checkCIF/PLATON report

Structure factors have been supplied for datablock(s) A21051O_014

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: A210510_014

Bond precision: C-C = 0.0031 A Wavelength=0.71073 c=24.9341(13)Cell: a=12.2984(7) b=12.3285(6)alpha=90 beta=100.4467(16) gamma=90 Temperature: 173 K Calculated Reported Volume 3717.9(3) 3717.9(3) Space group P 21/c P 21/c Hall group -P 2ybc -P 2ybc Moiety formula C21 H27 N3 O2 C21 H27 N3 O2 Sum formula C21 H27 N3 O2 C21 H27 N3 O2 Mr 353.46 353.45 1.263 1.263 Dx,g cm-3 Ζ 8 Mu (mm-1)0.082 0.082 F000 1520.0 1520.0 F000′ 1520.59 h,k,lmax 15,15,31 15,15,31 Nref 7611 7566 0.993,0.997 0.623,0.745 Tmin,Tmax Tmin' 0.988 Correction method= # Reported T Limits: Tmin=0.623 Tmax=0.745 AbsCorr = MULTI-SCAN Data completeness= 0.994 Theta(max) = 26.364 R(reflections) = 0.0654(5243) wR2(reflections) = 0.1306(7566) S = 1.073Npar= 487

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

PLAT410_ALERT_2_C Short Intra H...H Contact H50B ..H56B . 1.96 Ang.

x,y,z = 1_555 Check

PLAT906_ALERT_3_C Large K Value in the Analysis of Variance 15.434 Check

PLAT910_ALERT_3_C Large K Value in the Analysis of Variance 2.953 Check

PLAT910_ALERT_3_C Missing # of FCF Reflection(s) Below Theta(Min). 7 Note

PLAT911_ALERT_3_C Missing FCF Refl Between Thmin & STh/L= 0.600 28 Report

PLAT913_ALERT_3_C Missing # of Very Strong Reflections in FCF 10 Note

Alert level G

PLAT398_ALERT_2_G Deviating C-O-C Angle From 120 for 024 PLAT398_ALERT_2_G Deviating C-O-C Angle From 120 for 054 109.6 Degree 109.6 Degree (Centro SPGR) PLAT793_ALERT_4_G Model has Chirality at C14 S Verify (Centro SPGR) R Verify PLAT793_ALERT_4_G Model has Chirality at C19 (Centro SPGR)
PLAT793_ALERT_4_G Model has Chirality at C44 (Centro SPGR)
PLAT793_ALERT_4_G Model has Chirality at C49 (Centro SPGR) PLAT793_ALERT_4_G Model has Chirality at C19 S Verify R Verify Please Do ! PLAT883_ALERT_1_G No Info/Value for _atom_sites_solution_primary . PLAT912_ALERT_4_G Missing # of FCF Reflections Above STh/L= 0.600 10 Note PLAT933_ALERT_2_G Number of OMIT Records in Embedded .res File ... 11 Note PLAT978_ALERT_2_G Number C-C Bonds with Positive Residual Density. 7 Info

- 0 ALERT level A = Most likely a serious problem resolve or explain
- 0 ALERT level B = A potentially serious problem, consider carefully
- 6 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
- 1 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
- 5 ALERT type 4 Improvement, methodology, query or suggestion
- 0 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 05/12/2020; check.def file version of 05/12/2020

