Feb 18, 2018 – 03:02 am GMT

PDB ID : 5TAY
EMDB ID: EMD-8389
Title : Structure of rabbit RyR1 (ryanodine dataset, class 2)
Authors : Clarke, O.B.; des Georges, A.; Zalk, R.; Marks, A.R.; Hendrickson, W.A.; Frank, J.
Deposited on : 2016-09-10
Resolution : 4.60 Å (reported)

This is a Full wwPDB/EMDataBank EM Map/Model Validation Report for a publicly released PDB/EMDB entry.

We welcome your comments at validation@mail.wwpdb.org
A user guide is available at https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the symbol.

MolProbity : 4.02b-467
Percentile statistics : 20171227.v01 (using entries in the PDB archive December 27th 2017)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : trunk30686
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

**ELECTRON MICROSCOPY**

The reported resolution of this entry is 4.60 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.

<table>
<thead>
<tr>
<th>Metric</th>
<th>Whole archive (#Entries)</th>
<th>EM structures (#Entries)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clashscore</td>
<td>136279</td>
<td>1886</td>
</tr>
<tr>
<td>Ramachandran outliers</td>
<td>132675</td>
<td>1663</td>
</tr>
<tr>
<td>Sidechain outliers</td>
<td>132484</td>
<td>1531</td>
</tr>
</tbody>
</table>

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5%.
2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 121276 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1B.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>F</td>
<td>107</td>
<td>Total C N O S</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>107</td>
<td>Total C N O S</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>H</td>
<td>107</td>
<td>Total C N O S</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>J</td>
<td>107</td>
<td>Total C N O S</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 2 is a protein called Ryanodine receptor 1.

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>AltConf</th>
<th>Trace</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>B</td>
<td>4194</td>
<td>Total C N O S</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4194</td>
<td>Total C N O S</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>4194</td>
<td>Total C N O S</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4194</td>
<td>Total C N O S</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 3 is ZINC ION (three-letter code: ZN) (formula: Zn).

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>AltConf</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>G</td>
<td>1</td>
<td>Zn</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>1</td>
<td>Zn</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>I</td>
<td>1</td>
<td>Zn</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>E</td>
<td>1</td>
<td>Zn</td>
<td>0</td>
</tr>
</tbody>
</table>

- Molecule 4 is CALCIUM ION (three-letter code: CA) (formula: Ca).
<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Residues</th>
<th>Atoms</th>
<th>AltConf</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>G</td>
<td>1</td>
<td>Total Ca</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>1</td>
<td>Total Ca</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>I</td>
<td>1</td>
<td>Total Ca</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>E</td>
<td>1</td>
<td>Total Ca</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 1</td>
<td></td>
</tr>
</tbody>
</table>
3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B
  
  Chain F:
  
  - Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B
  
  Chain A:
  
  - Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B
  
  Chain H:
  
  - Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B
  
  Chain J:
  
  - Molecule 2: Ryanodine receptor 1
  
  Chain B:
• Molecule 2: Ryanodine receptor 1

Chain G:
• Molecule 2: Ryanodine receptor 1

Chain I:
• Molecule 2: Ryanodine receptor 1

Chain E:
# 4 Experimental information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconstruction method</td>
<td>SINGLE PARTICLE</td>
<td>Depositor</td>
</tr>
<tr>
<td>Imposed symmetry</td>
<td>POINT, Not provided</td>
<td>Depositor</td>
</tr>
<tr>
<td>Number of particles used</td>
<td>55564</td>
<td>Depositor</td>
</tr>
<tr>
<td>Resolution determination method</td>
<td>FSC 0.143 CUT-OFF</td>
<td>Depositor</td>
</tr>
<tr>
<td>CTF correction method</td>
<td>PHASE FLIPPING AND AMPLITUDE CORRECTION</td>
<td>Depositor</td>
</tr>
<tr>
<td>Microscope</td>
<td>FEI POLARA 300</td>
<td>Depositor</td>
</tr>
<tr>
<td>Voltage (kV)</td>
<td>300</td>
<td>Depositor</td>
</tr>
<tr>
<td>Electron dose ( (e^-/\text{Å}^2) )</td>
<td>50</td>
<td>Depositor</td>
</tr>
<tr>
<td>Minimum defocus (nm)</td>
<td>Not provided</td>
<td>Depositor</td>
</tr>
<tr>
<td>Maximum defocus (nm)</td>
<td>Not provided</td>
<td>Depositor</td>
</tr>
<tr>
<td>Magnification</td>
<td>Not provided</td>
<td>Depositor</td>
</tr>
<tr>
<td>Image detector</td>
<td>GATAN K2 SUMMIT (4k x 4k)</td>
<td>Depositor</td>
</tr>
</tbody>
</table>
5  Model quality

5.1  Standard geometry

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

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

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Bond lengths</th>
<th>Bond angles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>RMSZ</td>
<td>#</td>
</tr>
<tr>
<td>1</td>
<td>A</td>
<td>0.30</td>
<td>0/834</td>
</tr>
<tr>
<td>1</td>
<td>F</td>
<td>0.30</td>
<td>0/834</td>
</tr>
<tr>
<td>1</td>
<td>H</td>
<td>0.30</td>
<td>0/834</td>
</tr>
<tr>
<td>1</td>
<td>J</td>
<td>0.30</td>
<td>0/834</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>0.30</td>
<td>0/25428</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>0.30</td>
<td>0/25428</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>0.30</td>
<td>0/25428</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>0.30</td>
<td>0/25428</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>0.30</td>
<td>0/105048</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>#Chirality outliers</th>
<th>#Planarity outliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>B</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>0</td>
<td>11</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>0</td>
<td>44</td>
</tr>
</tbody>
</table>

There are no bond length outliers.

All (24) bond angle outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Atoms</th>
<th>Z</th>
<th>Observed(°)</th>
<th>Ideal(°)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>E</td>
<td>131</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>7.94</td>
<td>133.56</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>131</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>7.93</td>
<td>133.53</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>131</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>7.92</td>
<td>133.53</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>131</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>7.91</td>
<td>133.49</td>
<td>115.30</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Atoms</th>
<th>Z</th>
<th>Observed(°)</th>
<th>Ideal(°)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>E</td>
<td>1676</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>6.62</td>
<td>130.52</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1676</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>6.61</td>
<td>130.50</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1676</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>6.60</td>
<td>130.49</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1676</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>6.59</td>
<td>130.46</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1600</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>6.37</td>
<td>129.94</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1600</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>6.35</td>
<td>129.91</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1600</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>6.34</td>
<td>129.88</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1600</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>6.33</td>
<td>129.86</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4985</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>5.79</td>
<td>128.63</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>4985</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>5.79</td>
<td>128.62</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4985</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>5.79</td>
<td>128.61</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4985</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>5.77</td>
<td>128.58</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>977</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>5.20</td>
<td>127.27</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>977</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>5.20</td>
<td>127.25</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>977</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>5.19</td>
<td>127.24</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>977</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>5.19</td>
<td>127.24</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>2290</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>5.17</td>
<td>127.19</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>2290</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>5.17</td>
<td>127.18</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>2290</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>5.16</td>
<td>127.16</td>
<td>115.30</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>2290</td>
<td>LEU</td>
<td>CA-CB-CG</td>
<td>5.14</td>
<td>127.13</td>
<td>115.30</td>
</tr>
</tbody>
</table>

There are no chirality outliers.

All (44) planarity outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>B</td>
<td>139</td>
<td>GLU</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1676</td>
<td>LEU</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1795</td>
<td>PRO</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1828</td>
<td>ASP</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1840</td>
<td>PRO</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>2291</td>
<td>GLN</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>2472</td>
<td>LEU</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>2507</td>
<td>TRP</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>3971</td>
<td>GLY</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4807</td>
<td>PHE</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>694</td>
<td>PRO</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>139</td>
<td>GLU</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1676</td>
<td>LEU</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1795</td>
<td>PRO</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1828</td>
<td>ASP</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1840</td>
<td>PRO</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>2291</td>
<td>GLN</td>
<td>Peptide</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
<th>Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>E</td>
<td>2472</td>
<td>LEU</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>2807</td>
<td>TRP</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>3971</td>
<td>GLY</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4807</td>
<td>PHE</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>694</td>
<td>PRO</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>139</td>
<td>GLU</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1676</td>
<td>LEU</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1795</td>
<td>PRO</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1828</td>
<td>ASP</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1840</td>
<td>PRO</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>2291</td>
<td>GLN</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>2472</td>
<td>LEU</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>2807</td>
<td>TRP</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>3971</td>
<td>GLY</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4807</td>
<td>PHE</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>694</td>
<td>PRO</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>139</td>
<td>GLU</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1676</td>
<td>LEU</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1795</td>
<td>PRO</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1828</td>
<td>ASP</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1840</td>
<td>PRO</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>2291</td>
<td>GLN</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>2472</td>
<td>LEU</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>2807</td>
<td>TRP</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>3971</td>
<td>GLY</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>4807</td>
<td>PHE</td>
<td>Peptide</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>694</td>
<td>PRO</td>
<td>Peptide</td>
</tr>
</tbody>
</table>

5.2 Too-close contacts

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

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Non-H</th>
<th>H(model)</th>
<th>H(added)</th>
<th>Clashes</th>
<th>Symm-Clashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>818</td>
<td>0</td>
<td>824</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>F</td>
<td>818</td>
<td>0</td>
<td>824</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>H</td>
<td>818</td>
<td>0</td>
<td>824</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>1</td>
<td>J</td>
<td>818</td>
<td>0</td>
<td>824</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>29499</td>
<td>0</td>
<td>24750</td>
<td>264</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>29499</td>
<td>0</td>
<td>24750</td>
<td>264</td>
<td>0</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Non-H</th>
<th>H(model)</th>
<th>H(added)</th>
<th>Clashes</th>
<th>Symm-Clashes</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>G</td>
<td>29499</td>
<td>0</td>
<td>24750</td>
<td>256</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>29499</td>
<td>0</td>
<td>24750</td>
<td>256</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>B</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>E</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>G</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>I</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>B</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>E</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>G</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>I</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>121276</td>
<td>0</td>
<td>102296</td>
<td>1050</td>
<td>0</td>
</tr>
</tbody>
</table>

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 5.

All (1050) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:B:4968:PH:HE2</td>
<td>2:B:4978:HI:CE1</td>
<td>1.29</td>
<td>1.49</td>
</tr>
<tr>
<td>2:E:4968:PH:HE2</td>
<td>2:E:4978:HI:CE1</td>
<td>1.29</td>
<td>1.48</td>
</tr>
<tr>
<td>2:I:4968:PH:HE2</td>
<td>2:I:4978:HI:CE1</td>
<td>1.29</td>
<td>1.48</td>
</tr>
<tr>
<td>2:G:4968:PH:HE2</td>
<td>2:G:4978:HI:CE1</td>
<td>1.29</td>
<td>1.48</td>
</tr>
<tr>
<td>2:B:4968:PH:CE2</td>
<td>2:B:4978:HI:CE1</td>
<td>2.09</td>
<td>1.41</td>
</tr>
<tr>
<td>2:E:4968:PH:CE2</td>
<td>2:E:4978:HI:HE1</td>
<td>1.56</td>
<td>1.05</td>
</tr>
<tr>
<td>2:G:4968:PH:CE2</td>
<td>2:G:4978:HI:HE1</td>
<td>1.56</td>
<td>1.02</td>
</tr>
<tr>
<td>2:E:4968:PH:CE2</td>
<td>2:E:4978:HI:HE1</td>
<td>1.56</td>
<td>1.02</td>
</tr>
<tr>
<td>2:G:4968:PH:CD2</td>
<td>2:G:4978:HI:ND1</td>
<td>2.30</td>
<td>1.00</td>
</tr>
<tr>
<td>2:I:4968:PH:CD2</td>
<td>2:I:4978:HI:ND1</td>
<td>2.30</td>
<td>1.00</td>
</tr>
<tr>
<td>2:B:4968:PH:CD2</td>
<td>2:B:4978:HI:ND1</td>
<td>2.30</td>
<td>0.99</td>
</tr>
<tr>
<td>2:E:4968:PH:CD2</td>
<td>2:E:4978:HI:ND1</td>
<td>2.30</td>
<td>0.98</td>
</tr>
<tr>
<td>2:I:4968:PH:CE2</td>
<td>2:I:4978:HI:ND1</td>
<td>2.35</td>
<td>0.94</td>
</tr>
<tr>
<td>2:G:4968:PH:CE2</td>
<td>2:G:4978:HI:ND1</td>
<td>2.35</td>
<td>0.94</td>
</tr>
<tr>
<td>2:E:4968:PH:CE2</td>
<td>2:E:4978:HI:ND1</td>
<td>2.35</td>
<td>0.93</td>
</tr>
<tr>
<td>2:B:4968:PH:CE2</td>
<td>2:B:4978:HI:ND1</td>
<td>2.35</td>
<td>0.93</td>
</tr>
<tr>
<td>2:G:4968:PH:CD2</td>
<td>2:G:4978:HI:CE1</td>
<td>2.72</td>
<td>0.77</td>
</tr>
<tr>
<td>2:B:4231:MT:SD</td>
<td>2:B:4960:ILE:HD12</td>
<td>2.32</td>
<td>0.70</td>
</tr>
<tr>
<td>2:G:4231:MT:SD</td>
<td>2:G:4960:ILE:HD12</td>
<td>2.32</td>
<td>0.69</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:I:4231:MET:SD</td>
<td>2:I:4960:ILE:HD12</td>
<td>2.32</td>
<td>0.69</td>
</tr>
<tr>
<td>2:E:4231:MET:SD</td>
<td>2:E:4960:ILE:HD12</td>
<td>2.32</td>
<td>0.69</td>
</tr>
<tr>
<td>2:B:379:HIS:HD2</td>
<td>2:B:382:GLY:H</td>
<td>1.42</td>
<td>0.68</td>
</tr>
<tr>
<td>2:B:2318:TYR:HH</td>
<td>2:B:2414:ASN:N</td>
<td>1.92</td>
<td>0.68</td>
</tr>
<tr>
<td>2:E:2318:TYR:HH</td>
<td>2:E:2414:ASN:N</td>
<td>1.92</td>
<td>0.68</td>
</tr>
<tr>
<td>2:G:2318:TYR:HH</td>
<td>2:G:2414:ASN:N</td>
<td>1.92</td>
<td>0.67</td>
</tr>
<tr>
<td>2:I:4968:PHE:CD2</td>
<td>2:I:4978:HIS:CE1</td>
<td>2.72</td>
<td>0.67</td>
</tr>
<tr>
<td>2:B:626:LEU:HD23</td>
<td>2:B:630:GLU:H</td>
<td>1.60</td>
<td>0.67</td>
</tr>
<tr>
<td>2:I:626:LEU:HD23</td>
<td>2:I:630:GLU:H</td>
<td>1.60</td>
<td>0.66</td>
</tr>
<tr>
<td>2:E:4968:PHE:HD2</td>
<td>2:E:4978:HIS:ND1</td>
<td>1.90</td>
<td>0.66</td>
</tr>
<tr>
<td>2:G:626:LEU:HD23</td>
<td>2:G:630:GLU:H</td>
<td>1.60</td>
<td>0.66</td>
</tr>
<tr>
<td>2:E:626:LEU:HD23</td>
<td>2:E:630:GLU:H</td>
<td>1.60</td>
<td>0.66</td>
</tr>
<tr>
<td>2:E:111:HIS:HD2</td>
<td>2:E:114:SER:H</td>
<td>1.42</td>
<td>0.66</td>
</tr>
<tr>
<td>2:B:111:HIS:HD2</td>
<td>2:B:114:SER:H</td>
<td>1.42</td>
<td>0.66</td>
</tr>
<tr>
<td>2:G:4968:PHE:HD2</td>
<td>2:G:4978:HIS:ND1</td>
<td>1.90</td>
<td>0.65</td>
</tr>
<tr>
<td>2:E:3762:ARG:O</td>
<td>2:E:3766:GLN:NE2</td>
<td>2.30</td>
<td>0.65</td>
</tr>
<tr>
<td>2:E:4968:PHE:CD2</td>
<td>2:E:4978:HIS:ND1</td>
<td>1.90</td>
<td>0.65</td>
</tr>
<tr>
<td>2:E:4968:PHE:HD2</td>
<td>2:E:4978:HIS:CE1</td>
<td>2.72</td>
<td>0.64</td>
</tr>
<tr>
<td>2:E:111:HIS:HD2</td>
<td>2:E:114:SER:H</td>
<td>1.42</td>
<td>0.64</td>
</tr>
<tr>
<td>2:G:3762:ARG:O</td>
<td>2:G:3766:GLN:NE2</td>
<td>2.30</td>
<td>0.64</td>
</tr>
<tr>
<td>2:E:1079:HIS:ND1</td>
<td>2:E:1107:PRO:O</td>
<td>2.34</td>
<td>0.61</td>
</tr>
<tr>
<td>2:G:1079:LYS:NZ</td>
<td>2:G:1107:PRO:O</td>
<td>2.34</td>
<td>0.61</td>
</tr>
<tr>
<td>2:E:1079:LYS:NZ</td>
<td>2:E:1107:PRO:O</td>
<td>2.34</td>
<td>0.61</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:G:652:ARG:HD2</td>
<td>2:G:750:LEU:HB3</td>
<td>1.83</td>
<td>0.61</td>
</tr>
<tr>
<td>2:B:3937:Tyr:O</td>
<td>2:B:4002:LYS:NZ</td>
<td>2.34</td>
<td>0.61</td>
</tr>
<tr>
<td>2:E:1764:GLY:HA3</td>
<td>2:E:1859:VAL:HG11</td>
<td>1.83</td>
<td>0.61</td>
</tr>
<tr>
<td>2:B:1079:LYS:NZ</td>
<td>2:B:1107:PRO:O</td>
<td>2.34</td>
<td>0.61</td>
</tr>
<tr>
<td>2:G:4182:GLU:OE2</td>
<td>2:G:4983:HIS:CE1</td>
<td>2.54</td>
<td>0.61</td>
</tr>
<tr>
<td>2:B:4182:GLU:OE2</td>
<td>2:B:4983:HIS:CE1</td>
<td>2.54</td>
<td>0.60</td>
</tr>
<tr>
<td>2:B:652:ARG:HD2</td>
<td>2:B:750:LEU:HB3</td>
<td>1.83</td>
<td>0.60</td>
</tr>
<tr>
<td>2:G:1764:GLY:HA3</td>
<td>2:G:1859:VAL:HG11</td>
<td>1.83</td>
<td>0.60</td>
</tr>
<tr>
<td>2:I:1079:LYS:NZ</td>
<td>2:I:1107:PRO:O</td>
<td>2.34</td>
<td>0.60</td>
</tr>
<tr>
<td>2:I:952:LYS:HB3</td>
<td>2:I:968:ALA:HB1</td>
<td>1.84</td>
<td>0.60</td>
</tr>
<tr>
<td>2:E:4982:GLU:HG3</td>
<td>2:E:5027:CYs:SG</td>
<td>2.42</td>
<td>0.60</td>
</tr>
<tr>
<td>2:G:3937:Tyr:O</td>
<td>2:G:4002:LYS:NZ</td>
<td>2.34</td>
<td>0.60</td>
</tr>
<tr>
<td>2:E:4182:GLU:OE2</td>
<td>2:E:4983:HIS:CE1</td>
<td>2.54</td>
<td>0.60</td>
</tr>
<tr>
<td>2:1:3937:Tyr:O</td>
<td>2:1:4002:LYS:NZ</td>
<td>2.34</td>
<td>0.60</td>
</tr>
<tr>
<td>2:I:652:ARG:HD2</td>
<td>2:I:750:LEU:HB3</td>
<td>1.83</td>
<td>0.60</td>
</tr>
<tr>
<td>2:E:3937:Tyr:O</td>
<td>2:E:4002:LYS:NZ</td>
<td>2.34</td>
<td>0.60</td>
</tr>
<tr>
<td>2:G:952:LYS:HB3</td>
<td>2:G:968:ALA:HB1</td>
<td>1.84</td>
<td>0.60</td>
</tr>
<tr>
<td>2:B:952:LYS:HB3</td>
<td>2:B:968:ALA:HB1</td>
<td>1.84</td>
<td>0.60</td>
</tr>
<tr>
<td>2:G:4982:GLU:HG3</td>
<td>2:G:5027:CYs:SG</td>
<td>2.42</td>
<td>0.60</td>
</tr>
<tr>
<td>2:I:4182:GLU:OE2</td>
<td>2:I:4983:HIS:CE1</td>
<td>2.54</td>
<td>0.60</td>
</tr>
<tr>
<td>2:B:4968:Phe:HE2</td>
<td>2:B:4978:HIS:HE1</td>
<td>0.67</td>
<td>0.59</td>
</tr>
<tr>
<td>2:B:4982:GLU:HG3</td>
<td>2:B:5027:CYs:SG</td>
<td>2.42</td>
<td>0.59</td>
</tr>
<tr>
<td>2:E:4121:GLU:OE2</td>
<td>2:E:4983:HIS:CE1</td>
<td>2.54</td>
<td>0.59</td>
</tr>
<tr>
<td>2:G:1721:GLU:OE2</td>
<td>2:G:1725:ARG:NH2</td>
<td>2.35</td>
<td>0.59</td>
</tr>
<tr>
<td>2:B:1764:GLY:HA3</td>
<td>2:B:1859:VAL:HG11</td>
<td>1.83</td>
<td>0.59</td>
</tr>
<tr>
<td>2:G:1519:UNK:HA</td>
<td>2:G:1526:UNK:HA</td>
<td>1.85</td>
<td>0.59</td>
</tr>
<tr>
<td>2:I:1519:UNK:HA</td>
<td>2:I:1526:UNK:HA</td>
<td>1.85</td>
<td>0.59</td>
</tr>
<tr>
<td>2:I:1764:GLY:HA3</td>
<td>2:I:1859:VAL:HG11</td>
<td>1.83</td>
<td>0.59</td>
</tr>
<tr>
<td>2:I:4982:GLU:HG3</td>
<td>2:I:5027:CYs:SG</td>
<td>2.42</td>
<td>0.59</td>
</tr>
<tr>
<td>1:F:34:LYS:HD3</td>
<td>2:E:629:ARG:HD2</td>
<td>1.85</td>
<td>0.58</td>
</tr>
<tr>
<td>2:E:1519:UNK:HA</td>
<td>2:E:1526:UNK:HA</td>
<td>1.85</td>
<td>0.58</td>
</tr>
<tr>
<td>2:I:1721:GLU:OE2</td>
<td>2:I:1725:ARG:NH2</td>
<td>2.35</td>
<td>0.58</td>
</tr>
<tr>
<td>2:E:952:LYS:HB3</td>
<td>2:E:968:ALA:HB1</td>
<td>1.84</td>
<td>0.58</td>
</tr>
<tr>
<td>2:B:4968:Phe:HE2</td>
<td>2:B:4978:HIS:HE1</td>
<td>0.67</td>
<td>0.58</td>
</tr>
<tr>
<td>2:G:1164:LEU:HB3</td>
<td>2:G:1169:LEU:HD2</td>
<td>1.86</td>
<td>0.58</td>
</tr>
<tr>
<td>2:I:989:ALA:O</td>
<td>2:I:1035:ASN:ND2</td>
<td>2.36</td>
<td>0.58</td>
</tr>
<tr>
<td>2:I:4968:Phe:HE2</td>
<td>2:I:4978:HIS:HE1</td>
<td>0.67</td>
<td>0.58</td>
</tr>
<tr>
<td>2:E:1685:LEU:HA</td>
<td>2:E:1688:HIS:HD2</td>
<td>1.69</td>
<td>0.58</td>
</tr>
<tr>
<td>2:G:1685:LEU:HA</td>
<td>2:G:1688:HIS:HD2</td>
<td>1.69</td>
<td>0.58</td>
</tr>
<tr>
<td>2:I:4983:HIS:CD2</td>
<td>2:I:4983:HIS:CD2</td>
<td>2.21</td>
<td>0.58</td>
</tr>
<tr>
<td>2:B:1519:UNK:HA</td>
<td>2:B:1526:UNK:HA</td>
<td>1.85</td>
<td>0.58</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:I:1164:LEU:HB3</td>
<td>2:I:1169:LEU:HD21</td>
<td>1.86</td>
<td>0.58</td>
</tr>
<tr>
<td>2:B:1164:LEU:HB3</td>
<td>2:B:1169:LEU:HD21</td>
<td>1.86</td>
<td>0.58</td>
</tr>
<tr>
<td>2:B:4983:HIS:H</td>
<td>2:B:4983:HIS:CD2</td>
<td>2.21</td>
<td>0.58</td>
</tr>
<tr>
<td>2:G:989:ALA:O</td>
<td>2:G:1035:ASN:ND2</td>
<td>2.36</td>
<td>0.58</td>
</tr>
<tr>
<td>2:B:2359:ARG:NH1</td>
<td>2:I:179:TYR:OH</td>
<td>2.36</td>
<td>0.58</td>
</tr>
<tr>
<td>2:I:1685:LEU:HA</td>
<td>2:I:1688:HIS:HD2</td>
<td>1.69</td>
<td>0.58</td>
</tr>
<tr>
<td>2:E:989:ALA:O</td>
<td>2:E:1035:ASN:ND2</td>
<td>2.36</td>
<td>0.57</td>
</tr>
<tr>
<td>2:E:2770:LYS:HB3</td>
<td>2:E:2775:TRP:HB2</td>
<td>1.86</td>
<td>0.57</td>
</tr>
<tr>
<td>2:I:3910:THR:HG23</td>
<td>2:I:3911:THR:HG23</td>
<td>1.86</td>
<td>0.57</td>
</tr>
<tr>
<td>2:B:989:ALA:O</td>
<td>2:B:1035:ASN:ND2</td>
<td>2.36</td>
<td>0.57</td>
</tr>
<tr>
<td>2:B:4056:GLU:HG3</td>
<td>2:B:4166:LEU:HD21</td>
<td>1.87</td>
<td>0.57</td>
</tr>
<tr>
<td>2:G:4056:GLU:HG3</td>
<td>2:G:4166:LEU:HD21</td>
<td>1.87</td>
<td>0.57</td>
</tr>
<tr>
<td>2:B:3910:THR:HG23</td>
<td>2:B:3911:THR:HG23</td>
<td>1.86</td>
<td>0.57</td>
</tr>
<tr>
<td>2:B:972:LEU:O</td>
<td>2:B:1044:ARG:NH2</td>
<td>2.38</td>
<td>0.57</td>
</tr>
<tr>
<td>2:G:4983:HIS:H</td>
<td>2:G:4983:HIS:CD2</td>
<td>2.21</td>
<td>0.57</td>
</tr>
<tr>
<td>2:I:2770:LYS:HB3</td>
<td>2:I:2775:TRP:HB2</td>
<td>1.86</td>
<td>0.57</td>
</tr>
<tr>
<td>2:B:1685:LEU:HA</td>
<td>2:B:1688:HIS:HD2</td>
<td>1.69</td>
<td>0.57</td>
</tr>
<tr>
<td>2:E:4674:GLU:HG3</td>
<td>2:E:4714:ASN:HB3</td>
<td>1.87</td>
<td>0.57</td>
</tr>
<tr>
<td>2:B:110:ARG:HH21</td>
<td>2:B:115:ARG:HB3</td>
<td>1.69</td>
<td>0.57</td>
</tr>
<tr>
<td>2:B:1721:GLU:OE2</td>
<td>2:B:1725:ARG:NH2</td>
<td>2.35</td>
<td>0.57</td>
</tr>
<tr>
<td>2:G:2770:LYS:HB3</td>
<td>2:G:2775:TRP:HB2</td>
<td>1.86</td>
<td>0.57</td>
</tr>
<tr>
<td>2:I:4056:GLU:HG3</td>
<td>2:I:4166:LEU:HD21</td>
<td>1.87</td>
<td>0.57</td>
</tr>
<tr>
<td>2:B:646:PRO:HD2</td>
<td>2:B:779:PRO:HB2</td>
<td>1.87</td>
<td>0.57</td>
</tr>
<tr>
<td>2:E:1164:LEU:HB3</td>
<td>2:E:1169:LEU:HD21</td>
<td>1.86</td>
<td>0.57</td>
</tr>
<tr>
<td>2:E:646:PRO:HD2</td>
<td>2:E:779:PRO:HB2</td>
<td>1.87</td>
<td>0.57</td>
</tr>
<tr>
<td>2:G:2107:GLN:HG3</td>
<td>2:G:3681:GLY:HA2</td>
<td>1.87</td>
<td>0.57</td>
</tr>
<tr>
<td>2:G:4968:PHE:HE2</td>
<td>2:G:4978:HIS:HE1</td>
<td>0.67</td>
<td>0.57</td>
</tr>
<tr>
<td>2:E:2739:PRO:HB3</td>
<td>2:E:2884:ASN:HB3</td>
<td>1.88</td>
<td>0.56</td>
</tr>
<tr>
<td>2:E:4056:GLU:HG3</td>
<td>2:E:4166:LEU:HD21</td>
<td>1.87</td>
<td>0.56</td>
</tr>
<tr>
<td>2:I:4180:ARG:HH22</td>
<td>2:I:4981:GLU:HA</td>
<td>1.70</td>
<td>0.56</td>
</tr>
<tr>
<td>2:E:4176:PRO:O</td>
<td>2:E:4202:ARG:NH1</td>
<td>2.38</td>
<td>0.56</td>
</tr>
<tr>
<td>2:I:972:LEU:O</td>
<td>2:I:1044:ARG:NH2</td>
<td>2.38</td>
<td>0.56</td>
</tr>
<tr>
<td>2:B:4674:GLU:HG3</td>
<td>2:B:4714:ASN:HB3</td>
<td>1.87</td>
<td>0.56</td>
</tr>
<tr>
<td>2:I:110:ARG:HH21</td>
<td>2:I:115:ARG:HB3</td>
<td>1.69</td>
<td>0.56</td>
</tr>
<tr>
<td>2:I:2107:GLN:HG3</td>
<td>2:I:3681:GLY:HA2</td>
<td>1.87</td>
<td>0.56</td>
</tr>
<tr>
<td>2:I:4176:PRO:O</td>
<td>2:I:4202:ARG:NH1</td>
<td>2.38</td>
<td>0.56</td>
</tr>
<tr>
<td>2:B:2739:PRO:HB3</td>
<td>2:B:2884:ASN:HB3</td>
<td>1.87</td>
<td>0.56</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:E:3734:HIS:O</td>
<td>2:E:3738:GLY:N</td>
<td>2.39</td>
<td>0.56</td>
</tr>
<tr>
<td>2:E:2107:LYN:HG23</td>
<td>2:E:2109:LYS:HG23</td>
<td>1.86</td>
<td>0.56</td>
</tr>
<tr>
<td>2:B:2770:LYS:HG23</td>
<td>2:B:2775:TRP:HG23</td>
<td>1.86</td>
<td>0.56</td>
</tr>
<tr>
<td>2:B:4180:ARG:HH22</td>
<td>2:B:4981:GLU:HA</td>
<td>1.70</td>
<td>0.56</td>
</tr>
<tr>
<td>2:G:972:LEU:O</td>
<td>2:G:1044:ARG:NH2</td>
<td>2.38</td>
<td>0.56</td>
</tr>
<tr>
<td>2:G:744:VAL:HG22</td>
<td>2:G:759:ILE:HG12</td>
<td>1.88</td>
<td>0.56</td>
</tr>
<tr>
<td>2:B:788:LYS:HG2</td>
<td>2:B:1630:CYS:H</td>
<td>1.71</td>
<td>0.56</td>
</tr>
<tr>
<td>2:G:2739:PRO:HB3</td>
<td>2:G:2884:ASN:HB3</td>
<td>1.87</td>
<td>0.56</td>
</tr>
<tr>
<td>2:G:3734:His:O</td>
<td>2:G:3738:GLY:N</td>
<td>2.39</td>
<td>0.56</td>
</tr>
<tr>
<td>2:G:474:GLU:HG3</td>
<td>2:G:4714:ASN:HB3</td>
<td>1.87</td>
<td>0.56</td>
</tr>
<tr>
<td>2:B:4176:PRO:O</td>
<td>2:B:4202:ARG:NH1</td>
<td>2.38</td>
<td>0.56</td>
</tr>
<tr>
<td>2:E:359:TYR:HA</td>
<td>2:E:376:ALA:HA</td>
<td>1.88</td>
<td>0.56</td>
</tr>
<tr>
<td>2:E:2107:GLN:HG3</td>
<td>2:E:3681:GLY:HA2</td>
<td>1.87</td>
<td>0.56</td>
</tr>
<tr>
<td>2:G:4180:ARG:HH22</td>
<td>2:G:4981:GLU:HA</td>
<td>1.70</td>
<td>0.56</td>
</tr>
<tr>
<td>2:G:3734:His:O</td>
<td>2:G:3738:GLY:N</td>
<td>2.39</td>
<td>0.56</td>
</tr>
<tr>
<td>2:E:3910:THR:HG23</td>
<td>2:E:3911:THR:HG23</td>
<td>1.87</td>
<td>0.56</td>
</tr>
<tr>
<td>2:E:359:TYR:HA</td>
<td>2:E:376:ALA:HA</td>
<td>1.88</td>
<td>0.56</td>
</tr>
<tr>
<td>2:E:2107:GLN:HG3</td>
<td>2:E:3681:GLY:HA2</td>
<td>1.87</td>
<td>0.56</td>
</tr>
<tr>
<td>2:G:4180:ARG:HH22</td>
<td>2:G:4981:GLU:HA</td>
<td>1.70</td>
<td>0.56</td>
</tr>
<tr>
<td>2:G:3734:His:O</td>
<td>2:G:3738:GLY:N</td>
<td>2.39</td>
<td>0.56</td>
</tr>
<tr>
<td>2:E:3910:THR:HG23</td>
<td>2:E:3911:THR:HG23</td>
<td>1.87</td>
<td>0.56</td>
</tr>
<tr>
<td>2:E:359:TYR:HA</td>
<td>2:E:376:ALA:HA</td>
<td>1.88</td>
<td>0.56</td>
</tr>
<tr>
<td>2:E:2107:GLN:HG3</td>
<td>2:E:3681:GLY:HA2</td>
<td>1.87</td>
<td>0.56</td>
</tr>
<tr>
<td>2:G:4180:ARG:HH22</td>
<td>2:G:4981:GLU:HA</td>
<td>1.70</td>
<td>0.56</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:I:646:PRO:HD2</td>
<td>2:I:779:PRO:HB2</td>
<td>1.87</td>
<td>0.55</td>
</tr>
<tr>
<td>2:B:2107:GLN:HG3</td>
<td>2:B:3681:GLY:HA2</td>
<td>1.87</td>
<td>0.55</td>
</tr>
<tr>
<td>2:G:4161:ARG:HD3</td>
<td>2:G:4164:LEU:HD12</td>
<td>1.89</td>
<td>0.55</td>
</tr>
<tr>
<td>2:B:4982:GLU:OE1</td>
<td>2:B:4982:GLU:HA</td>
<td>2.07</td>
<td>0.55</td>
</tr>
<tr>
<td>2:E:4180:ARG:HH22</td>
<td>2:E:4981:GLU:HA</td>
<td>1.70</td>
<td>0.55</td>
</tr>
<tr>
<td>2:G:646:PRO:HD2</td>
<td>2:G:779:PRO:HB2</td>
<td>1.87</td>
<td>0.55</td>
</tr>
<tr>
<td>2:I:609:CYS:SG</td>
<td>2:I:610:ASN:N</td>
<td>2.80</td>
<td>0.55</td>
</tr>
<tr>
<td>2:B:359:TYR:HA</td>
<td>2:B:376:ALA:HA</td>
<td>1.88</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:683:ARG:NH1</td>
<td>2:B:707:VAL:O</td>
<td>2.39</td>
<td>0.54</td>
</tr>
<tr>
<td>2:E:1009:ALA:O</td>
<td>2:E:1020:ARG:N</td>
<td>2.40</td>
<td>0.54</td>
</tr>
<tr>
<td>2:E:229:GLU:HA</td>
<td>2:E:249:GLY:HA2</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>2:I:730:VAL:O</td>
<td>2:I:735:GLN:NE2</td>
<td>2.40</td>
<td>0.54</td>
</tr>
<tr>
<td>2:E:3804:ILE:O</td>
<td>2:E:3809:ASN:ND2</td>
<td>2.40</td>
<td>0.54</td>
</tr>
<tr>
<td>2:I:470:SER:O</td>
<td>2:I:474:ARG:NE</td>
<td>2.39</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:3804:ILE:O</td>
<td>2:B:3809:ASN:ND2</td>
<td>2.40</td>
<td>0.54</td>
</tr>
<tr>
<td>2:G:1109:LEU:HA</td>
<td>2:G:1120:LEU:HD21</td>
<td>1.89</td>
<td>0.54</td>
</tr>
<tr>
<td>2:G:683:ARG:NH1</td>
<td>2:G:707:VAL:O</td>
<td>2.39</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:1109:LEU:HA</td>
<td>2:B:1120:LEU:HD21</td>
<td>1.89</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:315:CYS:SG</td>
<td>2:B:316:PHE:N</td>
<td>2.81</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:671:VAL:HG22</td>
<td>2:B:740:PRO:HG3</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>2:G:609:CYS:SG</td>
<td>2:G:610:ASN:N</td>
<td>2.80</td>
<td>0.54</td>
</tr>
<tr>
<td>2:I:4161:ARG:HD3</td>
<td>2:I:4164:LEU:HD12</td>
<td>1.89</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:229:GLU:HA</td>
<td>2:B:249:GLY:HA2</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:609:CYS:SG</td>
<td>2:B:610:ASN:N</td>
<td>2.80</td>
<td>0.54</td>
</tr>
<tr>
<td>2:E:1731:LEU:HA</td>
<td>2:E:1772:ARG:HH12</td>
<td>1.71</td>
<td>0.54</td>
</tr>
<tr>
<td>2:E:730:VAL:O</td>
<td>2:E:735:GLN:NE2</td>
<td>2.40</td>
<td>0.54</td>
</tr>
<tr>
<td>2:G:730:VAL:O</td>
<td>2:G:735:GLN:NE2</td>
<td>2.40</td>
<td>0.54</td>
</tr>
<tr>
<td>2:I:717:ASP:OD1</td>
<td>2:I:720:HIS:ND1</td>
<td>2.41</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:497:TYR:HB3</td>
<td>2:B:500:ALA:HB2</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:717:ASP:OD1</td>
<td>2:B:720:HIS:ND1</td>
<td>2.41</td>
<td>0.54</td>
</tr>
<tr>
<td>2:E:3946:GLN:OE1</td>
<td>2:E:3950:ASN:ND2</td>
<td>2.41</td>
<td>0.54</td>
</tr>
<tr>
<td>2:G:315:CYS:SG</td>
<td>2:G:316:PHE:N</td>
<td>2.81</td>
<td>0.54</td>
</tr>
<tr>
<td>2:G:3946:GLN:OE1</td>
<td>2:G:3950:ASN:ND2</td>
<td>2.41</td>
<td>0.54</td>
</tr>
<tr>
<td>2:I:229:GLU:HA</td>
<td>2:I:249:GLY:HA2</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>2:E:4982:GLU:HA</td>
<td>2:E:4982:GLU:OE1</td>
<td>2.07</td>
<td>0.54</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:E:886:ARG:HB3</td>
<td>2:E:891:TRP:HB2</td>
<td>1.89</td>
<td>0.54</td>
</tr>
<tr>
<td>2:I:171:VAL:HG22</td>
<td>2:I:740:PRO:HG3</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:19:GLU:HB2</td>
<td>2:B:206:CYS:HB3</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:4161:ARG:HD3</td>
<td>2:B:4164:LEU:HD12</td>
<td>1.89</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:470:SER:O</td>
<td>2:B:474:ARG:NE</td>
<td>2.39</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:730:VAL:O</td>
<td>2:B:735:GLN:NE2</td>
<td>2.40</td>
<td>0.54</td>
</tr>
<tr>
<td>2:E:2196:ASN:OD1</td>
<td>2:E:2199:ARG:NH1</td>
<td>2.37</td>
<td>0.54</td>
</tr>
<tr>
<td>2:E:395:GLN:HG3</td>
<td>2:E:397:GLU:H</td>
<td>1.71</td>
<td>0.54</td>
</tr>
<tr>
<td>2:I:315:CYS:SG</td>
<td>2:I:316:PHE:N</td>
<td>2.81</td>
<td>0.54</td>
</tr>
<tr>
<td>2:I:497:TYR:HB3</td>
<td>2:I:500:ALA:HB2</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:614:VAL:HG22</td>
<td>2:B:616:SER:HB</td>
<td>1.73</td>
<td>0.54</td>
</tr>
<tr>
<td>2:E:853:PRO:HB3</td>
<td>2:E:1024:TYR:H</td>
<td>1.72</td>
<td>0.54</td>
</tr>
<tr>
<td>2:E:315:CYS:SG</td>
<td>2:E:316:PHE:N</td>
<td>2.81</td>
<td>0.54</td>
</tr>
<tr>
<td>2:G:1009:ALA:O</td>
<td>2:G:1020:ARG:N</td>
<td>2.40</td>
<td>0.54</td>
</tr>
<tr>
<td>2:G:788:LYS:HG2</td>
<td>2:G:1630:CYS:H</td>
<td>1.71</td>
<td>0.54</td>
</tr>
<tr>
<td>2:G:4982:GLU:HA</td>
<td>2:G:4982:GLU:OE1</td>
<td>2.07</td>
<td>0.54</td>
</tr>
<tr>
<td>2:I:3946:GLN:OE1</td>
<td>2:I:3950:ASN:ND2</td>
<td>2.41</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:853:PRO:HB3</td>
<td>2:B:1024:TYR:H</td>
<td>1.72</td>
<td>0.54</td>
</tr>
<tr>
<td>2:E:2479:LEU:O</td>
<td>2:E:2487:UNK:N</td>
<td>2.41</td>
<td>0.54</td>
</tr>
<tr>
<td>2:G:229:GLU:HA</td>
<td>2:G:249:GLY:HA2</td>
<td>1.90</td>
<td>0.54</td>
</tr>
<tr>
<td>2:G:853:PRO:HB3</td>
<td>2:G:1024:TYR:H</td>
<td>1.72</td>
<td>0.54</td>
</tr>
<tr>
<td>2:I:886:ARG:HB3</td>
<td>2:I:891:TRP:HB2</td>
<td>1.89</td>
<td>0.54</td>
</tr>
<tr>
<td>2:B:3946:GLN:OE1</td>
<td>2:B:3950:ASN:ND2</td>
<td>2.41</td>
<td>0.53</td>
</tr>
<tr>
<td>2:E:4031:LEU:HB3</td>
<td>2:E:4034:ASN:HB2</td>
<td>1.90</td>
<td>0.53</td>
</tr>
<tr>
<td>2:G:2196:ASN:OD1</td>
<td>2:G:2199:ARG:NH1</td>
<td>2.37</td>
<td>0.53</td>
</tr>
<tr>
<td>2:G:497:TYR:HB3</td>
<td>2:G:500:ALA:HB2</td>
<td>1.90</td>
<td>0.53</td>
</tr>
<tr>
<td>2:I:2479:LEU:O</td>
<td>2:I:2487:UNK:N</td>
<td>2.41</td>
<td>0.53</td>
</tr>
<tr>
<td>2:E:1667:LEU:HD23</td>
<td>2:E:1671:ARG:HH12</td>
<td>1.73</td>
<td>0.53</td>
</tr>
<tr>
<td>2:E:2042:CYS:SG</td>
<td>2:E:2043:GLY:N</td>
<td>2.81</td>
<td>0.53</td>
</tr>
<tr>
<td>2:I:19:GLU:HB2</td>
<td>2:I:206:CYS:HB3</td>
<td>1.90</td>
<td>0.53</td>
</tr>
<tr>
<td>2:E:614:VAL:HG22</td>
<td>2:E:616:SER:HB</td>
<td>1.73</td>
<td>0.53</td>
</tr>
<tr>
<td>2:E:671:VAL:HG22</td>
<td>2:E:740:PRO:HG3</td>
<td>1.90</td>
<td>0.53</td>
</tr>
<tr>
<td>2:G:19:GLU:HB2</td>
<td>2:G:206:CYS:HB3</td>
<td>1.90</td>
<td>0.53</td>
</tr>
<tr>
<td>2:G:3804:ILE:O</td>
<td>2:G:3809:ASN:ND2</td>
<td>2.40</td>
<td>0.53</td>
</tr>
<tr>
<td>2:G:886:ARG:HB3</td>
<td>2:G:891:TRP:HB2</td>
<td>1.89</td>
<td>0.53</td>
</tr>
<tr>
<td>2:I:3804:ILE:O</td>
<td>2:I:3809:ASN:ND2</td>
<td>2.40</td>
<td>0.53</td>
</tr>
<tr>
<td>2:B:886:ARG:HB3</td>
<td>2:B:891:TRP:HB2</td>
<td>1.89</td>
<td>0.53</td>
</tr>
<tr>
<td>2:E:19:GLU:HB2</td>
<td>2:E:206:CYS:HB3</td>
<td>1.90</td>
<td>0.53</td>
</tr>
<tr>
<td>2:E:4161:ARG:HD3</td>
<td>2:E:4164:LEU:HD12</td>
<td>1.89</td>
<td>0.53</td>
</tr>
<tr>
<td>2:E:497:TYR:HB3</td>
<td>2:E:500:ALA:HB2</td>
<td>1.90</td>
<td>0.53</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:E:2347:GLU:O</td>
<td>2:E:2351:ASN:N</td>
<td>2.41</td>
<td>0.53</td>
</tr>
<tr>
<td>2:G:4031:LEU:HB3</td>
<td>2:G:4034:ASN:HB2</td>
<td>1.90</td>
<td>0.53</td>
</tr>
<tr>
<td>2:I:4031:LEU:HB3</td>
<td>2:I:4034:ASN:HB2</td>
<td>1.90</td>
<td>0.53</td>
</tr>
<tr>
<td>2:B:4031:LEU:HB3</td>
<td>2:B:4034:ASN:HB2</td>
<td>1.90</td>
<td>0.53</td>
</tr>
<tr>
<td>2:E:717:ASP:OD1</td>
<td>2:E:720:HIS:ND1</td>
<td>2.41</td>
<td>0.53</td>
</tr>
<tr>
<td>2:G:717:ASP:OD1</td>
<td>2:G:720:HIS:ND1</td>
<td>2.41</td>
<td>0.53</td>
</tr>
<tr>
<td>2:B:1111:PRO:HD3</td>
<td>2:B:1605:TRP:HE1</td>
<td>1.74</td>
<td>0.53</td>
</tr>
<tr>
<td>2:B:1691:GLN:HE22</td>
<td>2:B:1802:ILE:HG12</td>
<td>1.74</td>
<td>0.53</td>
</tr>
<tr>
<td>2:B:2479:LEU:O</td>
<td>2:B:2487:UNK:N</td>
<td>2.41</td>
<td>0.53</td>
</tr>
<tr>
<td>2:I:3733:CYS:HA</td>
<td>2:I:3766:GLN:HG2</td>
<td>1.91</td>
<td>0.53</td>
</tr>
<tr>
<td>2:G:2042:CYS:SG</td>
<td>2:G:2043:GLY:N</td>
<td>2.81</td>
<td>0.53</td>
</tr>
<tr>
<td>2:I:853:PRO:HB3</td>
<td>2:I:1024:TYR:H</td>
<td>1.72</td>
<td>0.53</td>
</tr>
<tr>
<td>2:I:1667:LEU:HD23</td>
<td>2:I:1671:ARG:HH12</td>
<td>1.73</td>
<td>0.53</td>
</tr>
<tr>
<td>2:G:1691:GLN:HE22</td>
<td>2:G:1802:ILE:HG12</td>
<td>1.74</td>
<td>0.53</td>
</tr>
<tr>
<td>2:G:671:VAL:HG22</td>
<td>2:G:740:PRO:HG3</td>
<td>1.90</td>
<td>0.53</td>
</tr>
<tr>
<td>2:B:1667:LEU:HD23</td>
<td>2:B:1671:ARG:HH12</td>
<td>1.73</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:3734:HIS:O</td>
<td>2:B:3738:GLY:N</td>
<td>2.39</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:4924:VAL:HA</td>
<td>2:B:4928:LEU:HB2</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>2:E:1109:LEU:HA</td>
<td>2:E:1120:LEU:HD21</td>
<td>1.89</td>
<td>0.52</td>
</tr>
<tr>
<td>2:E:463:GLU:OE2</td>
<td>2:E:467:LYS:NZ</td>
<td>2.42</td>
<td>0.52</td>
</tr>
<tr>
<td>2:E:4924:VAL:HA</td>
<td>2:E:4928:LEU:HB2</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>2:I:614:VAL:HG22</td>
<td>2:I:616:SER:H</td>
<td>1.73</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:637:LEU:HD23</td>
<td>2:B:1637:MET:HB3</td>
<td>1.92</td>
<td>0.52</td>
</tr>
<tr>
<td>2:E:1516:UNK:N</td>
<td>2:E:1529:UNK:O</td>
<td>2.43</td>
<td>0.52</td>
</tr>
<tr>
<td>2:G:1111:PRO:HD3</td>
<td>2:G:1605:TRP:HE1</td>
<td>1.74</td>
<td>0.52</td>
</tr>
<tr>
<td>1:J:42:ARG:HG2</td>
<td>2:G:1691:GLN:HG2</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>2:I:2196:ASN:OD1</td>
<td>2:I:2199:ARG:NH1</td>
<td>2.37</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:3733:CYS:HA</td>
<td>2:B:3766:GLN:HG2</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:3923:LEU:HD13</td>
<td>2:B:3961:VAL:HG11</td>
<td>1.92</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:463:GLU:OE2</td>
<td>2:B:467:LYS:NZ</td>
<td>2.42</td>
<td>0.52</td>
</tr>
<tr>
<td>2:E:3923:LEU:HD13</td>
<td>2:E:3961:VAL:HG11</td>
<td>1.92</td>
<td>0.52</td>
</tr>
<tr>
<td>2:G:1516:UNK:N</td>
<td>2:G:1529:UNK:O</td>
<td>2.42</td>
<td>0.52</td>
</tr>
<tr>
<td>2:I:1516:UNK:N</td>
<td>2:I:1529:UNK:O</td>
<td>2.42</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:1516:UNK:N</td>
<td>2:B:1529:UNK:O</td>
<td>2.42</td>
<td>0.52</td>
</tr>
<tr>
<td>2:E:2755:ILE:HD13</td>
<td>2:E:2810:LYS:HG2</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>2:G:1667:LEU:HD23</td>
<td>2:G:1671:ARG:HH12</td>
<td>1.73</td>
<td>0.52</td>
</tr>
<tr>
<td>2:G:3923:LEU:HD13</td>
<td>2:G:3961:VAL:HG11</td>
<td>1.92</td>
<td>0.52</td>
</tr>
<tr>
<td>2:G:637:LEU:HD23</td>
<td>2:G:1637:MET:HB3</td>
<td>1.92</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:2755:ILE:HD13</td>
<td>2:B:2810:LYS:HG2</td>
<td>1.91</td>
<td>0.52</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:E:3733:CYS:HA</td>
<td>2:E:3766:GLN:HG2</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>2:E:637:LEU:HD23</td>
<td>2:E:1637:MET:HB3</td>
<td>1.92</td>
<td>0.52</td>
</tr>
<tr>
<td>2:G:1649:ASP:HB3</td>
<td>2:G:1652:GLU:HG2</td>
<td>1.92</td>
<td>0.52</td>
</tr>
<tr>
<td>2:G:2479:LEU:O</td>
<td>2:G:2487:UNK:N</td>
<td>2.41</td>
<td>0.52</td>
</tr>
<tr>
<td>2:G:2755:ILE:HD13</td>
<td>2:G:2810:LYS:HG2</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>2:E:3805:LEU:HA</td>
<td>2:E:3809:ASN:HD22</td>
<td>1.75</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:4860:ARG:HD2</td>
<td>2:E:4582:VAL:HG11</td>
<td>1.92</td>
<td>0.52</td>
</tr>
<tr>
<td>2:I:1649:ASP:HB3</td>
<td>2:I:1652:GLU:HG2</td>
<td>1.92</td>
<td>0.52</td>
</tr>
<tr>
<td>2:I:2755:ILE:HD13</td>
<td>2:I:2810:LYS:HG2</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:4924:VAL:HA</td>
<td>2:G:4928:LEU:HB2</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>2:I:1691:GLN:HE22</td>
<td>2:I:1802:ILE:HG12</td>
<td>1.74</td>
<td>0.52</td>
</tr>
<tr>
<td>2:I:4924:VAL:HA</td>
<td>2:G:4928:LEU:HB2</td>
<td>1.91</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:3968:TYR:O</td>
<td>2:B:3976:ASN:ND2</td>
<td>2.43</td>
<td>0.52</td>
</tr>
<tr>
<td>2:E:1111:PRO:HD3</td>
<td>2:E:1605:TRP:HE1</td>
<td>1.74</td>
<td>0.52</td>
</tr>
<tr>
<td>2:I:3734:HIS:O</td>
<td>2:I:3738:GLY:N</td>
<td>2.39</td>
<td>0.52</td>
</tr>
<tr>
<td>2:I:637:LEU:HD23</td>
<td>2:I:1637:MET:HB3</td>
<td>1.92</td>
<td>0.52</td>
</tr>
<tr>
<td>2:B:3805:LEU:HA</td>
<td>2:B:3809:ASN:HD22</td>
<td>1.75</td>
<td>0.51</td>
</tr>
<tr>
<td>2:E:1649:ASP:HB3</td>
<td>2:E:1652:GLU:HG2</td>
<td>1.92</td>
<td>0.51</td>
</tr>
<tr>
<td>2:E:718:GLY:HA3</td>
<td>2:E:737:LEU:HA</td>
<td>1.93</td>
<td>0.51</td>
</tr>
<tr>
<td>2:G:718:GLY:HA3</td>
<td>2:G:737:LEU:HA</td>
<td>1.93</td>
<td>0.51</td>
</tr>
<tr>
<td>1:I:34:LYS:HE3</td>
<td>2:I:634:GLN:HB3</td>
<td>1.93</td>
<td>0.51</td>
</tr>
<tr>
<td>2:E:1691:GLN:HE22</td>
<td>2:E:1802:ILE:HG12</td>
<td>1.74</td>
<td>0.51</td>
</tr>
<tr>
<td>2:I:1111:PRO:HD3</td>
<td>2:I:1605:TRP:HE1</td>
<td>1.74</td>
<td>0.51</td>
</tr>
<tr>
<td>2:I:331:VAL:HG12</td>
<td>2:I:333:GLY:H</td>
<td>1.76</td>
<td>0.51</td>
</tr>
<tr>
<td>2:G:3968:TYR:O</td>
<td>2:G:3976:ASN:ND2</td>
<td>2.43</td>
<td>0.51</td>
</tr>
<tr>
<td>2:G:4860:ARG:HG3</td>
<td>2:G:4876:GLY:HB3</td>
<td>1.93</td>
<td>0.51</td>
</tr>
<tr>
<td>2:G:614:VAL:HG22</td>
<td>2:G:616:SER:H</td>
<td>1.73</td>
<td>0.51</td>
</tr>
<tr>
<td>2:B:4860:ARG:HG3</td>
<td>2:B:4876:GLY:HB3</td>
<td>1.93</td>
<td>0.51</td>
</tr>
<tr>
<td>2:G:3733:CYS:HA</td>
<td>2:G:3766:GLN:HG2</td>
<td>1.91</td>
<td>0.51</td>
</tr>
<tr>
<td>2:B:2042:CYS:SG</td>
<td>2:B:2043:GLY:N</td>
<td>2.81</td>
<td>0.51</td>
</tr>
<tr>
<td>2:G:160:GLY:O</td>
<td>2:I:3984:ARG:NH2</td>
<td>2.39</td>
<td>0.51</td>
</tr>
<tr>
<td>2:I:2042:CYS:SG</td>
<td>2:I:2043:GLY:N</td>
<td>2.81</td>
<td>0.51</td>
</tr>
<tr>
<td>2:I:3968:TYR:O</td>
<td>2:I:3976:ASN:ND2</td>
<td>2.43</td>
<td>0.51</td>
</tr>
<tr>
<td>2:B:3981:ALA:HA</td>
<td>2:B:3986:TRP:HE1</td>
<td>1.76</td>
<td>0.51</td>
</tr>
<tr>
<td>2:E:4860:ARG:HG3</td>
<td>2:E:4876:GLY:HB3</td>
<td>1.93</td>
<td>0.51</td>
</tr>
<tr>
<td>2:B:2353:VAL:O</td>
<td>2:B:2357:LEU:N</td>
<td>2.44</td>
<td>0.51</td>
</tr>
<tr>
<td>2:I:3805:LEU:HA</td>
<td>2:I:3809:ASN:HD22</td>
<td>1.75</td>
<td>0.51</td>
</tr>
<tr>
<td>2:B:1671:ARG:NH2</td>
<td>2:B:1710:GLY:O</td>
<td>2.44</td>
<td>0.51</td>
</tr>
</tbody>
</table>
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:E:281:ARG:NH2</td>
<td>2:E:309:THR:OG1</td>
<td>2.44</td>
<td>0.51</td>
</tr>
<tr>
<td>2:G:3805:LEU:HA</td>
<td>2:G:3809:ASN:HD22</td>
<td>1.75</td>
<td>0.51</td>
</tr>
<tr>
<td>2:I:2353:VAL:O</td>
<td>2:I:2357:LEU:N</td>
<td>2.44</td>
<td>0.51</td>
</tr>
<tr>
<td>1:A:27:THR:HB</td>
<td>1:A:100:ASP:HB3</td>
<td>1.94</td>
<td>0.51</td>
</tr>
<tr>
<td>2:E:2353:VAL:O</td>
<td>2:E:2357:LEU:N</td>
<td>2.44</td>
<td>0.51</td>
</tr>
<tr>
<td>2:E:331:VAL:HG12</td>
<td>2:E:333:GLY:H</td>
<td>1.76</td>
<td>0.51</td>
</tr>
<tr>
<td>2:E:3968:TYR:O</td>
<td>2:E:3976:ASN:ND2</td>
<td>2.43</td>
<td>0.51</td>
</tr>
<tr>
<td>2:G:1671:ARG:NH2</td>
<td>2:G:1710:GLY:O</td>
<td>2.44</td>
<td>0.51</td>
</tr>
<tr>
<td>2:I:2353:VAL:O</td>
<td>2:I:2357:LEU:N</td>
<td>2.44</td>
<td>0.51</td>
</tr>
<tr>
<td>2:I:2347:GLU:O</td>
<td>2:G:2351:ASN:N</td>
<td>2.41</td>
<td>0.50</td>
</tr>
<tr>
<td>2:E:1671:ARG:NH2</td>
<td>2:I:1710:GLY:O</td>
<td>2.44</td>
<td>0.50</td>
</tr>
<tr>
<td>2:G:2353:VAL:O</td>
<td>2:G:2357:LEU:N</td>
<td>2.44</td>
<td>0.50</td>
</tr>
<tr>
<td>2:I:938:HIS:HB2</td>
<td>2:I:1054:GLU:HB2</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>2:B:718:GLY:HA3</td>
<td>2:B:737:LEU:HA</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>2:I:4860:ARG:HG3</td>
<td>2:I:4876:CYS:HB3</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>2:B:2196:ASN:OD1</td>
<td>2:B:2199:ARG:NH1</td>
<td>2.37</td>
<td>0.50</td>
</tr>
<tr>
<td>2:B:331:VAL:HG12</td>
<td>2:B:333:GLY:H</td>
<td>1.76</td>
<td>0.50</td>
</tr>
<tr>
<td>2:I:1671:ARG:NH2</td>
<td>2:I:1710:GLY:O</td>
<td>2.44</td>
<td>0.50</td>
</tr>
<tr>
<td>2:G:2347:GLU:O</td>
<td>2:G:2351:ASN:N</td>
<td>2.41</td>
<td>0.50</td>
</tr>
<tr>
<td>2:G:1671:ARG:NH2</td>
<td>2:G:1710:GLY:O</td>
<td>2.44</td>
<td>0.50</td>
</tr>
<tr>
<td>2:G:938:HIS:HB2</td>
<td>2:G:1054:GLU:HB2</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>2:B:2002:PRO:HA</td>
<td>2:B:2005:GLN:HB3</td>
<td>1.91</td>
<td>0.50</td>
</tr>
<tr>
<td>2:B:2022:PRO:HB2</td>
<td>2:B:2024:PRO:HD2</td>
<td>1.94</td>
<td>0.50</td>
</tr>
<tr>
<td>2:G:281:ARG:NH2</td>
<td>2:G:309:THR:OG1</td>
<td>2.44</td>
<td>0.50</td>
</tr>
<tr>
<td>2:E:1671:ARG:NH2</td>
<td>2:E:1710:GLY:O</td>
<td>2.44</td>
<td>0.50</td>
</tr>
<tr>
<td>2:I:2022:PRO:HB2</td>
<td>2:I:2024:PRO:HD2</td>
<td>1.94</td>
<td>0.50</td>
</tr>
<tr>
<td>2:I:2347:GLU:O</td>
<td>2:I:2351:ASN:N</td>
<td>2.41</td>
<td>0.50</td>
</tr>
<tr>
<td>2:I:718:GLY:HA3</td>
<td>2:I:737:LEU:HA</td>
<td>1.92</td>
<td>0.50</td>
</tr>
<tr>
<td>2:B:160:GLY:O</td>
<td>2:B:3984:ARG:NH2</td>
<td>2.43</td>
<td>0.50</td>
</tr>
<tr>
<td>2:B:3817:LEU:HD13</td>
<td>2:B:3899:PHE:HD1</td>
<td>1.77</td>
<td>0.50</td>
</tr>
<tr>
<td>2:E:3780:LEU:HD11</td>
<td>2:E:3816:MET:HG3</td>
<td>1.94</td>
<td>0.50</td>
</tr>
<tr>
<td>2:E:3817:LEU:HD13</td>
<td>2:E:3899:PHE:HD1</td>
<td>1.77</td>
<td>0.50</td>
</tr>
<tr>
<td>1:J:27:THR:HB</td>
<td>1:J:100:ASP:HB3</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>2:I:2022:PRO:HB2</td>
<td>2:I:2024:PRO:HD2</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>2:E:3981:ALA:HA</td>
<td>2:E:3986:TRP:HE1</td>
<td>1.76</td>
<td>0.49</td>
</tr>
<tr>
<td>2:G:281:ARG:NH2</td>
<td>2:G:309:THR:OG1</td>
<td>2.44</td>
<td>0.49</td>
</tr>
<tr>
<td>2:G:41:GLY:O</td>
<td>2:G:45:ARG:NH1</td>
<td>2.45</td>
<td>0.49</td>
</tr>
<tr>
<td>2:I:2347:GLU:O</td>
<td>2:I:2351:ASN:N</td>
<td>2.41</td>
<td>0.50</td>
</tr>
<tr>
<td>2:E:3780:LEU:HD11</td>
<td>2:E:3816:MET:HG3</td>
<td>1.94</td>
<td>0.50</td>
</tr>
<tr>
<td>2:E:3817:LEU:HD13</td>
<td>2:E:3899:PHE:HD1</td>
<td>1.77</td>
<td>0.50</td>
</tr>
<tr>
<td>1:J:27:THR:HB</td>
<td>1:J:100:ASP:HB3</td>
<td>1.93</td>
<td>0.50</td>
</tr>
<tr>
<td>2:E:2022:PRO:HB2</td>
<td>2:E:2024:PRO:HD2</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>2:E:3981:ALA:HA</td>
<td>2:E:3986:TRP:HE1</td>
<td>1.76</td>
<td>0.49</td>
</tr>
<tr>
<td>2:G:281:ARG:NH2</td>
<td>2:G:309:THR:OG1</td>
<td>2.44</td>
<td>0.49</td>
</tr>
<tr>
<td>2:G:41:GLY:O</td>
<td>2:G:45:ARG:NH1</td>
<td>2.45</td>
<td>0.49</td>
</tr>
<tr>
<td>2:I:938:HIS:HB2</td>
<td>2:G:1054:GLU:HB2</td>
<td>1.93</td>
<td>0.49</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:B:3780:LEU:HD1I</td>
<td>2:B:3816:MET:HG3</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:606:LEU:HG</td>
<td>2:B:617:ASN:HD22</td>
<td>1.77</td>
<td>0.49</td>
</tr>
<tr>
<td>2:E:606:LEU:HG</td>
<td>2:E:617:ASN:HD22</td>
<td>1.77</td>
<td>0.49</td>
</tr>
<tr>
<td>2:G:606:LEU:HG</td>
<td>2:G:617:ASN:HD22</td>
<td>1.77</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:4090:LYS:O</td>
<td>2:B:4094:GLN:N</td>
<td>2.46</td>
<td>0.49</td>
</tr>
<tr>
<td>2:E:2277:ALA:HB1</td>
<td>2:E:2337:PHE:HD2</td>
<td>1.78</td>
<td>0.49</td>
</tr>
<tr>
<td>2:E:776:LEU:HG</td>
<td>2:E:848:HIS:HA</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>2:G:2022:PRO:HB2</td>
<td>2:G:2024:PRO:HD2</td>
<td>1.94</td>
<td>0.49</td>
</tr>
<tr>
<td>2:E:1243:PRO:HB2</td>
<td>2:E:1600:LEU:HD22</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>2:G:2277:ALA:HB1</td>
<td>2:G:2337:PHE:HD2</td>
<td>1.78</td>
<td>0.49</td>
</tr>
<tr>
<td>2:G:3817:LEU:HD1I</td>
<td>2:G:3899:PHE:HD1</td>
<td>1.77</td>
<td>0.49</td>
</tr>
<tr>
<td>2:I:1243:PRO:HB2</td>
<td>2:I:1600:LEU:HD22</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:1243:PRO:HB2</td>
<td>2:B:1600:LEU:HD22</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:887:ILE:HG21</td>
<td>2:B:959:TYR:HA</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>2:E:4865:LYS:HG3</td>
<td>2:E:4875:LYS:HZ3</td>
<td>1.78</td>
<td>0.49</td>
</tr>
<tr>
<td>2:G:1243:PRO:HB2</td>
<td>2:G:1600:LEU:HD22</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:887:ILE:HG21</td>
<td>2:B:959:TYR:HA</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>2:E:4822:THR:O</td>
<td>2:E:4825:THR:OG1</td>
<td>2.30</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:776:LEU:HG</td>
<td>2:B:848:HIS:HA</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>2:G:887:ILE:HG21</td>
<td>2:G:959:TYR:HA</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>2:E:887:ILE:HG21</td>
<td>2:E:959:TYR:HA</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:2277:ALA:HB1</td>
<td>2:B:2337:PHE:HD2</td>
<td>1.78</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:2347:GLU:O</td>
<td>2:B:2351:ASN:N</td>
<td>2.41</td>
<td>0.49</td>
</tr>
<tr>
<td>2:G:2748:PRO:HD2</td>
<td>2:G:2751:LEU:HD12</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>2:G:794:GLY:H</td>
<td>2:G:798:GLY:HA3</td>
<td>1.78</td>
<td>0.49</td>
</tr>
<tr>
<td>2:E:1152:MET:HB2</td>
<td>2:E:1161:ILE:HB</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>2:E:938:HIS:HB2</td>
<td>2:E:1054:GLU:HB2</td>
<td>1.93</td>
<td>0.48</td>
</tr>
<tr>
<td>2:G:3780:LEU:HD1I</td>
<td>2:G:3816:MET:HG3</td>
<td>1.94</td>
<td>0.48</td>
</tr>
<tr>
<td>1:H:27:THR:HB</td>
<td>1:H:100:ASP:HB3</td>
<td>1.93</td>
<td>0.49</td>
</tr>
<tr>
<td>2:I:2868:SER:O</td>
<td>2:I:2872:GLN:N</td>
<td>2.45</td>
<td>0.49</td>
</tr>
<tr>
<td>2:I:3817:LEU:HD1I</td>
<td>2:I:3899:PHE:HD1</td>
<td>1.77</td>
<td>0.49</td>
</tr>
<tr>
<td>2:I:887:ILE:HG21</td>
<td>2:I:959:TYR:HA</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:4822:THR:O</td>
<td>2:B:4825:THR:OG1</td>
<td>2.30</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:776:LEU:HG</td>
<td>2:B:848:HIS:HA</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>2:G:887:ILE:HG21</td>
<td>2:G:959:TYR:HA</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>2:E:887:ILE:HG21</td>
<td>2:E:959:TYR:HA</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:2277:ALA:HB1</td>
<td>2:B:2337:PHE:HD2</td>
<td>1.78</td>
<td>0.49</td>
</tr>
<tr>
<td>2:B:2347:GLU:O</td>
<td>2:B:2351:ASN:N</td>
<td>2.41</td>
<td>0.49</td>
</tr>
<tr>
<td>2:G:2748:PRO:HD2</td>
<td>2:G:2751:LEU:HD12</td>
<td>1.95</td>
<td>0.49</td>
</tr>
<tr>
<td>2:G:794:GLY:H</td>
<td>2:G:798:GLY:HA3</td>
<td>1.78</td>
<td>0.49</td>
</tr>
<tr>
<td>2:E:1152:MET:HB2</td>
<td>2:E:1161:ILE:HB</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>2:E:938:HIS:HB2</td>
<td>2:E:1054:GLU:HB2</td>
<td>1.93</td>
<td>0.48</td>
</tr>
<tr>
<td>2:G:3780:LEU:HD1I</td>
<td>2:G:3816:MET:HG3</td>
<td>1.94</td>
<td>0.48</td>
</tr>
<tr>
<td>1:H:42:ARG:HG2</td>
<td>2:G:1691:GLN:HG2</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>2:I:4865:LYS:HG3</td>
<td>2:I:4875:LYS:HZ3</td>
<td>1.78</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:210:GLU:HG3</td>
<td>2:B:337:PRO:HG3</td>
<td>1.94</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:3850:GLN:HA</td>
<td>2:B:3853:ALA:HB3</td>
<td>1.96</td>
<td>0.48</td>
</tr>
<tr>
<td>2:E:3850:GLN:HA</td>
<td>2:E:3853:ALA:HB3</td>
<td>1.96</td>
<td>0.48</td>
</tr>
<tr>
<td>2:I:794:GLY:H</td>
<td>2:I:798:GLY:HA3</td>
<td>1.78</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:3997:ALA:HA</td>
<td>2:B:4058:ILE:HD11</td>
<td>1.95</td>
<td>0.48</td>
</tr>
</tbody>
</table>
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:B:794:GLY:H</td>
<td>2:B:798:GLY:HA3</td>
<td>1.78</td>
<td>0.48</td>
</tr>
<tr>
<td>2:E:210:GLU:HG3</td>
<td>2:E:337:PRO:HG3</td>
<td>1.94</td>
<td>0.48</td>
</tr>
<tr>
<td>2:G:3981:ALA:HA</td>
<td>2:G:3986:TRP:HE1</td>
<td>1.76</td>
<td>0.48</td>
</tr>
<tr>
<td>2:G:683:ARG:HB2</td>
<td>2:G:782:SER:HB3</td>
<td>1.96</td>
<td>0.48</td>
</tr>
<tr>
<td>2:G:776:LEU:HG</td>
<td>2:G:848:HIS:HA</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>2:I:281:ARG:NH2</td>
<td>2:I:309:THR:OG1</td>
<td>2.44</td>
<td>0.48</td>
</tr>
<tr>
<td>2:G:463:GLU:OE2</td>
<td>2:G:467:LYS:NZ</td>
<td>2.42</td>
<td>0.48</td>
</tr>
<tr>
<td>2:I:3780:LEU:HD11</td>
<td>2:I:3816:MET:HG3</td>
<td>1.94</td>
<td>0.48</td>
</tr>
<tr>
<td>2:I:683:ARG:HB2</td>
<td>2:I:782:SER:HB3</td>
<td>1.96</td>
<td>0.48</td>
</tr>
<tr>
<td>2:E:2868:SER:O</td>
<td>2:E:2872:GLN:N</td>
<td>2.45</td>
<td>0.48</td>
</tr>
<tr>
<td>2:E:4090:LYS:O</td>
<td>2:E:4094:GLN:N</td>
<td>2.46</td>
<td>0.48</td>
</tr>
<tr>
<td>2:E:794:GLY:H</td>
<td>2:E:798:GLY:HA3</td>
<td>1.78</td>
<td>0.48</td>
</tr>
<tr>
<td>2:I:3997:ALA:HA</td>
<td>2:I:4058:ILE:HD11</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:1152:MET:HB2</td>
<td>2:B:1161:ILE:HB</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:683:ARG:HB2</td>
<td>2:B:782:SER:HB3</td>
<td>1.96</td>
<td>0.48</td>
</tr>
<tr>
<td>2:E:2758:PHE:O</td>
<td>2:E:2762:THR:N</td>
<td>2.46</td>
<td>0.48</td>
</tr>
<tr>
<td>2:G:396:GLU:OE2</td>
<td>2:G:451:TYR:OH</td>
<td>2.29</td>
<td>0.48</td>
</tr>
<tr>
<td>2:G:4090:LYS:O</td>
<td>2:G:4094:GLN:N</td>
<td>2.46</td>
<td>0.48</td>
</tr>
<tr>
<td>2:I:3850:GLN:HA</td>
<td>2:I:3853:ALA:HB3</td>
<td>1.96</td>
<td>0.48</td>
</tr>
<tr>
<td>2:I:776:LEU:HG</td>
<td>2:I:848:HIS:HA</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>2:E:2751:LEU:HD11</td>
<td>2:E:2823:ILE:HG21</td>
<td>1.96</td>
<td>0.48</td>
</tr>
<tr>
<td>2:G:210:GLU:HG3</td>
<td>2:G:337:PRO:HG3</td>
<td>1.94</td>
<td>0.48</td>
</tr>
<tr>
<td>2:G:2751:LEU:HD11</td>
<td>2:G:2823:ILE:HG21</td>
<td>1.96</td>
<td>0.48</td>
</tr>
<tr>
<td>2:G:4865:LYS:HG3</td>
<td>2:G:4875:LYS:HZ3</td>
<td>1.78</td>
<td>0.48</td>
</tr>
<tr>
<td>2:E:4822:THR:O</td>
<td>2:E:4825:THR:OG1</td>
<td>2.30</td>
<td>0.48</td>
</tr>
<tr>
<td>2:G:1152:MET:HB2</td>
<td>2:G:1161:ILE:HB</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>2:I:111:HIS:CD2</td>
<td>2:I:114:SER:H</td>
<td>2.29</td>
<td>0.48</td>
</tr>
<tr>
<td>2:I:2927:LEU:HD23</td>
<td>2:I:2930:LEU:HD12</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>2:G:2911:LEU:HB2</td>
<td>2:G:2916:LYS:HE3</td>
<td>1.96</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:1650:ILE:HG13</td>
<td>2:B:1707:LEU:HD21</td>
<td>1.96</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:2927:LEU:HD23</td>
<td>2:B:2930:LEU:HD12</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>2:G:2927:LEU:HD23</td>
<td>2:G:2930:LEU:HD12</td>
<td>1.95</td>
<td>0.48</td>
</tr>
<tr>
<td>2:I:2277:ALA:HB1</td>
<td>2:I:2337:PHE:HD2</td>
<td>1.78</td>
<td>0.48</td>
</tr>
<tr>
<td>2:B:978:THR:HB</td>
<td>2:B:980:ALA:H</td>
<td>1.80</td>
<td>0.47</td>
</tr>
<tr>
<td>2:G:3850:GLN:HA</td>
<td>2:G:3853:ALA:HB3</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>2:G:4822:THR:O</td>
<td>2:G:4825:THR:OG1</td>
<td>2.30</td>
<td>0.47</td>
</tr>
<tr>
<td>2:I:2748:PRO:HD2</td>
<td>2:I:2751:LEU:HD12</td>
<td>1.95</td>
<td>0.47</td>
</tr>
<tr>
<td>2:I:210:GLU:HG3</td>
<td>2:I:337:PRO:HG3</td>
<td>1.94</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:2748:PRO:HD2</td>
<td>2:B:2751:LEU:HD12</td>
<td>1.95</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:2751:LEU:HD11</td>
<td>2:B:2823:ILE:HG21</td>
<td>1.96</td>
<td>0.47</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:E:2927:LEU:HD23</td>
<td>2:E:2930:LEU:HD12</td>
<td>1.95</td>
<td>0.47</td>
</tr>
<tr>
<td>2:E:3997:ALA:HA</td>
<td>2:E:4058:ILE:HD11</td>
<td>1.95</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:161:GLU:HA</td>
<td>2:E:3984:ARG:HH22</td>
<td>1.78</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:3674:ILE:HD11</td>
<td>2:B:3728:ILE:HG22</td>
<td>1.97</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:4681:LEU:HD21</td>
<td>2:B:4687:TYR:HD2</td>
<td>1.79</td>
<td>0.47</td>
</tr>
<tr>
<td>2:E:2375:GLY:HA3</td>
<td>2:E:2378:ALA:HB3</td>
<td>1.97</td>
<td>0.47</td>
</tr>
<tr>
<td>2:E:2748:PRO:HD2</td>
<td>2:E:2751:LEU:HD12</td>
<td>1.95</td>
<td>0.47</td>
</tr>
<tr>
<td>2:E:683:ARG:HB2</td>
<td>2:E:782:SER:HB3</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>2:E:841:GLY:HA2</td>
<td>2:E:1073:ARG:HD2</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>2:I:4090:LYS:O</td>
<td>2:I:4094:GLN:N</td>
<td>2.46</td>
<td>0.47</td>
</tr>
<tr>
<td>2:I:4786:ASP:OD2</td>
<td>2:I:4789:PHE:N</td>
<td>2.46</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:2337:PHE:HA</td>
<td>2:B:2340:PHE:HB2</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:2758:PHE:O</td>
<td>2:B:2762:THR:N</td>
<td>2.46</td>
<td>0.47</td>
</tr>
<tr>
<td>2:I:2337:PHE:HA</td>
<td>2:I:2340:PHE:HB2</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>2:G:2868:SER:O</td>
<td>2:G:2872:GLN:N</td>
<td>2.45</td>
<td>0.47</td>
</tr>
<tr>
<td>2:G:3674:ILE:HD11</td>
<td>2:G:3728:ILE:HG22</td>
<td>1.97</td>
<td>0.47</td>
</tr>
<tr>
<td>2:G:4743:MET:HB3</td>
<td>2:G:4746:ALA:HB3</td>
<td>1.97</td>
<td>0.47</td>
</tr>
<tr>
<td>2:I:1152:MET:HB2</td>
<td>2:I:1161:ILE:HB</td>
<td>1.95</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:2375:GLY:HA3</td>
<td>2:B:2378:ALA:HB3</td>
<td>1.97</td>
<td>0.47</td>
</tr>
<tr>
<td>2:G:1126:GLY:HA3</td>
<td>2:G:1143:TRP:CE2</td>
<td>2.49</td>
<td>0.47</td>
</tr>
<tr>
<td>2:I:4743:MET:HB3</td>
<td>2:I:4746:ALA:HB3</td>
<td>1.97</td>
<td>0.47</td>
</tr>
<tr>
<td>2:E:2337:PHE:HA</td>
<td>2:E:2340:PHE:HB2</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>2:E:978:THR:HB</td>
<td>2:E:980:ALA:H</td>
<td>1.80</td>
<td>0.47</td>
</tr>
<tr>
<td>2:I:978:THR:HB</td>
<td>2:I:980:ALA:H</td>
<td>1.80</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:4892:ARG:NH2</td>
<td>2:I:4899:ASP:OD1</td>
<td>2.43</td>
<td>0.47</td>
</tr>
<tr>
<td>2:E:1126:GLY:HA3</td>
<td>2:E:1143:TRP:CE2</td>
<td>2.49</td>
<td>0.47</td>
</tr>
<tr>
<td>2:G:841:GLY:HA2</td>
<td>2:G:1073:ARG:HD2</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>2:I:1126:GLY:HA3</td>
<td>2:I:1143:TRP:CE2</td>
<td>2.49</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:2247:GLN:NE2</td>
<td>2:B:2285:GLU:OE2</td>
<td>2.48</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:2911:LEU:HB2</td>
<td>2:B:2916:LYS:HE3</td>
<td>1.96</td>
<td>0.47</td>
</tr>
<tr>
<td>2:E:645:ARG:N</td>
<td>2:E:824:GLU:O</td>
<td>2.42</td>
<td>0.47</td>
</tr>
<tr>
<td>2:I:4681:LEU:HD21</td>
<td>2:I:4687:TYR:HD2</td>
<td>1.79</td>
<td>0.47</td>
</tr>
<tr>
<td>2:B:1126:GLY:HA3</td>
<td>2:B:1143:TRP:CE2</td>
<td>2.49</td>
<td>0.47</td>
</tr>
<tr>
<td>2:I:1665:HIS:HA</td>
<td>2:I:1668:ARG:HG2</td>
<td>1.97</td>
<td>0.47</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:B:111:HIS:CD2</td>
<td>2:B:114:SER:H</td>
<td>2.29</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:4865:LYS:HG3</td>
<td>2:B:4875:LYS:HZ3</td>
<td>1.79</td>
<td>0.46</td>
</tr>
<tr>
<td>2:E:1865:MET:N</td>
<td>2:E:1865:MET:SD</td>
<td>2.89</td>
<td>0.46</td>
</tr>
<tr>
<td>2:G:4681:LEU:HD21</td>
<td>2:G:4687:TYR:HD2</td>
<td>1.79</td>
<td>0.46</td>
</tr>
<tr>
<td>2:G:485:SER:HA</td>
<td>2:G:488:LEU:HB2</td>
<td>1.96</td>
<td>0.46</td>
</tr>
<tr>
<td>2:1:2375:GLY:HA3</td>
<td>2:1:2378:ALA:HB3</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:1865:MET:SD</td>
<td>2:B:1865:MET:N</td>
<td>2.88</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:4786:ASP:OD2</td>
<td>2:B:4789:PHE:N</td>
<td>2.46</td>
<td>0.46</td>
</tr>
<tr>
<td>1:F:42:ARG:HG2</td>
<td>2:E:1691:GLN:HG2</td>
<td>1.98</td>
<td>0.46</td>
</tr>
<tr>
<td>2:G:2375:GLY:HA3</td>
<td>2:G:2378:ALA:HB3</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>2:E:485:SER:HA</td>
<td>2:E:488:LEU:HB2</td>
<td>1.96</td>
<td>0.46</td>
</tr>
<tr>
<td>2:1:841:GLY:HA2</td>
<td>2:1:1073:ARG:HD2</td>
<td>1.96</td>
<td>0.46</td>
</tr>
<tr>
<td>2:G:2247:GLN:NE2</td>
<td>2:G:2285:GLU:OE2</td>
<td>2.48</td>
<td>0.46</td>
</tr>
<tr>
<td>2:G:2337:PHE:HA</td>
<td>2:G:2340:PHE:HB2</td>
<td>1.96</td>
<td>0.46</td>
</tr>
<tr>
<td>1:J:7:ILE:HB</td>
<td>1:J:71:ARG:HB3</td>
<td>1.98</td>
<td>0.46</td>
</tr>
<tr>
<td>1:A:7:ILE:HB</td>
<td>1:A:71:ARG:HB3</td>
<td>1.98</td>
<td>0.46</td>
</tr>
<tr>
<td>2:1:2364:PHE:HD1</td>
<td>2:1:2429:LEU:HD21</td>
<td>1.81</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:841:GLY:HA2</td>
<td>2:B:1073:ARG:HD2</td>
<td>1.96</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:1665:HIS:HA</td>
<td>2:B:1668:ARG:HG2</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:1960:ALA:O</td>
<td>2:B:1964:ARG:NE</td>
<td>2.48</td>
<td>0.46</td>
</tr>
<tr>
<td>2:E:2247:GLN:NE2</td>
<td>2:E:2285:GLU:OE2</td>
<td>2.48</td>
<td>0.46</td>
</tr>
<tr>
<td>2:E:2364:PHE:HD1</td>
<td>2:E:2429:LEU:HD21</td>
<td>1.81</td>
<td>0.46</td>
</tr>
<tr>
<td>2:E:4681:LEU:HD21</td>
<td>2:E:4687:TYR:HD2</td>
<td>1.79</td>
<td>0.46</td>
</tr>
<tr>
<td>2:E:4983:HIS:N</td>
<td>2:E:4983:HIS:CD2</td>
<td>2.84</td>
<td>0.46</td>
</tr>
<tr>
<td>2:I:4227:GLU:HG3</td>
<td>2:I:4228:ALA:H</td>
<td>1.81</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:2868:SER:O</td>
<td>2:B:2872:GLN:N</td>
<td>2.45</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:4227:GLU:HG3</td>
<td>2:B:4228:ALA:H</td>
<td>1.81</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:4983:HIS:N</td>
<td>2:B:4983:HIS:CD2</td>
<td>2.84</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:572:PRO:HA</td>
<td>2:B:575:LEU:HD13</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>2:G:1650:ILE:HG13</td>
<td>2:G:1707:LEU:HD21</td>
<td>1.96</td>
<td>0.46</td>
</tr>
<tr>
<td>2:G:1865:MET:SD</td>
<td>2:G:1865:MET:N</td>
<td>2.88</td>
<td>0.46</td>
</tr>
<tr>
<td>2:G:2131:LEU:HD23</td>
<td>2:G:3662:ILE:HB</td>
<td>1.97</td>
<td>0.46</td>
</tr>
<tr>
<td>2:I:2911:LEU:HB2</td>
<td>2:I:2916:LYS:HE3</td>
<td>1.96</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:2364:PHE:HD1</td>
<td>2:B:2429:LEU:HD21</td>
<td>1.81</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:485:SER:HA</td>
<td>2:B:488:LEU:HB2</td>
<td>1.96</td>
<td>0.46</td>
</tr>
<tr>
<td>2:E:1727:ARG:HH21</td>
<td>2:E:1775:HIS:CE1</td>
<td>2.34</td>
<td>0.46</td>
</tr>
<tr>
<td>2:G:2364:PHE:HD1</td>
<td>2:G:2429:LEU:HD21</td>
<td>1.80</td>
<td>0.46</td>
</tr>
<tr>
<td>2:G:4983:HIS:N</td>
<td>2:G:4983:HIS:CD2</td>
<td>2.84</td>
<td>0.46</td>
</tr>
<tr>
<td>2:G:978:THR:HB</td>
<td>2:G:980:ALA:H</td>
<td>1.79</td>
<td>0.46</td>
</tr>
<tr>
<td>2:B:4743:MET:HB3</td>
<td>2:B:4746:ALA:HB3</td>
<td>1.97</td>
<td>0.46</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:I:485:SER:HA</td>
<td>2:I:488:LEU:HB2</td>
<td>1.96</td>
<td>0.46</td>
</tr>
<tr>
<td>2:G:1665:HIS:HA</td>
<td>2:G:1668:ARG:HG2</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>2:G:1727:ARG:HH21</td>
<td>2:G:1775:HIS:CE1</td>
<td>2.34</td>
<td>0.45</td>
</tr>
<tr>
<td>2:G:572:PRO:HA</td>
<td>2:G:575:LEU:HD13</td>
<td>1.97</td>
<td>0.45</td>
</tr>
<tr>
<td>2:I:1865:MET:SD</td>
<td>2:I:1865:MET:N</td>
<td>2.88</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:1025:ARG:O</td>
<td>2:B:1032:LYS:NZ</td>
<td>2.47</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:4958:CYS:HB2</td>
<td>2:B:4961:CYS:H</td>
<td>1.82</td>
<td>0.45</td>
</tr>
<tr>
<td>2:E:2291:GLN:HE21</td>
<td>2:E:2294:ASP:H</td>
<td>1.64</td>
<td>0.45</td>
</tr>
<tr>
<td>2:E:4743:MET:HB3</td>
<td>2:E:4746:ALA:HB3</td>
<td>1.97</td>
<td>0.45</td>
</tr>
<tr>
<td>2:G:2291:GLN:HE21</td>
<td>2:G:2294:ASP:H</td>
<td>1.65</td>
<td>0.45</td>
</tr>
<tr>
<td>2:I:2247:GLN:NE2</td>
<td>2:I:2285:GLU:OE2</td>
<td>2.48</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:4069:LYS:HG3</td>
<td>2:B:4129:ALA:HB1</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>2:E:479:GLN:HE21</td>
<td>2:E:536:ASN:ND2</td>
<td>2.14</td>
<td>0.45</td>
</tr>
<tr>
<td>2:G:4069:LYS:HG3</td>
<td>2:G:4129:ALA:HB1</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>1:H:7:ILE:HB</td>
<td>1:H:71:ARG:HB3</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:2231:SER:HA</td>
<td>2:B:2234:ARG:HG2</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>2:E:2131:LEU:HD23</td>
<td>2:E:3662:ILE:HB</td>
<td>1.97</td>
<td>0.45</td>
</tr>
<tr>
<td>2:G:2742:THR:OG1</td>
<td>2:G:2811:GLU:OE1</td>
<td>2.34</td>
<td>0.45</td>
</tr>
<tr>
<td>2:I:4005:GLN:HE21</td>
<td>2:I:4110:PHE:HE1</td>
<td>1.63</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:2131:LEU:HD23</td>
<td>2:B:3662:ILE:HB</td>
<td>1.97</td>
<td>0.45</td>
</tr>
<tr>
<td>2:E:4005:GLN:HE21</td>
<td>2:E:4110:PHE:HE1</td>
<td>1.63</td>
<td>0.45</td>
</tr>
<tr>
<td>2:G:2226:PRO:HA</td>
<td>2:G:2229:VAL:HG12</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>2:I:707:VAL:HG23</td>
<td>2:I:713:SER:HB2</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:4005:GLN:HE21</td>
<td>2:B:4110:PHE:HE1</td>
<td>1.63</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:479:GLN:HE21</td>
<td>2:B:536:ASN:ND2</td>
<td>2.14</td>
<td>0.45</td>
</tr>
<tr>
<td>2:E:4069:LYS:HG3</td>
<td>2:E:4129:ALA:HB1</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>2:G:1236:THR:OG1</td>
<td>2:G:1608:MET:SD</td>
<td>2.75</td>
<td>0.45</td>
</tr>
<tr>
<td>2:G:278:GLN:N</td>
<td>2:G:315:CYS:SG</td>
<td>2.90</td>
<td>0.45</td>
</tr>
<tr>
<td>2:G:4786:ASP:OD2</td>
<td>2:G:4789:PHE:N</td>
<td>2.46</td>
<td>0.45</td>
</tr>
<tr>
<td>2:I:213:TYR:CG</td>
<td>2:I:337:PRO:HB2</td>
<td>2.52</td>
<td>0.45</td>
</tr>
<tr>
<td>2:I:4069:LYS:HG3</td>
<td>2:I:4129:ALA:HB1</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>2:I:4958:CYS:HB2</td>
<td>2:I:4961:CYS:H</td>
<td>1.82</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:164:ARG:N</td>
<td>2:B:167:ASP:OD2</td>
<td>2.43</td>
<td>0.45</td>
</tr>
<tr>
<td>2:E:1665:HIS:HA</td>
<td>2:E:1668:ARG:HG2</td>
<td>1.97</td>
<td>0.45</td>
</tr>
<tr>
<td>2:G:4208:PRO:HA</td>
<td>2:G:4211:LYS:HB3</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>2:G:707:VAL:HG23</td>
<td>2:G:713:SER:HB2</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>1:H:34:LYS:HD3</td>
<td>2:G:629:ARG:HD2</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>2:I:206:CYS:SG</td>
<td>2:I:207:SER:N</td>
<td>2.90</td>
<td>0.45</td>
</tr>
<tr>
<td>2:I:2291:GLN:HE21</td>
<td>2:I:2294:ASP:H</td>
<td>1.65</td>
<td>0.45</td>
</tr>
</tbody>
</table>
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:I:3781:GLN:HA</td>
<td>2:I:3784:SER:HB3</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:2291:GLN:HE21</td>
<td>2:B:2294:ASP:H</td>
<td>1.64</td>
<td>0.45</td>
</tr>
<tr>
<td>2:E:2095:GLN:NE2</td>
<td>2:E:2127:GLN:O</td>
<td>2.46</td>
<td>0.45</td>
</tr>
<tr>
<td>2:E:572:PRO:HA</td>
<td>2:E:575:LEU:HD13</td>
<td>1.97</td>
<td>0.45</td>
</tr>
<tr>
<td>1:F:7:ILE:HB</td>
<td>1:F:71:ARG:HB3</td>
<td>1.98</td>
<td>0.45</td>
</tr>
<tr>
<td>2:G:1025:ARG:O</td>
<td>2:G:1032:LYS:NZ</td>
<td>2.48</td>
<td>0.45</td>
</tr>
<tr>
<td>2:I:1025:ARG:O</td>
<td>2:I:1032:LYS:NZ</td>
<td>2.47</td>
<td>0.45</td>
</tr>
<tr>
<td>2:I:4208:PRO:HA</td>
<td>2:I:4211:LYS:HB3</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>2:I:4983:HIS:N</td>
<td>2:I:4983:HIS:CD2</td>
<td>2.84</td>
<td>0.45</td>
</tr>
<tr>
<td>2:572:PRO:HA</td>
<td>2:I:575:LEU:HD13</td>
<td>1.97</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:1236:THR:OG1</td>
<td>2:B:1608:MET:SD</td>
<td>2.75</td>
<td>0.45</td>
</tr>
<tr>
<td>2:E:2226:PRO:HA</td>
<td>2:E:2229:VAL:HG12</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>2:E:4763:GLY:O</td>
<td>2:E:4766:THR:OG1</td>
<td>2.30</td>
<td>0.45</td>
</tr>
<tr>
<td>2:G:213:TYR:CG</td>
<td>2:G:337:PRO:HB2</td>
<td>2.52</td>
<td>0.45</td>
</tr>
<tr>
<td>2:G:4005:GLN:HE21</td>
<td>2:G:4110:PHE:HE1</td>
<td>1.63</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:213:TYR:CG</td>
<td>2:B:337:PRO:HB2</td>
<td>2.52</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:4687:TYR:OH</td>
<td>2:B:4699:GLY:O</td>
<td>2.30</td>
<td>0.45</td>
</tr>
<tr>
<td>2:E:3781:GLN:HA</td>
<td>2:E:3784:SER:HB3</td>
<td>1.99</td>
<td>0.45</td>
</tr>
<tr>
<td>2:E:4227:GLU:HG3</td>
<td>2:E:4228:ALA:H</td>
<td>1.81</td>
<td>0.45</td>
</tr>
<tr>
<td>2:E:4958:CYS:HB2</td>
<td>2:E:4961:CYS:H</td>
<td>1.82</td>
<td>0.45</td>
</tr>
<tr>
<td>2:G:4763:GLY:O</td>
<td>2:E:4766:THR:OG1</td>
<td>2.30</td>
<td>0.45</td>
</tr>
<tr>
<td>2:B:4959:PHE:CD1</td>
<td>2:B:4959:PHE:O</td>
<td>2.71</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:4960:ILE:HG12</td>
<td>2:B:4985:LEU:HD23</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>2:E:2959:UNK:O</td>
<td>2:E:2963:UNK:N</td>
<td>2.50</td>
<td>0.44</td>
</tr>
<tr>
<td>2:G:3781:GLN:HA</td>
<td>2:G:3784:SER:HB3</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>2:E:206:CYS:SG</td>
<td>2:E:207:SER:N</td>
<td>2.90</td>
<td>0.44</td>
</tr>
<tr>
<td>2:1:4960:ILE:HG12</td>
<td>2:1:4985:LEU:HD23</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:1727:ARG:HH21</td>
<td>2:B:1775:HIS:CE1</td>
<td>2.34</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:278:GLN:N</td>
<td>2:B:315:CYS:SG</td>
<td>2.90</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:4208:PRO:HA</td>
<td>2:B:4211:LYS:HB3</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>2:G:2959:UNK:O</td>
<td>2:G:2963:UNK:N</td>
<td>2.50</td>
<td>0.44</td>
</tr>
<tr>
<td>2:G:3759:GLU:O</td>
<td>2:G:3763:LEU:N</td>
<td>2.48</td>
<td>0.44</td>
</tr>
<tr>
<td>2:G:4227:GLU:HG3</td>
<td>2:G:4228:ALA:H</td>
<td>1.81</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:3781:GLN:HA</td>
<td>2:B:3784:SER:HB3</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:645:ARG:N</td>
<td>2:B:824:GLU:O</td>
<td>2.42</td>
<td>0.44</td>
</tr>
<tr>
<td>2:E:3759:GLU:O</td>
<td>2:E:3763:LEU:N</td>
<td>2.48</td>
<td>0.44</td>
</tr>
</tbody>
</table>
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:G:206:CYS:SG</td>
<td>2:G:207:SER:N</td>
<td>2.90</td>
<td>0.44</td>
</tr>
<tr>
<td>2:G:479:GLN:HE21</td>
<td>2:G:536:ASN:ND2</td>
<td>2.14</td>
<td>0.44</td>
</tr>
<tr>
<td>2:G:4960:ILE:HG12</td>
<td>2:G:4985:LEU:HD23</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>2:G:652:ARG:HB2</td>
<td>2:G:750:LEU:HD13</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>2:I:1236:THR:OG1</td>
<td>2:I:1608:MET:SD</td>
<td>2.75</td>
<td>0.44</td>
</tr>
<tr>
<td>2:I:2226:PRO:OG1</td>
<td>2:I:2229:VAL:HG12</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>2:I:278:GLN:N</td>
<td>2:I:315:CYS:SG</td>
<td>2.90</td>
<td>0.44</td>
</tr>
<tr>
<td>2:I:1105:ALA:HB1</td>
<td>2:I:1109:LEU:HD21</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>2:I:1727:ARG:HH21</td>
<td>2:I:1775:HIS:CE1</td>
<td>2.34</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:1720:LEU:HD12</td>
<td>2:B:1847:THR:HG23</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:707:VAL:HG23</td>
<td>2:B:713:SER:HB2</td>
<td>1.98</td>
<td>0.44</td>
</tr>
<tr>
<td>2:E:4208:PRO:HA</td>
<td>2:E:4211:LYS:HB3</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>2:E:4959:PHE:CD1</td>
<td>2:E:4959:PHE:O</td>
<td>2.70</td>
<td>0.44</td>
</tr>
<tr>
<td>2:E:551:LEU:HD21</td>
<td>2:E:589:LEU:HD13</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>2:E:606:LEU:O</td>
<td>2:E:617:ASN:ND2</td>
<td>2.51</td>
<td>0.44</td>
</tr>
<tr>
<td>2:I:551:LEU:HD21</td>
<td>2:I:589:LEU:HD13</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:606:LEU:O</td>
<td>2:B:617:ASN:ND2</td>
<td>2.51</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:652:ARG:HB2</td>
<td>2:B:750:LEU:HD13</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>2:E:1105:ALA:HB1</td>
<td>2:E:1109:LEU:HD21</td>
<td>1.99</td>
<td>0.44</td>
</tr>
<tr>
<td>2:E:1236:THR:OG1</td>
<td>2:E:1608:MET:SD</td>
<td>2.75</td>
<td>0.44</td>
</tr>
<tr>
<td>2:E:213:TYR:CG</td>
<td>2:E:337:PRO:HB2</td>
<td>2.52</td>
<td>0.44</td>
</tr>
<tr>
<td>2:E:4687:TYR:OH</td>
<td>2:E:4699:GLY:O</td>
<td>2.30</td>
<td>0.44</td>
</tr>
<tr>
<td>2:E:707:VAL:HG23</td>
<td>2:E:713:SER:HB2</td>
<td>1.98</td>
<td>0.44</td>
</tr>
<tr>
<td>2:E:793:LEU:HB2</td>
<td>2:E:797:HIS:H</td>
<td>1.83</td>
<td>0.44</td>
</tr>
<tr>
<td>2:G:551:LEU:HD21</td>
<td>2:G:589:LEU:HD13</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>2:I:4822:THR:O</td>
<td>2:I:4825:THR:OG1</td>
<td>2.30</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:2326:CYS:SG</td>
<td>2:B:2327:GLY:N</td>
<td>2.91</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:2959:UNK:O</td>
<td>2:B:2963:UNK:N</td>
<td>2.50</td>
<td>0.44</td>
</tr>
<tr>
<td>2:G:2737:PRO:O</td>
<td>2:G:2888:ARG:NH2</td>
<td>2.51</td>
<td>0.44</td>
</tr>
<tr>
<td>2:G:4959:PHE:CD1</td>
<td>2:G:4959:PHE:O</td>
<td>2.71</td>
<td>0.44</td>
</tr>
<tr>
<td>2:I:2959:UNK:O</td>
<td>2:I:2963:UNK:N</td>
<td>2.50</td>
<td>0.44</td>
</tr>
<tr>
<td>2:I:641:VAL:HG21</td>
<td>2:I:705:ASN:HA</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>2:I:911:HIS:O</td>
<td>2:I:918:ARG:NH2</td>
<td>2.48</td>
<td>0.44</td>
</tr>
<tr>
<td>2:E:2737:PRO:O</td>
<td>2:E:2888:ARG:NH2</td>
<td>2.51</td>
<td>0.44</td>
</tr>
<tr>
<td>2:E:4786:ASP:OD2</td>
<td>2:E:4789:PHE:N</td>
<td>2.46</td>
<td>0.44</td>
</tr>
<tr>
<td>2:E:4960:ILE:HG12</td>
<td>2:E:4985:LEU:HD23</td>
<td>2.00</td>
<td>0.44</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:G:3779:VAL:HG23</td>
<td>2:G:3780:LEU:HD12</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>2:I:1942:ALA:HB2</td>
<td>2:I:1052:ASN:HB2</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>2:I:2326:CYS:SG</td>
<td>2:I:2327:GLY:N</td>
<td>2.91</td>
<td>0.44</td>
</tr>
<tr>
<td>2:I:2737:PRO:O</td>
<td>2:I:2888:ARG:NH2</td>
<td>2.51</td>
<td>0.44</td>
</tr>
<tr>
<td>2:I:3779:VAL:HG23</td>
<td>2:I:3780:LEU:HD12</td>
<td>2.00</td>
<td>0.44</td>
</tr>
<tr>
<td>2:B:1695:LEU:HB3</td>
<td>2:B:1810:LYS:H2Z</td>
<td>1.83</td>
<td>0.43</td>
</tr>
<tr>
<td>2:E:2326:CYS:SG</td>
<td>2:E:2327:GLY:N</td>
<td>2.91</td>
<td>0.43</td>
</tr>
<tr>
<td>1:F:34:LYS:HE3</td>
<td>2:E:634:GLN:HB3</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>2:I:4959:PHE:O</td>
<td>2:I:4959:PHE:CD1</td>
<td>2.70</td>
<td>0.43</td>
</tr>
<tr>
<td>2:I:606:LEU:O</td>
<td>2:I:617:ASN:ND2</td>
<td>2.51</td>
<td>0.43</td>
</tr>
<tr>
<td>1:F:23:VAL:HG22</td>
<td>1:F:47:LYS:HG2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:1136:TRP:HE1</td>
<td>2:G:1136:SER:HG</td>
<td>1.61</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:606:LEU:O</td>
<td>2:G:617:ASN:ND2</td>
<td>2.51</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:2226:PRO:HA</td>
<td>2:B:2229:VAL:HG12</td>
<td>1.99</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:243:ARG:NH1</td>
<td>2:B:301:VAL:O</td>
<td>2.49</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:4209:GLN:HE22</td>
<td>2:B:4560:TYR:HE2</td>
<td>1.66</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:4984:ASN:C</td>
<td>2:B:4986:ALA:H</td>
<td>2.21</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:793:LEU:HB2</td>
<td>2:B:797:HIS:H</td>
<td>1.83</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:2326:CYS:SG</td>
<td>2:G:2327:GLY:N</td>
<td>2.91</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:4209:GLN:HE22</td>
<td>2:G:4560:TYR:HE2</td>
<td>1.66</td>
<td>0.43</td>
</tr>
<tr>
<td>2:I:4209:GLN:HE22</td>
<td>2:I:4560:TYR:HE2</td>
<td>1.66</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:206:CYS:SG</td>
<td>2:B:207:SER:N</td>
<td>2.90</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:4563:ARG:NH1</td>
<td>2:B:4815:ASP:OD1</td>
<td>2.52</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:4968:PHE:HD2</td>
<td>2:B:4978:HIS:HD1</td>
<td>1.47</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:942:ALA:HB2</td>
<td>2:B:1052:ASN:HB2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>2:E:4586:PRO:HB3</td>
<td>2:E:4628:VAL:HG21</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>2:E:641:VAL:HG21</td>
<td>2:E:705:ASN:HA</td>
<td>1.99</td>
<td>0.43</td>
</tr>
<tr>
<td>2:E:652:ARG:HB2</td>
<td>2:E:750:LEU:HD13</td>
<td>1.99</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:1105:ALA:HB1</td>
<td>2:G:1109:LEU:HD21</td>
<td>1.99</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:4958:CYS:HB2</td>
<td>2:G:4961:CYS:H</td>
<td>1.82</td>
<td>0.43</td>
</tr>
<tr>
<td>2:I:3830:GLN:HA</td>
<td>2:I:3833:GLN:HG2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>1:J:23:VAL:HG22</td>
<td>1:J:47:LYS:HG2</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:551:LEU:HD21</td>
<td>2:B:589:LEU:HD13</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>2:E:4209:GLN:HE22</td>
<td>2:E:4560:TYR:HE2</td>
<td>1.67</td>
<td>0.43</td>
</tr>
<tr>
<td>2:E:914:PRO:HD2</td>
<td>2:E:917:GLU:HB2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>2:E:919:ASN:O</td>
<td>2:E:923:GLN:N</td>
<td>2.52</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:2775:TRP:HZ3</td>
<td>2:G:2783:GLU:HA</td>
<td>1.84</td>
<td>0.43</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:G:3830:GLN:HA</td>
<td>2:G:3833:GLN:HG2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:889:GLN:O</td>
<td>2:G:902:ARG:NH1</td>
<td>2.52</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:914:PRO:HD2</td>
<td>2:G:917:GLU:HB2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>2:I:1132:TRP:HE1</td>
<td>2:I:1136:SER:HG</td>
<td>1.65</td>
<td>0.43</td>
</tr>
<tr>
<td>2:I:4563:ARG:NH1</td>
<td>2:I:4815:ASP:OD1</td>
<td>2.52</td>
<td>0.43</td>
</tr>
<tr>
<td>2:I:877:ASN:HD22</td>
<td>2:I:1045:THR:HG23</td>
<td>1.84</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:1105:ALA:HB1</td>
<td>2:B:1109:LEU:HD21</td>
<td>1.99</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:877:ASN:HD22</td>
<td>2:B:1045:THR:HG23</td>
<td>1.84</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:889:GLN:O</td>
<td>2:B:902:ARG:NH1</td>
<td>2.52</td>
<td>0.43</td>
</tr>
<tr>
<td>2:E:2775:TRP:HZ3</td>
<td>2:E:2783:GLU:HA</td>
<td>1.84</td>
<td>0.43</td>
</tr>
<tr>
<td>2:E:4984:ASN:C</td>
<td>2:E:4986:ALA:H</td>
<td>2.21</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:641:VAL:HG21</td>
<td>2:G:705:ASN:HA</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>1:H:23:VAL:HG22</td>
<td>1:H:47:LYS:HG2</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:2440:MET:O</td>
<td>2:B:2444:GLN:N</td>
<td>2.51</td>
<td>0.43</td>
</tr>
<tr>
<td>2:E:889:GLN:O</td>
<td>2:E:902:ARG:NH1</td>
<td>2.52</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:4563:ARG:NH1</td>
<td>2:G:4815:ASP:OD1</td>
<td>2.52</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:2742:THR:OG1</td>
<td>2:B:2811:GLU:OE1</td>
<td>2.34</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:2737:PRO:O</td>
<td>2:B:2888:ARG:NH2</td>
<td>2.51</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:3830:GLN:HA</td>
<td>2:B:3833:GLN:HG2</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>2:E:410:LEU:HD12</td>
<td>2:E:413:GLN:HE21</td>
<td>1.84</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:4198:SER:OG</td>
<td>2:G:4199:GLU:N</td>
<td>2.52</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:4984:ASN:C</td>
<td>2:G:4986:ALA:H</td>
<td>2.21</td>
<td>0.43</td>
</tr>
<tr>
<td>2:I:4071:ILE:HG13</td>
<td>2:I:4103:PHE:HZ</td>
<td>1.84</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:1966:VAL:HA</td>
<td>2:B:1969:LEU:HB3</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:3779:VAL:HG23</td>
<td>2:B:3780:LEU:HD12</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:870:ILE:HD12</td>
<td>2:B:873:LYS:HB2</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:911:HIS:O</td>
<td>2:B:918:ARG:NH2</td>
<td>2.48</td>
<td>0.43</td>
</tr>
<tr>
<td>2:E:243:ARG:NH1</td>
<td>2:E:301:VAL:O</td>
<td>2.49</td>
<td>0.43</td>
</tr>
<tr>
<td>2:E:870:ILE:HD12</td>
<td>2:E:873:LYS:HB2</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:1695:LEU:HB3</td>
<td>2:G:1810:LYS:HZ2</td>
<td>1.83</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:1966:VAL:HA</td>
<td>2:G:1969:LEU:HB3</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:4586:PRO:HB3</td>
<td>2:G:4628:VAL:HG21</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:877:ASN:HD22</td>
<td>2:G:1045:THR:HG23</td>
<td>1.84</td>
<td>0.43</td>
</tr>
<tr>
<td>2:I:2440:MET:O</td>
<td>2:I:2444:GLN:N</td>
<td>2.51</td>
<td>0.43</td>
</tr>
<tr>
<td>2:I:4198:SER:OG</td>
<td>2:I:4199:GLU:N</td>
<td>2.52</td>
<td>0.43</td>
</tr>
<tr>
<td>2:I:4763:GLY:O</td>
<td>2:I:4766:THR:OG1</td>
<td>2.30</td>
<td>0.43</td>
</tr>
<tr>
<td>2:I:793:LEU:HB2</td>
<td>2:I:797:HIS:H</td>
<td>1.83</td>
<td>0.43</td>
</tr>
<tr>
<td>1:J:55:VAL:HA</td>
<td>2:I:1784:ALA:HA</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>1:A:23:VAL:HG22</td>
<td>1:A:47:LYS:HG2</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:3676:ASP:OD1</td>
<td>2:B:3676:ASP:N</td>
<td>2.52</td>
<td>0.43</td>
</tr>
<tr>
<td>2:E:1966:VAL:HA</td>
<td>2:E:1969:LEU:HB3</td>
<td>2.01</td>
<td>0.43</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:E:2368:LEU:HD13</td>
<td>2:E:2376:LEU:HD23</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>2:E:3779:VAL:HG23</td>
<td>2:E:3780:LEU:HD12</td>
<td>2.00</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:790:ARG:HG2</td>
<td>2:G:1627:ALA:HA</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:2440:MET:O</td>
<td>2:G:2444:GLN:N</td>
<td>2.51</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:3891:LEU:HB3</td>
<td>2:G:3899:PHE:CE2</td>
<td>2.54</td>
<td>0.43</td>
</tr>
<tr>
<td>2:G:793:ILE:HB2</td>
<td>2:G:797:HIS:H</td>
<td>1.83</td>
<td>0.43</td>
</tr>
<tr>
<td>2:I:1695:LEU:HB3</td>
<td>2:I:1810:LYS:HZ2</td>
<td>1.83</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:4936:ILE:HG21</td>
<td>2:B:4927:ILE:HG12</td>
<td>2.01</td>
<td>0.43</td>
</tr>
<tr>
<td>2:B:2265:LEU:HD22</td>
<td>2:B:2330:ARG:HB3</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:2368:LEU:HD13</td>
<td>2:B:2376:LEU:HD23</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:2438:PRO:HB3</td>
<td>2:B:2453:ILE:HB</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:919:ASN:O</td>
<td>2:B:923:GLN:N</td>
<td>2.52</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:1708:ARG:HG2</td>
<td>2:E:1711:TYR:CD2</td>
<td>2.54</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:2438:PRO:HB3</td>
<td>2:E:2453:ILE:HB</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:4563:ARG:NH1</td>
<td>2:E:4815:ASP:OD1</td>
<td>2.52</td>
<td>0.42</td>
</tr>
<tr>
<td>2:G:1099:GLU:OE2</td>
<td>2:G:1127:HIS:ND1</td>
<td>2.44</td>
<td>0.42</td>
</tr>
<tr>
<td>2:I:790:ARG:HG2</td>
<td>2:I:1627:ALA:HA</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:I:2758:PHE:O</td>
<td>2:I:2762:THR:N</td>
<td>2.46</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:3891:LEU:HB3</td>
<td>2:B:3899:PHE:CE2</td>
<td>2.54</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:4071:ILE:HG13</td>
<td>2:B:4103:PHE:HZ</td>
<td>1.84</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:641:VAL:HG21</td>
<td>2:B:705:ASN:HA</td>
<td>1.99</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:3830:GLN:HA</td>
<td>2:E:3833:GLN:HG2</td>
<td>2.00</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:4198:SER:OG</td>
<td>2:E:4199:GLU:N</td>
<td>2.52</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:649:PHE:HB3</td>
<td>2:E:776:LEU:HD13</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:I:2265:LEU:HD22</td>
<td>2:I:2330:ARG:HB3</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:396:GLU:OE2</td>
<td>2:B:451:TYR:OH</td>
<td>2.29</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:914:PRO:HD2</td>
<td>2:B:917:GLU:HB2</td>
<td>2.00</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:2144:ILE:HG13</td>
<td>2:E:2144:ILE:H</td>
<td>1.79</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:2742:THR:OG1</td>
<td>2:E:2811:GLU:OE1</td>
<td>2.34</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:3754:GLU:HG3</td>
<td>2:E:4718:LYS:HD2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:G:20:VAL:HG12</td>
<td>2:G:204:PRO:HA</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:G:2291:GLN:HB3</td>
<td>2:G:2294:ASP:H</td>
<td>1.85</td>
<td>0.42</td>
</tr>
<tr>
<td>2:G:4071:ILE:HG13</td>
<td>2:G:4103:PHE:HZ</td>
<td>1.84</td>
<td>0.42</td>
</tr>
<tr>
<td>2:G:4848:VAL:O</td>
<td>2:G:4852:THR:OG1</td>
<td>2.27</td>
<td>0.42</td>
</tr>
<tr>
<td>2:G:919:ASN:O</td>
<td>2:G:923:GLN:N</td>
<td>2.52</td>
<td>0.42</td>
</tr>
<tr>
<td>2:I:2775:TRP:HZ3</td>
<td>2:I:2783:GLU:HA</td>
<td>1.84</td>
<td>0.42</td>
</tr>
<tr>
<td>2:I:410:LEU:HD12</td>
<td>2:I:413:GLN:HE21</td>
<td>1.84</td>
<td>0.42</td>
</tr>
<tr>
<td>2:I:3754:GLU:HG3</td>
<td>2:I:4718:LYS:HD2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:I:919:ASN:O</td>
<td>2:I:923:GLN:N</td>
<td>2.52</td>
<td>0.42</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:B:1637:MET:SD</td>
<td>2:B:1708:ARG:NH1</td>
<td>2.93</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:4051:SER:OG</td>
<td>2:B:4054:ASN:OD1</td>
<td>2.37</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:489:ASN:HA</td>
<td>2:B:492:ASP:HB2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:649:PHE:HB3</td>
<td>2:B:776:LEU:HD13</td>
<td>2.02</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:1025:ARG:O</td>
<td>2:E:1032:LYS:NZ</td>
<td>2.47</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:2440:MET:O</td>
<td>2:E:2444:GLN:N</td>
<td>2.51</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:3891:LEU:HB3</td>
<td>2:E:3899:PHE:CE2</td>
<td>2.54</td>
<td>0.42</td>
</tr>
<tr>
<td>2:G:4051:SER:OG</td>
<td>2:G:4054:ASN:OD1</td>
<td>2.37</td>
<td>0.42</td>
</tr>
<tr>
<td>2:G:942:ALA:HB2</td>
<td>2:G:1052:ASN:HB2</td>
<td>2.00</td>
<td>0.42</td>
</tr>
<tr>
<td>2:I:20:VAL:HG12</td>
<td>2:I:204:PRO:HA</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:1:889:GLN:O</td>
<td>2:1:902:ARG:NH1</td>
<td>2.52</td>
<td>0.42</td>
</tr>
<tr>
<td>2:1:914:PRO:HD2</td>
<td>2:1:917:GLU:HB2</td>
<td>2.00</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:2271:THR:HG22</td>
<td>2:B:2273:LEU:H</td>
<td>1.85</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:4138:ASP:OD1</td>
<td>2:B:4138:ASP:N</td>
<td>2.52</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:877:ASN:HD22</td>
<td>2:E:1045:THR:HG23</td>
<td>1.84</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:1695:LEU:HB3</td>
<td>2:E:1810:LYS:HZ2</td>
<td>1.83</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:2776:SER:O</td>
<td>2:E:2788:HIS:N</td>
<td>2.52</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:3676:ASP:N</td>
<td>2:E:3676:ASP:OD1</td>
<td>2.52</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:4071:ILE:HG13</td>
<td>2:E:4103:PHE:HZ</td>
<td>1.84</td>
<td>0.42</td>
</tr>
<tr>
<td>2:G:649:PHE:HB3</td>
<td>2:G:776:LEU:HD13</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:I:3891:LEU:HB3</td>
<td>2:I:3899:PHE:CE2</td>
<td>2.54</td>
<td>0.42</td>
</tr>
<tr>
<td>2:I:649:PHE:HB3</td>
<td>2:I:776:LEU:HD13</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:790:ARG:HG2</td>
<td>2:B:1627:ALA:HA</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:4586:PRO:HB3</td>
<td>2:B:4628:VAL:HG21</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:3754:GLU:HG3</td>
<td>2:B:4718:LYS:HD2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:G:1637:MET:SD</td>
<td>2:G:1708:ARG:NH1</td>
<td>2.93</td>
<td>0.42</td>
</tr>
<tr>
<td>2:G:410:LEU:HD12</td>
<td>2:G:413:GLN:HE21</td>
<td>1.84</td>
<td>0.42</td>
</tr>
<tr>
<td>2:G:645:ARG:N</td>
<td>2:G:824:GLU:O</td>
<td>2.42</td>
<td>0.42</td>
</tr>
<tr>
<td>1:H:34:LYS:HE3</td>
<td>2:G:634:GLN:HB3</td>
<td>2.02</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:2215:LEU:HD23</td>
<td>2:B:2260:ASN:HB3</td>
<td>2.02</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:2775:TRP:HZ3</td>
<td>2:B:2783:GLU:HA</td>
<td>1.84</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:4198:SER:OG</td>
<td>2:B:4199:GLU:N</td>
<td>2.52</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:4708:THR:HA</td>
<td>2:B:4709:PRO:HD3</td>
<td>1.94</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:1637:MET:SD</td>
<td>2:E:1708:ARG:NH1</td>
<td>2.93</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:181:HIS:CE1</td>
<td>2:E:195:PHE:HB2</td>
<td>2.55</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:2265:LEU:HD22</td>
<td>2:E:2330:ARG:HB3</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:942:ALA:HB2</td>
<td>2:E:1052:ASN:HB2</td>
<td>2.00</td>
<td>0.42</td>
</tr>
<tr>
<td>2:G:2776:SER:O</td>
<td>2:G:2788:HIS:N</td>
<td>2.52</td>
<td>0.42</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:G:489:ASN:HA</td>
<td>2:G:492:ASP:HB2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:J:181:HIS:CE1</td>
<td>2:J:195:PHE:HB2</td>
<td>2.55</td>
<td>0.42</td>
</tr>
<tr>
<td>1:J:92:PRO:HD3</td>
<td>2:I:627:PRO:HB2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:181:HIS:CE1</td>
<td>2:B:195:PHE:HB2</td>
<td>2.55</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:788:LYS:HG2</td>
<td>2:E:1629:GLN:HA</td>
<td>2.02</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:20:VAL:HG12</td>
<td>2:E:204:PRO:HA</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:3658:LYS:HA</td>
<td>2:E:3661:TRP:CD2</td>
<td>2.55</td>
<td>0.42</td>
</tr>
<tr>
<td>2:G:3658:LYS:HA</td>
<td>2:G:3661:TRP:CD2</td>
<td>2.55</td>
<td>0.42</td>
</tr>
<tr>
<td>2:I:1708:ARG:HG2</td>
<td>2:I:1711:Tyr:CD2</td>
<td>2.54</td>
<td>0.42</td>
</tr>
<tr>
<td>2:I:3842:LEU:O</td>
<td>2:I:3929:SER:OG</td>
<td>2.38</td>
<td>0.42</td>
</tr>
<tr>
<td>2:I:4081:VAL:HB</td>
<td>2:I:4088:ILE:HD12</td>
<td>2.02</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:3658:LYS:HA</td>
<td>2:B:3661:TRP:CD2</td>
<td>2.55</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:3842:LEU:O</td>
<td>2:B:3929:SER:OG</td>
<td>2.38</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:1708:ARG:HG2</td>
<td>2:G:1711:Tyr:CD2</td>
<td>2.54</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:214:VAL:HG12</td>
<td>2:B:274:LEU:HD12</td>
<td>2.02</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:3842:LEU:O</td>
<td>2:B:3929:SER:OG</td>
<td>2.38</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:418:ASP:N</td>
<td>2:B:418:ASP:OD1</td>
<td>2.52</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:3754:GLU:HG3</td>
<td>2:B:4718:LYS:HD2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:870:ILE:HD12</td>
<td>2:B:873:LYS:HB2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:I:4586:PRO:HB3</td>
<td>2:I:4628:VAL:HG21</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:1189:LEU:HD12</td>
<td>2:B:1190:PRO:HD2</td>
<td>2.02</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:20:VAL:HG12</td>
<td>2:B:204:PRO:HA</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:2950:UNK:O</td>
<td>2:B:2954:UNK:N</td>
<td>2.53</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:4804:Tyr:HB3</td>
<td>2:B:4806:ASN:HD22</td>
<td>1.85</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:2215:LEU:HD23</td>
<td>2:E:2260:ASN:HD3</td>
<td>2.02</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:3365:UNK:O</td>
<td>2:E:3369:UNK:N</td>
<td>2.53</td>
<td>0.42</td>
</tr>
<tr>
<td>2:E:4708:THR:HA</td>
<td>2:E:4709:PRO:HD3</td>
<td>1.94</td>
<td>0.42</td>
</tr>
<tr>
<td>1:F:25:HIS:HB3</td>
<td>1:F:40:ARG:HD3</td>
<td>2.02</td>
<td>0.42</td>
</tr>
<tr>
<td>1:F:87:HIS:H</td>
<td>1:F:91:ILE:HB</td>
<td>1.85</td>
<td>0.42</td>
</tr>
<tr>
<td>2:G:2271:THR:HG22</td>
<td>2:G:2273:LEU:H</td>
<td>1.85</td>
<td>0.42</td>
</tr>
<tr>
<td>2:G:2243:ARG:NH1</td>
<td>2:G:301:VAL:O</td>
<td>2.49</td>
<td>0.42</td>
</tr>
<tr>
<td>2:G:3759:GLU:HA</td>
<td>2:G:3762:ARG:HB2</td>
<td>2.02</td>
<td>0.42</td>
</tr>
<tr>
<td>2:I:3365:UNK:O</td>
<td>2:I:3369:UNK:N</td>
<td>2.53</td>
<td>0.42</td>
</tr>
<tr>
<td>2:I:870:ILE:HD12</td>
<td>2:I:873:LYS:HB2</td>
<td>2.01</td>
<td>0.42</td>
</tr>
<tr>
<td>2:B:1132:TRP:HE1</td>
<td>2:B:1136:SER:HG</td>
<td>1.68</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:1284:UNK:HA</td>
<td>2:B:1463:UNK:HA</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:410:LEU:HD12</td>
<td>2:B:413:GLN:HE21</td>
<td>1.84</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:E:3759:GLU:HA</td>
<td>2:E:3762:ARG:HB2</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:4960:ILE:HD13</td>
<td>2:E:4960:ILE:HA</td>
<td>1.83</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:788:LYS:HG2</td>
<td>2:G:1629:GLN:HA</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:181:HIS:CE1</td>
<td>2:G:195:PHE:HB2</td>
<td>2.55</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:2185:ILE:HA</td>
<td>2:G:2188:ASN:ND2</td>
<td>2.35</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:2438:PRO:HB3</td>
<td>2:G:2453:ILE:HB</td>
<td>2.01</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:2950:UNK:O</td>
<td>2:G:2954:UNK:N</td>
<td>2.53</td>
<td>0.41</td>
</tr>
<tr>
<td>1:H:25:HIS:HB3</td>
<td>1:H:40:ARG:HD3</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>1:I:25:HIS:HB3</td>
<td>1:I:40:ARG:HD3</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:3365:UNK:O</td>
<td>2:B:3369:UNK:N</td>
<td>2.53</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:4231:MET:CE</td>
<td>2:B:4960:ILE:HD12</td>
<td>2.51</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:2291:GLN:HB2</td>
<td>2:E:2295:ILE:HG</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:278:GLN:N</td>
<td>2:E:315:CYS:SG</td>
<td>2.90</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:489:ASN:HA</td>
<td>2:E:492:ASP:HB2</td>
<td>2.01</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:2758:PHE:O</td>
<td>2:G:2762:THR:N</td>
<td>2.46</td>
<td>0.41</td>
</tr>
<tr>
<td>1:H:87:HIS:H</td>
<td>1:H:91:ILE:HB</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:214:VAL:HG12</td>
<td>2:I:274:ILE:HD12</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:2368:LEU:HD13</td>
<td>2:I:2376:LEU:HD23</td>
<td>2.01</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:2438:PRO:HB3</td>
<td>2:I:2453:ILE:HB</td>
<td>2.01</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:4735:GLU:HA</td>
<td>2:B:4738:ALA:HB3</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:790:ARG:HG2</td>
<td>2:E:1627:ALA:HA</td>
<td>2.01</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:2185:ILE:HA</td>
<td>2:E:2188:ASN:HD21</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:4231:MET:CE</td>
<td>2:G:4960:ILE:HD12</td>
<td>2.50</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:2742:THR:OG1</td>
<td>2:I:2811:GLU:OE1</td>
<td>2.34</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:2950:UNK:O</td>
<td>2:I:2954:UNK:N</td>
<td>2.53</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:2776:SER:O</td>
<td>2:B:2788:HIS:N</td>
<td>2.52</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:173:SER:OG</td>
<td>2:E:174:VAL:N</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:2950:UNK:O</td>
<td>2:E:2954:UNK:N</td>
<td>2.53</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:4804:TYR:HB3</td>
<td>2:E:4806:ASN:HD22</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:164:ARG:N</td>
<td>2:G:167:ASP:OD2</td>
<td>2.43</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:280:LEU:HD21</td>
<td>2:G:316:PHE:HE2</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:5004:THR:H</td>
<td>2:G:5007:GLU:HB2</td>
<td>1.86</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:1637:MET:SD</td>
<td>2:I:1708:ARG:NH1</td>
<td>2.93</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:2185:ILE:HA</td>
<td>2:I:2188:ASN:ND2</td>
<td>2.35</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:3759:GLU:HA</td>
<td>2:I:3762:ARG:HB2</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:4860:ARG:HD2</td>
<td>2:G:4582:VAL:HG11</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:3759:GLU:O</td>
<td>2:B:3763:LEU:N</td>
<td>2.48</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:5004:THR:H</td>
<td>2:B:5007:GLU:HB2</td>
<td>1.86</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:823:LEU:HD23</td>
<td>2:B:1626:TRP:HB3</td>
<td>2.03</td>
<td>0.41</td>
</tr>
</tbody>
</table>

Continued on next page...
<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:E:4138:ASP:N</td>
<td>2:E:4138:ASP:OD1</td>
<td>2.52</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:1099:GLU:OE2</td>
<td>2:I:1127:HIS:ND1</td>
<td>2.44</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:1189:LEU:HD12</td>
<td>2:I:1190:PRO:HD2</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:2215:LEU:HD23</td>
<td>2:I:2260:ASN:HB3</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:2291:GLN:HB3</td>
<td>2:I:2294:ASP:H</td>
<td>1.84</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:3658:LYS:HA</td>
<td>2:I:3661:TRP:CD2</td>
<td>2.55</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:4804:TYR:HB3</td>
<td>2:I:4806:ASN:HD22</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:4802:GLY:HA2</td>
<td>2:I:4808:PHE:HB2</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:4928:LEU:HD13</td>
<td>2:I:4928:LEU:HA</td>
<td>1.91</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:1708:ARG:HG2</td>
<td>2:B:1711:TYR:CD2</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:173:SER:HB3</td>
<td>2:B:178:ARG:H</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:4697:VAL:O</td>
<td>2:B:4701:TRP:N</td>
<td>2.52</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:2291:GLN:HB3</td>
<td>2:E:2294:ASP:H</td>
<td>1.84</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:3842:LEU:O</td>
<td>2:E:3929:SER:OG</td>
<td>2.38</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:4231:MET:CE</td>
<td>2:E:4960:ILE:HD12</td>
<td>2.51</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:4914:VAL:HG23</td>
<td>2:E:4888:TYR:CD1</td>
<td>2.55</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:823:LEU:HD23</td>
<td>2:E:1626:TRP:HB3</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:2368:LEU:HD13</td>
<td>2:G:2376:LEU:HD23</td>
<td>2.01</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:3365:UNK:O</td>
<td>2:G:3369:UNK:N</td>
<td>2.53</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:4138:ASP:N</td>
<td>2:I:4138:ASP:OD1</td>
<td>2.52</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:4231:MET:CE</td>
<td>2:I:4960:ILE:HD12</td>
<td>2.51</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:788:LYS:HG2</td>
<td>2:B:1629:GLN:HA</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:173:SER:OG</td>
<td>2:B:174:VAL:N</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:2437:ALA:HA</td>
<td>2:E:2438:PRO:HD3</td>
<td>1.94</td>
<td>0.41</td>
</tr>
<tr>
<td>1:F:92:PRO:HD3</td>
<td>2:E:627:PRO:HB2</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:911:HIS:O</td>
<td>2:G:918:ARG:NH2</td>
<td>2.48</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:2776:SER:O</td>
<td>2:I:2788:HIS:N</td>
<td>2.52</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:3361:UNK:O</td>
<td>2:I:3365:UNK:N</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:1817:GLU:O</td>
<td>2:B:1821:ASP:N</td>
<td>2.50</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:2291:GLN:HB3</td>
<td>2:B:2294:ASP:H</td>
<td>1.84</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:214:VAL:HG12</td>
<td>2:B:274:LEU:HD12</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:2271:THR:HG22</td>
<td>2:E:2273:LEU:H</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:1189:LEU:HD12</td>
<td>2:G:1190:PRO:HD2</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:2039:LEU:HA</td>
<td>2:G:2042:CYS:HB3</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:2291:GLN:HB2</td>
<td>2:G:2295:LEU:HG</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:3361:UNK:O</td>
<td>2:G:3365:UNK:N</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:4060:LYS:NZ</td>
<td>2:G:4064:MET:SD</td>
<td>2.94</td>
<td>0.41</td>
</tr>
<tr>
<td>2:I:173:SER:OG</td>
<td>2:I:174:VAL:N</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:25:HIS:HB3</td>
<td>1:A:40:ARG:HD3</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>Atom-1</td>
<td>Atom-2</td>
<td>Interatomic distance (Å)</td>
<td>Clash overlap (Å)</td>
</tr>
<tr>
<td>-------------</td>
<td>-------------</td>
<td>--------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>1:A:87:HIS:H</td>
<td>1:A:91:ILE:HB</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:2039:LEU:HA</td>
<td>2:B:2042:CYS:HB3</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>2:B:2185:ILE:HA</td>
<td>2:B:2188:ASN:HD21</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:4051:SER:OG</td>
<td>2:E:4054:ASN:OD1</td>
<td>2.37</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:4060:LYS:NZ</td>
<td>2:E:4064:MET:SD</td>
<td>2.94</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:4081:VAL:HB</td>
<td>2:E:4088:ILE:HD12</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:4697:VAL:O</td>
<td>2:E:4701:TRP:N</td>
<td>2.52</td>
<td>0.41</td>
</tr>
<tr>
<td>2:E:5004:THR:H</td>
<td>2:E:5007:GLU:HB2</td>
<td>1.86</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:1284:UNK:HA</td>
<td>2:G:1463:UNK:HA</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:G:3694:LYS:HA</td>
<td>2:G:3695:PRO:HD3</td>
<td>1.93</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:823:LEU:HD23</td>
<td>2:J:1626:TRP:HB3</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:2291:GLN:HB2</td>
<td>2:J:2295:LEU:HG</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:3676:ASP:N</td>
<td>2:J:3676:ASP:OD1</td>
<td>2.52</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:4898:GLY:HD2</td>
<td>2:J:4899:GLY:O</td>
<td>2.30</td>
<td>0.41</td>
</tr>
<tr>
<td>1:J:87:HIS:H</td>
<td>1:J:91:ILE:HB</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:1676:LEU:HD23</td>
<td>2:J:2167:ILE:HG23</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:3361:UNK:O</td>
<td>2:J:3365:UNK:N</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:4081:VAL:HB</td>
<td>2:J:4088:ILE:HD12</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:2129:ASP:O</td>
<td>2:J:2133:GLU:N</td>
<td>2.49</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:1725:ARG:HA</td>
<td>2:J:1728:ARG:HG2</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:4802:GLY:HA2</td>
<td>2:J:4808:PHE:HB2</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:1700:ASP:OD2</td>
<td>2:J:1708:ARG:NH2</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:4060:LYS:NZ</td>
<td>2:J:4064:MET:SD</td>
<td>2.94</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:4104:THR:HG2</td>
<td>2:J:4106:PRO:HD2</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:4735:GLU:HA</td>
<td>2:J:4738:ALA:HB3</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:2291:GLN:HB2</td>
<td>2:J:2295:LEU:HG</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:3677:LEU:O</td>
<td>2:J:3698:LEU:N</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:4802:GLY:HA2</td>
<td>2:J:4808:PHE:HB2</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:1700:ASP:OD2</td>
<td>2:J:1708:ARG:NH2</td>
<td>2.54</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:2185:ILE:HA</td>
<td>2:J:2188:ASN:HD21</td>
<td>1.85</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:4081:VAL:HB</td>
<td>2:J:4088:ILE:HD12</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:823:LEU:HD23</td>
<td>2:J:1626:TRP:HB3</td>
<td>2.03</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:1788:LYS:HG2</td>
<td>2:J:1629:GLN:HA</td>
<td>2.02</td>
<td>0.41</td>
</tr>
<tr>
<td>2:J:2144:ILE:H</td>
<td>2:J:2144:ILE:HG13</td>
<td>1.79</td>
<td>0.41</td>
</tr>
<tr>
<td>1:A:34:LYS:HD3</td>
<td>2:J:629:ARG:HD2</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>2:J:4763:GLY:O</td>
<td>2:J:4766:THR:OG1</td>
<td>2.30</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:E:1189:LEU:HD12</td>
<td>2:E:1190:PRO:HD2</td>
<td>2.02</td>
<td>0.40</td>
</tr>
<tr>
<td>2:E:3658:LYS:HA</td>
<td>2:E:3661:TRP:CE2</td>
<td>2.56</td>
<td>0.40</td>
</tr>
<tr>
<td>2:E:4735:GLU:HA</td>
<td>2:E:4738:ALA:HB3</td>
<td>2.02</td>
<td>0.40</td>
</tr>
<tr>
<td>2:E:911:HIS:O</td>
<td>2:E:918:ARG:NH2</td>
<td>2.48</td>
<td>0.40</td>
</tr>
<tr>
<td>2:G:2215:LEU:HD23</td>
<td>2:G:2260:ASN:HB3</td>
<td>2.02</td>
<td>0.40</td>
</tr>
<tr>
<td>2:G:472:PHE:HD1</td>
<td>2:G:447:ASP:HB3</td>
<td>1.87</td>
<td>0.40</td>
</tr>
<tr>
<td>2:G:866:HIS:O</td>
<td>2:G:1051:TYR:OH</td>
<td>2.28</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:3658:LYS:HA</td>
<td>2:B:3661:TRP:CE2</td>
<td>2.56</td>
<td>0.40</td>
</tr>
<tr>
<td>2:E:164:ARG:N</td>
<td>2:E:167:ASP:OD2</td>
<td>2.43</td>
<td>0.40</td>
</tr>
<tr>
<td>2:E:214:VAL:HG12</td>
<td>2:E:274:LEU:HD12</td>
<td>2.02</td>
<td>0.40</td>
</tr>
<tr>
<td>2:E:4104:THR:HG22</td>
<td>2:E:4106:PRO:HD2</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>2:E:42:PHE:HD1</td>
<td>2:E:447:ASP:HB3</td>
<td>1.87</td>
<td>0.40</td>
</tr>
<tr>
<td>2:E:495:ASN:HD21</td>
<td>2:E:550:LYS:HE3</td>
<td>1.87</td>
<td>0.40</td>
</tr>
<tr>
<td>2:G:907:LEU:O</td>
<td>2:G:963:ASN:ND2</td>
<td>2.42</td>
<td>0.40</td>
</tr>
<tr>
<td>2:1:1284:UNK:HA</td>
<td>2:1:1463:UNK:HA</td>
<td>2.02</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:3694:LYS:HA</td>
<td>2:B:3695:PRO:HD3</td>
<td>1.93</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:3847:PHE:HA</td>
<td>2:B:3850:GLN:HG2</td>
<td>2.04</td>
<td>0.40</td>
</tr>
<tr>
<td>2:E:1725:ARG:HA</td>
<td>2:E:1728:ARG:HG2</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>2:E:2185:ILE:HA</td>
<td>2:E:2188:ASN:ND2</td>
<td>2.35</td>
<td>0.40</td>
</tr>
<tr>
<td>2:E:3361:UNK:O</td>
<td>2:E:3365:UNK:N</td>
<td>2.54</td>
<td>0.40</td>
</tr>
<tr>
<td>2:G:4735:GLU:HA</td>
<td>2:G:4738:ALA:HB3</td>
<td>2.02</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:1698:LEU:N</td>
<td>2:B:1712:TYR:OH</td>
<td>2.55</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:1735:ILE:HG23</td>
<td>2:B:1771:LEU:HD23</td>
<td>2.04</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:2185:ILE:HA</td>
<td>2:B:2188:ASN:ND2</td>
<td>2.35</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:3759:GLU:HA</td>
<td>2:B:3762:ARG:HB2</td>
<td>2.02</td>
<td>0.40</td>
</tr>
<tr>
<td>2:E:3847:PHE:HA</td>
<td>2:E:3850:GLN:HG2</td>
<td>2.04</td>
<td>0.40</td>
</tr>
<tr>
<td>2:E:681:HIS:HB3</td>
<td>2:E:784:SER:HB3</td>
<td>2.04</td>
<td>0.40</td>
</tr>
<tr>
<td>2:G:3676:ASP:N</td>
<td>2:G:3676:ASP:OD1</td>
<td>2.52</td>
<td>0.40</td>
</tr>
<tr>
<td>2:1:1676:LEU:HD23</td>
<td>2:1:2167:ILE:HG23</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>2:1:5004:THR:H</td>
<td>2:1:5007:GLU:HB2</td>
<td>1.86</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:2467:VAL:HA</td>
<td>2:B:2470:ILE:HD12</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>2:B:4060:LYS:NZ</td>
<td>2:B:4064:MET:SD</td>
<td>2.94</td>
<td>0.40</td>
</tr>
<tr>
<td>2:E:1676:LEU:HD23</td>
<td>2:E:2167:ILE:HG23</td>
<td>2.03</td>
<td>0.40</td>
</tr>
<tr>
<td>2:E:621:ILE:O</td>
<td>2:E:625:LEU:N</td>
<td>2.52</td>
<td>0.40</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Atom-1</th>
<th>Atom-2</th>
<th>Interatomic distance (Å)</th>
<th>Clash overlap (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:I:3658:LYS:HA</td>
<td>2:I:3661:TRP:CE2</td>
<td>2.56</td>
<td>0.40</td>
</tr>
</tbody>
</table>

There are no symmetry-related clashes.

### 5.3 Torsion angles

#### 5.3.1 Protein backbone

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

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

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Analysed</th>
<th>Favoured</th>
<th>Allowed</th>
<th>Outliers</th>
<th>Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>105/108 (97%)</td>
<td>93 (89%)</td>
<td>12 (11%)</td>
<td>0</td>
<td>100 100</td>
</tr>
<tr>
<td>1</td>
<td>F</td>
<td>105/108 (97%)</td>
<td>93 (89%)</td>
<td>12 (11%)</td>
<td>0</td>
<td>100 100</td>
</tr>
<tr>
<td>1</td>
<td>H</td>
<td>105/108 (97%)</td>
<td>93 (89%)</td>
<td>12 (11%)</td>
<td>0</td>
<td>100 100</td>
</tr>
<tr>
<td>1</td>
<td>J</td>
<td>105/108 (97%)</td>
<td>93 (89%)</td>
<td>12 (11%)</td>
<td>0</td>
<td>100 100</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>3235/4416 (73%)</td>
<td>2892 (89%)</td>
<td>337 (10%)</td>
<td>6 (0%)</td>
<td>49 84</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>3235/4416 (73%)</td>
<td>2894 (90%)</td>
<td>335 (10%)</td>
<td>6 (0%)</td>
<td>49 84</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>3235/4416 (73%)</td>
<td>2895 (90%)</td>
<td>334 (10%)</td>
<td>6 (0%)</td>
<td>49 84</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>3235/4416 (73%)</td>
<td>2891 (89%)</td>
<td>338 (10%)</td>
<td>6 (0%)</td>
<td>49 84</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>13360/18096 (74%)</td>
<td>11944 (89%)</td>
<td>1392 (10%)</td>
<td>24 (0%)</td>
<td>53 84</td>
</tr>
</tbody>
</table>

All (24) Ramachandran outliers are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>B</td>
<td>1708</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1708</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1708</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1708</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4985</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1840</td>
<td>PRO</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4985</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1840</td>
<td>PRO</td>
</tr>
</tbody>
</table>

Continued on next page...
5.3.2 Protein sidechains

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

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

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Analysed</th>
<th>Rotameric</th>
<th>Outliers</th>
<th>Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>88/89 (99%)</td>
<td>88 (100%)</td>
<td>0</td>
<td>100 100</td>
</tr>
<tr>
<td>1</td>
<td>F</td>
<td>88/89 (99%)</td>
<td>88 (100%)</td>
<td>0</td>
<td>100 100</td>
</tr>
<tr>
<td>1</td>
<td>H</td>
<td>88/89 (99%)</td>
<td>88 (100%)</td>
<td>0</td>
<td>100 100</td>
</tr>
<tr>
<td>1</td>
<td>J</td>
<td>88/89 (99%)</td>
<td>88 (100%)</td>
<td>0</td>
<td>100 100</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>2493/3022 (82%)</td>
<td>2474 (99%)</td>
<td>19 (1%)</td>
<td>83 91</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>2493/3022 (82%)</td>
<td>2474 (99%)</td>
<td>19 (1%)</td>
<td>83 91</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>2493/3022 (82%)</td>
<td>2474 (99%)</td>
<td>19 (1%)</td>
<td>83 91</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>2493/3022 (82%)</td>
<td>2474 (99%)</td>
<td>19 (1%)</td>
<td>83 91</td>
</tr>
<tr>
<td>All</td>
<td>All</td>
<td>10324/12444 (83%)</td>
<td>10248 (99%)</td>
<td>76 (1%)</td>
<td>86 92</td>
</tr>
</tbody>
</table>

All (76) residues with a non-rotameric sidechain are listed below:
<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>B</td>
<td>131</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>534</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>553</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1076</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1141</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1600</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1676</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1964</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>3663</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>3787</td>
<td>LYS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>3896</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4034</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4085</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4120</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4131</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4959</td>
<td>PHE</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4960</td>
<td>ILE</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4961</td>
<td>CYS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4983</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>131</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>534</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>553</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1076</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1141</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1600</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1676</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1964</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>3663</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>3787</td>
<td>LYS</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>3896</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4034</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4085</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4120</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4131</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4959</td>
<td>PHE</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4960</td>
<td>ILE</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4961</td>
<td>CYS</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4983</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>131</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>534</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>553</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1076</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1141</td>
<td>ARG</td>
</tr>
</tbody>
</table>

Continued on next page...
Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (148) such sidechains are listed below:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>A</td>
<td>87</td>
<td>HIS</td>
</tr>
<tr>
<td>1</td>
<td>H</td>
<td>87</td>
<td>HIS</td>
</tr>
<tr>
<td>1</td>
<td>J</td>
<td>87</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>57</td>
<td>ASN</td>
</tr>
</tbody>
</table>

Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>F</td>
<td>87</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1600</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1676</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1964</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>3663</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>3787</td>
<td>LYS</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>3896</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>4034</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>4085</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>4120</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>4131</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>4959</td>
<td>PHE</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>4960</td>
<td>ILE</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>4961</td>
<td>CYS</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>4983</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>131</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>534</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>553</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1076</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1141</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1600</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1676</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1964</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>3663</td>
<td>LEU</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>3787</td>
<td>LYS</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>3896</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4034</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4085</td>
<td>ARG</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4120</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4959</td>
<td>PHE</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4960</td>
<td>ILE</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4961</td>
<td>CYS</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4983</td>
<td>HIS</td>
</tr>
</tbody>
</table>
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>B</td>
<td>71</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>113</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>224</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>379</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>383</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>413</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>479</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>797</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>921</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1041</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1598</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1688</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1691</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1719</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1760</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>1775</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>2041</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>2127</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>2291</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>3809</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>3889</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>3896</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>3946</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>3950</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>3960</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>3976</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>3994</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4034</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4054</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4120</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4130</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4142</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4209</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>4806</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>57</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>71</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>111</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>113</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>224</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>379</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>383</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>413</td>
<td>GLN</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>G</td>
<td>479</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>797</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>921</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1041</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1598</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1688</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1691</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1719</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1760</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1775</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>1973</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>2041</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>2127</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>2291</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>3809</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>3889</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>3896</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>3946</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>3950</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>3960</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>3976</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>3994</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4034</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4054</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4120</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4130</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4142</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4209</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>G</td>
<td>4806</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>57</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>71</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>111</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>113</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>224</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>379</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>383</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>413</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>479</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>797</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>921</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1041</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1158</td>
<td>ASN</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>I</td>
<td>1598</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1688</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1691</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1719</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1760</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>1775</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>2041</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>2127</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>2291</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>3809</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>3889</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>3896</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>3946</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>3950</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>3960</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>3976</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>3994</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>4034</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>4054</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>4120</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>4142</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>4209</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>4806</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>57</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>71</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>111</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>113</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>224</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>379</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>383</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>413</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>479</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>797</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>921</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1041</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1598</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1688</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1691</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1719</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1760</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>1775</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>2041</td>
<td>HIS</td>
</tr>
</tbody>
</table>
Continued from previous page...

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Res</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>E</td>
<td>2127</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>2291</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>3809</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>3889</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>3896</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>3946</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>3950</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>3960</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>3976</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>3994</td>
<td>HIS</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4034</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4054</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4120</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4130</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4142</td>
<td>ASN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4209</td>
<td>GLN</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>4806</td>
<td>ASN</td>
</tr>
</tbody>
</table>

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no carbohydrates in this entry.

5.6 Ligand geometry

Of 8 ligands modelled in this entry, 8 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.
No monomer is involved in short contacts.

## 5.7 Other polymers

There are no such residues in this entry.

## 5.8 Polymer linkage issues

The following chains have linkage breaks:

<table>
<thead>
<tr>
<th>Mol</th>
<th>Chain</th>
<th>Number of breaks</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>G</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>B</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>I</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>E</td>
<td>14</td>
</tr>
</tbody>
</table>

All chain breaks are listed below:

<table>
<thead>
<tr>
<th>Model</th>
<th>Chain</th>
<th>Residue-1</th>
<th>Atom-1</th>
<th>Residue-2</th>
<th>Atom-2</th>
<th>Distance (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>B</td>
<td>4345:UNK</td>
<td>C</td>
<td>4540:PHE</td>
<td>N</td>
<td>73.85</td>
</tr>
<tr>
<td>1</td>
<td>G</td>
<td>4345:UNK</td>
<td>C</td>
<td>4540:PHE</td>
<td>N</td>
<td>73.85</td>
</tr>
<tr>
<td>1</td>
<td>I</td>
<td>4345:UNK</td>
<td>C</td>
<td>4540:PHE</td>
<td>N</td>
<td>73.85</td>
</tr>
<tr>
<td>1</td>
<td>E</td>
<td>4345:UNK</td>
<td>C</td>
<td>4540:PHE</td>
<td>N</td>
<td>73.85</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>3613:UNK</td>
<td>C</td>
<td>3639:THR</td>
<td>N</td>
<td>45.57</td>
</tr>
<tr>
<td>1</td>
<td>G</td>
<td>3613:UNK</td>
<td>C</td>
<td>3639:THR</td>
<td>N</td>
<td>45.57</td>
</tr>
<tr>
<td>1</td>
<td>I</td>
<td>3613:UNK</td>
<td>C</td>
<td>3639:THR</td>
<td>N</td>
<td>45.57</td>
</tr>
<tr>
<td>1</td>
<td>E</td>
<td>3613:UNK</td>
<td>C</td>
<td>3639:THR</td>
<td>N</td>
<td>45.57</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>4253:GLU</td>
<td>C</td>
<td>4320:UNK</td>
<td>N</td>
<td>29.50</td>
</tr>
<tr>
<td>1</td>
<td>G</td>
<td>4253:GLU</td>
<td>C</td>
<td>4320:UNK</td>
<td>N</td>
<td>29.50</td>
</tr>
<tr>
<td>1</td>
<td>I</td>
<td>4253:GLU</td>
<td>C</td>
<td>4320:UNK</td>
<td>N</td>
<td>29.50</td>
</tr>
<tr>
<td>1</td>
<td>E</td>
<td>4253:GLU</td>
<td>C</td>
<td>4320:UNK</td>
<td>N</td>
<td>29.50</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>3163:UNK</td>
<td>C</td>
<td>3170:UNK</td>
<td>N</td>
<td>15.85</td>
</tr>
<tr>
<td>1</td>
<td>G</td>
<td>3163:UNK</td>
<td>C</td>
<td>3170:UNK</td>
<td>N</td>
<td>15.85</td>
</tr>
<tr>
<td>1</td>
<td>I</td>
<td>3163:UNK</td>
<td>C</td>
<td>3170:UNK</td>
<td>N</td>
<td>15.85</td>
</tr>
<tr>
<td>1</td>
<td>E</td>
<td>3163:UNK</td>
<td>C</td>
<td>3170:UNK</td>
<td>N</td>
<td>15.85</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>3063:UNK</td>
<td>C</td>
<td>3134:UNK</td>
<td>N</td>
<td>15.15</td>
</tr>
<tr>
<td>1</td>
<td>G</td>
<td>3063:UNK</td>
<td>C</td>
<td>3134:UNK</td>
<td>N</td>
<td>15.15</td>
</tr>
<tr>
<td>1</td>
<td>I</td>
<td>3063:UNK</td>
<td>C</td>
<td>3134:UNK</td>
<td>N</td>
<td>15.15</td>
</tr>
<tr>
<td>1</td>
<td>E</td>
<td>3063:UNK</td>
<td>C</td>
<td>3134:UNK</td>
<td>N</td>
<td>15.15</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>3468:UNK</td>
<td>C</td>
<td>3511:UNK</td>
<td>N</td>
<td>14.46</td>
</tr>
<tr>
<td>1</td>
<td>G</td>
<td>3468:UNK</td>
<td>C</td>
<td>3511:UNK</td>
<td>N</td>
<td>14.46</td>
</tr>
<tr>
<td>1</td>
<td>I</td>
<td>3468:UNK</td>
<td>C</td>
<td>3511:UNK</td>
<td>N</td>
<td>14.46</td>
</tr>
<tr>
<td>1</td>
<td>E</td>
<td>3468:UNK</td>
<td>C</td>
<td>3511:UNK</td>
<td>N</td>
<td>14.46</td>
</tr>
</tbody>
</table>

Continued on next page...
Continued from previous page...

<table>
<thead>
<tr>
<th>Model</th>
<th>Chain</th>
<th>Residue-1</th>
<th>Atom-1</th>
<th>Residue-2</th>
<th>Atom-2</th>
<th>Distance (Å)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>B</td>
<td>2703:UNK</td>
<td>C</td>
<td>2734:ASN</td>
<td>N</td>
<td>13.26</td>
</tr>
<tr>
<td>1</td>
<td>G</td>
<td>2703:UNK</td>
<td>C</td>
<td>2734:ASN</td>
<td>N</td>
<td>13.26</td>
</tr>
<tr>
<td>1</td>
<td>I</td>
<td>2703:UNK</td>
<td>C</td>
<td>2734:ASN</td>
<td>N</td>
<td>13.26</td>
</tr>
<tr>
<td>1</td>
<td>E</td>
<td>2703:UNK</td>
<td>C</td>
<td>2734:ASN</td>
<td>N</td>
<td>13.26</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>3236:UNK</td>
<td>C</td>
<td>3241:UNK</td>
<td>N</td>
<td>13.11</td>
</tr>
<tr>
<td>1</td>
<td>G</td>
<td>3236:UNK</td>
<td>C</td>
<td>3241:UNK</td>
<td>N</td>
<td>13.11</td>
</tr>
<tr>
<td>1</td>
<td>I</td>
<td>3236:UNK</td>
<td>C</td>
<td>3241:UNK</td>
<td>N</td>
<td>13.11</td>
</tr>
<tr>
<td>1</td>
<td>E</td>
<td>3236:UNK</td>
<td>C</td>
<td>3241:UNK</td>
<td>N</td>
<td>13.11</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>1564:UNK</td>
<td>C</td>
<td>1573:MET</td>
<td>N</td>
<td>12.51</td>
</tr>
<tr>
<td>1</td>
<td>G</td>
<td>1564:UNK</td>
<td>C</td>
<td>1573:MET</td>
<td>N</td>
<td>12.51</td>
</tr>
<tr>
<td>1</td>
<td>I</td>
<td>1564:UNK</td>
<td>C</td>
<td>1573:MET</td>
<td>N</td>
<td>12.51</td>
</tr>
<tr>
<td>1</td>
<td>E</td>
<td>1564:UNK</td>
<td>C</td>
<td>1573:MET</td>
<td>N</td>
<td>12.51</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>2976:UNK</td>
<td>C</td>
<td>2995:UNK</td>
<td>N</td>
<td>12.28</td>
</tr>
<tr>
<td>1</td>
<td>G</td>
<td>2976:UNK</td>
<td>C</td>
<td>2995:UNK</td>
<td>N</td>
<td>12.28</td>
</tr>
<tr>
<td>1</td>
<td>I</td>
<td>2976:UNK</td>
<td>C</td>
<td>2995:UNK</td>
<td>N</td>
<td>12.28</td>
</tr>
<tr>
<td>1</td>
<td>E</td>
<td>2976:UNK</td>
<td>C</td>
<td>2995:UNK</td>
<td>N</td>
<td>12.28</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>3254:UNK</td>
<td>C</td>
<td>3261:UNK</td>
<td>N</td>
<td>8.55</td>
</tr>
<tr>
<td>1</td>
<td>G</td>
<td>3254:UNK</td>
<td>C</td>
<td>3261:UNK</td>
<td>N</td>
<td>8.55</td>
</tr>
<tr>
<td>1</td>
<td>I</td>
<td>3254:UNK</td>
<td>C</td>
<td>3261:UNK</td>
<td>N</td>
<td>8.55</td>
</tr>
<tr>
<td>1</td>
<td>E</td>
<td>3254:UNK</td>
<td>C</td>
<td>3261:UNK</td>
<td>N</td>
<td>8.55</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>1297:UNK</td>
<td>C</td>
<td>1430:UNK</td>
<td>N</td>
<td>5.58</td>
</tr>
<tr>
<td>1</td>
<td>G</td>
<td>1297:UNK</td>
<td>C</td>
<td>1430:UNK</td>
<td>N</td>
<td>5.58</td>
</tr>
<tr>
<td>1</td>
<td>I</td>
<td>1297:UNK</td>
<td>C</td>
<td>1430:UNK</td>
<td>N</td>
<td>5.58</td>
</tr>
<tr>
<td>1</td>
<td>E</td>
<td>1297:UNK</td>
<td>C</td>
<td>1430:UNK</td>
<td>N</td>
<td>5.58</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>2479:LEU</td>
<td>C</td>
<td>2487:UNK</td>
<td>N</td>
<td>3.51</td>
</tr>
<tr>
<td>1</td>
<td>G</td>
<td>2479:LEU</td>
<td>C</td>
<td>2487:UNK</td>
<td>N</td>
<td>3.51</td>
</tr>
<tr>
<td>1</td>
<td>I</td>
<td>2479:LEU</td>
<td>C</td>
<td>2487:UNK</td>
<td>N</td>
<td>3.51</td>
</tr>
<tr>
<td>1</td>
<td>E</td>
<td>2479:LEU</td>
<td>C</td>
<td>2487:UNK</td>
<td>N</td>
<td>3.51</td>
</tr>
<tr>
<td>1</td>
<td>B</td>
<td>2939:ARG</td>
<td>C</td>
<td>2942:UNK</td>
<td>N</td>
<td>3.39</td>
</tr>
<tr>
<td>1</td>
<td>G</td>
<td>2939:ARG</td>
<td>C</td>
<td>2942:UNK</td>
<td>N</td>
<td>3.39</td>
</tr>
<tr>
<td>1</td>
<td>I</td>
<td>2939:ARG</td>
<td>C</td>
<td>2942:UNK</td>
<td>N</td>
<td>3.39</td>
</tr>
<tr>
<td>1</td>
<td>E</td>
<td>2939:ARG</td>
<td>C</td>
<td>2942:UNK</td>
<td>N</td>
<td>3.39</td>
</tr>
</tbody>
</table>