# checkCIF/PLATON report

You have not supplied any structure factors. As a result the full set of tests cannot be run.

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.

## **Datablock: BCu5**

```
Bond precision: C-C = 0.0065 A
                                       Wavelength=0.71073
Cell:
              a=8.7723(18)
                              b=12.318(3)
                                               c=13.833(3)
              alpha=101.77(3) beta=105.28(3)
                                                qamma = 104.70(3)
Temperature:
              170 K
               Calculated
                                         Reported
Volume
               1334.7(7)
                                         1334.7(6)
Space group
                                         P -1
              P -1
                                         -P 1
Hall group
               -P 1
Moiety formula C60 H50 Cu3 F6 N2 O12
Sum formula
             C60 H50 Cu3 F6 N2 O12
                                         C60 H50 Cu3 F6 N2 O12
Mr
               1295.67
                                         1295.64
               1.612
                                         1.612
Dx,g cm-3
Ζ
                                         1
Mu (mm-1)
               1.274
                                         1.274
F000
               661.0
                                         661.0
F000′
               662.30
h,k,lmax
               12,17,19
                                         12,16,19
Nref
               7405
                                         7268
               0.775,0.844
                                         0.596,0.800
Tmin,Tmax
Tmin'
               0.723
Correction method= # Reported T Limits: Tmin=0.596 Tmax=0.800
AbsCorr = NUMERICAL
Data completeness= 0.981
                                Theta(max) = 29.475
R(reflections) = 0.0471(4531) wR2(reflections) = 0.1256(7268)
S = 0.945
                         Npar= 390
```

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 C PLAT220\_ALERT\_2\_C NonSolvent Resd 1 C Ueq(max)/Ueq(min) Range 3.6 Ratio PLAT230 ALERT 2 C Hirshfeld Test Diff for C29 --C30 . 6.7 s.u. 03 Check PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of 05 Check PLAT242\_ALERT\_2\_C Low 'MainMol' Ueq as Compared to Neighbors of Cu2 Check PLAT334\_ALERT\_2\_C Small Aver. Benzene C-C Dist C3 -C8 1.37 Ang. PLAT341\_ALERT\_3\_C Low Bond Precision on C-C Bonds ...... 0.00648 Ang. PLAT480\_ALERT\_4\_C Long H...A H-Bond Reported H2A ...O6 . 2.63 Ang. Alert level G PLAT002 ALERT 2 G Number of Distance or Angle Restraints on AtSite 2 Note PLAT004\_ALERT\_5\_G Polymeric Structure Found with Maximum Dimension 1 Info PLAT013\_ALERT\_1\_G No \_\_shelx\_hkl\_checksum Found in CIF ..... Please Check PLAT154\_ALERT\_1\_G The s.u.'s on the Cell Angles are Equal ..(Note) 0.03 Degree PLAT172\_ALERT\_4\_G The CIF-Embedded .res File Contains DFIX Records 1 Report PLAT301\_ALERT\_3\_G Main Residue Disorder .....(Resd 1 ) 2% Note PLAT794\_ALERT\_5\_G Tentative Bond Valency for Cu2 (II) 2.13 Info PLAT860\_ALERT\_3\_G Number of Least-Squares Restraints ..... 1 Note PLAT883\_ALERT\_1\_G No Info/Value for \_atom\_sites\_solution\_primary . Please Do ! PLAT941\_ALERT\_3\_G Average HKL Measurement Multiplicity ...... 2.1 Low 0 ALERT level A = Most likely a serious problem - resolve or explain

- 0 ALERT level B = A potentially serious problem, consider carefully
- 8 ALERT level C = Check. Ensure it is not caused by an omission or oversight
- 10 ALERT level G = General information/check it is not something unexpected
- 3 ALERT type 1 CIF construction/syntax error, inconsistent or missing data
- 7 ALERT type 2 Indicator that the structure model may be wrong or deficient
- 4 ALERT type 3 Indicator that the structure quality may be low
- 2 ALERT type 4 Improvement, methodology, query or suggestion
- 2 ALERT type 5 Informative message, check

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.

PLATON version of 10/08/2020; check.def file version of 06/08/2020

