checkCIF/PLATON report

Structure factors have been supplied for datablock(s) 19010

THIS REPORT IS FOR GUIDANCE ONLY. IF USED AS PART OF A REVIEW PROCEDURE FOR PUBLICATION, IT SHOULD NOT REPLACE THE EXPERTISE OF AN EXPERIENCED CRYSTALLOGRAPHIC REFEREE.

No syntax errors found. CIF dictionary Interpreting this report

**Datablock: 19010**

Bond precision: C-C = 0.0022 Å Wavelength=0.71073 Å

<table>
<thead>
<tr>
<th>Calculation</th>
<th>Reported</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume (Å³)</td>
<td>3725.45(14)</td>
</tr>
<tr>
<td>Space group</td>
<td>P 21/c</td>
</tr>
<tr>
<td>Hall group</td>
<td>-P 2ybc</td>
</tr>
<tr>
<td>Moiety formula</td>
<td>C24 B F20, C19 H16, Ga</td>
</tr>
<tr>
<td>Sum formula</td>
<td>C43 H16 B F20 Ga</td>
</tr>
<tr>
<td>Mr</td>
<td>993.09</td>
</tr>
<tr>
<td>Dx,g cm⁻³</td>
<td>1.771</td>
</tr>
<tr>
<td>Z</td>
<td>4</td>
</tr>
<tr>
<td>Mu (mm⁻¹)</td>
<td>0.874</td>
</tr>
<tr>
<td>F000</td>
<td>1960.0</td>
</tr>
<tr>
<td>F000’</td>
<td>1962.58</td>
</tr>
<tr>
<td>h,k,lmax</td>
<td>18,24,19</td>
</tr>
<tr>
<td>Nref</td>
<td>8913</td>
</tr>
<tr>
<td>Tmin,Tmax</td>
<td>0.629,0.694</td>
</tr>
<tr>
<td>Tmin’</td>
<td>0.804</td>
</tr>
</tbody>
</table>

Correction method= # Reported T Limits: Tmin=0.629 Tmax=0.694
AbsCorr = MULTI-SCAN

Data completeness= 0.999 Theta(max)= 27.901

R(reflections)= 0.0318( 7904) wR2(reflections)= 0.0852( 8908)

S = 1.006 Npar= 586

The following ALERTS were generated. Each ALERT has the format test-name_ALERT_alert-type_alert-level.
Click on the hyperlinks for more details of the test.
**Alert level A**

- PLAT307_ALERT_2_A Isolated Metal Atom found in Structure (Unusual)  
  Gal Check

**Alert level G**

- PLAT434_ALERT_2_G Short Inter HL..HL Contact F9A  ..F14A  
  1-x,1/2+y,3/2-z = 2.72 Ang.  
  _656 Check
- PLAT434_ALERT_2_G Short Inter HL..HL Contact F9A  ..F16A  
  -x,1-y,1-z = 2.80 Ang.  
  _566 Check
- PLAT910_ALERT_3_G Missing # of FCF Reflection(s) Below Theta(Min).  
  4 Note
- PLAT912_ALERT_4_G Missing # of FCF Reflections Above STh/L= 0.600  
  2 Note
- PLAT978_ALERT_2_G Number C-C Bonds with Positive Residual Density.  
  14 Info

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1 ALERT level A = Most likely a serious problem - resolve or explain
0 ALERT level B = A potentially serious problem, consider carefully
0 ALERT level C = Check. Ensure it is not caused by an omission or oversight
5 ALERT level G = General information/check it is not something unexpected

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It is advisable to attempt to resolve as many as possible of the alerts in all categories. Often the minor alerts point to easily fixed oversights, errors and omissions in your CIF or refinement strategy, so attention to these fine details can be worthwhile. In order to resolve some of the more serious problems it may be necessary to carry out additional measurements or structure refinements. However, the purpose of your study may justify the reported deviations and the more serious of these should normally be commented upon in the discussion or experimental section of a paper or in the "special_details" fields of the CIF. checkCIF was carefully designed to identify outliers and unusual parameters, but every test has its limitations and alerts that are not important in a particular case may appear. Conversely, the absence of alerts does not guarantee there are no aspects of the results needing attention. It is up to the individual to critically assess their own results and, if necessary, seek expert advice.

**Publication of your CIF in IUCr journals**

A basic structural check has been run on your CIF. These basic checks will be run on all CIfs submitted for publication in IUCr journals *(Acta Crystallographica, Journal of Applied Crystallography, Journal of Synchrotron Radiation)*; however, if you intend to submit to *Acta Crystallographica Section C* or *E* or IUCrData, you should make sure that full publication checks are run on the final version of your CIF prior to submission.

**Publication of your CIF in other journals**

Please refer to the *Notes for Authors* of the relevant journal for any special instructions relating to CIF submission.

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PLATON version of 06/01/2019; check.def file version of 19/12/2018