

## checkCIF/PLATON report

Structure factors have been supplied for datablock(s)  
C\_\_Users\_jej2507\_Desktop\_JH1\_x-2\_P21n\_a\_P21n\_a

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: C\_\_Users\_jej2507\_Desktop\_JH1\_x-2\_P21n\_a\_P21n\_a

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Bond precision:    C-C = 0.0016 A

Wavelength=0.70000

Cell:                    a=10.497(2)            b=12.835(3)            c=20.815(4)  
                          alpha=90            beta=97.66(3)            gamma=90  
Temperature:            100 K

|                | Calculated   | Reported     |
|----------------|--------------|--------------|
| Volume         | 2779.4(10)   | 2779.4(10)   |
| Space group    | P 21/n       | P 21/n       |
| Hall group     | -P 2yn       | -P 2yn       |
| Moiety formula | C16 H19 N O  | ?            |
| Sum formula    | C16 H19 N O  | C16 H19 N O  |
| Mr             | 241.32       | 241.32       |
| Dx, g cm-3     | 1.153        | 1.153        |
| Z              | 8            | 8            |
| Mu (mm-1)      | 0.068        | 0.071        |
| F000           | 1040.0       | 1040.0       |
| F000'          | 1040.36      |              |
| h, k, lmax     | 14, 18, 29   | 14, 18, 29   |
| Nref           | 8125         | 7736         |
| Tmin, Tmax     | 0.987, 0.992 | 0.988, 1.000 |
| Tmin'          | 0.986        |              |

Correction method= # Reported T Limits: Tmin=0.988 Tmax=1.000  
AbsCorr = EMPIRICAL

Data completeness= 0.952

Theta(max)= 29.537

R(reflections)= 0.0736( 6914)

wR2(reflections)= 0.2178( 7736)

S = 1.132

Npar= 333

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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.

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● **Alert level C**

DIFMX02\_ALERT\_1\_C The maximum difference density is > 0.1\*ZMAX\*0.75

The relevant atom site should be identified.

|                   |                                                  |       |        |
|-------------------|--------------------------------------------------|-------|--------|
| PLAT029_ALERT_3_C | _diffrn_measured_fraction_theta_full value Low . | 0.970 | Why?   |
| PLAT097_ALERT_2_C | Large Reported Max. (Positive) Residual Density  | 0.75  | eA-3   |
| PLAT220_ALERT_2_C | NonSolvent Resd 1 C Ueq(max)/Ueq(min) Range      | 4.4   | Ratio  |
| PLAT222_ALERT_3_C | NonSolvent Resd 1 H Uiso(max)/Uiso(min) Range    | 4.8   | Ratio  |
| PLAT250_ALERT_2_C | Large U3/U1 Ratio for Average U(i,j) Tensor .... | 2.1   | Note   |
| PLAT250_ALERT_2_C | Large U3/U1 Ratio for Average U(i,j) Tensor .... | 2.1   | Note   |
| PLAT911_ALERT_3_C | Missing FCF Refl Between Thmin & STh/L= 0.600    | 153   | Report |
| PLAT913_ALERT_3_C | Missing # of Very Strong Reflections in FCF .... | 19    | Note   |

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● **Alert level G**

ABSMU01\_ALERT\_1\_G Calculation of \_exptl\_absorpt\_correction\_mu

not performed for this radiation type.

|                   |                                                  |         |             |
|-------------------|--------------------------------------------------|---------|-------------|
| PLAT066_ALERT_1_G | Predicted and Reported Tmin&Tmax Range Identical | ?       | Check       |
| PLAT092_ALERT_4_G | Check: Wavelength Given is not Cu,Ga,Mo,Ag,In Ka | 0.70000 | Ang.        |
| PLAT380_ALERT_4_G | Incorrectly? Oriented X(sp2)-Methyl Moiety ..... | C10     | Check       |
| PLAT883_ALERT_1_G | No Info/Value for _atom_sites_solution_primary . |         | Please Do ! |
| PLAT912_ALERT_4_G | Missing # of FCF Reflections Above STh/L= 0.600  | 236     | Note        |
| PLAT941_ALERT_3_G | Average HKL Measurement Multiplicity .....       | 2.5     | Low         |
| PLAT978_ALERT_2_G | Number C-C Bonds with Positive Residual Density. | 12      | Info        |

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0 **ALERT level A** = Most likely a serious problem - resolve or explain

0 **ALERT level B** = A potentially serious problem, consider carefully

9 **ALERT level C** = Check. Ensure it is not caused by an omission or oversight

8 **ALERT level G** = General information/check it is not something unexpected

4 **ALERT type 1** CIF construction/syntax error, inconsistent or missing data

5 **ALERT type 2** Indicator that the structure model may be wrong or deficient

5 **ALERT type 3** Indicator that the structure quality may be low

3 **ALERT type 4** Improvement, methodology, query or suggestion

0 **ALERT type 5** Informative message, check

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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.

