
| (1,2733) | 1:134:A:GLN:HG3 | 1:167:A:ILE:HG13 | 6        | 5.69          |
| (1,1990) | 1:158:A:GLU:HA  | 1:167:A:ILE:H    | 20       | 5.69          |
| (1,569)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG21  | 19       | 5.69          |
| (1,569)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG22  | 19       | 5.69          |
| (1,569)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG23  | 19       | 5.69          |
| (1,2909) | 1:174:A:ASN:HA  | 1:180:A:ARG:HB2  | 1        | 5.68          |
| (1,2909) | 1:174:A:ASN:HA  | 1:180:A:ARG:HB3  | 1        | 5.68          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG11  | 12       | 5.68          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG12  | 12       | 5.68          |
| (1,1331) | 1:39:A:TYR:H    | 1:66:A:VAL:HG13  | 12       | 5.68          |
| (1,2175) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HG2   | 12       | 5.67          |
| (1,2175) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HG3   | 12       | 5.67          |
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG2   | 12       | 5.67          |
| (1,2175) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HG3   | 12       | 5.67          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG2   | 12       | 5.67          |
| (1,2175) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HG3   | 12       | 5.67          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG2   | 12       | 5.67          |
| (1,2175) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HG3   | 12       | 5.67          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG2   | 12       | 5.67          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG3   | 12       | 5.67          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG2   | 12       | 5.67          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG3   | 12       | 5.67          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG11  | 7        | 5.67          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG12  | 7        | 5.67          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG13  | 7        | 5.67          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG11  | 9        | 5.67          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG12  | 9        | 5.67          |
| (1,1331) | 1:39:A:TYR:H     | 1:66:A:VAL:HG13  | 9        | 5.67          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 10       | 5.65          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 10       | 5.65          |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 8        | 5.65          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG2   | 18       | 5.64          |
| (1,2175) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HG3   | 18       | 5.64          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG2   | 18       | 5.64          |
| (1,2175) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HG3   | 18       | 5.64          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG2   | 18       | 5.64          |
| (1,2175) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HG3   | 18       | 5.64          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG2   | 18       | 5.64          |
| (1,2175) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HG3   | 18       | 5.64          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG2   | 18       | 5.64          |
| (1,2175) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HG3   | 18       | 5.64          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG2   | 18       | 5.64          |
| (1,2175) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HG3   | 18       | 5.64          |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 19       | 5.64          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 3        | 5.63          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 3        | 5.63          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 3        | 5.63          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 3        | 5.63          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 3        | 5.63          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 3        | 5.63          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG21  | 13       | 5.63          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG22  | 13       | 5.63          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG23  | 13       | 5.63          |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 17       | 5.63          |
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 4        | 5.62          |
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 4        | 5.62          |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 1        | 5.62          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 16       | 5.61          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 16       | 5.61          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 16       | 5.61          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 16       | 5.61          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 16       | 5.61          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 16       | 5.61          |
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 9        | 5.61          |
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 9        | 5.61          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 13       | 5.61          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 13       | 5.61          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 3        | 5.6           |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 3        | 5.6           |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 3        | 5.6           |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 3        | 5.6           |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 3        | 5.6           |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 3        | 5.6           |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 6        | 5.6           |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 6        | 5.6           |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 6        | 5.6           |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 6        | 5.6           |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 6        | 5.6           |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 6        | 5.6           |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 2        | 5.6           |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 4        | 5.6           |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 4        | 5.6           |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 2        | 5.6           |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 2        | 5.6           |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 7        | 5.59          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 7        | 5.59          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 7        | 5.59          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 7        | 5.59          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 7        | 5.59          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 7        | 5.59          |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 12       | 5.59          |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 1        | 5.58          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB2  | 15       | 5.57          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB3  | 15       | 5.57          |
| (1,2911) | 1:174:A:ASN:HB2  | 1:180:A:ARG:H    | 6        | 5.56          |
| (1,2911) | 1:174:A:ASN:HB3  | 1:180:A:ARG:H    | 6        | 5.56          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 15       | 5.56          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 15       | 5.56          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 15       | 5.56          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 15       | 5.56          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 15       | 5.56          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 15       | 5.56          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 13       | 5.56          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 6        | 5.56          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 6        | 5.56          |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 3        | 5.55          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 4        | 5.54          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 4        | 5.54          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 16       | 5.54          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 16       | 5.54          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB2  | 5        | 5.53          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB3  | 5        | 5.53          |
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 15       | 5.53          |
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 15       | 5.53          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 14       | 5.53          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 14       | 5.53          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG21  | 8        | 5.53          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG22  | 8        | 5.53          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG23  | 8        | 5.53          |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 14       | 5.53          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 20       | 5.52          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 20       | 5.52          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 20       | 5.52          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 20       | 5.52          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 20       | 5.52          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 20       | 5.52          |
| (1,2173) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HA    | 8        | 5.52          |
| (1,2173) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HA    | 8        | 5.52          |
| (1,2173) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HA    | 8        | 5.52          |
| (1,2173) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HA    | 8        | 5.52          |
| (1,2173) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HA    | 8        | 5.52          |
| (1,2173) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HA    | 8        | 5.52          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 1        | 5.51          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 1        | 5.51          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 1        | 5.51          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 1        | 5.51          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 1        | 5.51          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 1        | 5.51          |
| (1,2911) | 1:174:A:ASN:HB2  | 1:180:A:ARG:H    | 2        | 5.5           |
| (1,2911) | 1:174:A:ASN:HB3  | 1:180:A:ARG:H    | 2        | 5.5           |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 4        | 5.49          |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 7        | 5.49          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB2  | 13       | 5.47          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB3  | 13       | 5.47          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 7        | 5.47          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 7        | 5.47          |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 13       | 5.47          |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 4        | 5.46          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG21 | 20       | 5.46          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG22 | 20       | 5.46          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG23 | 20       | 5.46          |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 20       | 5.45          |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 20       | 5.45          |
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 3        | 5.45          |
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 3        | 5.45          |
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 7        | 5.45          |
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 7        | 5.45          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 15       | 5.45          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 15       | 5.45          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG21  | 11       | 5.45          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG22  | 11       | 5.45          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG23  | 11       | 5.45          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 14       | 5.44          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 14       | 5.44          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 14       | 5.44          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 14       | 5.44          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 14       | 5.44          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 14       | 5.44          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG21  | 3        | 5.44          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG22  | 3        | 5.44          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG23  | 3        | 5.44          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 12       | 5.43          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 12       | 5.43          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 12       | 5.43          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 12       | 5.43          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 12       | 5.43          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 12       | 5.43          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG21  | 1        | 5.43          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG22  | 1        | 5.43          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG23  | 1        | 5.43          |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 8        | 5.42          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 4        | 5.42          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 4        | 5.42          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 4        | 5.42          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 4        | 5.42          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 4        | 5.42          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 4        | 5.42          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 4        | 5.42          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 4        | 5.42          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 4        | 5.42          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 19       | 5.42          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 19       | 5.42          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 19       | 5.42          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 19       | 5.42          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 19       | 5.42          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 19       | 5.42          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 19       | 5.42          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 19       | 5.42          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 19       | 5.42          |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 9        | 5.41          |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 6        | 5.41          |
| (1,2173) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HA    | 19       | 5.4           |
| (1,2173) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HA    | 19       | 5.4           |
| (1,2173) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HA    | 19       | 5.4           |
| (1,2173) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HA    | 19       | 5.4           |
| (1,2173) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HA    | 19       | 5.4           |
| (1,2173) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HA    | 19       | 5.4           |
| (1,2172) | 1:31:A:VAL:HG11  | 1:37:A:GLU:H     | 8        | 5.4           |
| (1,2172) | 1:31:A:VAL:HG12  | 1:37:A:GLU:H     | 8        | 5.4           |
| (1,2172) | 1:31:A:VAL:HG13  | 1:37:A:GLU:H     | 8        | 5.4           |
| (1,2172) | 1:31:A:VAL:HG21  | 1:37:A:GLU:H     | 8        | 5.4           |
| (1,2172) | 1:31:A:VAL:HG22  | 1:37:A:GLU:H     | 8        | 5.4           |
| (1,2172) | 1:31:A:VAL:HG23  | 1:37:A:GLU:H     | 8        | 5.4           |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 5        | 5.4           |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 18       | 5.4           |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 7        | 5.4           |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 7        | 5.4           |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 7        | 5.4           |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 7        | 5.4           |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 7        | 5.4           |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 7        | 5.4           |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 7        | 5.4           |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 7        | 5.4           |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 7        | 5.4           |
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 16       | 5.39          |
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 16       | 5.39          |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 15       | 5.39          |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 18       | 5.39          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 8        | 5.38          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 8        | 5.38          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 8        | 5.38          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 8        | 5.38          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 8        | 5.38          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 8        | 5.38          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB2   | 8        | 5.38          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB2   | 8        | 5.38          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB2   | 8        | 5.38          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB2   | 8        | 5.38          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB2   | 8        | 5.38          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB2   | 8        | 5.38          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB3   | 8        | 5.38          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB3   | 8        | 5.38          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB3   | 8        | 5.38          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB3   | 8        | 5.38          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB3   | 8        | 5.38          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB3   | 8        | 5.38          |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 20       | 5.38          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG21  | 17       | 5.38          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG22  | 17       | 5.38          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG23  | 17       | 5.38          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 14       | 5.38          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 14       | 5.38          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 14       | 5.38          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 14       | 5.38          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 14       | 5.38          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 14       | 5.38          |
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 17       | 5.37          |
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 17       | 5.37          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 15       | 5.37          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 15       | 5.37          |
| (1,2911) | 1:174:A:ASN:HB2  | 1:180:A:ARG:H    | 13       | 5.36          |
| (1,2911) | 1:174:A:ASN:HB3  | 1:180:A:ARG:H    | 13       | 5.36          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG21  | 15       | 5.36          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG22  | 15       | 5.36          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG23  | 15       | 5.36          |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 16       | 5.35          |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 2        | 5.35          |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 17       | 5.34          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG21  | 4        | 5.34          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG22  | 4        | 5.34          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG23  | 4        | 5.34          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG21  | 16       | 5.34          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG22  | 16       | 5.34          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG23  | 16       | 5.34          |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 11       | 5.34          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 17       | 5.33          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 17       | 5.33          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 17       | 5.33          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 17       | 5.33          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 17       | 5.33          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 17       | 5.33          |
| (1,2172) | 1:31:A:VAL:HG11  | 1:37:A:GLU:H     | 19       | 5.33          |
| (1,2172) | 1:31:A:VAL:HG12  | 1:37:A:GLU:H     | 19       | 5.33          |
| (1,2172) | 1:31:A:VAL:HG13  | 1:37:A:GLU:H     | 19       | 5.33          |
| (1,2172) | 1:31:A:VAL:HG21  | 1:37:A:GLU:H     | 19       | 5.33          |
| (1,2172) | 1:31:A:VAL:HG22  | 1:37:A:GLU:H     | 19       | 5.33          |
| (1,2172) | 1:31:A:VAL:HG23  | 1:37:A:GLU:H     | 19       | 5.33          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG21 | 3        | 5.33          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG22 | 3        | 5.33          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG23 | 3        | 5.33          |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 7        | 5.32          |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 15       | 5.32          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 1        | 5.32          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 1        | 5.32          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG21  | 5        | 5.32          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG22  | 5        | 5.32          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG23  | 5        | 5.32          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG21  | 9        | 5.32          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG22  | 9        | 5.32          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG23  | 9        | 5.32          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD11 | 5        | 5.32          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD12 | 5        | 5.32          |
| (1,385)  | 1:111:A:ILE:HG21 | 1:125:A:ILE:HD13 | 5        | 5.32          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD11 | 5        | 5.32          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD12 | 5        | 5.32          |
| (1,385)  | 1:111:A:ILE:HG22 | 1:125:A:ILE:HD13 | 5        | 5.32          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD11 | 5        | 5.32          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD12 | 5        | 5.32          |
| (1,385)  | 1:111:A:ILE:HG23 | 1:125:A:ILE:HD13 | 5        | 5.32          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 9        | 5.3           |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 9        | 5.3           |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG21  | 12       | 5.3           |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,569)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG22  | 12       | 5.3           |
| (1,569)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG23  | 12       | 5.3           |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG21 | 8        | 5.3           |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG22 | 8        | 5.3           |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG23 | 8        | 5.3           |
| (1,2911) | 1:174:A:ASN:HB2 | 1:180:A:ARG:H    | 4        | 5.27          |
| (1,2911) | 1:174:A:ASN:HB3 | 1:180:A:ARG:H    | 4        | 5.27          |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG21 | 2        | 5.26          |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG22 | 2        | 5.26          |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG23 | 2        | 5.26          |
| (1,2173) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HA    | 5        | 5.25          |
| (1,2173) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HA    | 5        | 5.25          |
| (1,2173) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HA    | 5        | 5.25          |
| (1,2173) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HA    | 5        | 5.25          |
| (1,2173) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HA    | 5        | 5.25          |
| (1,2173) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HA    | 5        | 5.25          |
| (1,736)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HB   | 20       | 5.25          |
| (1,569)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG21  | 7        | 5.25          |
| (1,569)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG22  | 7        | 5.25          |
| (1,569)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG23  | 7        | 5.25          |
| (1,115)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG11  | 20       | 5.24          |
| (1,115)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG12  | 20       | 5.24          |
| (1,115)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG13  | 20       | 5.24          |
| (1,115)  | 1:38:A:TRP:HB3  | 1:66:A:VAL:HG11  | 20       | 5.24          |
| (1,115)  | 1:38:A:TRP:HB3  | 1:66:A:VAL:HG12  | 20       | 5.24          |
| (1,115)  | 1:38:A:TRP:HB3  | 1:66:A:VAL:HG13  | 20       | 5.24          |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG21 | 14       | 5.24          |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG22 | 14       | 5.24          |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG23 | 14       | 5.24          |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG21 | 18       | 5.24          |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG22 | 18       | 5.24          |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG23 | 18       | 5.24          |
| (1,2733) | 1:134:A:GLN:HG2 | 1:167:A:ILE:HG13 | 8        | 5.23          |
| (1,2733) | 1:134:A:GLN:HG3 | 1:167:A:ILE:HG13 | 8        | 5.23          |
| (1,1990) | 1:158:A:GLU:HA  | 1:167:A:ILE:H    | 19       | 5.23          |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG21 | 12       | 5.23          |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG22 | 12       | 5.23          |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG23 | 12       | 5.23          |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG21 | 19       | 5.23          |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG22 | 19       | 5.23          |
| (1,68)   | 1:46:A:ASP:HA   | 1:167:A:ILE:HG23 | 19       | 5.23          |
| (1,2907) | 1:173:A:ALA:HB1 | 1:180:A:ARG:HD2  | 7        | 5.22          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 7        | 5.22          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 7        | 5.22          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 7        | 5.22          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 7        | 5.22          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 7        | 5.22          |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 4        | 5.22          |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 4        | 5.22          |
| (1,432)  | 1:160:A:HIS:HA   | 1:167:A:ILE:HG13 | 10       | 5.22          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG21 | 15       | 5.22          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG22 | 15       | 5.22          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG23 | 15       | 5.22          |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 6        | 5.21          |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 14       | 5.21          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 13       | 5.21          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 13       | 5.21          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 13       | 5.21          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 13       | 5.21          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 13       | 5.21          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 13       | 5.21          |
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 12       | 5.2           |
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 12       | 5.2           |
| (1,2173) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HA    | 1        | 5.2           |
| (1,2173) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HA    | 1        | 5.2           |
| (1,2173) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HA    | 1        | 5.2           |
| (1,2173) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HA    | 1        | 5.2           |
| (1,2173) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HA    | 1        | 5.2           |
| (1,2173) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HA    | 1        | 5.2           |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 11       | 5.2           |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 11       | 5.2           |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG21  | 18       | 5.2           |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG22  | 18       | 5.2           |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG23  | 18       | 5.2           |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG21 | 13       | 5.2           |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG22 | 13       | 5.2           |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG23 | 13       | 5.2           |
| (1,2173) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HA    | 15       | 5.19          |
| (1,2173) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HA    | 15       | 5.19          |
| (1,2173) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HA    | 15       | 5.19          |
| (1,2173) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HA    | 15       | 5.19          |
| (1,2173) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HA    | 15       | 5.19          |
| (1,2173) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HA    | 15       | 5.19          |
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 1        | 5.18          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 1        | 5.18          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 20       | 5.18          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 20       | 5.18          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 20       | 5.18          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 17       | 5.18          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 17       | 5.18          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 17       | 5.18          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 17       | 5.18          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 17       | 5.18          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 17       | 5.18          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 14       | 5.17          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 14       | 5.17          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 14       | 5.17          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 14       | 5.17          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 14       | 5.17          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 14       | 5.17          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG21  | 10       | 5.17          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG22  | 10       | 5.17          |
| (1,569)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG23  | 10       | 5.17          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 19       | 5.16          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 19       | 5.16          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 19       | 5.16          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 19       | 5.16          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 19       | 5.16          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 19       | 5.16          |
| (1,2172) | 1:31:A:VAL:HG11  | 1:37:A:GLU:H     | 7        | 5.16          |
| (1,2172) | 1:31:A:VAL:HG12  | 1:37:A:GLU:H     | 7        | 5.16          |
| (1,2172) | 1:31:A:VAL:HG13  | 1:37:A:GLU:H     | 7        | 5.16          |
| (1,2172) | 1:31:A:VAL:HG21  | 1:37:A:GLU:H     | 7        | 5.16          |
| (1,2172) | 1:31:A:VAL:HG22  | 1:37:A:GLU:H     | 7        | 5.16          |
| (1,2172) | 1:31:A:VAL:HG23  | 1:37:A:GLU:H     | 7        | 5.16          |
| (1,2172) | 1:31:A:VAL:HG11  | 1:37:A:GLU:H     | 1        | 5.15          |
| (1,2172) | 1:31:A:VAL:HG12  | 1:37:A:GLU:H     | 1        | 5.15          |
| (1,2172) | 1:31:A:VAL:HG13  | 1:37:A:GLU:H     | 1        | 5.15          |
| (1,2172) | 1:31:A:VAL:HG21  | 1:37:A:GLU:H     | 1        | 5.15          |
| (1,2172) | 1:31:A:VAL:HG22  | 1:37:A:GLU:H     | 1        | 5.15          |
| (1,2172) | 1:31:A:VAL:HG23  | 1:37:A:GLU:H     | 1        | 5.15          |
| (1,2173) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HA    | 6        | 5.14          |
| (1,2173) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HA    | 6        | 5.14          |
| (1,2173) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HA    | 6        | 5.14          |
| (1,2173) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HA    | 6        | 5.14          |
| (1,2173) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HA    | 6        | 5.14          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2173) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HA    | 6        | 5.14          |
| (1,2173) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HA    | 7        | 5.14          |
| (1,2173) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HA    | 7        | 5.14          |
| (1,2173) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HA    | 7        | 5.14          |
| (1,2173) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HA    | 7        | 5.14          |
| (1,2173) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HA    | 7        | 5.14          |
| (1,2173) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HA    | 7        | 5.14          |
| (1,2173) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HA    | 16       | 5.14          |
| (1,2173) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HA    | 16       | 5.14          |
| (1,2173) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HA    | 16       | 5.14          |
| (1,2173) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HA    | 16       | 5.14          |
| (1,2173) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HA    | 16       | 5.14          |
| (1,2173) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HA    | 16       | 5.14          |
| (1,1981) | 1:161:A:GLY:H   | 1:167:A:ILE:HG13 | 13       | 5.14          |
| (1,2174) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HB2   | 19       | 5.13          |
| (1,2174) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HB2   | 19       | 5.13          |
| (1,2174) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HB2   | 19       | 5.13          |
| (1,2174) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HB2   | 19       | 5.13          |
| (1,2174) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HB2   | 19       | 5.13          |
| (1,2174) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HB2   | 19       | 5.13          |
| (1,2174) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HB3   | 19       | 5.13          |
| (1,2174) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HB3   | 19       | 5.13          |
| (1,2174) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HB3   | 19       | 5.13          |
| (1,2174) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HB3   | 19       | 5.13          |
| (1,2174) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HB3   | 19       | 5.13          |
| (1,2174) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HB3   | 19       | 5.13          |
| (1,569)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG21  | 2        | 5.13          |
| (1,569)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG22  | 2        | 5.13          |
| (1,569)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG23  | 2        | 5.13          |
| (1,115)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG11  | 19       | 5.13          |
| (1,115)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG12  | 19       | 5.13          |
| (1,115)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG13  | 19       | 5.13          |
| (1,115)  | 1:38:A:TRP:HB3  | 1:66:A:VAL:HG11  | 19       | 5.13          |
| (1,115)  | 1:38:A:TRP:HB3  | 1:66:A:VAL:HG12  | 19       | 5.13          |
| (1,115)  | 1:38:A:TRP:HB3  | 1:66:A:VAL:HG13  | 19       | 5.13          |
| (1,2174) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HB2   | 1        | 5.12          |
| (1,2174) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HB2   | 1        | 5.12          |
| (1,2174) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HB2   | 1        | 5.12          |
| (1,2174) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HB2   | 1        | 5.12          |
| (1,2174) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HB2   | 1        | 5.12          |
| (1,2174) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HB2   | 1        | 5.12          |
| (1,2174) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HB3   | 1        | 5.12          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2174) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HB3   | 1        | 5.12          |
| (1,2174) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HB3   | 1        | 5.12          |
| (1,2174) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HB3   | 1        | 5.12          |
| (1,2174) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HB3   | 1        | 5.12          |
| (1,2174) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HB3   | 1        | 5.12          |
| (1,2172) | 1:31:A:VAL:HG11 | 1:37:A:GLU:H     | 5        | 5.12          |
| (1,2172) | 1:31:A:VAL:HG12 | 1:37:A:GLU:H     | 5        | 5.12          |
| (1,2172) | 1:31:A:VAL:HG13 | 1:37:A:GLU:H     | 5        | 5.12          |
| (1,2172) | 1:31:A:VAL:HG21 | 1:37:A:GLU:H     | 5        | 5.12          |
| (1,2172) | 1:31:A:VAL:HG22 | 1:37:A:GLU:H     | 5        | 5.12          |
| (1,2172) | 1:31:A:VAL:HG23 | 1:37:A:GLU:H     | 5        | 5.12          |
| (1,1981) | 1:161:A:GLY:H   | 1:167:A:ILE:HG13 | 7        | 5.12          |
| (1,736)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HB   | 2        | 5.12          |
| (1,2173) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HA    | 9        | 5.11          |
| (1,2173) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HA    | 9        | 5.11          |
| (1,2173) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HA    | 9        | 5.11          |
| (1,2173) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HA    | 9        | 5.11          |
| (1,2173) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HA    | 9        | 5.11          |
| (1,2173) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HA    | 9        | 5.11          |
| (1,2172) | 1:31:A:VAL:HG11 | 1:37:A:GLU:H     | 12       | 5.11          |
| (1,2172) | 1:31:A:VAL:HG12 | 1:37:A:GLU:H     | 12       | 5.11          |
| (1,2172) | 1:31:A:VAL:HG13 | 1:37:A:GLU:H     | 12       | 5.11          |
| (1,2172) | 1:31:A:VAL:HG21 | 1:37:A:GLU:H     | 12       | 5.11          |
| (1,2172) | 1:31:A:VAL:HG22 | 1:37:A:GLU:H     | 12       | 5.11          |
| (1,2172) | 1:31:A:VAL:HG23 | 1:37:A:GLU:H     | 12       | 5.11          |
| (1,569)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG21  | 6        | 5.11          |
| (1,569)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG22  | 6        | 5.11          |
| (1,569)  | 1:38:A:TRP:HB2  | 1:66:A:VAL:HG23  | 6        | 5.11          |
| (1,2174) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HB2   | 7        | 5.1           |
| (1,2174) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HB2   | 7        | 5.1           |
| (1,2174) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HB2   | 7        | 5.1           |
| (1,2174) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HB2   | 7        | 5.1           |
| (1,2174) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HB2   | 7        | 5.1           |
| (1,2174) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HB2   | 7        | 5.1           |
| (1,2174) | 1:31:A:VAL:HG11 | 1:37:A:GLU:HB3   | 7        | 5.1           |
| (1,2174) | 1:31:A:VAL:HG12 | 1:37:A:GLU:HB3   | 7        | 5.1           |
| (1,2174) | 1:31:A:VAL:HG13 | 1:37:A:GLU:HB3   | 7        | 5.1           |
| (1,2174) | 1:31:A:VAL:HG21 | 1:37:A:GLU:HB3   | 7        | 5.1           |
| (1,2174) | 1:31:A:VAL:HG22 | 1:37:A:GLU:HB3   | 7        | 5.1           |
| (1,2174) | 1:31:A:VAL:HG23 | 1:37:A:GLU:HB3   | 7        | 5.1           |
| (1,2172) | 1:31:A:VAL:HG11 | 1:37:A:GLU:H     | 16       | 5.1           |
| (1,2172) | 1:31:A:VAL:HG12 | 1:37:A:GLU:H     | 16       | 5.1           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2172) | 1:31:A:VAL:HG13  | 1:37:A:GLU:H     | 16       | 5.1           |
| (1,2172) | 1:31:A:VAL:HG21  | 1:37:A:GLU:H     | 16       | 5.1           |
| (1,2172) | 1:31:A:VAL:HG22  | 1:37:A:GLU:H     | 16       | 5.1           |
| (1,2172) | 1:31:A:VAL:HG23  | 1:37:A:GLU:H     | 16       | 5.1           |
| (1,2173) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HA    | 18       | 5.09          |
| (1,2173) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HA    | 18       | 5.09          |
| (1,2173) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HA    | 18       | 5.09          |
| (1,2173) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HA    | 18       | 5.09          |
| (1,2173) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HA    | 18       | 5.09          |
| (1,2173) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HA    | 18       | 5.09          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 19       | 5.09          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 19       | 5.09          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 19       | 5.09          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG21 | 4        | 5.09          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG22 | 4        | 5.09          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG23 | 4        | 5.09          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 3        | 5.08          |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 3        | 5.08          |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 3        | 5.08          |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 3        | 5.08          |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 3        | 5.08          |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 3        | 5.08          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 20       | 5.08          |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 20       | 5.08          |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 20       | 5.08          |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 20       | 5.08          |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 20       | 5.08          |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 20       | 5.08          |
| (1,2172) | 1:31:A:VAL:HG11  | 1:37:A:GLU:H     | 6        | 5.08          |
| (1,2172) | 1:31:A:VAL:HG12  | 1:37:A:GLU:H     | 6        | 5.08          |
| (1,2172) | 1:31:A:VAL:HG13  | 1:37:A:GLU:H     | 6        | 5.08          |
| (1,2172) | 1:31:A:VAL:HG21  | 1:37:A:GLU:H     | 6        | 5.08          |
| (1,2172) | 1:31:A:VAL:HG22  | 1:37:A:GLU:H     | 6        | 5.08          |
| (1,2172) | 1:31:A:VAL:HG23  | 1:37:A:GLU:H     | 6        | 5.08          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 9        | 5.08          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 9        | 5.08          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 8        | 5.08          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 8        | 5.08          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 8        | 5.08          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 8        | 5.08          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 8        | 5.08          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 8        | 5.08          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 15       | 5.07          |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 15       | 5.07          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB2   | 16       | 5.07          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB2   | 16       | 5.07          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB2   | 16       | 5.07          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB2   | 16       | 5.07          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB2   | 16       | 5.07          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB2   | 16       | 5.07          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB3   | 16       | 5.07          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB3   | 16       | 5.07          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB3   | 16       | 5.07          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB3   | 16       | 5.07          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB3   | 16       | 5.07          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB3   | 16       | 5.07          |
| (1,2173) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HA    | 12       | 5.07          |
| (1,2173) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HA    | 12       | 5.07          |
| (1,2173) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HA    | 12       | 5.07          |
| (1,2173) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HA    | 12       | 5.07          |
| (1,2173) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HA    | 12       | 5.07          |
| (1,2173) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HA    | 12       | 5.07          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 4        | 5.07          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 4        | 5.07          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 4        | 5.07          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 4        | 5.07          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 4        | 5.07          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 4        | 5.07          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 17       | 5.06          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 17       | 5.06          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 17       | 5.06          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 17       | 5.06          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 17       | 5.06          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 17       | 5.06          |
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 19       | 5.06          |
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 19       | 5.06          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 10       | 5.06          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 10       | 5.06          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 10       | 5.06          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 10       | 5.06          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 10       | 5.06          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 10       | 5.06          |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 1        | 5.06          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 18       | 5.06          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 18       | 5.06          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 1        | 5.06          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 1        | 5.06          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 1        | 5.06          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 1        | 5.06          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 1        | 5.06          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 1        | 5.06          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG21 | 10       | 5.06          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG22 | 10       | 5.06          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG23 | 10       | 5.06          |
| (1,2172) | 1:31:A:VAL:HG11  | 1:37:A:GLU:H     | 15       | 5.05          |
| (1,2172) | 1:31:A:VAL:HG12  | 1:37:A:GLU:H     | 15       | 5.05          |
| (1,2172) | 1:31:A:VAL:HG13  | 1:37:A:GLU:H     | 15       | 5.05          |
| (1,2172) | 1:31:A:VAL:HG21  | 1:37:A:GLU:H     | 15       | 5.05          |
| (1,2172) | 1:31:A:VAL:HG22  | 1:37:A:GLU:H     | 15       | 5.05          |
| (1,2172) | 1:31:A:VAL:HG23  | 1:37:A:GLU:H     | 15       | 5.05          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 5        | 5.05          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 5        | 5.05          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 5        | 5.05          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 5        | 5.05          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 5        | 5.05          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 5        | 5.05          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB2  | 7        | 5.03          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB3  | 7        | 5.03          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB2   | 6        | 5.03          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB2   | 6        | 5.03          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB2   | 6        | 5.03          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB2   | 6        | 5.03          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB2   | 6        | 5.03          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB2   | 6        | 5.03          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB3   | 6        | 5.03          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB3   | 6        | 5.03          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB3   | 6        | 5.03          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB3   | 6        | 5.03          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB3   | 6        | 5.03          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB3   | 6        | 5.03          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 14       | 5.03          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 14       | 5.03          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 14       | 5.03          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 16       | 5.03          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 16       | 5.03          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 16       | 5.03          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 16       | 5.03          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 16       | 5.03          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 16       | 5.03          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG21 | 9        | 5.03          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG22 | 9        | 5.03          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG23 | 9        | 5.03          |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 11       | 5.02          |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 16       | 5.02          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 13       | 5.02          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 13       | 5.02          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 13       | 5.02          |
| (1,1990) | 1:158:A:GLU:HA   | 1:167:A:ILE:H    | 10       | 5.01          |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 14       | 5.01          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 11       | 5.01          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 11       | 5.01          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 11       | 5.01          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 11       | 5.01          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 11       | 5.01          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 11       | 5.01          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB2   | 12       | 5.0           |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB2   | 12       | 5.0           |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB2   | 12       | 5.0           |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB2   | 12       | 5.0           |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB2   | 12       | 5.0           |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB2   | 12       | 5.0           |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB3   | 12       | 5.0           |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB3   | 12       | 5.0           |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB3   | 12       | 5.0           |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB3   | 12       | 5.0           |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB3   | 12       | 5.0           |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB3   | 12       | 5.0           |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG21 | 11       | 5.0           |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG22 | 11       | 5.0           |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG23 | 11       | 5.0           |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 4        | 4.99          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 4        | 4.99          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 4        | 4.99          |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 3        | 4.99          |
| (1,2911) | 1:174:A:ASN:HB2  | 1:180:A:ARG:H    | 15       | 4.98          |
| (1,2911) | 1:174:A:ASN:HB3  | 1:180:A:ARG:H    | 15       | 4.98          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG21 | 17       | 4.98          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG22 | 17       | 4.98          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG23 | 17       | 4.98          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB2   | 15       | 4.97          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB2   | 15       | 4.97          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB2   | 15       | 4.97          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB2   | 15       | 4.97          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB2   | 15       | 4.97          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB2   | 15       | 4.97          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB3   | 15       | 4.97          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB3   | 15       | 4.97          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB3   | 15       | 4.97          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB3   | 15       | 4.97          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB3   | 15       | 4.97          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB3   | 15       | 4.97          |
| (1,2172) | 1:31:A:VAL:HG11  | 1:37:A:GLU:H     | 9        | 4.97          |
| (1,2172) | 1:31:A:VAL:HG12  | 1:37:A:GLU:H     | 9        | 4.97          |
| (1,2172) | 1:31:A:VAL:HG13  | 1:37:A:GLU:H     | 9        | 4.97          |
| (1,2172) | 1:31:A:VAL:HG21  | 1:37:A:GLU:H     | 9        | 4.97          |
| (1,2172) | 1:31:A:VAL:HG22  | 1:37:A:GLU:H     | 9        | 4.97          |
| (1,2172) | 1:31:A:VAL:HG23  | 1:37:A:GLU:H     | 9        | 4.97          |
| (1,2172) | 1:31:A:VAL:HG11  | 1:37:A:GLU:H     | 18       | 4.97          |
| (1,2172) | 1:31:A:VAL:HG12  | 1:37:A:GLU:H     | 18       | 4.97          |
| (1,2172) | 1:31:A:VAL:HG13  | 1:37:A:GLU:H     | 18       | 4.97          |
| (1,2172) | 1:31:A:VAL:HG21  | 1:37:A:GLU:H     | 18       | 4.97          |
| (1,2172) | 1:31:A:VAL:HG22  | 1:37:A:GLU:H     | 18       | 4.97          |
| (1,2172) | 1:31:A:VAL:HG23  | 1:37:A:GLU:H     | 18       | 4.97          |
| (1,2090) | 1:171:A:THR:HA   | 1:180:A:ARG:HE   | 19       | 4.97          |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 1        | 4.97          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 12       | 4.96          |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 12       | 4.96          |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 12       | 4.96          |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 12       | 4.96          |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 12       | 4.96          |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 12       | 4.96          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 6        | 4.96          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 6        | 4.96          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 8        | 4.96          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 8        | 4.96          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 8        | 4.96          |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 13       | 4.96          |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 18       | 4.95          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 15       | 4.95          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 15       | 4.95          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 15       | 4.95          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 15       | 4.95          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 15       | 4.95          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 15       | 4.95          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 13       | 4.93          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 13       | 4.93          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 13       | 4.93          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 13       | 4.93          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 13       | 4.93          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 13       | 4.93          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 16       | 4.92          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 16       | 4.92          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 16       | 4.92          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 16       | 4.92          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 16       | 4.92          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 16       | 4.92          |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 6        | 4.92          |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 6        | 4.92          |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 4        | 4.92          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG21 | 6        | 4.92          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG22 | 6        | 4.92          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG23 | 6        | 4.92          |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 3        | 4.91          |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 3        | 4.91          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 10       | 4.91          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 10       | 4.91          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 10       | 4.91          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 10       | 4.91          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 10       | 4.91          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 10       | 4.91          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB2  | 2        | 4.9           |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB3  | 2        | 4.9           |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB2   | 5        | 4.9           |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB2   | 5        | 4.9           |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB2   | 5        | 4.9           |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB2   | 5        | 4.9           |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB2   | 5        | 4.9           |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB2   | 5        | 4.9           |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB3   | 5        | 4.9           |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB3   | 5        | 4.9           |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB3   | 5        | 4.9           |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB3   | 5        | 4.9           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB3   | 5        | 4.9           |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB3   | 5        | 4.9           |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 9        | 4.9           |
| (1,2911) | 1:174:A:ASN:HB2  | 1:180:A:ARG:H    | 9        | 4.89          |
| (1,2911) | 1:174:A:ASN:HB3  | 1:180:A:ARG:H    | 9        | 4.89          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 5        | 4.89          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 5        | 4.89          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 5        | 4.89          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 5        | 4.89          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 5        | 4.89          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 5        | 4.89          |
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 2        | 4.89          |
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 2        | 4.89          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 7        | 4.89          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 7        | 4.89          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 7        | 4.89          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 19       | 4.89          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 19       | 4.89          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 19       | 4.89          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 4        | 4.88          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 4        | 4.88          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 4        | 4.88          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 4        | 4.88          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 4        | 4.88          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 4        | 4.88          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB2   | 18       | 4.88          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB2   | 18       | 4.88          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB2   | 18       | 4.88          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB2   | 18       | 4.88          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB2   | 18       | 4.88          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB2   | 18       | 4.88          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB3   | 18       | 4.88          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB3   | 18       | 4.88          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB3   | 18       | 4.88          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB3   | 18       | 4.88          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB3   | 18       | 4.88          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB3   | 18       | 4.88          |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 3        | 4.88          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 5        | 4.88          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 5        | 4.88          |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 9        | 4.87          |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 9        | 4.87          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 5        | 4.87          |
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 5        | 4.87          |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 15       | 4.87          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 20       | 4.87          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 20       | 4.87          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 20       | 4.87          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 8        | 4.87          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 8        | 4.87          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 12       | 4.87          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 12       | 4.87          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 3        | 4.86          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 3        | 4.86          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 3        | 4.86          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 3        | 4.86          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 3        | 4.86          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 3        | 4.86          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG21 | 7        | 4.86          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG22 | 7        | 4.86          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG23 | 7        | 4.86          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG21 | 1        | 4.85          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG22 | 1        | 4.85          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG23 | 1        | 4.85          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD2  | 5        | 4.84          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD3  | 5        | 4.84          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 9        | 4.84          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 9        | 4.84          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 9        | 4.84          |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 16       | 4.83          |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 16       | 4.83          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 20       | 4.83          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 20       | 4.83          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 20       | 4.83          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD11 | 5        | 4.83          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD12 | 5        | 4.83          |
| (1,915)  | 1:111:A:ILE:HG13 | 1:125:A:ILE:HD13 | 5        | 4.83          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 13       | 4.83          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 11       | 4.82          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 11       | 4.82          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 11       | 4.82          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 11       | 4.82          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 11       | 4.82          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 11       | 4.82          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 3        | 4.82          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 3        | 4.82          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 3        | 4.82          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 3        | 4.82          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 3        | 4.82          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG21 | 5        | 4.82          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG22 | 5        | 4.82          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG23 | 5        | 4.82          |
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 11       | 4.81          |
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 11       | 4.81          |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 9        | 4.81          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 16       | 4.81          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 16       | 4.81          |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 3        | 4.8           |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 1        | 4.8           |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 1        | 4.8           |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 1        | 4.8           |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 17       | 4.8           |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 17       | 4.8           |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 17       | 4.8           |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 2        | 4.79          |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 2        | 4.79          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB2   | 9        | 4.78          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB2   | 9        | 4.78          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB2   | 9        | 4.78          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB2   | 9        | 4.78          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB2   | 9        | 4.78          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB2   | 9        | 4.78          |
| (1,2174) | 1:31:A:VAL:HG11  | 1:37:A:GLU:HB3   | 9        | 4.78          |
| (1,2174) | 1:31:A:VAL:HG12  | 1:37:A:GLU:HB3   | 9        | 4.78          |
| (1,2174) | 1:31:A:VAL:HG13  | 1:37:A:GLU:HB3   | 9        | 4.78          |
| (1,2174) | 1:31:A:VAL:HG21  | 1:37:A:GLU:HB3   | 9        | 4.78          |
| (1,2174) | 1:31:A:VAL:HG22  | 1:37:A:GLU:HB3   | 9        | 4.78          |
| (1,2174) | 1:31:A:VAL:HG23  | 1:37:A:GLU:HB3   | 9        | 4.78          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 11       | 4.78          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 11       | 4.78          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 11       | 4.78          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 15       | 4.77          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 15       | 4.77          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 15       | 4.77          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 18       | 4.77          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 18       | 4.77          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 18       | 4.77          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 18       | 4.77          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 18       | 4.77          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 18       | 4.77          |
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 14       | 4.76          |
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 14       | 4.76          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 2        | 4.76          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 2        | 4.76          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 2        | 4.76          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 2        | 4.76          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 2        | 4.76          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 2        | 4.76          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 20       | 4.75          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 20       | 4.75          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 20       | 4.75          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 20       | 4.75          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 20       | 4.75          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 20       | 4.75          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 4        | 4.75          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 4        | 4.75          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 4        | 4.75          |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 7        | 4.74          |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 7        | 4.74          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 8        | 4.74          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 8        | 4.74          |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 11       | 4.74          |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 16       | 4.74          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 7        | 4.74          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 7        | 4.74          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 7        | 4.74          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 7        | 4.74          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 7        | 4.74          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 7        | 4.74          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 19       | 4.73          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 19       | 4.73          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 19       | 4.73          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 19       | 4.73          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 19       | 4.73          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 19       | 4.73          |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 10       | 4.73          |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 10       | 4.73          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 3        | 4.73          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 3        | 4.73          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 3        | 4.73          |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 10       | 4.72          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 2        | 4.72          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 2        | 4.72          |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 20       | 4.72          |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 12       | 4.72          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 6        | 4.72          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 6        | 4.72          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 6        | 4.72          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 6        | 4.72          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 6        | 4.72          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 6        | 4.72          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 16       | 4.71          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 16       | 4.71          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 16       | 4.71          |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 4        | 4.71          |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 14       | 4.71          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 14       | 4.71          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 14       | 4.71          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 14       | 4.71          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 5        | 4.7           |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 5        | 4.7           |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 5        | 4.7           |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 7        | 4.69          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 7        | 4.69          |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 7        | 4.69          |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 6        | 4.68          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 12       | 4.68          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 12       | 4.68          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 12       | 4.68          |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 2        | 4.68          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 6        | 4.67          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 6        | 4.67          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 6        | 4.67          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 6        | 4.67          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 6        | 4.67          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 6        | 4.67          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 20       | 4.67          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 20       | 4.67          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 12       | 4.67          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 12       | 4.67          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 9        | 4.67          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 9        | 4.67          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 9        | 4.67          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 9        | 4.67          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 9        | 4.67          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 9        | 4.67          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 3        | 4.66          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 3        | 4.66          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 3        | 4.66          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 3        | 4.66          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 3        | 4.66          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 3        | 4.66          |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 2        | 4.66          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 4        | 4.66          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 4        | 4.66          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 4        | 4.66          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 19       | 4.66          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 19       | 4.66          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 2        | 4.66          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 2        | 4.66          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 2        | 4.66          |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 20       | 4.65          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 17       | 4.65          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 17       | 4.65          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 17       | 4.65          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 8        | 4.64          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 8        | 4.64          |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 18       | 4.64          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 13       | 4.64          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 13       | 4.64          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 13       | 4.64          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 12       | 4.63          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 12       | 4.63          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG12 | 17       | 4.63          |
| (1,1853) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 17       | 4.63          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG11  | 12       | 4.63          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG12  | 12       | 4.63          |
| (1,115)  | 1:38:A:TRP:HB2   | 1:66:A:VAL:HG13  | 12       | 4.63          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG11  | 12       | 4.63          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG12  | 12       | 4.63          |
| (1,115)  | 1:38:A:TRP:HB3   | 1:66:A:VAL:HG13  | 12       | 4.63          |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 12       | 4.62          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 16       | 4.62          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 14       | 4.62          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 14       | 4.62          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 14       | 4.62          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 18       | 4.62          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 18       | 4.62          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 18       | 4.62          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG21 | 16       | 4.62          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG22 | 16       | 4.62          |
| (1,68)   | 1:46:A:ASP:HA    | 1:167:A:ILE:HG23 | 16       | 4.62          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 2        | 4.61          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 2        | 4.61          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 2        | 4.61          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 2        | 4.61          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 2        | 4.61          |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 6        | 4.61          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 10       | 4.6           |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 10       | 4.6           |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 10       | 4.6           |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 10       | 4.6           |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 10       | 4.6           |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 10       | 4.6           |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 9        | 4.6           |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 2        | 4.6           |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 2        | 4.6           |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 2        | 4.6           |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 11       | 4.6           |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 11       | 4.6           |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 11       | 4.6           |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 10       | 4.6           |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 10       | 4.6           |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 10       | 4.6           |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 13       | 4.59          |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 13       | 4.59          |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 13       | 4.59          |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 13       | 4.59          |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 13       | 4.59          |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 13       | 4.59          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 3        | 4.59          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 3        | 4.59          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 10       | 4.59          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 10       | 4.59          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 7        | 4.58          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 7        | 4.58          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 7        | 4.58          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 7        | 4.58          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 7        | 4.58          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 7        | 4.58          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 14       | 4.58          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 14       | 4.58          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 14       | 4.58          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 12       | 4.58          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 12       | 4.58          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 12       | 4.58          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 4        | 4.57          |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 4        | 4.57          |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 4        | 4.57          |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 4        | 4.57          |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 4        | 4.57          |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 4        | 4.57          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 20       | 4.57          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 20       | 4.57          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 20       | 4.57          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 20       | 4.57          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 20       | 4.57          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 20       | 4.57          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 10       | 4.57          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 10       | 4.57          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 10       | 4.57          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 20       | 4.57          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 20       | 4.57          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 20       | 4.57          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 20       | 4.56          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 20       | 4.56          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 20       | 4.56          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 6        | 4.56          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 6        | 4.56          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 6        | 4.56          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG21  | 7        | 4.56          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG22  | 7        | 4.56          |
| (1,923)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG23  | 7        | 4.56          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 8        | 4.56          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 8        | 4.56          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 8        | 4.56          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 19       | 4.56          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 19       | 4.56          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 19       | 4.56          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 18       | 4.55          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 18       | 4.55          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 18       | 4.55          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 18       | 4.55          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 18       | 4.55          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 18       | 4.55          |
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 13       | 4.55          |
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 13       | 4.55          |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 13       | 4.55          |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 5        | 4.55          |
| (1,2911) | 1:174:A:ASN:HB2  | 1:180:A:ARG:H    | 11       | 4.54          |
| (1,2911) | 1:174:A:ASN:HB3  | 1:180:A:ARG:H    | 11       | 4.54          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 15       | 4.54          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 15       | 4.54          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 19       | 4.54          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 19       | 4.54          |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 1        | 4.53          |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 1        | 4.53          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 18       | 4.53          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 18       | 4.53          |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 1        | 4.53          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 13       | 4.53          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 13       | 4.53          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 13       | 4.53          |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 14       | 4.53          |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 19       | 4.53          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 4        | 4.53          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 4        | 4.53          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 4        | 4.53          |
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 18       | 4.52          |
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 18       | 4.52          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 14       | 4.52          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 14       | 4.52          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 4        | 4.52          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 4        | 4.52          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 4        | 4.52          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 2        | 4.51          |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 12       | 4.5           |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 12       | 4.5           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 14       | 4.5           |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 14       | 4.5           |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 4        | 4.5           |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 4        | 4.5           |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 4        | 4.5           |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 4        | 4.5           |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 4        | 4.5           |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 4        | 4.5           |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 9        | 4.5           |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 9        | 4.5           |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 9        | 4.5           |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 9        | 4.5           |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 9        | 4.5           |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 9        | 4.5           |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 17       | 4.5           |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 5        | 4.49          |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 8        | 4.49          |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 17       | 4.49          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 5        | 4.49          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 5        | 4.49          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 5        | 4.49          |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 8        | 4.48          |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 8        | 4.48          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 6        | 4.48          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 6        | 4.48          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 17       | 4.48          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 17       | 4.48          |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 8        | 4.48          |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 15       | 4.48          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 18       | 4.47          |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 18       | 4.47          |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 18       | 4.47          |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 18       | 4.47          |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 18       | 4.47          |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 18       | 4.47          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 1        | 4.47          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 1        | 4.47          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 1        | 4.47          |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 13       | 4.46          |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 13       | 4.46          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 4        | 4.46          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 4        | 4.46          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 12       | 4.46          |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 19       | 4.46          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 6        | 4.46          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 6        | 4.46          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 6        | 4.46          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 3        | 4.46          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 3        | 4.46          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 3        | 4.46          |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 11       | 4.46          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 16       | 4.46          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 16       | 4.46          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 16       | 4.46          |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 11       | 4.45          |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 11       | 4.45          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 1        | 4.45          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 1        | 4.45          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 1        | 4.45          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 1        | 4.45          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 1        | 4.45          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 1        | 4.45          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 9        | 4.45          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 9        | 4.45          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 9        | 4.45          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 9        | 4.44          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 9        | 4.44          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 5        | 4.44          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 5        | 4.44          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 19       | 4.44          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 19       | 4.44          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 19       | 4.44          |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 4        | 4.44          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 15       | 4.43          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 15       | 4.43          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 15       | 4.43          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 15       | 4.43          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 15       | 4.43          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 15       | 4.43          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 11       | 4.43          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 11       | 4.43          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 11       | 4.43          |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 11       | 4.43          |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 4        | 4.42          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 1        | 4.42          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 1        | 4.42          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 1        | 4.42          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 1        | 4.42          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 1        | 4.42          |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 3        | 4.42          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 15       | 4.42          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 15       | 4.42          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 15       | 4.42          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB2  | 6        | 4.41          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB3  | 6        | 4.41          |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 19       | 4.41          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 10       | 4.41          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 10       | 4.41          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 10       | 4.41          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 17       | 4.4           |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 17       | 4.4           |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 17       | 4.4           |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 8        | 4.4           |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 16       | 4.4           |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD2  | 11       | 4.39          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD3  | 11       | 4.39          |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 5        | 4.39          |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 5        | 4.39          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 17       | 4.39          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 17       | 4.39          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 13       | 4.38          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 13       | 4.38          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 9        | 4.38          |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 8        | 4.37          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 7        | 4.37          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 7        | 4.37          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 7        | 4.37          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 12       | 4.37          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 12       | 4.37          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 12       | 4.37          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 18       | 4.37          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 18       | 4.37          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 18       | 4.37          |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 9        | 4.37          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 11       | 4.37          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 11       | 4.37          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 11       | 4.37          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 7        | 4.36          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 7        | 4.36          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 16       | 4.36          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 16       | 4.36          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 1        | 4.36          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 1        | 4.36          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 1        | 4.36          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 6        | 4.35          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 6        | 4.35          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 6        | 4.35          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 6        | 4.35          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 6        | 4.35          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 6        | 4.35          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 17       | 4.35          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 17       | 4.35          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 17       | 4.35          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 17       | 4.35          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 17       | 4.35          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 17       | 4.35          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 13       | 4.35          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 13       | 4.35          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 13       | 4.35          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 16       | 4.35          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 16       | 4.35          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 16       | 4.35          |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 13       | 4.35          |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 17       | 4.35          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 11       | 4.34          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 11       | 4.34          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 20       | 4.34          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 20       | 4.34          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 20       | 4.34          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 2        | 4.34          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 2        | 4.34          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 2        | 4.34          |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 6        | 4.33          |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 7        | 4.33          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 4        | 4.33          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 4        | 4.33          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 4        | 4.33          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 5        | 4.32          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 5        | 4.32          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 5        | 4.32          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 5        | 4.32          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 5        | 4.32          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 5        | 4.32          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 5        | 4.32          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 5        | 4.32          |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 18       | 4.32          |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 17       | 4.31          |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 17       | 4.31          |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 18       | 4.31          |
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 18       | 4.31          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 11       | 4.31          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 11       | 4.31          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 10       | 4.31          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 10       | 4.31          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 10       | 4.31          |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 12       | 4.31          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 17       | 4.3           |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 17       | 4.3           |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 17       | 4.3           |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 17       | 4.3           |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 17       | 4.3           |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 17       | 4.3           |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 9        | 4.29          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 9        | 4.29          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 9        | 4.29          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 9        | 4.29          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 9        | 4.29          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 9        | 4.29          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 6        | 4.29          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 6        | 4.29          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 6        | 4.29          |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 15       | 4.29          |
| (1,736)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HB   | 10       | 4.29          |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 15       | 4.28          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 15       | 4.28          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 15       | 4.28          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 15       | 4.28          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 7        | 4.28          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 7        | 4.28          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 7        | 4.28          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 2        | 4.28          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 2        | 4.28          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 2        | 4.28          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 16       | 4.27          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 16       | 4.27          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 16       | 4.27          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 16       | 4.27          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 16       | 4.27          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 16       | 4.27          |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 5        | 4.27          |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 17       | 4.27          |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 14       | 4.27          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 14       | 4.27          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 14       | 4.27          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 3        | 4.27          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 4        | 4.26          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 4        | 4.26          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 4        | 4.26          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 4        | 4.26          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 4        | 4.26          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 4        | 4.26          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 16       | 4.26          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 16       | 4.26          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 16       | 4.26          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 18       | 4.26          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 18       | 4.26          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 18       | 4.26          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 20       | 4.25          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 2        | 4.24          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 2        | 4.24          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 2        | 4.24          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 2        | 4.24          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 2        | 4.24          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 2        | 4.24          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 11       | 4.24          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 11       | 4.24          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 11       | 4.24          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 1        | 4.24          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 1        | 4.24          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 1        | 4.24          |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 18       | 4.24          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 3        | 4.24          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 3        | 4.24          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 3        | 4.24          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD2  | 9        | 4.23          |
| (1,2900) | 1:171:A:THR:HA   | 1:180:A:ARG:HD3  | 9        | 4.23          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 6        | 4.23          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 6        | 4.23          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 6        | 4.23          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 15       | 4.22          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 15       | 4.22          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 15       | 4.22          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 15       | 4.22          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 15       | 4.22          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 15       | 4.22          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 19       | 4.22          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 19       | 4.22          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 19       | 4.22          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 19       | 4.22          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 19       | 4.22          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 19       | 4.22          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 10       | 4.22          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 10       | 4.22          |
| (1,1981) | 1:161:A:GLY:H    | 1:167:A:ILE:HG13 | 19       | 4.21          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 9        | 4.21          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 9        | 4.21          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 9        | 4.21          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 8        | 4.2           |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 8        | 4.2           |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 8        | 4.2           |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 8        | 4.2           |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 8        | 4.2           |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 8        | 4.2           |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 11       | 4.2           |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 10       | 4.2           |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 18       | 4.19          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 18       | 4.19          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 5        | 4.19          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 5        | 4.19          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 5        | 4.19          |
| (1,2265) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HA   | 1        | 4.18          |
| (1,2265) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HA   | 1        | 4.18          |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 6        | 4.18          |
| (1,2736) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 19       | 4.17          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2736) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HG13 | 19       | 4.17          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 13       | 4.17          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 13       | 4.17          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG12 | 19       | 4.17          |
| (1,1856) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HG13 | 19       | 4.17          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 4        | 4.17          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 4        | 4.17          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 4        | 4.17          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 6        | 4.16          |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 6        | 4.16          |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 6        | 4.16          |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 6        | 4.16          |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 6        | 4.16          |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 6        | 4.16          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 8        | 4.16          |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 8        | 4.16          |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 8        | 4.16          |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 8        | 4.16          |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 8        | 4.16          |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 8        | 4.16          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 6        | 4.16          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 6        | 4.16          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 6        | 4.16          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 6        | 4.16          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 6        | 4.16          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 6        | 4.16          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 14       | 4.16          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 14       | 4.16          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 14       | 4.16          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 14       | 4.16          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 14       | 4.16          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 14       | 4.16          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 1        | 4.16          |
| (1,1979) | 1:160:A:HIS:H    | 1:167:A:ILE:HG13 | 10       | 4.15          |
| (1,2898) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HA   | 9        | 4.14          |
| (1,2898) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HA   | 9        | 4.14          |
| (1,2898) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HA   | 9        | 4.14          |
| (1,2898) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HA   | 9        | 4.14          |
| (1,2898) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HA   | 9        | 4.14          |
| (1,2898) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HA   | 9        | 4.14          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 17       | 4.14          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 17       | 4.14          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 17       | 4.14          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 17       | 4.14          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 17       | 4.14          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 17       | 4.14          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 9        | 4.14          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 9        | 4.14          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 9        | 4.14          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 8        | 4.14          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 8        | 4.14          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 8        | 4.14          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 3        | 4.13          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 3        | 4.13          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 3        | 4.13          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 14       | 4.13          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 14       | 4.13          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 14       | 4.13          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 9        | 4.12          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 9        | 4.12          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 9        | 4.12          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 5        | 4.12          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 5        | 4.12          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 5        | 4.12          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 16       | 4.12          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 3        | 4.11          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 3        | 4.11          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 3        | 4.11          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 3        | 4.11          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 3        | 4.11          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 3        | 4.11          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 7        | 4.11          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 7        | 4.11          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 7        | 4.11          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 7        | 4.11          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 7        | 4.11          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 7        | 4.11          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 11       | 4.1           |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 11       | 4.1           |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 11       | 4.1           |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 11       | 4.1           |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 11       | 4.1           |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 11       | 4.1           |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 12       | 4.1           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 12       | 4.1           |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 12       | 4.1           |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 12       | 4.1           |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 12       | 4.1           |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 12       | 4.1           |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 15       | 4.1           |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 15       | 4.1           |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 15       | 4.1           |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 1        | 4.1           |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 7        | 4.1           |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 7        | 4.1           |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 7        | 4.1           |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 10       | 4.1           |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 19       | 4.09          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 19       | 4.09          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 19       | 4.09          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD11 | 3        | 4.09          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD12 | 3        | 4.09          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD13 | 3        | 4.09          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 18       | 4.08          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 18       | 4.08          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 18       | 4.08          |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 7        | 4.08          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 4        | 4.08          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 15       | 4.07          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 15       | 4.07          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 15       | 4.07          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 20       | 4.06          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 20       | 4.06          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 20       | 4.06          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 2        | 4.05          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 2        | 4.05          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 2        | 4.05          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 14       | 4.05          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 14       | 4.05          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 14       | 4.05          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 13       | 4.05          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 13       | 4.05          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 13       | 4.05          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 13       | 4.04          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 13       | 4.04          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 13       | 4.04          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 13       | 4.04          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 13       | 4.04          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 13       | 4.04          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 11       | 4.03          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 11       | 4.03          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 11       | 4.03          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG11  | 12       | 4.03          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG12  | 12       | 4.03          |
| (1,577)  | 1:38:A:TRP:H     | 1:66:A:VAL:HG13  | 12       | 4.03          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 14       | 4.03          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 19       | 4.03          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 5        | 4.02          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 5        | 4.02          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 5        | 4.02          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 5        | 4.02          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 5        | 4.02          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 5        | 4.02          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 18       | 4.02          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 18       | 4.02          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 18       | 4.02          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 17       | 4.02          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 17       | 4.02          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 17       | 4.02          |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 5        | 4.02          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 17       | 4.01          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 17       | 4.01          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 17       | 4.01          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 2        | 4.0           |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 2        | 4.0           |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 2        | 4.0           |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 2        | 4.0           |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 2        | 4.0           |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 2        | 4.0           |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 4        | 4.0           |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 4        | 4.0           |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 4        | 4.0           |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 16       | 3.99          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 16       | 3.99          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 16       | 3.99          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 9        | 3.99          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 9        | 3.99          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 9        | 3.99          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 20       | 3.99          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 14       | 3.98          |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 14       | 3.98          |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 14       | 3.98          |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 14       | 3.98          |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 14       | 3.98          |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 14       | 3.98          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 8        | 3.98          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 8        | 3.98          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 8        | 3.98          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 8        | 3.98          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 8        | 3.98          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 8        | 3.98          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 17       | 3.98          |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 13       | 3.98          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 13       | 3.97          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 9        | 3.97          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 9        | 3.97          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 9        | 3.97          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 10       | 3.96          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 10       | 3.96          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 10       | 3.96          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 8        | 3.95          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 8        | 3.95          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 8        | 3.95          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 8        | 3.95          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD11 | 18       | 3.94          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD12 | 18       | 3.94          |
| (1,2730) | 1:134:A:GLN:HB2  | 1:167:A:ILE:HD13 | 18       | 3.94          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD11 | 18       | 3.94          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD12 | 18       | 3.94          |
| (1,2730) | 1:134:A:GLN:HB3  | 1:167:A:ILE:HD13 | 18       | 3.94          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD11 | 7        | 3.94          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD12 | 7        | 3.94          |
| (1,1380) | 1:46:A:ASP:H     | 1:167:A:ILE:HD13 | 7        | 3.94          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 8        | 3.94          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 8        | 3.94          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 8        | 3.94          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 10       | 3.94          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 10       | 3.94          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 10       | 3.94          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 7        | 3.93          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 20       | 3.93          |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 20       | 3.93          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 12       | 3.92          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 12       | 3.92          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 12       | 3.92          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 12       | 3.92          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 12       | 3.92          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 12       | 3.92          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 4        | 3.92          |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 2        | 3.91          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 1        | 3.9           |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 1        | 3.9           |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 1        | 3.9           |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 1        | 3.9           |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 1        | 3.9           |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 1        | 3.9           |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 10       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 10       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 10       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 10       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 10       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 10       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 10       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 10       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 10       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 10       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 10       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 10       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 12       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 12       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 12       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 12       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 12       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 12       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 12       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 12       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 12       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 12       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 12       | 3.89          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 12       | 3.89          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 18       | 3.89          |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 3        | 3.89          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 20       | 3.88          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 20       | 3.88          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 19       | 3.88          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 19       | 3.88          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 19       | 3.88          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 1        | 3.87          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 3        | 3.87          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 12       | 3.87          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 12       | 3.87          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 12       | 3.87          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 18       | 3.87          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 18       | 3.87          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 18       | 3.87          |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 13       | 3.87          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 6        | 3.86          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 6        | 3.86          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 6        | 3.86          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 5        | 3.86          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 12       | 3.86          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 15       | 3.85          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 15       | 3.85          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 15       | 3.85          |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 1        | 3.85          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 17       | 3.85          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 17       | 3.85          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 17       | 3.85          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 5        | 3.84          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 5        | 3.84          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 5        | 3.84          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 8        | 3.83          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 15       | 3.83          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 15       | 3.83          |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 15       | 3.83          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 11       | 3.83          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 6        | 3.82          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 15       | 3.81          |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 15       | 3.81          |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 15       | 3.81          |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 15       | 3.81          |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 15       | 3.81          |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 15       | 3.81          |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 8        | 3.81          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 2        | 3.8           |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 17       | 3.8           |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 20       | 3.8           |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 2        | 3.8           |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 2        | 3.8           |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 2        | 3.8           |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 2        | 3.79          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 2        | 3.79          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 20       | 3.77          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 20       | 3.77          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 20       | 3.77          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 20       | 3.77          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 20       | 3.77          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 20       | 3.77          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 20       | 3.77          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 20       | 3.77          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 20       | 3.77          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 20       | 3.77          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 20       | 3.77          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 20       | 3.77          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 12       | 3.77          |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 4        | 3.77          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 20       | 3.76          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 1        | 3.76          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 1        | 3.76          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 1        | 3.76          |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 3        | 3.76          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 3        | 3.75          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 3        | 3.75          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 3        | 3.75          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 14       | 3.75          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 14       | 3.75          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 14       | 3.75          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 18       | 3.74          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 3        | 3.74          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 3        | 3.74          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 3        | 3.74          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 20       | 3.74          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 20       | 3.74          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 20       | 3.74          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 16       | 3.73          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 16       | 3.73          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 16       | 3.73          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 16       | 3.73          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 16       | 3.73          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 16       | 3.73          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 7        | 3.72          |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 7        | 3.72          |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 7        | 3.72          |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 7        | 3.72          |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 7        | 3.72          |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 7        | 3.72          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 6        | 3.72          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 16       | 3.72          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 16       | 3.72          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 16       | 3.72          |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 9        | 3.72          |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 18       | 3.72          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 10       | 3.72          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 10       | 3.72          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 10       | 3.72          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 19       | 3.72          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 19       | 3.72          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 19       | 3.72          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD11 | 6        | 3.71          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD12 | 6        | 3.71          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD13 | 6        | 3.71          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 11       | 3.71          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 11       | 3.71          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 11       | 3.71          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 1        | 3.7           |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 1        | 3.7           |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 1        | 3.7           |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 1        | 3.7           |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 1        | 3.7           |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 1        | 3.7           |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 6        | 3.7           |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 6        | 3.7           |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 6        | 3.7           |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 1        | 3.7           |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG21 | 20       | 3.7           |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 20       | 3.7           |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 20       | 3.7           |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 15       | 3.7           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 14       | 3.69          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 14       | 3.69          |
| (1,476)  | 1:157:A:SER:HA   | 1:167:A:ILE:HB   | 15       | 3.69          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 9        | 3.69          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 9        | 3.69          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 9        | 3.69          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 9        | 3.68          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 7        | 3.68          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 7        | 3.68          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 7        | 3.68          |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 12       | 3.68          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 11       | 3.67          |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 11       | 3.67          |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 11       | 3.67          |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 11       | 3.67          |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 11       | 3.67          |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 11       | 3.67          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 19       | 3.67          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 19       | 3.67          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 19       | 3.67          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 19       | 3.67          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 19       | 3.67          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 19       | 3.67          |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 4        | 3.67          |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 9        | 3.66          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 9        | 3.66          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 3        | 3.66          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 3        | 3.66          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 3        | 3.66          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 10       | 3.66          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 10       | 3.66          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 10       | 3.66          |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 2        | 3.66          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 15       | 3.65          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 6        | 3.64          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 6        | 3.64          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 6        | 3.64          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 6        | 3.64          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 6        | 3.64          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 6        | 3.64          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 6        | 3.64          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 6        | 3.64          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 6        | 3.64          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 6        | 3.64          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 6        | 3.64          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 6        | 3.64          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 2        | 3.64          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 2        | 3.64          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 2        | 3.64          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 2        | 3.64          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 2        | 3.64          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 2        | 3.64          |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 4        | 3.64          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 4        | 3.64          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 16       | 3.64          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 1        | 3.64          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 1        | 3.64          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 1        | 3.64          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 2        | 3.64          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 2        | 3.64          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 2        | 3.64          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 6        | 3.64          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 6        | 3.64          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 6        | 3.64          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 13       | 3.63          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 13       | 3.63          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 13       | 3.63          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 13       | 3.63          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 13       | 3.63          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 13       | 3.63          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 13       | 3.63          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 13       | 3.63          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 13       | 3.63          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 13       | 3.63          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 13       | 3.63          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 13       | 3.63          |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 3        | 3.63          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 3        | 3.63          |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 19       | 3.63          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 19       | 3.63          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 20       | 3.63          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 20       | 3.63          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 20       | 3.63          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 19       | 3.63          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 19       | 3.63          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 19       | 3.63          |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 6        | 3.63          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 8        | 3.62          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 8        | 3.62          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 8        | 3.62          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 13       | 3.62          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 13       | 3.62          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 13       | 3.62          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 1        | 3.61          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 1        | 3.61          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 1        | 3.61          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 1        | 3.61          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 1        | 3.61          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 1        | 3.61          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 1        | 3.61          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 1        | 3.61          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 1        | 3.61          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 1        | 3.61          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 1        | 3.61          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 1        | 3.61          |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 9        | 3.61          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 1        | 3.61          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 1        | 3.61          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 1        | 3.61          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 5        | 3.6           |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD11 | 13       | 3.6           |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD12 | 13       | 3.6           |
| (1,1146) | 1:123:A:HIS:HD2  | 1:167:A:ILE:HD13 | 13       | 3.6           |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 12       | 3.6           |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 13       | 3.6           |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 2        | 3.6           |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 2        | 3.6           |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 2        | 3.6           |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 15       | 3.6           |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 15       | 3.6           |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 15       | 3.6           |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 18       | 3.6           |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 18       | 3.6           |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 18       | 3.6           |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 17       | 3.59          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 17       | 3.59          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 17       | 3.59          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 19       | 3.59          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 19       | 3.59          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 19       | 3.59          |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 6        | 3.59          |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 2        | 3.59          |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 6        | 3.58          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 6        | 3.58          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 12       | 3.58          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 12       | 3.58          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 12       | 3.58          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 17       | 3.58          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 17       | 3.58          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 17       | 3.58          |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 14       | 3.58          |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 14       | 3.58          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD11 | 20       | 3.58          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD12 | 20       | 3.58          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD13 | 20       | 3.58          |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 11       | 3.57          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 11       | 3.57          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 10       | 3.57          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 9        | 3.57          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 9        | 3.57          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 9        | 3.57          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 16       | 3.57          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 16       | 3.57          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 16       | 3.57          |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 16       | 3.57          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 5        | 3.56          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 5        | 3.56          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 5        | 3.56          |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 18       | 3.56          |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 17       | 3.56          |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 18       | 3.56          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 4        | 3.56          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 4        | 3.56          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 4        | 3.56          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 11       | 3.55          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 11       | 3.55          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 11       | 3.55          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 11       | 3.55          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 11       | 3.55          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 11       | 3.55          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 15       | 3.55          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 15       | 3.55          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 15       | 3.55          |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 4        | 3.55          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB2  | 11       | 3.54          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB3  | 11       | 3.54          |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 16       | 3.54          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 16       | 3.54          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 7        | 3.54          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 19       | 3.54          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 7        | 3.54          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 7        | 3.54          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 7        | 3.54          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 7        | 3.54          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 7        | 3.54          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 7        | 3.54          |
| (1,866)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 3        | 3.54          |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 3        | 3.54          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 14       | 3.53          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 14       | 3.53          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 14       | 3.53          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 8        | 3.53          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 8        | 3.53          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 8        | 3.53          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 8        | 3.53          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 8        | 3.53          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 8        | 3.53          |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 17       | 3.52          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 17       | 3.52          |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 6        | 3.52          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 14       | 3.52          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 14       | 3.52          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 14       | 3.52          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 12       | 3.52          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 12       | 3.52          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 12       | 3.52          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 16       | 3.51          |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 16       | 3.51          |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 16       | 3.51          |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 16       | 3.51          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 16       | 3.51          |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 16       | 3.51          |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 13       | 3.51          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 13       | 3.51          |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 18       | 3.51          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 18       | 3.51          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 10       | 3.51          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 10       | 3.51          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 10       | 3.51          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG21 | 2        | 3.51          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 2        | 3.51          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 2        | 3.51          |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 10       | 3.51          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 5        | 3.5           |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 5        | 3.5           |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 5        | 3.5           |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 5        | 3.5           |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 5        | 3.5           |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 5        | 3.5           |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 8        | 3.5           |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 8        | 3.5           |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 8        | 3.5           |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 16       | 3.5           |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 16       | 3.5           |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 16       | 3.5           |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 12       | 3.49          |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 19       | 3.49          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 3        | 3.49          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 3        | 3.49          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 3        | 3.49          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 7        | 3.49          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 7        | 3.49          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 7        | 3.49          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 11       | 3.48          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 6        | 3.48          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 6        | 3.48          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 6        | 3.48          |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 19       | 3.48          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG21 | 13       | 3.48          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 13       | 3.48          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 13       | 3.48          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 20       | 3.48          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 20       | 3.48          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 20       | 3.48          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 11       | 3.47          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 11       | 3.47          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 11       | 3.47          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 11       | 3.47          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 11       | 3.47          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 11       | 3.47          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 14       | 3.47          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 14       | 3.47          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 14       | 3.47          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 14       | 3.47          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 14       | 3.47          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 14       | 3.47          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 11       | 3.47          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 11       | 3.47          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 11       | 3.47          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 12       | 3.47          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 12       | 3.47          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 12       | 3.47          |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 7        | 3.47          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 11       | 3.47          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 11       | 3.47          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 11       | 3.47          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 17       | 3.47          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 17       | 3.47          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 17       | 3.47          |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 12       | 3.46          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 12       | 3.46          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 8        | 3.46          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 8        | 3.46          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 8        | 3.46          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 1        | 3.46          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 1        | 3.46          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 1        | 3.46          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 18       | 3.45          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 18       | 3.45          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 18       | 3.45          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 3        | 3.44          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 3        | 3.44          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 3        | 3.44          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 3        | 3.44          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 3        | 3.44          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 3        | 3.44          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 3        | 3.44          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 3        | 3.44          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 3        | 3.44          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 3        | 3.44          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 3        | 3.44          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 3        | 3.44          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD11 | 17       | 3.44          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD12 | 17       | 3.44          |
| (1,1854) | 1:134:A:GLN:HE22 | 1:167:A:ILE:HD13 | 17       | 3.44          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 13       | 3.43          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 13       | 3.43          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 13       | 3.43          |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 17       | 3.43          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD11 | 5        | 3.43          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD12 | 5        | 3.43          |
| (1,59)   | 1:45:A:THR:HB    | 1:167:A:ILE:HD13 | 5        | 3.43          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 2        | 3.42          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 2        | 3.42          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 2        | 3.42          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD11 | 20       | 3.42          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD12 | 20       | 3.42          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD13 | 20       | 3.42          |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 18       | 3.42          |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 10       | 3.42          |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 11       | 3.42          |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 14       | 3.42          |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 11       | 3.41          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 10       | 3.41          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 10       | 3.41          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 10       | 3.41          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 16       | 3.4           |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 16       | 3.4           |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 16       | 3.4           |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 16       | 3.4           |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 8        | 3.4           |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG21 | 3        | 3.4           |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 3        | 3.4           |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 3        | 3.4           |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD11 | 3        | 3.4           |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD12 | 3        | 3.4           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD13 | 3        | 3.4           |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 4        | 3.39          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 4        | 3.39          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 4        | 3.39          |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 17       | 3.39          |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 15       | 3.39          |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 9        | 3.39          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 6        | 3.39          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 6        | 3.39          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 6        | 3.39          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 2        | 3.38          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 2        | 3.38          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 2        | 3.38          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 2        | 3.38          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 2        | 3.38          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 2        | 3.38          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 2        | 3.38          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 2        | 3.38          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 2        | 3.38          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 2        | 3.38          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 2        | 3.38          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 2        | 3.38          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 13       | 3.38          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 13       | 3.38          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 13       | 3.38          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 13       | 3.38          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 13       | 3.38          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 13       | 3.38          |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 15       | 3.38          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 15       | 3.38          |
| (1,1989) | 1:158:A:GLU:H    | 1:167:A:ILE:H    | 14       | 3.37          |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 13       | 3.37          |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 15       | 3.37          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 19       | 3.37          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 19       | 3.37          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 19       | 3.37          |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 10       | 3.36          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 10       | 3.36          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 14       | 3.36          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 14       | 3.36          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 14       | 3.36          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 18       | 3.36          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 18       | 3.36          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 18       | 3.36          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 8        | 3.35          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 8        | 3.35          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 8        | 3.35          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 8        | 3.35          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 8        | 3.35          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 8        | 3.35          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 8        | 3.35          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 8        | 3.35          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 8        | 3.35          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 8        | 3.35          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 8        | 3.35          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 8        | 3.35          |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 7        | 3.35          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD11 | 14       | 3.35          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD12 | 14       | 3.35          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD13 | 14       | 3.35          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB2  | 9        | 3.34          |
| (1,2909) | 1:174:A:ASN:HA   | 1:180:A:ARG:HB3  | 9        | 3.34          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 13       | 3.34          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 13       | 3.34          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 13       | 3.34          |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 8        | 3.33          |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 9        | 3.32          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 4        | 3.32          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 4        | 3.32          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 4        | 3.32          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 9        | 3.32          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 9        | 3.32          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 9        | 3.32          |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 12       | 3.31          |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 2        | 3.31          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG21 | 9        | 3.31          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 9        | 3.31          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 9        | 3.31          |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 5        | 3.31          |
| (1,474)  | 1:158:A:GLU:H    | 1:167:A:ILE:HB   | 19       | 3.31          |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 1        | 3.3           |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 1        | 3.3           |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 18       | 3.29          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 18       | 3.29          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 18       | 3.29          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 18       | 3.29          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 18       | 3.29          |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 18       | 3.29          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 1        | 3.29          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 1        | 3.29          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 1        | 3.29          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 16       | 3.29          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 16       | 3.29          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 16       | 3.29          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 11       | 3.28          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 11       | 3.28          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 11       | 3.28          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 13       | 3.27          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 13       | 3.27          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 13       | 3.27          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD11 | 2        | 3.27          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD12 | 2        | 3.27          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD13 | 2        | 3.27          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD11 | 11       | 3.27          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD12 | 11       | 3.27          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD13 | 11       | 3.27          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD11 | 19       | 3.25          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD12 | 19       | 3.25          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD13 | 19       | 3.25          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 1        | 3.25          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 1        | 3.25          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 1        | 3.25          |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 7        | 3.24          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 7        | 3.24          |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 10       | 3.24          |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 4        | 3.24          |
| (1,2266) | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 5        | 3.23          |
| (1,2266) | 1:46:A:ASP:HB3   | 1:167:A:ILE:HG13 | 5        | 3.23          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD11 | 2        | 3.23          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD12 | 2        | 3.23          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD13 | 2        | 3.23          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG21 | 1        | 3.23          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 1        | 3.23          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 1        | 3.23          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD11 | 10       | 3.23          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD12 | 10       | 3.23          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD13 | 10       | 3.23          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 15       | 3.23          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 15       | 3.23          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 15       | 3.23          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 19       | 3.22          |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 19       | 3.22          |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 19       | 3.22          |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 19       | 3.22          |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 19       | 3.22          |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 19       | 3.22          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 10       | 3.22          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 10       | 3.22          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 10       | 3.22          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 17       | 3.22          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 17       | 3.22          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 17       | 3.22          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 18       | 3.22          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 18       | 3.22          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 18       | 3.22          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 5        | 3.21          |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 5        | 3.21          |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 5        | 3.21          |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 5        | 3.21          |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 5        | 3.21          |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 5        | 3.21          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD11 | 14       | 3.21          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD12 | 14       | 3.21          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD13 | 14       | 3.21          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG21 | 12       | 3.21          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 12       | 3.21          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 12       | 3.21          |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 11       | 3.21          |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 17       | 3.21          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 11       | 3.21          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 11       | 3.21          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 11       | 3.21          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 14       | 3.21          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 14       | 3.21          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 14       | 3.21          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 5        | 3.2           |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 5        | 3.2           |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 5        | 3.2           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 5        | 3.2           |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 5        | 3.2           |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 5        | 3.2           |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 19       | 3.2           |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 5        | 3.2           |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 5        | 3.2           |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 5        | 3.2           |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 3        | 3.2           |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 3        | 3.2           |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 3        | 3.2           |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 19       | 3.2           |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 19       | 3.2           |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 19       | 3.2           |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 10       | 3.19          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD2  | 9        | 3.18          |
| (1,2907) | 1:173:A:ALA:HB1  | 1:180:A:ARG:HD3  | 9        | 3.18          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD2  | 9        | 3.18          |
| (1,2907) | 1:173:A:ALA:HB2  | 1:180:A:ARG:HD3  | 9        | 3.18          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD2  | 9        | 3.18          |
| (1,2907) | 1:173:A:ALA:HB3  | 1:180:A:ARG:HD3  | 9        | 3.18          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 3        | 3.18          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 3        | 3.18          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 3        | 3.18          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD11 | 9        | 3.18          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD12 | 9        | 3.18          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD13 | 9        | 3.18          |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 15       | 3.18          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG21 | 4        | 3.17          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 4        | 3.17          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 4        | 3.17          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 7        | 3.17          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 7        | 3.17          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 7        | 3.17          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 8        | 3.17          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 8        | 3.17          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 8        | 3.17          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 12       | 3.17          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 12       | 3.17          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 12       | 3.17          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD11 | 16       | 3.16          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD12 | 16       | 3.16          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD13 | 16       | 3.16          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 1        | 3.15          |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 11       | 3.15          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG21 | 7        | 3.15          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 7        | 3.15          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 7        | 3.15          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG21 | 18       | 3.15          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 18       | 3.15          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 18       | 3.15          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 18       | 3.14          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 18       | 3.14          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 18       | 3.14          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 18       | 3.14          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 18       | 3.14          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 18       | 3.14          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 18       | 3.14          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 18       | 3.14          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 18       | 3.14          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 18       | 3.14          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 18       | 3.14          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 18       | 3.14          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 7        | 3.14          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 7        | 3.14          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 7        | 3.14          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG21 | 14       | 3.13          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 14       | 3.13          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 14       | 3.13          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD11 | 4        | 3.13          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD12 | 4        | 3.13          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD13 | 4        | 3.13          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD11 | 13       | 3.13          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD12 | 13       | 3.13          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD13 | 13       | 3.13          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 9        | 3.13          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 9        | 3.13          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 9        | 3.13          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD11 | 12       | 3.12          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD12 | 12       | 3.12          |
| (1,1869) | 1:136:A:MET:H    | 1:167:A:ILE:HD13 | 12       | 3.12          |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 7        | 3.12          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 20       | 3.12          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 20       | 3.12          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 20       | 3.12          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 15       | 3.11          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 15       | 3.11          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 15       | 3.11          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 15       | 3.11          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 15       | 3.11          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 15       | 3.11          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 15       | 3.11          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 15       | 3.11          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 15       | 3.11          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 15       | 3.11          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 15       | 3.11          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 15       | 3.11          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD11 | 16       | 3.11          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD12 | 16       | 3.11          |
| (1,415)  | 1:45:A:THR:HA    | 1:167:A:ILE:HD13 | 16       | 3.11          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD11 | 4        | 3.1           |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD12 | 4        | 3.1           |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD13 | 4        | 3.1           |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 1        | 3.09          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD11 | 9        | 3.09          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD12 | 9        | 3.09          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD13 | 9        | 3.09          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 18       | 3.08          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 18       | 3.08          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 18       | 3.08          |
| (1,1042) | 1:38:A:TRP:HD1   | 1:66:A:VAL:HG21  | 20       | 3.08          |
| (1,1042) | 1:38:A:TRP:HD1   | 1:66:A:VAL:HG22  | 20       | 3.08          |
| (1,1042) | 1:38:A:TRP:HD1   | 1:66:A:VAL:HG23  | 20       | 3.08          |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 5        | 3.07          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 6        | 3.07          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 6        | 3.07          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 6        | 3.07          |
| (1,864)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HG13 | 7        | 3.06          |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 16       | 3.06          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 4        | 3.05          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 4        | 3.05          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 4        | 3.05          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 4        | 3.05          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 4        | 3.05          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 4        | 3.05          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 4        | 3.05          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 4        | 3.05          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 4        | 3.05          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 4        | 3.05          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 4        | 3.05          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 4        | 3.05          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD11 | 11       | 3.05          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD12 | 11       | 3.05          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD13 | 11       | 3.05          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD11 | 19       | 3.05          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD12 | 19       | 3.05          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD13 | 19       | 3.05          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD11 | 18       | 3.05          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD12 | 18       | 3.05          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD13 | 18       | 3.05          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 8        | 3.05          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 8        | 3.05          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 8        | 3.05          |
| (1,825)  | 1:158:A:GLU:HG2  | 1:167:A:ILE:H    | 5        | 3.04          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD11 | 1        | 3.04          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD12 | 1        | 3.04          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD13 | 1        | 3.04          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD11 | 20       | 3.04          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD12 | 20       | 3.04          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD13 | 20       | 3.04          |
| (1,2897) | 1:170:A:LEU:HD11 | 1:180:A:ARG:H    | 9        | 3.03          |
| (1,2897) | 1:170:A:LEU:HD12 | 1:180:A:ARG:H    | 9        | 3.03          |
| (1,2897) | 1:170:A:LEU:HD13 | 1:180:A:ARG:H    | 9        | 3.03          |
| (1,2897) | 1:170:A:LEU:HD21 | 1:180:A:ARG:H    | 9        | 3.03          |
| (1,2897) | 1:170:A:LEU:HD22 | 1:180:A:ARG:H    | 9        | 3.03          |
| (1,2897) | 1:170:A:LEU:HD23 | 1:180:A:ARG:H    | 9        | 3.03          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD11 | 6        | 3.03          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD12 | 6        | 3.03          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD13 | 6        | 3.03          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 15       | 3.03          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 15       | 3.03          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 15       | 3.03          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD11 | 13       | 3.02          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD12 | 13       | 3.02          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD13 | 13       | 3.02          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD11 | 17       | 3.01          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD12 | 17       | 3.01          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD13 | 17       | 3.01          |
| (1,459)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HG12 | 6        | 3.01          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 2        | 3.01          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 2        | 3.01          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 2        | 3.01          |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD11 | 6        | 3.0           |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD12 | 6        | 3.0           |
| (1,867)  | 1:46:A:ASP:HB3   | 1:167:A:ILE:HD13 | 6        | 3.0           |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD11 | 3        | 3.0           |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD12 | 3        | 3.0           |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD13 | 3        | 3.0           |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD11 | 11       | 2.99          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD12 | 11       | 2.99          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD13 | 11       | 2.99          |
| (1,1042) | 1:38:A:TRP:HD1   | 1:66:A:VAL:HG21  | 14       | 2.98          |
| (1,1042) | 1:38:A:TRP:HD1   | 1:66:A:VAL:HG22  | 14       | 2.98          |
| (1,1042) | 1:38:A:TRP:HD1   | 1:66:A:VAL:HG23  | 14       | 2.98          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD11 | 18       | 2.98          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD12 | 18       | 2.98          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD13 | 18       | 2.98          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG21 | 15       | 2.98          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 15       | 2.98          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 15       | 2.98          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 5        | 2.98          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 5        | 2.98          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 5        | 2.98          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 12       | 2.98          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 12       | 2.98          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 12       | 2.98          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD11 | 19       | 2.97          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD12 | 19       | 2.97          |
| (1,1857) | 1:134:A:GLN:HE21 | 1:167:A:ILE:HD13 | 19       | 2.97          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD11 | 10       | 2.97          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD12 | 10       | 2.97          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD13 | 10       | 2.97          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG21 | 8        | 2.97          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 8        | 2.97          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 8        | 2.97          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD11 | 6        | 2.96          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD12 | 6        | 2.96          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD13 | 6        | 2.96          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG21 | 6        | 2.95          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 6        | 2.95          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 6        | 2.95          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD11 | 4        | 2.95          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD12 | 4        | 2.95          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD13 | 4        | 2.95          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD11 | 17       | 2.94          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD12 | 17       | 2.94          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD13 | 17       | 2.94          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD11 | 7        | 2.93          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD12 | 7        | 2.93          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD13 | 7        | 2.93          |
| (1,416)  | 1:46:A:ASP:HA   | 1:167:A:ILE:HD11 | 15       | 2.93          |
| (1,416)  | 1:46:A:ASP:HA   | 1:167:A:ILE:HD12 | 15       | 2.93          |
| (1,416)  | 1:46:A:ASP:HA   | 1:167:A:ILE:HD13 | 15       | 2.93          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG21  | 19       | 2.92          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG22  | 19       | 2.92          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG23  | 19       | 2.92          |
| (1,737)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG21 | 5        | 2.92          |
| (1,737)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG22 | 5        | 2.92          |
| (1,737)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG23 | 5        | 2.92          |
| (1,416)  | 1:46:A:ASP:HA   | 1:167:A:ILE:HD11 | 1        | 2.92          |
| (1,416)  | 1:46:A:ASP:HA   | 1:167:A:ILE:HD12 | 1        | 2.92          |
| (1,416)  | 1:46:A:ASP:HA   | 1:167:A:ILE:HD13 | 1        | 2.92          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD11 | 12       | 2.91          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD12 | 12       | 2.91          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD13 | 12       | 2.91          |
| (1,416)  | 1:46:A:ASP:HA   | 1:167:A:ILE:HD11 | 17       | 2.91          |
| (1,416)  | 1:46:A:ASP:HA   | 1:167:A:ILE:HD12 | 17       | 2.91          |
| (1,416)  | 1:46:A:ASP:HA   | 1:167:A:ILE:HD13 | 17       | 2.91          |
| (1,414)  | 1:136:A:MET:HA  | 1:167:A:ILE:HD11 | 13       | 2.91          |
| (1,414)  | 1:136:A:MET:HA  | 1:167:A:ILE:HD12 | 13       | 2.91          |
| (1,414)  | 1:136:A:MET:HA  | 1:167:A:ILE:HD13 | 13       | 2.91          |
| (1,459)  | 1:46:A:ASP:HA   | 1:167:A:ILE:HG12 | 5        | 2.9           |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD11 | 9        | 2.9           |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD12 | 9        | 2.9           |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD13 | 9        | 2.9           |
| (1,825)  | 1:158:A:GLU:HG2 | 1:167:A:ILE:H    | 14       | 2.89          |
| (1,737)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG21 | 17       | 2.89          |
| (1,737)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG22 | 17       | 2.89          |
| (1,737)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG23 | 17       | 2.89          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD11 | 10       | 2.88          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD12 | 10       | 2.88          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD13 | 10       | 2.88          |
| (1,737)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG21 | 16       | 2.87          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 16       | 2.87          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 16       | 2.87          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD11 | 12       | 2.87          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD12 | 12       | 2.87          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD13 | 12       | 2.87          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 14       | 2.86          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 14       | 2.86          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 14       | 2.86          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 14       | 2.86          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 14       | 2.86          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 14       | 2.86          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 14       | 2.86          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 14       | 2.86          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 14       | 2.86          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 14       | 2.86          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 14       | 2.86          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 14       | 2.86          |
| (1,1042) | 1:38:A:TRP:HD1   | 1:66:A:VAL:HG21  | 13       | 2.86          |
| (1,1042) | 1:38:A:TRP:HD1   | 1:66:A:VAL:HG22  | 13       | 2.86          |
| (1,1042) | 1:38:A:TRP:HD1   | 1:66:A:VAL:HG23  | 13       | 2.86          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD11 | 4        | 2.86          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD12 | 4        | 2.86          |
| (1,414)  | 1:136:A:MET:HA   | 1:167:A:ILE:HD13 | 4        | 2.86          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG21 | 10       | 2.85          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 10       | 2.85          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 10       | 2.85          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD11 | 8        | 2.85          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD12 | 8        | 2.85          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD13 | 8        | 2.85          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 7        | 2.84          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 7        | 2.84          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 7        | 2.84          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 7        | 2.84          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 7        | 2.84          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 7        | 2.84          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 7        | 2.84          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 7        | 2.84          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 7        | 2.84          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 7        | 2.84          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 7        | 2.84          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 7        | 2.84          |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG21 | 8        | 2.83          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG22 | 8        | 2.83          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG23 | 8        | 2.83          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD11 | 8        | 2.83          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD12 | 8        | 2.83          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD13 | 8        | 2.83          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD11 | 2        | 2.83          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD12 | 2        | 2.83          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD13 | 2        | 2.83          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD11 | 5        | 2.83          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD12 | 5        | 2.83          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD13 | 5        | 2.83          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD11 | 14       | 2.83          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD12 | 14       | 2.83          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD13 | 14       | 2.83          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD11 | 18       | 2.83          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD12 | 18       | 2.83          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD13 | 18       | 2.83          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD11 | 3        | 2.82          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD12 | 3        | 2.82          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD13 | 3        | 2.82          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD11 | 3        | 2.82          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD12 | 3        | 2.82          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD13 | 3        | 2.82          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD11 | 20       | 2.82          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD12 | 20       | 2.82          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD13 | 20       | 2.82          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD11 | 20       | 2.82          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD12 | 20       | 2.82          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD13 | 20       | 2.82          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD11 | 1        | 2.82          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD12 | 1        | 2.82          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD13 | 1        | 2.82          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD11 | 12       | 2.81          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD12 | 12       | 2.81          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD13 | 12       | 2.81          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG21 | 3        | 2.8           |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG22 | 3        | 2.8           |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG23 | 3        | 2.8           |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG21 | 15       | 2.8           |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG22 | 15       | 2.8           |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG23 | 15       | 2.8           |
| (1,737)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG21 | 11       | 2.8           |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 11       | 2.8           |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 11       | 2.8           |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG21 | 19       | 2.78          |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG22 | 19       | 2.78          |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG23 | 19       | 2.78          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG21 | 19       | 2.78          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG22 | 19       | 2.78          |
| (1,737)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG23 | 19       | 2.78          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 16       | 2.77          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 16       | 2.77          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 16       | 2.77          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 16       | 2.77          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 16       | 2.77          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 16       | 2.77          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 16       | 2.77          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 16       | 2.77          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 16       | 2.77          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 16       | 2.77          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 16       | 2.77          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 16       | 2.77          |
| (1,2852) | 1:160:A:HIS:HB2  | 1:167:A:ILE:HD11 | 9        | 2.75          |
| (1,2852) | 1:160:A:HIS:HB2  | 1:167:A:ILE:HD12 | 9        | 2.75          |
| (1,2852) | 1:160:A:HIS:HB2  | 1:167:A:ILE:HD13 | 9        | 2.75          |
| (1,2852) | 1:160:A:HIS:HB3  | 1:167:A:ILE:HD11 | 9        | 2.75          |
| (1,2852) | 1:160:A:HIS:HB3  | 1:167:A:ILE:HD12 | 9        | 2.75          |
| (1,2852) | 1:160:A:HIS:HB3  | 1:167:A:ILE:HD13 | 9        | 2.75          |
| (1,1042) | 1:38:A:TRP:HD1   | 1:66:A:VAL:HG21  | 8        | 2.75          |
| (1,1042) | 1:38:A:TRP:HD1   | 1:66:A:VAL:HG22  | 8        | 2.75          |
| (1,1042) | 1:38:A:TRP:HD1   | 1:66:A:VAL:HG23  | 8        | 2.75          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD11 | 8        | 2.75          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD12 | 8        | 2.75          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD13 | 8        | 2.75          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD11 | 15       | 2.75          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD12 | 15       | 2.75          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD13 | 15       | 2.75          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD11 | 19       | 2.75          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD12 | 19       | 2.75          |
| (1,418)  | 1:136:A:MET:HG3  | 1:167:A:ILE:HD13 | 19       | 2.75          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 17       | 2.74          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 17       | 2.74          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 17       | 2.74          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 17       | 2.74          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 17       | 2.74          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 17       | 2.74          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 17       | 2.74          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 17       | 2.74          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 17       | 2.74          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 17       | 2.74          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 17       | 2.74          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 17       | 2.74          |
| (1,2852) | 1:160:A:HIS:HB2  | 1:167:A:ILE:HD11 | 2        | 2.74          |
| (1,2852) | 1:160:A:HIS:HB2  | 1:167:A:ILE:HD12 | 2        | 2.74          |
| (1,2852) | 1:160:A:HIS:HB2  | 1:167:A:ILE:HD13 | 2        | 2.74          |
| (1,2852) | 1:160:A:HIS:HB3  | 1:167:A:ILE:HD11 | 2        | 2.74          |
| (1,2852) | 1:160:A:HIS:HB3  | 1:167:A:ILE:HD12 | 2        | 2.74          |
| (1,2852) | 1:160:A:HIS:HB3  | 1:167:A:ILE:HD13 | 2        | 2.74          |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG21 | 20       | 2.74          |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG22 | 20       | 2.74          |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG23 | 20       | 2.74          |
| (1,2852) | 1:160:A:HIS:HB2  | 1:167:A:ILE:HD11 | 1        | 2.72          |
| (1,2852) | 1:160:A:HIS:HB2  | 1:167:A:ILE:HD12 | 1        | 2.72          |
| (1,2852) | 1:160:A:HIS:HB2  | 1:167:A:ILE:HD13 | 1        | 2.72          |
| (1,2852) | 1:160:A:HIS:HB3  | 1:167:A:ILE:HD11 | 1        | 2.72          |
| (1,2852) | 1:160:A:HIS:HB3  | 1:167:A:ILE:HD12 | 1        | 2.72          |
| (1,2852) | 1:160:A:HIS:HB3  | 1:167:A:ILE:HD13 | 1        | 2.72          |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG21 | 2        | 2.72          |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG22 | 2        | 2.72          |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG23 | 2        | 2.72          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD11 | 15       | 2.71          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD12 | 15       | 2.71          |
| (1,865)  | 1:46:A:ASP:HB2   | 1:167:A:ILE:HD13 | 15       | 2.71          |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD11 | 5        | 2.7           |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD12 | 5        | 2.7           |
| (1,416)  | 1:46:A:ASP:HA    | 1:167:A:ILE:HD13 | 5        | 2.7           |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG21 | 14       | 2.69          |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG22 | 14       | 2.69          |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG23 | 14       | 2.69          |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG21 | 18       | 2.69          |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG22 | 18       | 2.69          |
| (1,1372) | 1:45:A:THR:H     | 1:167:A:ILE:HG23 | 18       | 2.69          |
| (1,2733) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HG13 | 10       | 2.68          |
| (1,2733) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HG13 | 10       | 2.68          |
| (1,1042) | 1:38:A:TRP:HD1   | 1:66:A:VAL:HG21  | 11       | 2.67          |
| (1,1042) | 1:38:A:TRP:HD1   | 1:66:A:VAL:HG22  | 11       | 2.67          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG23  | 11       | 2.67          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD11 | 14       | 2.65          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD12 | 14       | 2.65          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD13 | 14       | 2.65          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD11 | 14       | 2.65          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD12 | 14       | 2.65          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD13 | 14       | 2.65          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG21  | 3        | 2.65          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG22  | 3        | 2.65          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG23  | 3        | 2.65          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG21  | 17       | 2.65          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG22  | 17       | 2.65          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG23  | 17       | 2.65          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD11 | 16       | 2.65          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD12 | 16       | 2.65          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD13 | 16       | 2.65          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG21 | 12       | 2.64          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG22 | 12       | 2.64          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG23 | 12       | 2.64          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG21  | 1        | 2.64          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG22  | 1        | 2.64          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG23  | 1        | 2.64          |
| (1,416)  | 1:46:A:ASP:HA   | 1:167:A:ILE:HD11 | 16       | 2.63          |
| (1,416)  | 1:46:A:ASP:HA   | 1:167:A:ILE:HD12 | 16       | 2.63          |
| (1,416)  | 1:46:A:ASP:HA   | 1:167:A:ILE:HD13 | 16       | 2.63          |
| (1,735)  | 1:157:A:SER:HB2 | 1:167:A:ILE:HB   | 13       | 2.62          |
| (1,459)  | 1:46:A:ASP:HA   | 1:167:A:ILE:HG12 | 16       | 2.61          |
| (1,416)  | 1:46:A:ASP:HA   | 1:167:A:ILE:HD11 | 7        | 2.61          |
| (1,416)  | 1:46:A:ASP:HA   | 1:167:A:ILE:HD12 | 7        | 2.61          |
| (1,416)  | 1:46:A:ASP:HA   | 1:167:A:ILE:HD13 | 7        | 2.61          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG21 | 10       | 2.6           |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG22 | 10       | 2.6           |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG23 | 10       | 2.6           |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG21  | 4        | 2.6           |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG22  | 4        | 2.6           |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG23  | 4        | 2.6           |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD11 | 16       | 2.59          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD12 | 16       | 2.59          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD13 | 16       | 2.59          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD11 | 16       | 2.59          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD12 | 16       | 2.59          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD13 | 16       | 2.59          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG21  | 15       | 2.59          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG22  | 15       | 2.59          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG23  | 15       | 2.59          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD11 | 5        | 2.59          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD12 | 5        | 2.59          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD13 | 5        | 2.59          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD11 | 7        | 2.59          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD12 | 7        | 2.59          |
| (1,865)  | 1:46:A:ASP:HB2  | 1:167:A:ILE:HD13 | 7        | 2.59          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG21  | 9        | 2.58          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG22  | 9        | 2.58          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG23  | 9        | 2.58          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD11 | 13       | 2.58          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD12 | 13       | 2.58          |
| (1,418)  | 1:136:A:MET:HG3 | 1:167:A:ILE:HD13 | 13       | 2.58          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG21 | 13       | 2.57          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG22 | 13       | 2.57          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG23 | 13       | 2.57          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG21  | 12       | 2.57          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG22  | 12       | 2.57          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG23  | 12       | 2.57          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG21  | 16       | 2.57          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG22  | 16       | 2.57          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG23  | 16       | 2.57          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 20       | 2.57          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD12 | 20       | 2.57          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD13 | 20       | 2.57          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD11 | 17       | 2.56          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD12 | 17       | 2.56          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD13 | 17       | 2.56          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD11 | 17       | 2.56          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD12 | 17       | 2.56          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD13 | 17       | 2.56          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG21 | 17       | 2.56          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG22 | 17       | 2.56          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG23 | 17       | 2.56          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG21  | 5        | 2.56          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG22  | 5        | 2.56          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG23  | 5        | 2.56          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD11 | 12       | 2.54          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD12 | 12       | 2.54          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD13 | 12       | 2.54          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD11 | 12       | 2.54          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD12 | 12       | 2.54          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD13 | 12       | 2.54          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG21 | 4        | 2.54          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG22 | 4        | 2.54          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG23 | 4        | 2.54          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD11 | 4        | 2.52          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD12 | 4        | 2.52          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD13 | 4        | 2.52          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD11 | 4        | 2.52          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD12 | 4        | 2.52          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD13 | 4        | 2.52          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 2        | 2.52          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD12 | 2        | 2.52          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD13 | 2        | 2.52          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD11 | 7        | 2.51          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD12 | 7        | 2.51          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD13 | 7        | 2.51          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD11 | 7        | 2.51          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD12 | 7        | 2.51          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD13 | 7        | 2.51          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD11 | 8        | 2.5           |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD12 | 8        | 2.5           |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD13 | 8        | 2.5           |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD11 | 8        | 2.5           |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD12 | 8        | 2.5           |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD13 | 8        | 2.5           |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD11 | 19       | 2.5           |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD12 | 19       | 2.5           |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD13 | 19       | 2.5           |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD11 | 19       | 2.5           |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD12 | 19       | 2.5           |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD13 | 19       | 2.5           |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD11 | 13       | 2.48          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD12 | 13       | 2.48          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD13 | 13       | 2.48          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD11 | 13       | 2.48          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD12 | 13       | 2.48          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD13 | 13       | 2.48          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG21 | 11       | 2.48          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG22 | 11       | 2.48          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG23 | 11       | 2.48          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD11 | 10       | 2.47          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD12 | 10       | 2.47          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD13 | 10       | 2.47          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD11 | 10       | 2.47          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD12 | 10       | 2.47          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD13 | 10       | 2.47          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG21 | 7        | 2.45          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG22 | 7        | 2.45          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG23 | 7        | 2.45          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG21  | 7        | 2.45          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG22  | 7        | 2.45          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG23  | 7        | 2.45          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD11 | 11       | 2.43          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD12 | 11       | 2.43          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD13 | 11       | 2.43          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD11 | 11       | 2.43          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD12 | 11       | 2.43          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD13 | 11       | 2.43          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD11 | 18       | 2.43          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD12 | 18       | 2.43          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD13 | 18       | 2.43          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD11 | 18       | 2.43          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD12 | 18       | 2.43          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD13 | 18       | 2.43          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD11 | 15       | 2.4           |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD12 | 15       | 2.4           |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD13 | 15       | 2.4           |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD11 | 15       | 2.4           |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD12 | 15       | 2.4           |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD13 | 15       | 2.4           |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG21  | 18       | 2.4           |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG22  | 18       | 2.4           |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG23  | 18       | 2.4           |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG21 | 5        | 2.39          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG22 | 5        | 2.39          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG23 | 5        | 2.39          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG21 | 6        | 2.39          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG22 | 6        | 2.39          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG23 | 6        | 2.39          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD11 | 5        | 2.38          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD12 | 5        | 2.38          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD13 | 5        | 2.38          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD11 | 5        | 2.38          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD12 | 5        | 2.38          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD13 | 5        | 2.38          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD11 | 6        | 2.38          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD12 | 6        | 2.38          |
| (1,2852) | 1:160:A:HIS:HB2 | 1:167:A:ILE:HD13 | 6        | 2.38          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD11 | 6        | 2.38          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD12 | 6        | 2.38          |
| (1,2852) | 1:160:A:HIS:HB3 | 1:167:A:ILE:HD13 | 6        | 2.38          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG21  | 10       | 2.37          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG22  | 10       | 2.37          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG23  | 10       | 2.37          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG21 | 9        | 2.36          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG22 | 9        | 2.36          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG23 | 9        | 2.36          |
| (1,738)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG13 | 20       | 2.35          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG21 | 13       | 2.34          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG22 | 13       | 2.34          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG23 | 13       | 2.34          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG21 | 1        | 2.34          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG22 | 1        | 2.34          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG23 | 1        | 2.34          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG21  | 6        | 2.34          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG22  | 6        | 2.34          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG23  | 6        | 2.34          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG21  | 2        | 2.33          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG22  | 2        | 2.33          |
| (1,1042) | 1:38:A:TRP:HD1  | 1:66:A:VAL:HG23  | 2        | 2.33          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG21 | 20       | 2.32          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG22 | 20       | 2.32          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG23 | 20       | 2.32          |
| (1,738)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG13 | 13       | 2.28          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 14       | 2.25          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD12 | 14       | 2.25          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD13 | 14       | 2.25          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 13       | 2.23          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD12 | 13       | 2.23          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD13 | 13       | 2.23          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG21 | 16       | 2.22          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG22 | 16       | 2.22          |
| (1,1372) | 1:45:A:THR:H    | 1:167:A:ILE:HG23 | 16       | 2.22          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 1        | 2.22          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,411)  | 1:161:A:GLY:H    | 1:167:A:ILE:HD12 | 1        | 2.22          |
| (1,411)  | 1:161:A:GLY:H    | 1:167:A:ILE:HD13 | 1        | 2.22          |
| (1,411)  | 1:161:A:GLY:H    | 1:167:A:ILE:HD11 | 7        | 2.21          |
| (1,411)  | 1:161:A:GLY:H    | 1:167:A:ILE:HD12 | 7        | 2.21          |
| (1,411)  | 1:161:A:GLY:H    | 1:167:A:ILE:HD13 | 7        | 2.21          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG21 | 2        | 2.2           |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG22 | 2        | 2.2           |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG23 | 2        | 2.2           |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 19       | 2.19          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 19       | 2.19          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 19       | 2.19          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 19       | 2.19          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 19       | 2.19          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 19       | 2.19          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 19       | 2.19          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 19       | 2.19          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 19       | 2.19          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 19       | 2.19          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 19       | 2.19          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 19       | 2.19          |
| (1,738)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG13 | 2        | 2.19          |
| (1,738)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG13 | 12       | 2.19          |
| (1,760)  | 1:157:A:SER:HB3  | 1:167:A:ILE:HB   | 13       | 2.17          |
| (1,411)  | 1:161:A:GLY:H    | 1:167:A:ILE:HD11 | 4        | 2.17          |
| (1,411)  | 1:161:A:GLY:H    | 1:167:A:ILE:HD12 | 4        | 2.17          |
| (1,411)  | 1:161:A:GLY:H    | 1:167:A:ILE:HD13 | 4        | 2.17          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG21 | 3        | 2.16          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG22 | 3        | 2.16          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG23 | 3        | 2.16          |
| (1,760)  | 1:157:A:SER:HB3  | 1:167:A:ILE:HB   | 2        | 2.13          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD11 | 3        | 2.13          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD12 | 3        | 2.13          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD13 | 3        | 2.13          |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD11 | 10       | 2.1           |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD12 | 10       | 2.1           |
| (1,2734) | 1:134:A:GLN:HG2  | 1:167:A:ILE:HD13 | 10       | 2.1           |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD11 | 10       | 2.1           |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD12 | 10       | 2.1           |
| (1,2734) | 1:134:A:GLN:HG3  | 1:167:A:ILE:HD13 | 10       | 2.1           |
| (1,735)  | 1:157:A:SER:HB2  | 1:167:A:ILE:HB   | 2        | 2.1           |
| (1,738)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG13 | 3        | 2.09          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD11 | 10       | 2.09          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD12 | 10       | 2.09          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD13 | 10       | 2.09          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD11 | 14       | 2.08          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD12 | 14       | 2.08          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD13 | 14       | 2.08          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD11 | 2        | 2.07          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD12 | 2        | 2.07          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD13 | 2        | 2.07          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD11 | 19       | 2.05          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD12 | 19       | 2.05          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD13 | 19       | 2.05          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG21 | 9        | 2.04          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG22 | 9        | 2.04          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG23 | 9        | 2.04          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 9        | 2.04          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD12 | 9        | 2.04          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD13 | 9        | 2.04          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD11 | 11       | 2.03          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD12 | 11       | 2.03          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD13 | 11       | 2.03          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD11 | 20       | 2.03          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD12 | 20       | 2.03          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD13 | 20       | 2.03          |
| (1,738)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG13 | 18       | 2.02          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG21 | 4        | 2.01          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG22 | 4        | 2.01          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG23 | 4        | 2.01          |
| (1,738)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG13 | 1        | 2.01          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 16       | 2.01          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD12 | 16       | 2.01          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD13 | 16       | 2.01          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 3        | 1.99          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD12 | 3        | 1.99          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD13 | 3        | 1.99          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 11       | 1.99          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD12 | 11       | 1.99          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD13 | 11       | 1.99          |
| (1,735)  | 1:157:A:SER:HB2 | 1:167:A:ILE:HB   | 9        | 1.98          |
| (1,735)  | 1:157:A:SER:HB2 | 1:167:A:ILE:HB   | 20       | 1.98          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 10       | 1.98          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD12 | 10       | 1.98          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD13 | 10       | 1.98          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD11 | 17       | 1.96          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD12 | 17       | 1.96          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD13 | 17       | 1.96          |
| (1,760)  | 1:157:A:SER:HB3 | 1:167:A:ILE:HB   | 20       | 1.95          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG21 | 1        | 1.94          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG22 | 1        | 1.94          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG23 | 1        | 1.94          |
| (1,760)  | 1:157:A:SER:HB3 | 1:167:A:ILE:HB   | 9        | 1.94          |
| (1,738)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG13 | 9        | 1.94          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 18       | 1.94          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD12 | 18       | 1.94          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD13 | 18       | 1.94          |
| (1,760)  | 1:157:A:SER:HB3 | 1:167:A:ILE:HB   | 3        | 1.93          |
| (1,738)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG13 | 8        | 1.93          |
| (1,735)  | 1:157:A:SER:HB2 | 1:167:A:ILE:HB   | 3        | 1.93          |
| (1,540)  | 1:45:A:THR:HA   | 1:167:A:ILE:HG12 | 2        | 1.92          |
| (1,540)  | 1:45:A:THR:HA   | 1:167:A:ILE:HG12 | 13       | 1.92          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 6        | 1.92          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD12 | 6        | 1.92          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD13 | 6        | 1.92          |
| (1,735)  | 1:157:A:SER:HB2 | 1:167:A:ILE:HB   | 4        | 1.91          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD11 | 15       | 1.91          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD12 | 15       | 1.91          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD13 | 15       | 1.91          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG21 | 18       | 1.89          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG22 | 18       | 1.89          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG23 | 18       | 1.89          |
| (1,735)  | 1:157:A:SER:HB2 | 1:167:A:ILE:HB   | 10       | 1.89          |
| (1,738)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG13 | 15       | 1.88          |
| (1,540)  | 1:45:A:THR:HA   | 1:167:A:ILE:HG12 | 3        | 1.88          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD11 | 18       | 1.88          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD12 | 18       | 1.88          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD13 | 18       | 1.88          |
| (1,540)  | 1:45:A:THR:HA   | 1:167:A:ILE:HG12 | 8        | 1.87          |
| (1,540)  | 1:45:A:THR:HA   | 1:167:A:ILE:HG12 | 18       | 1.87          |
| (1,540)  | 1:45:A:THR:HA   | 1:167:A:ILE:HG12 | 20       | 1.87          |
| (1,738)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG13 | 7        | 1.86          |
| (1,738)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG13 | 4        | 1.84          |
| (1,735)  | 1:157:A:SER:HB2 | 1:167:A:ILE:HB   | 1        | 1.84          |
| (1,540)  | 1:45:A:THR:HA   | 1:167:A:ILE:HG12 | 14       | 1.84          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD11 | 9        | 1.84          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD12 | 9        | 1.84          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD13 | 9        | 1.84          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD11 | 13       | 1.84          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD12 | 13       | 1.84          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD13 | 13       | 1.84          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG21 | 12       | 1.83          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG22 | 12       | 1.83          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG23 | 12       | 1.83          |
| (1,760)  | 1:157:A:SER:HB3 | 1:167:A:ILE:HB   | 4        | 1.83          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 15       | 1.83          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD12 | 15       | 1.83          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD13 | 15       | 1.83          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD11 | 6        | 1.82          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD12 | 6        | 1.82          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD13 | 6        | 1.82          |
| (1,540)  | 1:45:A:THR:HA   | 1:167:A:ILE:HG12 | 15       | 1.81          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD11 | 1        | 1.81          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD12 | 1        | 1.81          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD13 | 1        | 1.81          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG21 | 6        | 1.8           |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG22 | 6        | 1.8           |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG23 | 6        | 1.8           |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG21 | 7        | 1.79          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG22 | 7        | 1.79          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG23 | 7        | 1.79          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD11 | 4        | 1.78          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD12 | 4        | 1.78          |
| (1,413)  | 1:45:A:THR:H    | 1:167:A:ILE:HD13 | 4        | 1.78          |
| (1,760)  | 1:157:A:SER:HB3 | 1:167:A:ILE:HB   | 1        | 1.77          |
| (1,738)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG13 | 5        | 1.76          |
| (1,540)  | 1:45:A:THR:HA   | 1:167:A:ILE:HG12 | 12       | 1.76          |
| (1,760)  | 1:157:A:SER:HB3 | 1:167:A:ILE:HB   | 16       | 1.74          |
| (1,540)  | 1:45:A:THR:HA   | 1:167:A:ILE:HG12 | 10       | 1.74          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG21 | 10       | 1.73          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG22 | 10       | 1.73          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG23 | 10       | 1.73          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG21 | 14       | 1.73          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG22 | 14       | 1.73          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG23 | 14       | 1.73          |
| (1,738)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG13 | 14       | 1.73          |
| (1,738)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG13 | 16       | 1.73          |
| (1,540)  | 1:45:A:THR:HA   | 1:167:A:ILE:HG12 | 17       | 1.73          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD11 | 13       | 1.73          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD12 | 13       | 1.73          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD13 | 13       | 1.73          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD11 | 8        | 1.73          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD12 | 8        | 1.73          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD13 | 8        | 1.73          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG21 | 8        | 1.72          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG22 | 8        | 1.72          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG23 | 8        | 1.72          |
| (1,540)  | 1:45:A:THR:HA    | 1:167:A:ILE:HG12 | 19       | 1.71          |
| (1,738)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG13 | 17       | 1.7           |
| (1,760)  | 1:157:A:SER:HB3  | 1:167:A:ILE:HB   | 14       | 1.68          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG21 | 15       | 1.67          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG22 | 15       | 1.67          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG23 | 15       | 1.67          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG21 | 17       | 1.67          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG22 | 17       | 1.67          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG23 | 17       | 1.67          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 5        | 1.66          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 5        | 1.66          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 5        | 1.66          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 5        | 1.66          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 5        | 1.66          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 5        | 1.66          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 5        | 1.66          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 5        | 1.66          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 5        | 1.66          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 5        | 1.66          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 5        | 1.66          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 5        | 1.66          |
| (1,735)  | 1:157:A:SER:HB2  | 1:167:A:ILE:HB   | 16       | 1.66          |
| (1,735)  | 1:157:A:SER:HB2  | 1:167:A:ILE:HB   | 8        | 1.65          |
| (1,735)  | 1:157:A:SER:HB2  | 1:167:A:ILE:HB   | 17       | 1.65          |
| (1,540)  | 1:45:A:THR:HA    | 1:167:A:ILE:HG12 | 11       | 1.65          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD11 | 16       | 1.65          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD12 | 16       | 1.65          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD13 | 16       | 1.65          |
| (1,760)  | 1:157:A:SER:HB3  | 1:167:A:ILE:HB   | 10       | 1.64          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD11 | 5        | 1.64          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD12 | 5        | 1.64          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD13 | 5        | 1.64          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 11       | 1.63          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 11       | 1.63          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 11       | 1.63          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 11       | 1.63          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 11       | 1.63          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 11       | 1.63          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 11       | 1.63          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 11       | 1.63          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 11       | 1.63          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 11       | 1.63          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 11       | 1.63          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 11       | 1.63          |
| (1,760)  | 1:157:A:SER:HB3  | 1:167:A:ILE:HB   | 19       | 1.63          |
| (1,540)  | 1:45:A:THR:HA    | 1:167:A:ILE:HG12 | 9        | 1.63          |
| (1,735)  | 1:157:A:SER:HB2  | 1:167:A:ILE:HB   | 12       | 1.62          |
| (1,540)  | 1:45:A:THR:HA    | 1:167:A:ILE:HG12 | 4        | 1.62          |
| (1,735)  | 1:157:A:SER:HB2  | 1:167:A:ILE:HB   | 6        | 1.61          |
| (1,540)  | 1:45:A:THR:HA    | 1:167:A:ILE:HG12 | 6        | 1.61          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD11 | 12       | 1.61          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD12 | 12       | 1.61          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD13 | 12       | 1.61          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG21 | 11       | 1.6           |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG22 | 11       | 1.6           |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG23 | 11       | 1.6           |
| (1,738)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG13 | 6        | 1.6           |
| (1,735)  | 1:157:A:SER:HB2  | 1:167:A:ILE:HB   | 5        | 1.6           |
| (1,735)  | 1:157:A:SER:HB2  | 1:167:A:ILE:HB   | 11       | 1.59          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD11 | 7        | 1.59          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD12 | 7        | 1.59          |
| (1,413)  | 1:45:A:THR:H     | 1:167:A:ILE:HD13 | 7        | 1.59          |
| (1,738)  | 1:158:A:GLU:HA   | 1:167:A:ILE:HG13 | 19       | 1.58          |
| (1,735)  | 1:157:A:SER:HB2  | 1:167:A:ILE:HB   | 14       | 1.58          |
| (1,540)  | 1:45:A:THR:HA    | 1:167:A:ILE:HG12 | 7        | 1.58          |
| (1,760)  | 1:157:A:SER:HB3  | 1:167:A:ILE:HB   | 7        | 1.57          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG21 | 16       | 1.56          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG22 | 16       | 1.56          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG23 | 16       | 1.56          |
| (1,760)  | 1:157:A:SER:HB3  | 1:167:A:ILE:HB   | 6        | 1.56          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG21 | 5        | 1.52          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG22 | 5        | 1.52          |
| (1,1970) | 1:158:A:GLU:H    | 1:167:A:ILE:HG23 | 5        | 1.52          |
| (1,735)  | 1:157:A:SER:HB2  | 1:167:A:ILE:HB   | 7        | 1.52          |
| (1,735)  | 1:157:A:SER:HB2  | 1:167:A:ILE:HB   | 18       | 1.52          |
| (1,760)  | 1:157:A:SER:HB3  | 1:167:A:ILE:HB   | 8        | 1.49          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,760)  | 1:157:A:SER:HB3 | 1:167:A:ILE:HB   | 17       | 1.49          |
| (1,760)  | 1:157:A:SER:HB3 | 1:167:A:ILE:HB   | 18       | 1.49          |
| (1,738)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG13 | 10       | 1.49          |
| (1,540)  | 1:45:A:THR:HA   | 1:167:A:ILE:HG12 | 1        | 1.47          |
| (1,540)  | 1:45:A:THR:HA   | 1:167:A:ILE:HG12 | 5        | 1.47          |
| (1,760)  | 1:157:A:SER:HB3 | 1:167:A:ILE:HB   | 12       | 1.46          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 17       | 1.46          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD12 | 17       | 1.46          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD13 | 17       | 1.46          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG21 | 19       | 1.45          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG22 | 19       | 1.45          |
| (1,1970) | 1:158:A:GLU:H   | 1:167:A:ILE:HG23 | 19       | 1.45          |
| (1,760)  | 1:157:A:SER:HB3 | 1:167:A:ILE:HB   | 5        | 1.43          |
| (1,735)  | 1:157:A:SER:HB2 | 1:167:A:ILE:HB   | 19       | 1.43          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 12       | 1.43          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD12 | 12       | 1.43          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD13 | 12       | 1.43          |
| (1,738)  | 1:158:A:GLU:HA  | 1:167:A:ILE:HG13 | 11       | 1.42          |
| (1,760)  | 1:157:A:SER:HB3 | 1:167:A:ILE:HB   | 15       | 1.41          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD11 | 2        | 1.41          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD12 | 2        | 1.41          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD13 | 2        | 1.41          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 8        | 1.41          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD12 | 8        | 1.41          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD13 | 8        | 1.41          |
| (1,760)  | 1:157:A:SER:HB3 | 1:167:A:ILE:HB   | 11       | 1.36          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 5        | 1.35          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD12 | 5        | 1.35          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD13 | 5        | 1.35          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD11 | 19       | 1.35          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD12 | 19       | 1.35          |
| (1,411)  | 1:161:A:GLY:H   | 1:167:A:ILE:HD13 | 19       | 1.35          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 20       | 1.34          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 20       | 1.34          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 20       | 1.34          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 20       | 1.34          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 20       | 1.34          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 20       | 1.34          |
| (1,540)  | 1:45:A:THR:HA   | 1:167:A:ILE:HG12 | 16       | 1.33          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 2        | 1.31          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 2        | 1.31          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 2        | 1.31          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2838) | 1:157:A:SER:HB3  | 1:167:A:ILE:HG21 | 2        | 1.31          |
| (1,2838) | 1:157:A:SER:HB3  | 1:167:A:ILE:HG22 | 2        | 1.31          |
| (1,2838) | 1:157:A:SER:HB3  | 1:167:A:ILE:HG23 | 2        | 1.31          |
| (1,735)  | 1:157:A:SER:HB2  | 1:167:A:ILE:HB   | 15       | 1.25          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD11 | 3        | 1.24          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD12 | 3        | 1.24          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD13 | 3        | 1.24          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD11 | 9        | 1.23          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD12 | 9        | 1.23          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD13 | 9        | 1.23          |
| (1,2838) | 1:157:A:SER:HB2  | 1:167:A:ILE:HG21 | 13       | 1.21          |
| (1,2838) | 1:157:A:SER:HB2  | 1:167:A:ILE:HG22 | 13       | 1.21          |
| (1,2838) | 1:157:A:SER:HB2  | 1:167:A:ILE:HG23 | 13       | 1.21          |
| (1,2838) | 1:157:A:SER:HB3  | 1:167:A:ILE:HG21 | 13       | 1.21          |
| (1,2838) | 1:157:A:SER:HB3  | 1:167:A:ILE:HG22 | 13       | 1.21          |
| (1,2838) | 1:157:A:SER:HB3  | 1:167:A:ILE:HG23 | 13       | 1.21          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD11 | 20       | 1.19          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD12 | 20       | 1.19          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD13 | 20       | 1.19          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD11 | 1        | 1.15          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD12 | 1        | 1.15          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD13 | 1        | 1.15          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD2  | 9        | 1.11          |
| (1,2899) | 1:170:A:LEU:HD11 | 1:180:A:ARG:HD3  | 9        | 1.11          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD2  | 9        | 1.11          |
| (1,2899) | 1:170:A:LEU:HD12 | 1:180:A:ARG:HD3  | 9        | 1.11          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD2  | 9        | 1.11          |
| (1,2899) | 1:170:A:LEU:HD13 | 1:180:A:ARG:HD3  | 9        | 1.11          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD2  | 9        | 1.11          |
| (1,2899) | 1:170:A:LEU:HD21 | 1:180:A:ARG:HD3  | 9        | 1.11          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD2  | 9        | 1.11          |
| (1,2899) | 1:170:A:LEU:HD22 | 1:180:A:ARG:HD3  | 9        | 1.11          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD2  | 9        | 1.11          |
| (1,2899) | 1:170:A:LEU:HD23 | 1:180:A:ARG:HD3  | 9        | 1.11          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD11 | 10       | 1.07          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD12 | 10       | 1.07          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD13 | 10       | 1.07          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD11 | 14       | 1.05          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD12 | 14       | 1.05          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD13 | 14       | 1.05          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD11 | 16       | 1.01          |
| (1,417)  | 1:157:A:SER:HA   | 1:167:A:ILE:HD12 | 16       | 1.01          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD13 | 16       | 1.01          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD11 | 17       | 0.99          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD12 | 17       | 0.99          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD13 | 17       | 0.99          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD11 | 8        | 0.98          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD12 | 8        | 0.98          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD13 | 8        | 0.98          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD11 | 4        | 0.97          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD12 | 4        | 0.97          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD13 | 4        | 0.97          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD11 | 19       | 0.97          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD12 | 19       | 0.97          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD13 | 19       | 0.97          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 3        | 0.96          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 3        | 0.96          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 3        | 0.96          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 3        | 0.96          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 3        | 0.96          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 3        | 0.96          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD11 | 7        | 0.96          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD12 | 7        | 0.96          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD13 | 7        | 0.96          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 1        | 0.95          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 1        | 0.95          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 1        | 0.95          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 1        | 0.95          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 1        | 0.95          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 1        | 0.95          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 17       | 0.94          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 17       | 0.94          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 17       | 0.94          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 12       | 0.93          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 12       | 0.93          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 12       | 0.93          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 12       | 0.93          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 12       | 0.93          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 12       | 0.93          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD11 | 18       | 0.9           |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD12 | 18       | 0.9           |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD13 | 18       | 0.9           |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 14       | 0.89          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 14       | 0.89          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 14       | 0.89          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 14       | 0.89          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 14       | 0.89          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 14       | 0.89          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 7        | 0.88          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 7        | 0.88          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 7        | 0.88          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 7        | 0.88          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 7        | 0.88          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 7        | 0.88          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD11 | 12       | 0.87          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD12 | 12       | 0.87          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD13 | 12       | 0.87          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 4        | 0.86          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 4        | 0.86          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 4        | 0.86          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 4        | 0.86          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 4        | 0.86          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 4        | 0.86          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 18       | 0.86          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 18       | 0.86          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 18       | 0.86          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 18       | 0.86          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 18       | 0.86          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 18       | 0.86          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 9        | 0.85          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 9        | 0.85          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 9        | 0.85          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 9        | 0.85          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 9        | 0.85          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 9        | 0.85          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 9        | 0.81          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 9        | 0.81          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 9        | 0.81          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD11 | 11       | 0.8           |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD12 | 11       | 0.8           |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD13 | 11       | 0.8           |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD11 | 5        | 0.78          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD12 | 5        | 0.78          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD13 | 5        | 0.78          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 1        | 0.76          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 1        | 0.76          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 1        | 0.76          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 1        | 0.76          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 1        | 0.76          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 1        | 0.76          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD11 | 6        | 0.75          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD12 | 6        | 0.75          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD13 | 6        | 0.75          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD11 | 15       | 0.75          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD12 | 15       | 0.75          |
| (1,417)  | 1:157:A:SER:HA  | 1:167:A:ILE:HD13 | 15       | 0.75          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 1        | 0.75          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 1        | 0.75          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 1        | 0.75          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 5        | 0.72          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 5        | 0.72          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 5        | 0.72          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 5        | 0.72          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 5        | 0.72          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 5        | 0.72          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 10       | 0.72          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 10       | 0.72          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 10       | 0.72          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 10       | 0.72          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 10       | 0.72          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 10       | 0.72          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 10       | 0.72          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 10       | 0.72          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 10       | 0.72          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 10       | 0.72          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 10       | 0.72          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 10       | 0.72          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 16       | 0.72          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 16       | 0.72          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 16       | 0.72          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 16       | 0.72          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 16       | 0.72          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 16       | 0.72          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 18       | 0.7           |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 18       | 0.7           |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 18       | 0.7           |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 18       | 0.7           |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 18       | 0.7           |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 18       | 0.7           |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 19       | 0.7           |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 19       | 0.7           |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 19       | 0.7           |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 19       | 0.7           |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 19       | 0.7           |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 19       | 0.7           |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 3        | 0.69          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 3        | 0.69          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 3        | 0.69          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 3        | 0.69          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 3        | 0.69          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 3        | 0.69          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 14       | 0.69          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 14       | 0.69          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 14       | 0.69          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 14       | 0.69          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 14       | 0.69          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 14       | 0.69          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 17       | 0.69          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 17       | 0.69          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 17       | 0.69          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 17       | 0.69          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 17       | 0.69          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 17       | 0.69          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 14       | 0.66          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 14       | 0.66          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 14       | 0.66          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 16       | 0.66          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 16       | 0.66          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 16       | 0.66          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 11       | 0.65          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 11       | 0.65          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 11       | 0.65          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 11       | 0.65          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 11       | 0.65          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 11       | 0.65          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 19       | 0.65          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 19       | 0.65          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 19       | 0.65          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 19       | 0.63          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 19       | 0.63          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 19       | 0.63          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 19       | 0.63          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 19       | 0.63          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 19       | 0.63          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 7        | 0.63          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 7        | 0.63          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 7        | 0.63          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 7        | 0.63          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 7        | 0.63          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 7        | 0.63          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 20       | 0.63          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 20       | 0.63          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 20       | 0.63          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 20       | 0.63          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 20       | 0.63          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 20       | 0.63          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 11       | 0.62          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 11       | 0.62          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 11       | 0.62          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 11       | 0.62          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 11       | 0.62          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 11       | 0.62          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 9        | 0.62          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 9        | 0.62          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 9        | 0.62          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 9        | 0.62          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 9        | 0.62          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 9        | 0.62          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 8        | 0.61          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 8        | 0.61          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 8        | 0.61          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 8        | 0.61          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 8        | 0.61          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 8        | 0.61          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 10       | 0.61          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 10       | 0.61          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 10       | 0.61          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 11       | 0.61          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 11       | 0.61          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 11       | 0.61          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 16       | 0.6           |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 16       | 0.6           |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 16       | 0.6           |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 16       | 0.6           |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 16       | 0.6           |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 16       | 0.6           |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 15       | 0.6           |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 15       | 0.6           |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 15       | 0.6           |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 12       | 0.59          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 12       | 0.59          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 12       | 0.59          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 8        | 0.57          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 8        | 0.57          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 8        | 0.57          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 8        | 0.57          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 8        | 0.57          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 8        | 0.57          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 7        | 0.57          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 7        | 0.57          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 7        | 0.57          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 18       | 0.57          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 18       | 0.57          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 18       | 0.57          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 15       | 0.56          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 15       | 0.56          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 15       | 0.56          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 15       | 0.56          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 15       | 0.56          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 15       | 0.56          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 6        | 0.55          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 6        | 0.55          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 6        | 0.55          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 6        | 0.55          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 6        | 0.55          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 6        | 0.55          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 3        | 0.54          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 3        | 0.54          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 3        | 0.54          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 2        | 0.53          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 2        | 0.53          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 2        | 0.53          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 2        | 0.53          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 2        | 0.53          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 2        | 0.53          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 6        | 0.53          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 6        | 0.53          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 6        | 0.53          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 6        | 0.53          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 6        | 0.53          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 6        | 0.53          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 5        | 0.52          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 5        | 0.52          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 5        | 0.52          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 8        | 0.52          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 8        | 0.52          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 8        | 0.52          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 13       | 0.51          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 13       | 0.51          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 13       | 0.51          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 17       | 0.5           |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 17       | 0.5           |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 17       | 0.5           |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 17       | 0.5           |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 17       | 0.5           |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 17       | 0.5           |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 20       | 0.5           |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 20       | 0.5           |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 20       | 0.5           |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 13       | 0.46          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 13       | 0.46          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 13       | 0.46          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 13       | 0.46          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 13       | 0.46          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 13       | 0.46          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 2        | 0.46          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 2        | 0.46          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 2        | 0.46          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 5        | 0.45          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 5        | 0.45          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 5        | 0.45          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 5        | 0.45          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 5        | 0.45          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 5        | 0.45          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 12       | 0.44          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 12       | 0.44          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 12       | 0.44          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 12       | 0.44          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 12       | 0.44          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 12       | 0.44          |
| (1,1029) | 1:67:A:LEU:HA   | 1:68:A:GLU:HB2   | 11       | 0.42          |
| (1,1029) | 1:67:A:LEU:HA   | 1:68:A:GLU:HB2   | 3        | 0.4           |
| (1,1029) | 1:67:A:LEU:HA   | 1:68:A:GLU:HB2   | 12       | 0.4           |
| (1,1029) | 1:67:A:LEU:HA   | 1:68:A:GLU:HB2   | 13       | 0.4           |
| (1,1029) | 1:67:A:LEU:HA   | 1:68:A:GLU:HB2   | 20       | 0.4           |
| (1,1029) | 1:67:A:LEU:HA   | 1:68:A:GLU:HB2   | 14       | 0.39          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG21 | 15       | 0.37          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG22 | 15       | 0.37          |
| (1,2838) | 1:157:A:SER:HB2 | 1:167:A:ILE:HG23 | 15       | 0.37          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG21 | 15       | 0.37          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG22 | 15       | 0.37          |
| (1,2838) | 1:157:A:SER:HB3 | 1:167:A:ILE:HG23 | 15       | 0.37          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD11 | 4        | 0.37          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD12 | 4        | 0.37          |
| (1,2742) | 1:136:A:MET:HB2 | 1:167:A:ILE:HD13 | 4        | 0.37          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD11 | 4        | 0.37          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD12 | 4        | 0.37          |
| (1,2742) | 1:136:A:MET:HB3 | 1:167:A:ILE:HD13 | 4        | 0.37          |
| (1,1029) | 1:67:A:LEU:HA   | 1:68:A:GLU:HB2   | 18       | 0.36          |
| (1,1029) | 1:67:A:LEU:HA   | 1:68:A:GLU:HB2   | 19       | 0.36          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 6        | 0.36          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 6        | 0.36          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 6        | 0.36          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD11 | 4        | 0.33          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD12 | 4        | 0.33          |
| (1,409)  | 1:44:A:ALA:H    | 1:167:A:ILE:HD13 | 4        | 0.33          |
| (1,1029) | 1:67:A:LEU:HA   | 1:68:A:GLU:HB2   | 7        | 0.31          |
| (1,1029) | 1:67:A:LEU:HA   | 1:68:A:GLU:HB2   | 15       | 0.3           |
| (1,1029) | 1:67:A:LEU:HA   | 1:68:A:GLU:HB2   | 6        | 0.28          |
| (1,131)  | 1:44:A:ALA:HA   | 1:167:A:ILE:HG21 | 8        | 0.28          |
| (1,131)  | 1:44:A:ALA:HA   | 1:167:A:ILE:HG22 | 8        | 0.28          |
| (1,131)  | 1:44:A:ALA:HA   | 1:167:A:ILE:HG23 | 8        | 0.28          |
| (1,131)  | 1:44:A:ALA:HA   | 1:167:A:ILE:HG21 | 19       | 0.28          |
| (1,131)  | 1:44:A:ALA:HA   | 1:167:A:ILE:HG22 | 19       | 0.28          |
| (1,131)  | 1:44:A:ALA:HA   | 1:167:A:ILE:HG23 | 19       | 0.28          |
| (1,1029) | 1:67:A:LEU:HA   | 1:68:A:GLU:HB2   | 4        | 0.27          |
| (1,1029) | 1:67:A:LEU:HA   | 1:68:A:GLU:HB2   | 8        | 0.27          |
| (1,1029) | 1:67:A:LEU:HA   | 1:68:A:GLU:HB2   | 9        | 0.27          |

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| Key      | Atom-1           | Atom-2           | Model ID | Violation (Å) |
|----------|------------------|------------------|----------|---------------|
| (1,2892) | 1:170:A:LEU:HD11 | 1:171:A:THR:HA   | 14       | 0.25          |
| (1,2892) | 1:170:A:LEU:HD12 | 1:171:A:THR:HA   | 14       | 0.25          |
| (1,2892) | 1:170:A:LEU:HD13 | 1:171:A:THR:HA   | 14       | 0.25          |
| (1,2892) | 1:170:A:LEU:HD21 | 1:171:A:THR:HA   | 14       | 0.25          |
| (1,2892) | 1:170:A:LEU:HD22 | 1:171:A:THR:HA   | 14       | 0.25          |
| (1,2892) | 1:170:A:LEU:HD23 | 1:171:A:THR:HA   | 14       | 0.25          |
| (1,2564) | 1:92:A:LYS:HG2   | 1:99:A:TYR:HE1   | 1        | 0.24          |
| (1,2564) | 1:92:A:LYS:HG2   | 1:99:A:TYR:HE2   | 1        | 0.24          |
| (1,2564) | 1:92:A:LYS:HG3   | 1:99:A:TYR:HE1   | 1        | 0.24          |
| (1,2564) | 1:92:A:LYS:HG3   | 1:99:A:TYR:HE2   | 1        | 0.24          |
| (1,131)  | 1:44:A:ALA:HA    | 1:167:A:ILE:HG21 | 15       | 0.24          |
| (1,131)  | 1:44:A:ALA:HA    | 1:167:A:ILE:HG22 | 15       | 0.24          |
| (1,131)  | 1:44:A:ALA:HA    | 1:167:A:ILE:HG23 | 15       | 0.24          |
| (1,2892) | 1:170:A:LEU:HD11 | 1:171:A:THR:HA   | 16       | 0.23          |
| (1,2892) | 1:170:A:LEU:HD12 | 1:171:A:THR:HA   | 16       | 0.23          |
| (1,2892) | 1:170:A:LEU:HD13 | 1:171:A:THR:HA   | 16       | 0.23          |
| (1,2892) | 1:170:A:LEU:HD21 | 1:171:A:THR:HA   | 16       | 0.23          |
| (1,2892) | 1:170:A:LEU:HD22 | 1:171:A:THR:HA   | 16       | 0.23          |
| (1,2892) | 1:170:A:LEU:HD23 | 1:171:A:THR:HA   | 16       | 0.23          |
| (1,2892) | 1:170:A:LEU:HD11 | 1:171:A:THR:HA   | 19       | 0.23          |
| (1,2892) | 1:170:A:LEU:HD12 | 1:171:A:THR:HA   | 19       | 0.23          |
| (1,2892) | 1:170:A:LEU:HD13 | 1:171:A:THR:HA   | 19       | 0.23          |
| (1,2892) | 1:170:A:LEU:HD21 | 1:171:A:THR:HA   | 19       | 0.23          |
| (1,2892) | 1:170:A:LEU:HD22 | 1:171:A:THR:HA   | 19       | 0.23          |
| (1,2892) | 1:170:A:LEU:HD23 | 1:171:A:THR:HA   | 19       | 0.23          |
| (1,1029) | 1:67:A:LEU:HA    | 1:68:A:GLU:HB2   | 2        | 0.23          |
| (1,1265) | 1:20:A:GLU:H     | 1:20:A:GLU:HG2   | 18       | 0.22          |
| (1,1265) | 1:20:A:GLU:H     | 1:20:A:GLU:HG3   | 18       | 0.22          |
| (1,1029) | 1:67:A:LEU:HA    | 1:68:A:GLU:HB2   | 1        | 0.22          |
| (1,1029) | 1:67:A:LEU:HA    | 1:68:A:GLU:HB2   | 17       | 0.22          |
| (1,2064) | 1:175:A:ARG:H    | 1:177:A:LEU:H    | 12       | 0.21          |
| (1,1351) | 1:42:A:MET:H     | 1:169:A:ASP:HA   | 14       | 0.21          |
| (1,1029) | 1:67:A:LEU:HA    | 1:68:A:GLU:HB2   | 10       | 0.21          |
| (1,1351) | 1:42:A:MET:H     | 1:169:A:ASP:HA   | 19       | 0.2           |
| (1,1029) | 1:67:A:LEU:HA    | 1:68:A:GLU:HB2   | 16       | 0.2           |
| (1,500)  | 1:65:A:HIS:HA    | 1:66:A:VAL:HB    | 5        | 0.2           |
| (1,500)  | 1:65:A:HIS:HA    | 1:66:A:VAL:HB    | 6        | 0.2           |
| (1,500)  | 1:65:A:HIS:HA    | 1:66:A:VAL:HB    | 8        | 0.2           |
| (1,500)  | 1:65:A:HIS:HA    | 1:66:A:VAL:HB    | 9        | 0.2           |
| (1,500)  | 1:65:A:HIS:HA    | 1:66:A:VAL:HB    | 14       | 0.2           |
| (1,1351) | 1:42:A:MET:H     | 1:169:A:ASP:HA   | 16       | 0.19          |
| (1,1029) | 1:67:A:LEU:HA    | 1:68:A:GLU:HB2   | 5        | 0.19          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,811)  | 1:42:A:MET:HG2  | 1:170:A:LEU:HG   | 16       | 0.19          |
| (1,811)  | 1:42:A:MET:HG2  | 1:170:A:LEU:HG   | 19       | 0.19          |
| (1,500)  | 1:65:A:HIS:HA   | 1:66:A:VAL:HB    | 1        | 0.19          |
| (1,500)  | 1:65:A:HIS:HA   | 1:66:A:VAL:HB    | 2        | 0.19          |
| (1,500)  | 1:65:A:HIS:HA   | 1:66:A:VAL:HB    | 4        | 0.19          |
| (1,500)  | 1:65:A:HIS:HA   | 1:66:A:VAL:HB    | 7        | 0.19          |
| (1,500)  | 1:65:A:HIS:HA   | 1:66:A:VAL:HB    | 10       | 0.19          |
| (1,500)  | 1:65:A:HIS:HA   | 1:66:A:VAL:HB    | 11       | 0.19          |
| (1,500)  | 1:65:A:HIS:HA   | 1:66:A:VAL:HB    | 13       | 0.19          |
| (1,500)  | 1:65:A:HIS:HA   | 1:66:A:VAL:HB    | 15       | 0.19          |
| (1,500)  | 1:65:A:HIS:HA   | 1:66:A:VAL:HB    | 16       | 0.19          |
| (1,500)  | 1:65:A:HIS:HA   | 1:66:A:VAL:HB    | 17       | 0.19          |
| (1,500)  | 1:65:A:HIS:HA   | 1:66:A:VAL:HB    | 18       | 0.19          |
| (1,500)  | 1:65:A:HIS:HA   | 1:66:A:VAL:HB    | 19       | 0.19          |
| (1,500)  | 1:65:A:HIS:HA   | 1:66:A:VAL:HB    | 3        | 0.18          |
| (1,500)  | 1:65:A:HIS:HA   | 1:66:A:VAL:HB    | 12       | 0.18          |
| (1,500)  | 1:65:A:HIS:HA   | 1:66:A:VAL:HB    | 20       | 0.18          |
| (1,2066) | 1:174:A:ASN:HA  | 1:176:A:CYS:H    | 15       | 0.17          |
| (1,2064) | 1:175:A:ARG:H   | 1:177:A:LEU:H    | 17       | 0.17          |
| (1,959)  | 1:79:A:ILE:HD11 | 1:80:A:ASN:H     | 20       | 0.17          |
| (1,959)  | 1:79:A:ILE:HD12 | 1:80:A:ASN:H     | 20       | 0.17          |
| (1,959)  | 1:79:A:ILE:HD13 | 1:80:A:ASN:H     | 20       | 0.17          |
| (1,811)  | 1:42:A:MET:HG2  | 1:170:A:LEU:HG   | 14       | 0.17          |
| (1,2564) | 1:92:A:LYS:HG2  | 1:99:A:TYR:HE1   | 4        | 0.16          |
| (1,2564) | 1:92:A:LYS:HG2  | 1:99:A:TYR:HE2   | 4        | 0.16          |
| (1,2564) | 1:92:A:LYS:HG3  | 1:99:A:TYR:HE1   | 4        | 0.16          |
| (1,2564) | 1:92:A:LYS:HG3  | 1:99:A:TYR:HE2   | 4        | 0.16          |
| (1,2307) | 1:50:A:LYS:HD2  | 1:57:A:MET:HE1   | 17       | 0.16          |
| (1,2307) | 1:50:A:LYS:HD2  | 1:57:A:MET:HE2   | 17       | 0.16          |
| (1,2307) | 1:50:A:LYS:HD2  | 1:57:A:MET:HE3   | 17       | 0.16          |
| (1,2307) | 1:50:A:LYS:HD3  | 1:57:A:MET:HE1   | 17       | 0.16          |
| (1,2307) | 1:50:A:LYS:HD3  | 1:57:A:MET:HE2   | 17       | 0.16          |
| (1,2307) | 1:50:A:LYS:HD3  | 1:57:A:MET:HE3   | 17       | 0.16          |
| (1,131)  | 1:44:A:ALA:HA   | 1:167:A:ILE:HG21 | 3        | 0.16          |
| (1,131)  | 1:44:A:ALA:HA   | 1:167:A:ILE:HG22 | 3        | 0.16          |
| (1,131)  | 1:44:A:ALA:HA   | 1:167:A:ILE:HG23 | 3        | 0.16          |
| (1,2558) | 1:92:A:LYS:HA   | 1:92:A:LYS:HD2   | 2        | 0.15          |
| (1,2558) | 1:92:A:LYS:HA   | 1:92:A:LYS:HD3   | 2        | 0.15          |
| (1,2418) | 1:68:A:GLU:HB2  | 1:69:A:ASN:HD21  | 5        | 0.15          |
| (1,2418) | 1:68:A:GLU:HB2  | 1:69:A:ASN:HD22  | 5        | 0.15          |
| (1,2418) | 1:68:A:GLU:HB3  | 1:69:A:ASN:HD21  | 5        | 0.15          |
| (1,2418) | 1:68:A:GLU:HB3  | 1:69:A:ASN:HD22  | 5        | 0.15          |

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| Key      | Atom-1          | Atom-2           | Model ID | Violation (Å) |
|----------|-----------------|------------------|----------|---------------|
| (1,131)  | 1:44:A:ALA:HA   | 1:167:A:ILE:HG21 | 17       | 0.15          |
| (1,131)  | 1:44:A:ALA:HA   | 1:167:A:ILE:HG22 | 17       | 0.15          |
| (1,131)  | 1:44:A:ALA:HA   | 1:167:A:ILE:HG23 | 17       | 0.15          |
| (1,2064) | 1:175:A:ARG:H   | 1:177:A:LEU:H    | 15       | 0.14          |
| (1,1240) | 1:50:A:LYS:HE3  | 1:133:A:PHE:HE1  | 12       | 0.14          |
| (1,1240) | 1:50:A:LYS:HE3  | 1:133:A:PHE:HE2  | 12       | 0.14          |
| (1,882)  | 1:50:A:LYS:HE2  | 1:133:A:PHE:HE1  | 12       | 0.14          |
| (1,882)  | 1:50:A:LYS:HE2  | 1:133:A:PHE:HE2  | 12       | 0.14          |
| (1,2145) | 1:26:A:GLU:H    | 1:26:A:GLU:HG2   | 12       | 0.13          |
| (1,2145) | 1:26:A:GLU:H    | 1:26:A:GLU:HG3   | 12       | 0.13          |
| (1,2567) | 1:92:A:LYS:HE2  | 1:99:A:TYR:HD1   | 4        | 0.12          |
| (1,2567) | 1:92:A:LYS:HE2  | 1:99:A:TYR:HD2   | 4        | 0.12          |
| (1,2567) | 1:92:A:LYS:HE3  | 1:99:A:TYR:HD1   | 4        | 0.12          |
| (1,2567) | 1:92:A:LYS:HE3  | 1:99:A:TYR:HD2   | 4        | 0.12          |
| (1,2066) | 1:174:A:ASN:HA  | 1:176:A:CYS:H    | 8        | 0.12          |
| (1,2066) | 1:174:A:ASN:HA  | 1:176:A:CYS:H    | 12       | 0.12          |
| (1,2036) | 1:170:A:LEU:H   | 1:170:A:LEU:HG   | 14       | 0.12          |
| (1,1125) | 1:119:A:TYR:HD1 | 1:121:A:MET:HG2  | 7        | 0.12          |
| (1,1125) | 1:119:A:TYR:HD2 | 1:121:A:MET:HG2  | 7        | 0.12          |
| (1,1125) | 1:119:A:TYR:HD1 | 1:121:A:MET:HG2  | 15       | 0.12          |
| (1,1125) | 1:119:A:TYR:HD2 | 1:121:A:MET:HG2  | 15       | 0.12          |
| (1,2564) | 1:92:A:LYS:HG2  | 1:99:A:TYR:HE1   | 15       | 0.11          |
| (1,2564) | 1:92:A:LYS:HG2  | 1:99:A:TYR:HE2   | 15       | 0.11          |
| (1,2564) | 1:92:A:LYS:HG3  | 1:99:A:TYR:HE1   | 15       | 0.11          |
| (1,2564) | 1:92:A:LYS:HG3  | 1:99:A:TYR:HE2   | 15       | 0.11          |
| (1,2418) | 1:68:A:GLU:HB2  | 1:69:A:ASN:HD21  | 2        | 0.11          |
| (1,2418) | 1:68:A:GLU:HB2  | 1:69:A:ASN:HD22  | 2        | 0.11          |
| (1,2418) | 1:68:A:GLU:HB3  | 1:69:A:ASN:HD21  | 2        | 0.11          |
| (1,2418) | 1:68:A:GLU:HB3  | 1:69:A:ASN:HD22  | 2        | 0.11          |
| (1,2394) | 1:65:A:HIS:HA   | 1:67:A:LEU:HD11  | 5        | 0.11          |
| (1,2394) | 1:65:A:HIS:HA   | 1:67:A:LEU:HD12  | 5        | 0.11          |
| (1,2394) | 1:65:A:HIS:HA   | 1:67:A:LEU:HD13  | 5        | 0.11          |
| (1,2394) | 1:65:A:HIS:HA   | 1:67:A:LEU:HD21  | 5        | 0.11          |
| (1,2394) | 1:65:A:HIS:HA   | 1:67:A:LEU:HD22  | 5        | 0.11          |
| (1,2394) | 1:65:A:HIS:HA   | 1:67:A:LEU:HD23  | 5        | 0.11          |
| (1,662)  | 1:121:A:MET:HA  | 1:138:A:LEU:HG   | 7        | 0.11          |
| (1,2104) | 1:152:A:LYS:H   | 1:153:A:PHE:HD1  | 6        | 0.1           |
| (1,2104) | 1:152:A:LYS:H   | 1:153:A:PHE:HD2  | 6        | 0.1           |
| (1,2104) | 1:152:A:LYS:H   | 1:153:A:PHE:HD1  | 18       | 0.1           |
| (1,2104) | 1:152:A:LYS:H   | 1:153:A:PHE:HD2  | 18       | 0.1           |
| (1,2064) | 1:175:A:ARG:H   | 1:177:A:LEU:H    | 8        | 0.1           |
| (1,1050) | 1:60:A:PHE:HE1  | 1:170:A:LEU:HG   | 17       | 0.1           |

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| <b>Key</b> | <b>Atom-1</b>  | <b>Atom-2</b>  | <b>Model ID</b> | <b>Violation (Å)</b> |
|------------|----------------|----------------|-----------------|----------------------|
| (1,1050)   | 1:60:A:PHE:HE2 | 1:170:A:LEU:HG | 17              | 0.1                  |

## 10 Dihedral-angle violation analysis [i](#)

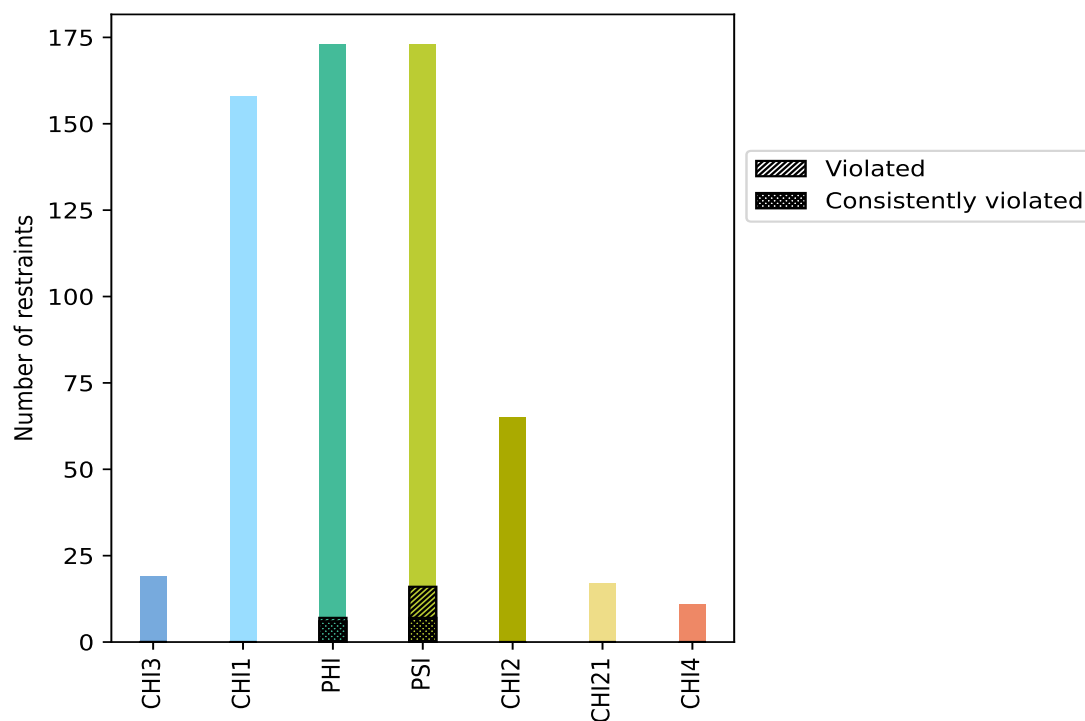
### 10.1 Summary of dihedral-angle violations [i](#)

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 | % <sup>1</sup> | Violated <sup>3</sup> |                |                | Consistently Violated <sup>4</sup> |                |                |
|------------|-------|----------------|-----------------------|----------------|----------------|------------------------------------|----------------|----------------|
|            |       |                | Count                 | % <sup>2</sup> | % <sup>1</sup> | Count                              | % <sup>2</sup> | % <sup>1</sup> |
| CHI3       | 19    | 3.1            | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| CHI1       | 158   | 25.6           | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| PHI        | 173   | 28.1           | 7                     | 4.0            | 1.1            | 6                                  | 3.5            | 1.0            |
| PSI        | 173   | 28.1           | 16                    | 9.2            | 2.6            | 7                                  | 4.0            | 1.1            |
| CHI2       | 65    | 10.6           | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| CHI21      | 17    | 2.8            | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| CHI4       | 11    | 1.8            | 0                     | 0.0            | 0.0            | 0                                  | 0.0            | 0.0            |
| Total      | 616   | 100.0          | 23                    | 3.7            | 3.7            | 13                                 | 2.1            | 2.1            |

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

#### 10.1.1 Bar chart : Distribution of dihedral-angles and violations [i](#)



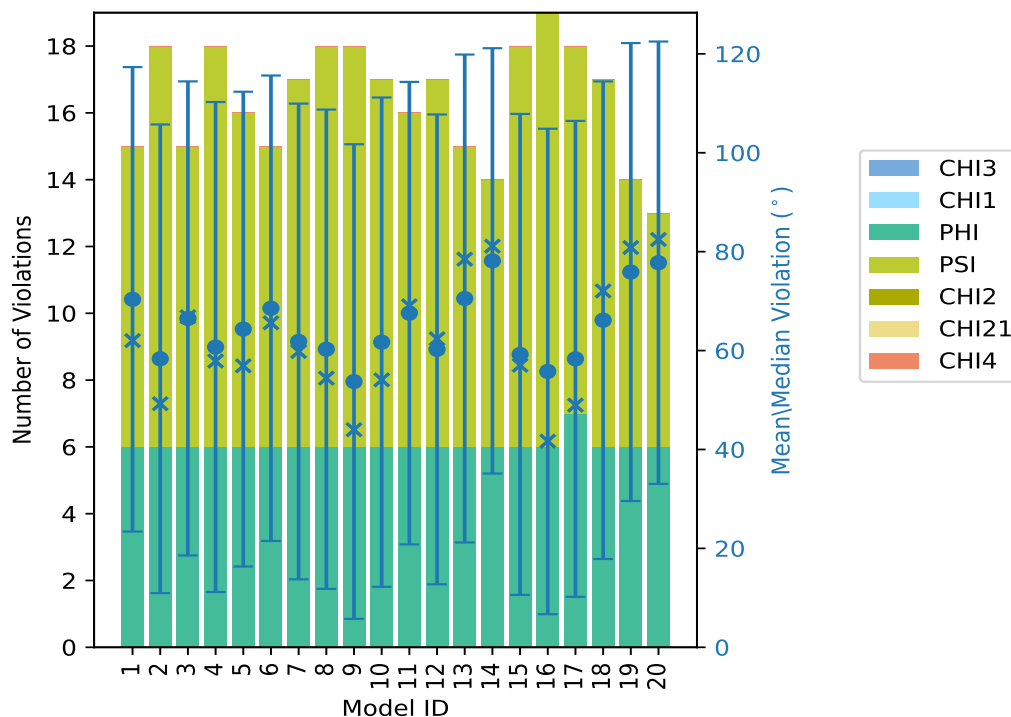
Violated and consistently violated restraints are shown using different hatch patterns in their respective categories

## 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 |      |     |     |      |       |      | Total | Mean (°) | Max (°) | SD (°) | Median (°) |
|----------|----------------------|------|-----|-----|------|-------|------|-------|----------|---------|--------|------------|
|          | CHI3                 | CHI1 | PHI | PSI | CHI2 | CHI21 | CHI4 |       |          |         |        |            |
| 1        | 0                    | 0    | 6   | 9   | 0    | 0     | 0    | 15    | 70.36    | 139.67  | 46.96  | 62.02      |
| 2        | 0                    | 0    | 6   | 12  | 0    | 0     | 0    | 18    | 58.34    | 135.69  | 47.38  | 49.26      |
| 3        | 0                    | 0    | 6   | 9   | 0    | 0     | 0    | 15    | 66.5     | 139.58  | 47.93  | 66.83      |
| 4        | 0                    | 0    | 6   | 12  | 0    | 0     | 0    | 18    | 60.72    | 139.26  | 49.54  | 57.88      |
| 5        | 0                    | 0    | 6   | 10  | 0    | 0     | 0    | 16    | 64.34    | 132.39  | 48.0   | 56.92      |
| 6        | 0                    | 0    | 6   | 9   | 0    | 0     | 0    | 15    | 68.56    | 138.69  | 47.06  | 65.61      |
| 7        | 0                    | 0    | 6   | 11  | 0    | 0     | 0    | 17    | 61.84    | 139.39  | 48.1   | 59.81      |
| 8        | 0                    | 0    | 6   | 12  | 0    | 0     | 0    | 18    | 60.27    | 133.03  | 48.46  | 54.42      |
| 9        | 0                    | 0    | 6   | 12  | 0    | 0     | 0    | 18    | 53.73    | 131.45  | 47.99  | 44.0       |
| 10       | 0                    | 0    | 6   | 11  | 0    | 0     | 0    | 17    | 61.7     | 136.7   | 49.47  | 54.08      |
| 11       | 0                    | 0    | 6   | 10  | 0    | 0     | 0    | 16    | 67.57    | 132.9   | 46.76  | 69.06      |
| 12       | 0                    | 0    | 6   | 11  | 0    | 0     | 0    | 17    | 60.24    | 137.45  | 47.5   | 62.39      |
| 13       | 0                    | 0    | 6   | 9   | 0    | 0     | 0    | 15    | 70.53    | 138.28  | 49.33  | 78.48      |
| 14       | 0                    | 0    | 6   | 8   | 0    | 0     | 0    | 14    | 78.14    | 135.0   | 43.0   | 81.12      |
| 15       | 0                    | 0    | 6   | 12  | 0    | 0     | 0    | 18    | 59.22    | 138.75  | 48.63  | 57.03      |
| 16       | 0                    | 0    | 6   | 13  | 0    | 0     | 0    | 19    | 55.78    | 138.88  | 49.08  | 41.69      |
| 17       | 0                    | 0    | 7   | 11  | 0    | 0     | 0    | 18    | 58.32    | 138.36  | 48.12  | 48.97      |
| 18       | 0                    | 0    | 6   | 11  | 0    | 0     | 0    | 17    | 66.14    | 135.63  | 48.29  | 72.06      |
| 19       | 0                    | 0    | 6   | 8   | 0    | 0     | 0    | 14    | 75.88    | 138.21  | 46.3   | 80.84      |
| 20       | 0                    | 0    | 6   | 7   | 0    | 0     | 0    | 13    | 77.76    | 138.61  | 44.73  | 82.46      |

### 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



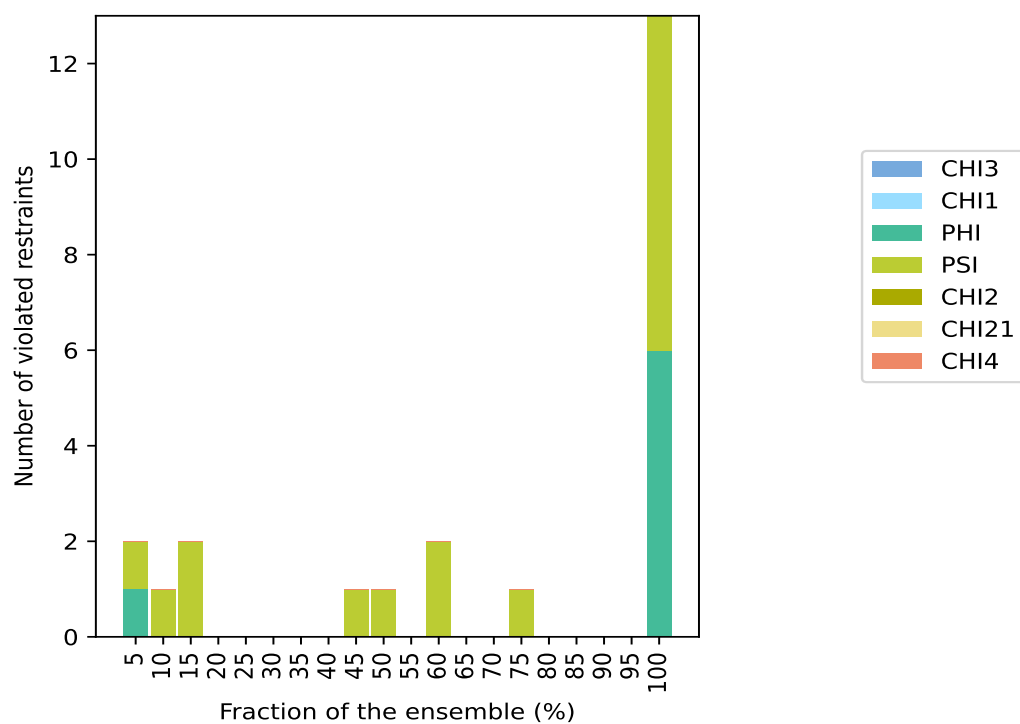
### 10.3 Dihedral-angle violation statistics for the ensemble [i](#)

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 |       |
|-------------------------------|------|-----|-----|------|-------|------|-------|--------------------------|-------|
| CHI3                          | CHI1 | PHI | PSI | CHI2 | CHI21 | CHI4 | Total | Count <sup>1</sup>       | %     |
| 0                             | 0    | 1   | 1   | 0    | 0     | 0    | 2     | 1                        | 5.0   |
| 0                             | 0    | 0   | 1   | 0    | 0     | 0    | 1     | 2                        | 10.0  |
| 0                             | 0    | 0   | 2   | 0    | 0     | 0    | 2     | 3                        | 15.0  |
| 0                             | 0    | 0   | 0   | 0    | 0     | 0    | 0     | 4                        | 20.0  |
| 0                             | 0    | 0   | 0   | 0    | 0     | 0    | 0     | 5                        | 25.0  |
| 0                             | 0    | 0   | 0   | 0    | 0     | 0    | 0     | 6                        | 30.0  |
| 0                             | 0    | 0   | 0   | 0    | 0     | 0    | 0     | 7                        | 35.0  |
| 0                             | 0    | 0   | 0   | 0    | 0     | 0    | 0     | 8                        | 40.0  |
| 0                             | 0    | 0   | 1   | 0    | 0     | 0    | 1     | 9                        | 45.0  |
| 0                             | 0    | 0   | 1   | 0    | 0     | 0    | 1     | 10                       | 50.0  |
| 0                             | 0    | 0   | 0   | 0    | 0     | 0    | 0     | 11                       | 55.0  |
| 0                             | 0    | 0   | 2   | 0    | 0     | 0    | 2     | 12                       | 60.0  |
| 0                             | 0    | 0   | 0   | 0    | 0     | 0    | 0     | 13                       | 65.0  |
| 0                             | 0    | 0   | 0   | 0    | 0     | 0    | 0     | 14                       | 70.0  |
| 0                             | 0    | 0   | 1   | 0    | 0     | 0    | 1     | 15                       | 75.0  |
| 0                             | 0    | 0   | 0   | 0    | 0     | 0    | 0     | 16                       | 80.0  |
| 0                             | 0    | 0   | 0   | 0    | 0     | 0    | 0     | 17                       | 85.0  |
| 0                             | 0    | 0   | 0   | 0    | 0     | 0    | 0     | 18                       | 90.0  |
| 0                             | 0    | 0   | 0   | 0    | 0     | 0    | 0     | 19                       | 95.0  |
| 0                             | 0    | 6   | 7   | 0    | 0     | 0    | 13    | 20                       | 100.0 |

<sup>1</sup> Number of models with violations

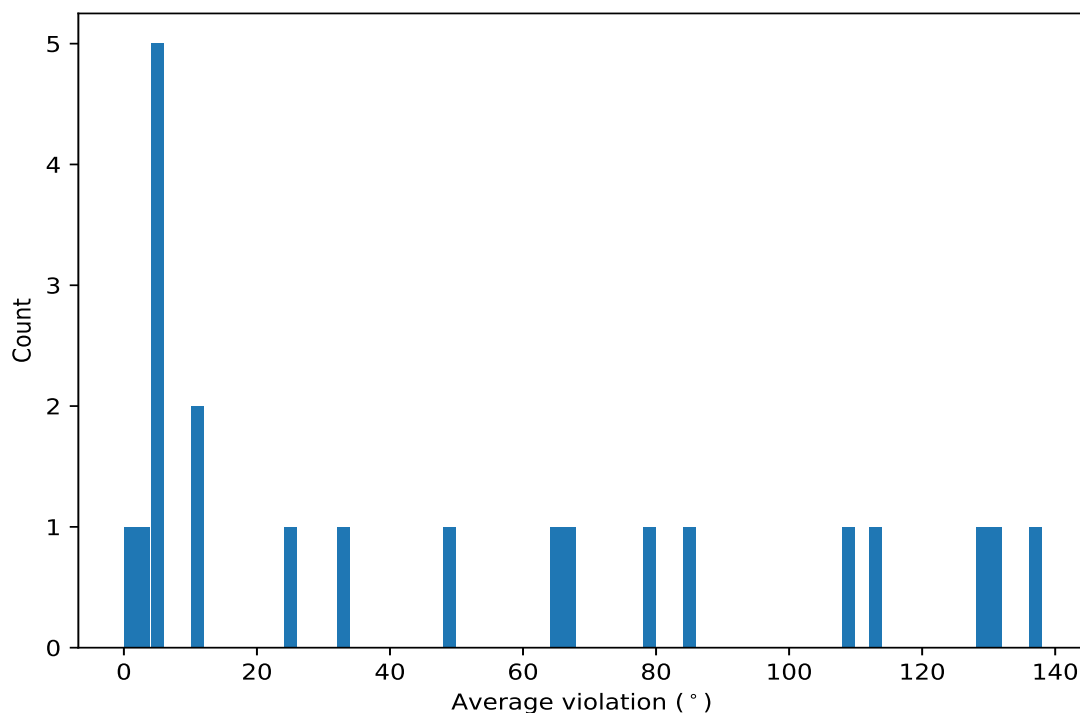
### 10.3.1 Bar graph : Dihedral-angle Violation statistics for the ensemble [i](#)



## 10.4 Most violated dihedral-angle restraints in the ensemble [i](#)

### 10.4.1 Histogram : Distribution of mean dihedral-angle violations [i](#)

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 [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.

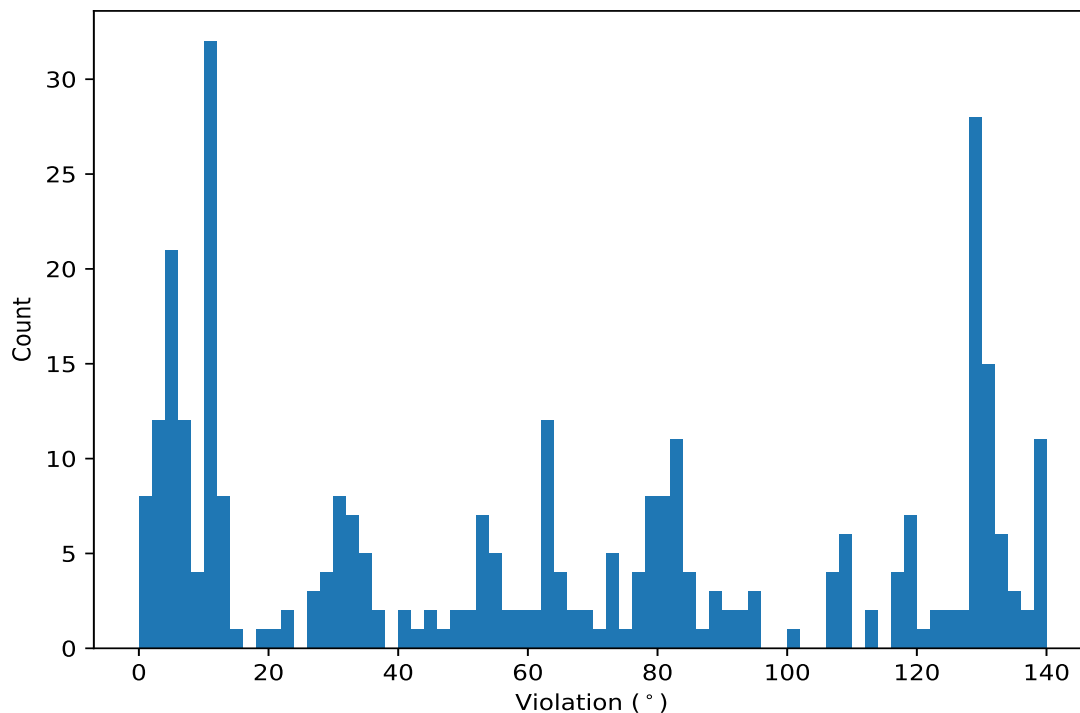
| Key     | Atom-1        | Atom-2         | Atom-3         | Atom-4        | Models <sup>1</sup> | Mean   | SD <sup>2</sup> | Median |
|---------|---------------|----------------|----------------|---------------|---------------------|--------|-----------------|--------|
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N  | 1:130:A:GLY:CA | 1:130:A:GLY:C | 20                  | 136.9  | 2.59            | 138.24 |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 20                  | 131.21 | 0.98            | 131.88 |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 20                  | 129.33 | 0.24            | 129.42 |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA  | 1:97:A:GLY:C  | 20                  | 113.65 | 6.48            | 111.02 |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C   | 1:98:A:GLU:N  | 20                  | 109.73 | 23.43           | 119.44 |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C  | 1:131:A:GLU:N | 20                  | 84.54  | 4.22            | 83.2   |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA  | 1:18:A:GLY:C  | 20                  | 79.88  | 5.12            | 78.18  |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C   | 1:19:A:ARG:N  | 20                  | 67.7   | 12.97           | 62.49  |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C  | 1:106:A:SER:N | 20                  | 65.04  | 21.77           | 64.19  |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 20                  | 48.75  | 8.64            | 52.22  |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 20                  | 32.06  | 2.18            | 32.44  |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 20                  | 11.34  | 0.67            | 11.48  |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C  | 1:119:A:TYR:N | 20                  | 11.17  | 0.77            | 10.96  |
| (1,602) | 1:55:A:GLY:N  | 1:55:A:GLY:CA  | 1:55:A:GLY:C   | 1:56:A:SER:N  | 15                  | 24.48  | 10.78           | 23.53  |
| (1,313) | 1:173:A:ALA:N | 1:173:A:ALA:CA | 1:173:A:ALA:C  | 1:174:A:ASN:N | 12                  | 5.56   | 2.31            | 5.38   |
| (1,149) | 1:84:A:SER:N  | 1:84:A:SER:CA  | 1:84:A:SER:C   | 1:85:A:GLU:N  | 12                  | 4.98   | 0.92            | 5.15   |
| (1,121) | 1:70:A:SER:N  | 1:70:A:SER:CA  | 1:70:A:SER:C   | 1:71:A:LEU:N  | 10                  | 5.91   | 1.27            | 6.31   |
| (1,167) | 1:93:A:THR:N  | 1:93:A:THR:CA  | 1:93:A:THR:C   | 1:94:A:GLU:N  | 9                   | 1.92   | 0.64            | 1.69   |
| (1,115) | 1:67:A:LEU:N  | 1:67:A:LEU:CA  | 1:67:A:LEU:C   | 1:68:A:GLU:N  | 3                   | 5.34   | 1.36            | 6.27   |
| (1,31)  | 1:23:A:SER:N  | 1:23:A:SER:CA  | 1:23:A:SER:C   | 1:24:A:SER:N  | 3                   | 2.54   | 0.84            | 2.87   |
| (1,37)  | 1:26:A:GLU:N  | 1:26:A:GLU:CA  | 1:26:A:GLU:C   | 1:27:A:ARG:N  | 2                   | 5.7    | 0.04            | 5.7    |

<sup>1</sup> Number of violated models, <sup>2</sup>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 [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.

| Key     | Atom-1        | Atom-2        | Atom-3         | Atom-4        | Model ID | Violation (°) |
|---------|---------------|---------------|----------------|---------------|----------|---------------|
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1        | 139.67        |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 3        | 139.58        |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 7        | 139.39        |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 4        | 139.26        |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 16       | 138.88        |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 15       | 138.75        |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 6        | 138.69        |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 20       | 138.61        |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 17       | 138.36        |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 13       | 138.28        |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 19       | 138.21        |

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| Key     | Atom-1        | Atom-2         | Atom-3         | Atom-4        | Model ID | Violation (°) |
|---------|---------------|----------------|----------------|---------------|----------|---------------|
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N  | 1:130:A:GLY:CA | 1:130:A:GLY:C | 12       | 137.45        |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N  | 1:130:A:GLY:CA | 1:130:A:GLY:C | 10       | 136.7         |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N  | 1:130:A:GLY:CA | 1:130:A:GLY:C | 2        | 135.69        |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N  | 1:130:A:GLY:CA | 1:130:A:GLY:C | 18       | 135.63        |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N  | 1:130:A:GLY:CA | 1:130:A:GLY:C | 14       | 135.0         |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N  | 1:130:A:GLY:CA | 1:130:A:GLY:C | 8        | 133.03        |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N  | 1:130:A:GLY:CA | 1:130:A:GLY:C | 11       | 132.9         |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N  | 1:130:A:GLY:CA | 1:130:A:GLY:C | 5        | 132.39        |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 13       | 132.34        |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C   | 1:98:A:GLU:N  | 1        | 132.18        |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C   | 1:98:A:GLU:N  | 19       | 132.1         |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 7        | 131.94        |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 20       | 131.94        |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 15       | 131.93        |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 6        | 131.92        |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 10       | 131.91        |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 11       | 131.91        |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 16       | 131.91        |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 2        | 131.89        |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 14       | 131.89        |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 18       | 131.86        |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 1        | 131.79        |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 4        | 131.78        |
| (1,607) | 1:129:A:ASP:C | 1:130:A:GLY:N  | 1:130:A:GLY:CA | 1:130:A:GLY:C | 9        | 131.45        |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C   | 1:98:A:GLU:N  | 14       | 131.26        |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 12       | 130.0         |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 5        | 129.96        |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 19       | 129.96        |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 3        | 129.91        |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 8        | 129.8         |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 9        | 129.8         |
| (1,615) | 1:160:A:HIS:C | 1:161:A:GLY:N  | 1:161:A:GLY:CA | 1:161:A:GLY:C | 17       | 129.76        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 12       | 129.65        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 10       | 129.56        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 3        | 129.54        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 9        | 129.54        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 8        | 129.49        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 2        | 129.47        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 17       | 129.47        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 1        | 129.44        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 15       | 129.44        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 18       | 129.44        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 20       | 129.39        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 7        | 129.35        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 13       | 129.35        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 4        | 129.33        |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C   | 1:98:A:GLU:N  | 18       | 129.31        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 6        | 129.27        |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C   | 1:98:A:GLU:N  | 8        | 129.27        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 16       | 129.2         |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C  | 1:143:A:PRO:N | 5        | 129.18        |

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| Key     | Atom-1        | Atom-2         | Atom-3        | Atom-4        | Model ID | Violation (°) |
|---------|---------------|----------------|---------------|---------------|----------|---------------|
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C | 1:143:A:PRO:N | 14       | 129.05        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C | 1:143:A:PRO:N | 19       | 128.87        |
| (1,612) | 1:142:A:GLU:N | 1:142:A:GLU:CA | 1:142:A:GLU:C | 1:143:A:PRO:N | 11       | 128.66        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 13       | 127.18        |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C  | 1:98:A:GLU:N  | 11       | 126.08        |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C  | 1:98:A:GLU:N  | 10       | 125.57        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 16       | 125.05        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 3        | 123.28        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 9        | 122.11        |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C  | 1:19:A:ARG:N  | 13       | 121.62        |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C  | 1:98:A:GLU:N  | 4        | 119.83        |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C  | 1:98:A:GLU:N  | 17       | 119.78        |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C  | 1:98:A:GLU:N  | 7        | 119.55        |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C  | 1:98:A:GLU:N  | 5        | 119.33        |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C  | 1:98:A:GLU:N  | 6        | 119.24        |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C  | 1:98:A:GLU:N  | 20       | 119.18        |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C  | 1:98:A:GLU:N  | 15       | 118.04        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 12       | 117.97        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 4        | 117.71        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 15       | 116.69        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 8        | 116.05        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 19       | 112.78        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 2        | 112.15        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 18       | 109.88        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 10       | 109.15        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 1        | 108.97        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 5        | 108.96        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 20       | 108.69        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 17       | 108.44        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 6        | 107.62        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 7        | 107.38        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 14       | 106.83        |
| (1,603) | 1:96:A:ALA:C  | 1:97:A:GLY:N   | 1:97:A:GLY:CA | 1:97:A:GLY:C  | 11       | 106.14        |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C | 1:106:A:SER:N | 16       | 100.12        |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C | 1:106:A:SER:N | 3        | 94.96         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 18       | 94.7          |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 9        | 94.33         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 5        | 92.58         |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C | 1:106:A:SER:N | 2        | 92.07         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 8        | 91.69         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 11       | 91.48         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 20       | 88.69         |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C  | 1:98:A:GLU:N  | 12       | 88.65         |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C | 1:106:A:SER:N | 19       | 88.4          |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C  | 1:98:A:GLU:N  | 2        | 86.59         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 4        | 85.89         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 10       | 85.17         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 10       | 84.07         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 17       | 84.05         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 12       | 83.54         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 6        | 83.53         |

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| Key     | Atom-1        | Atom-2         | Atom-3        | Atom-4        | Model ID | Violation (°) |
|---------|---------------|----------------|---------------|---------------|----------|---------------|
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 15       | 83.44         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 16       | 83.33         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 2        | 83.07         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 5        | 82.93         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 4        | 82.92         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 7        | 82.58         |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C | 1:106:A:SER:N | 14       | 82.56         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 20       | 82.46         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 3        | 82.13         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 14       | 81.67         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 1        | 81.64         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 19       | 81.56         |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C | 1:106:A:SER:N | 18       | 80.71         |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C  | 1:98:A:GLU:N  | 13       | 80.69         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 13       | 80.68         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 14       | 80.57         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 19       | 80.13         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 16       | 79.46         |
| (1,608) | 1:130:A:GLY:N | 1:130:A:GLY:CA | 1:130:A:GLY:C | 1:131:A:GLU:N | 18       | 78.86         |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C | 1:106:A:SER:N | 4        | 78.74         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 13       | 78.48         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 12       | 78.24         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 2        | 78.13         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 6        | 78.1          |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 7        | 78.02         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 17       | 77.9          |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 3        | 77.59         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 11       | 77.45         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 1        | 76.79         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 9        | 74.26         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 15       | 73.18         |
| (1,599) | 1:17:A:GLU:C  | 1:18:A:GLY:N   | 1:18:A:GLY:CA | 1:18:A:GLY:C  | 8        | 72.99         |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C  | 1:19:A:ARG:N  | 11       | 72.89         |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C  | 1:19:A:ARG:N  | 10       | 72.12         |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C  | 1:19:A:ARG:N  | 18       | 72.06         |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C  | 1:19:A:ARG:N  | 14       | 71.9          |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C | 1:106:A:SER:N | 12       | 69.98         |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C  | 1:98:A:GLU:N  | 16       | 69.31         |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C  | 1:98:A:GLU:N  | 3        | 66.83         |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C  | 1:19:A:ARG:N  | 20       | 66.22         |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C | 1:106:A:SER:N | 20       | 65.8          |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C  | 1:19:A:ARG:N  | 6        | 65.61         |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C | 1:106:A:SER:N | 11       | 65.24         |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C  | 1:19:A:ARG:N  | 17       | 64.05         |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C  | 1:19:A:ARG:N  | 7        | 63.52         |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C | 1:106:A:SER:N | 15       | 63.15         |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C  | 1:19:A:ARG:N  | 3        | 62.55         |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C  | 1:19:A:ARG:N  | 16       | 62.43         |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C  | 1:19:A:ARG:N  | 12       | 62.39         |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C  | 1:19:A:ARG:N  | 4        | 62.29         |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C  | 1:19:A:ARG:N  | 8        | 62.11         |

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| Key     | Atom-1        | Atom-2         | Atom-3         | Atom-4        | Model ID | Violation (°) |
|---------|---------------|----------------|----------------|---------------|----------|---------------|
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C   | 1:19:A:ARG:N  | 9        | 62.09         |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C   | 1:19:A:ARG:N  | 15       | 62.08         |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C   | 1:19:A:ARG:N  | 2        | 62.07         |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C   | 1:19:A:ARG:N  | 1        | 62.02         |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C   | 1:19:A:ARG:N  | 5        | 62.0          |
| (1,600) | 1:18:A:GLY:N  | 1:18:A:GLY:CA  | 1:18:A:GLY:C   | 1:19:A:ARG:N  | 19       | 61.94         |
| (1,604) | 1:97:A:GLY:N  | 1:97:A:GLY:CA  | 1:97:A:GLY:C   | 1:98:A:GLU:N  | 9        | 61.84         |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C  | 1:106:A:SER:N | 7        | 59.81         |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 13       | 58.79         |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 9        | 57.37         |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C  | 1:106:A:SER:N | 8        | 56.44         |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C  | 1:106:A:SER:N | 13       | 55.9          |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 17       | 55.8          |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 1        | 55.44         |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 11       | 54.55         |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 10       | 54.08         |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 6        | 53.69         |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 4        | 53.47         |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C  | 1:106:A:SER:N | 1        | 53.4          |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 7        | 53.27         |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C  | 1:106:A:SER:N | 6        | 53.21         |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 8        | 52.39         |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 14       | 52.05         |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 15       | 51.98         |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 5        | 51.85         |
| (1,602) | 1:55:A:GLY:N  | 1:55:A:GLY:CA  | 1:55:A:GLY:C   | 1:56:A:SER:N  | 18       | 49.93         |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C  | 1:106:A:SER:N | 5        | 49.18         |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 12       | 47.57         |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 18       | 45.3          |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C  | 1:106:A:SER:N | 10       | 44.24         |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C  | 1:106:A:SER:N | 17       | 42.14         |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 16       | 41.69         |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 19       | 40.97         |
| (1,602) | 1:55:A:GLY:N  | 1:55:A:GLY:CA  | 1:55:A:GLY:C   | 1:56:A:SER:N  | 14       | 36.89         |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 2        | 36.46         |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 11       | 35.53         |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 16       | 35.01         |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 15       | 34.51         |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 6        | 34.08         |
| (1,602) | 1:55:A:GLY:N  | 1:55:A:GLY:CA  | 1:55:A:GLY:C   | 1:56:A:SER:N  | 8        | 34.0          |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 5        | 33.84         |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 8        | 33.43         |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 3        | 33.38         |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 2        | 33.27         |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 17       | 33.1          |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 12       | 32.86         |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 19       | 32.01         |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 1        | 31.77         |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 10       | 31.75         |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 14       | 31.17         |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 3        | 30.75         |

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| Key     | Atom-1        | Atom-2         | Atom-3         | Atom-4        | Model ID | Violation (°) |
|---------|---------------|----------------|----------------|---------------|----------|---------------|
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 9        | 30.62         |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 18       | 30.59         |
| (1,602) | 1:55:A:GLY:N  | 1:55:A:GLY:CA  | 1:55:A:GLY:C   | 1:56:A:SER:N  | 2        | 30.51         |
| (1,602) | 1:55:A:GLY:N  | 1:55:A:GLY:CA  | 1:55:A:GLY:C   | 1:56:A:SER:N  | 9        | 30.38         |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 7        | 29.12         |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 20       | 28.69         |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 4        | 28.53         |
| (1,611) | 1:141:A:ARG:C | 1:142:A:GLU:N  | 1:142:A:GLU:CA | 1:142:A:GLU:C | 13       | 28.01         |
| (1,605) | 1:104:A:ASP:C | 1:105:A:GLY:N  | 1:105:A:GLY:CA | 1:105:A:GLY:C | 20       | 27.49         |
| (1,602) | 1:55:A:GLY:N  | 1:55:A:GLY:CA  | 1:55:A:GLY:C   | 1:56:A:SER:N  | 11       | 27.49         |
| (1,602) | 1:55:A:GLY:N  | 1:55:A:GLY:CA  | 1:55:A:GLY:C   | 1:56:A:SER:N  | 1        | 27.35         |
| (1,602) | 1:55:A:GLY:N  | 1:55:A:GLY:CA  | 1:55:A:GLY:C   | 1:56:A:SER:N  | 16       | 23.53         |
| (1,602) | 1:55:A:GLY:N  | 1:55:A:GLY:CA  | 1:55:A:GLY:C   | 1:56:A:SER:N  | 4        | 22.06         |
| (1,602) | 1:55:A:GLY:N  | 1:55:A:GLY:CA  | 1:55:A:GLY:C   | 1:56:A:SER:N  | 17       | 20.46         |
| (1,602) | 1:55:A:GLY:N  | 1:55:A:GLY:CA  | 1:55:A:GLY:C   | 1:56:A:SER:N  | 7        | 18.54         |
| (1,602) | 1:55:A:GLY:N  | 1:55:A:GLY:CA  | 1:55:A:GLY:C   | 1:56:A:SER:N  | 15       | 14.68         |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C  | 1:119:A:TYR:N | 7        | 13.34         |
| (1,602) | 1:55:A:GLY:N  | 1:55:A:GLY:CA  | 1:55:A:GLY:C   | 1:56:A:SER:N  | 19       | 12.45         |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 14       | 12.41         |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C  | 1:119:A:TYR:N | 15       | 12.27         |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C  | 1:119:A:TYR:N | 11       | 12.25         |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C  | 1:119:A:TYR:N | 20       | 12.25         |
| (1,602) | 1:55:A:GLY:N  | 1:55:A:GLY:CA  | 1:55:A:GLY:C   | 1:56:A:SER:N  | 12       | 12.12         |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 19       | 12.01         |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 11       | 11.97         |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 17       | 11.92         |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 16       | 11.9          |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 7        | 11.64         |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 15       | 11.61         |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 1        | 11.57         |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 20       | 11.5          |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 5        | 11.49         |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 6        | 11.46         |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 2        | 11.44         |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 4        | 11.44         |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 9        | 11.41         |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C  | 1:119:A:TYR:N | 16       | 11.39         |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C  | 1:119:A:TYR:N | 9        | 11.3          |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 13       | 11.22         |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 8        | 11.2          |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C  | 1:119:A:TYR:N | 6        | 11.19         |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C  | 1:119:A:TYR:N | 17       | 11.05         |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C  | 1:119:A:TYR:N | 1        | 11.0          |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C  | 1:119:A:TYR:N | 12       | 11.0          |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C  | 1:119:A:TYR:N | 4        | 10.93         |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C  | 1:119:A:TYR:N | 10       | 10.93         |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C  | 1:119:A:TYR:N | 19       | 10.89         |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C  | 1:119:A:TYR:N | 5        | 10.81         |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C  | 1:119:A:TYR:N | 14       | 10.71         |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 18       | 10.52         |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C  | 1:144:A:ASP:N | 12       | 10.5          |

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| Key     | Atom-1        | Atom-2         | Atom-3        | Atom-4        | Model ID | Violation (°) |
|---------|---------------|----------------|---------------|---------------|----------|---------------|
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C | 1:119:A:TYR:N | 3        | 10.48         |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C | 1:119:A:TYR:N | 8        | 10.46         |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C | 1:119:A:TYR:N | 13       | 10.44         |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C | 1:119:A:TYR:N | 18       | 10.38         |
| (1,213) | 1:118:A:ASN:N | 1:118:A:ASN:CA | 1:118:A:ASN:C | 1:119:A:TYR:N | 2        | 10.34         |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C | 1:144:A:ASP:N | 3        | 9.99          |
| (1,614) | 1:143:A:PRO:N | 1:143:A:PRO:CA | 1:143:A:PRO:C | 1:144:A:ASP:N | 10       | 9.66          |
| (1,313) | 1:173:A:ALA:N | 1:173:A:ALA:CA | 1:173:A:ALA:C | 1:174:A:ASN:N | 15       | 9.44          |
| (1,313) | 1:173:A:ALA:N | 1:173:A:ALA:CA | 1:173:A:ALA:C | 1:174:A:ASN:N | 17       | 8.43          |
| (1,313) | 1:173:A:ALA:N | 1:173:A:ALA:CA | 1:173:A:ALA:C | 1:174:A:ASN:N | 8        | 7.64          |
| (1,313) | 1:173:A:ALA:N | 1:173:A:ALA:CA | 1:173:A:ALA:C | 1:174:A:ASN:N | 12       | 7.64          |
| (1,602) | 1:55:A:GLY:N  | 1:55:A:GLY:CA  | 1:55:A:GLY:C  | 1:56:A:SER:N  | 10       | 6.87          |
| (1,121) | 1:70:A:SER:N  | 1:70:A:SER:CA  | 1:70:A:SER:C  | 1:71:A:LEU:N  | 16       | 6.87          |
| (1,121) | 1:70:A:SER:N  | 1:70:A:SER:CA  | 1:70:A:SER:C  | 1:71:A:LEU:N  | 10       | 6.82          |
| (1,121) | 1:70:A:SER:N  | 1:70:A:SER:CA  | 1:70:A:SER:C  | 1:71:A:LEU:N  | 4        | 6.57          |
| (1,121) | 1:70:A:SER:N  | 1:70:A:SER:CA  | 1:70:A:SER:C  | 1:71:A:LEU:N  | 17       | 6.44          |
| (1,115) | 1:67:A:LEU:N  | 1:67:A:LEU:CA  | 1:67:A:LEU:C  | 1:68:A:GLU:N  | 8        | 6.33          |
| (1,121) | 1:70:A:SER:N  | 1:70:A:SER:CA  | 1:70:A:SER:C  | 1:71:A:LEU:N  | 7        | 6.31          |
| (1,121) | 1:70:A:SER:N  | 1:70:A:SER:CA  | 1:70:A:SER:C  | 1:71:A:LEU:N  | 15       | 6.31          |
| (1,121) | 1:70:A:SER:N  | 1:70:A:SER:CA  | 1:70:A:SER:C  | 1:71:A:LEU:N  | 5        | 6.3           |
| (1,115) | 1:67:A:LEU:N  | 1:67:A:LEU:CA  | 1:67:A:LEU:C  | 1:68:A:GLU:N  | 2        | 6.27          |
| (1,121) | 1:70:A:SER:N  | 1:70:A:SER:CA  | 1:70:A:SER:C  | 1:71:A:LEU:N  | 2        | 5.91          |
| (1,313) | 1:173:A:ALA:N | 1:173:A:ALA:CA | 1:173:A:ALA:C | 1:174:A:ASN:N | 6        | 5.83          |
| (1,37)  | 1:26:A:GLU:N  | 1:26:A:GLU:CA  | 1:26:A:GLU:C  | 1:27:A:ARG:N  | 18       | 5.74          |
| (1,149) | 1:84:A:SER:N  | 1:84:A:SER:CA  | 1:84:A:SER:C  | 1:85:A:GLU:N  | 17       | 5.72          |
| (1,37)  | 1:26:A:GLU:N  | 1:26:A:GLU:CA  | 1:26:A:GLU:C  | 1:27:A:ARG:N  | 9        | 5.66          |
| (1,149) | 1:84:A:SER:N  | 1:84:A:SER:CA  | 1:84:A:SER:C  | 1:85:A:GLU:N  | 15       | 5.55          |
| (1,149) | 1:84:A:SER:N  | 1:84:A:SER:CA  | 1:84:A:SER:C  | 1:85:A:GLU:N  | 9        | 5.51          |
| (1,313) | 1:173:A:ALA:N | 1:173:A:ALA:CA | 1:173:A:ALA:C | 1:174:A:ASN:N | 7        | 5.4           |
| (1,313) | 1:173:A:ALA:N | 1:173:A:ALA:CA | 1:173:A:ALA:C | 1:174:A:ASN:N | 4        | 5.37          |
| (1,149) | 1:84:A:SER:N  | 1:84:A:SER:CA  | 1:84:A:SER:C  | 1:85:A:GLU:N  | 11       | 5.34          |
| (1,121) | 1:70:A:SER:N  | 1:70:A:SER:CA  | 1:70:A:SER:C  | 1:71:A:LEU:N  | 3        | 5.27          |
| (1,313) | 1:173:A:ALA:N | 1:173:A:ALA:CA | 1:173:A:ALA:C | 1:174:A:ASN:N | 10       | 5.23          |
| (1,149) | 1:84:A:SER:N  | 1:84:A:SER:CA  | 1:84:A:SER:C  | 1:85:A:GLU:N  | 4        | 5.18          |
| (1,149) | 1:84:A:SER:N  | 1:84:A:SER:CA  | 1:84:A:SER:C  | 1:85:A:GLU:N  | 8        | 5.17          |
| (1,149) | 1:84:A:SER:N  | 1:84:A:SER:CA  | 1:84:A:SER:C  | 1:85:A:GLU:N  | 5        | 5.14          |
| (1,149) | 1:84:A:SER:N  | 1:84:A:SER:CA  | 1:84:A:SER:C  | 1:85:A:GLU:N  | 10       | 5.1           |
| (1,149) | 1:84:A:SER:N  | 1:84:A:SER:CA  | 1:84:A:SER:C  | 1:85:A:GLU:N  | 16       | 5.08          |
| (1,149) | 1:84:A:SER:N  | 1:84:A:SER:CA  | 1:84:A:SER:C  | 1:85:A:GLU:N  | 18       | 5.07          |
| (1,149) | 1:84:A:SER:N  | 1:84:A:SER:CA  | 1:84:A:SER:C  | 1:85:A:GLU:N  | 6        | 4.89          |
| (1,606) | 1:105:A:GLY:N | 1:105:A:GLY:CA | 1:105:A:GLY:C | 1:106:A:SER:N | 9        | 4.75          |
| (1,313) | 1:173:A:ALA:N | 1:173:A:ALA:CA | 1:173:A:ALA:C | 1:174:A:ASN:N | 18       | 4.34          |
| (1,115) | 1:67:A:LEU:N  | 1:67:A:LEU:CA  | 1:67:A:LEU:C  | 1:68:A:GLU:N  | 5        | 3.42          |
| (1,31)  | 1:23:A:SER:N  | 1:23:A:SER:CA  | 1:23:A:SER:C  | 1:24:A:SER:N  | 8        | 3.36          |
| (1,167) | 1:93:A:THR:N  | 1:93:A:THR:CA  | 1:93:A:THR:C  | 1:94:A:GLU:N  | 9        | 3.26          |
| (1,313) | 1:173:A:ALA:N | 1:173:A:ALA:CA | 1:173:A:ALA:C | 1:174:A:ASN:N | 2        | 3.15          |
| (1,601) | 1:54:A:HIS:C  | 1:55:A:GLY:N   | 1:55:A:GLY:CA | 1:55:A:GLY:C  | 17       | 2.94          |
| (1,31)  | 1:23:A:SER:N  | 1:23:A:SER:CA  | 1:23:A:SER:C  | 1:24:A:SER:N  | 15       | 2.87          |
| (1,313) | 1:173:A:ALA:N | 1:173:A:ALA:CA | 1:173:A:ALA:C | 1:174:A:ASN:N | 13       | 2.71          |
| (1,167) | 1:93:A:THR:N  | 1:93:A:THR:CA  | 1:93:A:THR:C  | 1:94:A:GLU:N  | 12       | 2.51          |
| (1,121) | 1:70:A:SER:N  | 1:70:A:SER:CA  | 1:70:A:SER:C  | 1:71:A:LEU:N  | 1        | 2.32          |

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*Continued from previous page...*

| Key     | Atom-1        | Atom-2         | Atom-3        | Atom-4        | Model ID | Violation (°) |
|---------|---------------|----------------|---------------|---------------|----------|---------------|
| (1,167) | 1:93:A:THR:N  | 1:93:A:THR:CA  | 1:93:A:THR:C  | 1:94:A:GLU:N  | 13       | 2.3           |
| (1,167) | 1:93:A:THR:N  | 1:93:A:THR:CA  | 1:93:A:THR:C  | 1:94:A:GLU:N  | 7        | 2.04          |
| (1,149) | 1:84:A:SER:N  | 1:84:A:SER:CA  | 1:84:A:SER:C  | 1:85:A:GLU:N  | 12       | 2.04          |
| (1,33)  | 1:24:A:SER:N  | 1:24:A:SER:CA  | 1:24:A:SER:C  | 1:25:A:MET:N  | 16       | 1.94          |
| (1,167) | 1:93:A:THR:N  | 1:93:A:THR:CA  | 1:93:A:THR:C  | 1:94:A:GLU:N  | 2        | 1.69          |
| (1,167) | 1:93:A:THR:N  | 1:93:A:THR:CA  | 1:93:A:THR:C  | 1:94:A:GLU:N  | 4        | 1.67          |
| (1,313) | 1:173:A:ALA:N | 1:173:A:ALA:CA | 1:173:A:ALA:C | 1:174:A:ASN:N | 9        | 1.48          |
| (1,31)  | 1:23:A:SER:N  | 1:23:A:SER:CA  | 1:23:A:SER:C  | 1:24:A:SER:N  | 16       | 1.39          |
| (1,167) | 1:93:A:THR:N  | 1:93:A:THR:CA  | 1:93:A:THR:C  | 1:94:A:GLU:N  | 3        | 1.29          |
| (1,167) | 1:93:A:THR:N  | 1:93:A:THR:CA  | 1:93:A:THR:C  | 1:94:A:GLU:N  | 16       | 1.26          |
| (1,167) | 1:93:A:THR:N  | 1:93:A:THR:CA  | 1:93:A:THR:C  | 1:94:A:GLU:N  | 11       | 1.23          |