

checkCIF/PLATON report

Structure factors have been supplied for datablock(s) dm-skp-3-48-2_cu

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: dm-skp-3-48-2_cu

Bond precision:	C-C = 0.0087 Å	Wavelength=1.54184	
Cell:	a=15.2362 (7)	b=18.0958 (7)	c=7.8354 (4)
	alpha=90	beta=90	gamma=90
Temperature:	150 K		
	Calculated	Reported	
Volume	2160.31 (17)	2160.31 (17)	
Space group	P 21 21 2	P 21 21 2	
Hall group	P 2 2ab	P 2 2ab	
Moiety formula	C24 H26 N2 O4	0.444 (C24 H26 N2 O4)	
Sum formula	C24 H26 N2 O4	C10.67 H11.56 N0.89 O1.78	
Mr	406.47	180.65	
Dx, g cm ⁻³	1.250	1.250	
Z	4	9	
Mu (mm ⁻¹)	0.692	0.692	
F000	864.0	864.0	
F000'	866.64		
h, k, lmax	18, 22, 9	18, 22, 9	
Nref	4310 [2468]	4112	
Tmin, Tmax	0.951, 0.966	0.041, 1.000	
Tmin'	0.944		

Correction method= # Reported T Limits: Tmin=0.041 Tmax=1.000
AbsCorr = MULTI-SCAN

Data completeness= 1.67/0.95 Theta(max)= 72.729

R(reflections)= 0.0786 (2658)	wR2(reflections)=
S = 1.015	0.2273 (4112)
Npar= 276	

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

RINTA01_ALERT_3_C The value of Rint is greater than 0.12

Rint given 0.120

PLAT340_ALERT_3_C Low Bond Precision on C-C Bonds 0.00874 Ang.
PLAT906_ALERT_3_C Large K Value in the Analysis of Variance 2.836 Check
PLAT907_ALERT_2_C Flack x > 0.5, Structure Needs to be Inverted? . 0.70 Check
PLAT911_ALERT_3_C Missing FCF Refl Between Thmin & STh/L= 0.600 11 Report



Alert level G

FORMU01_ALERT_1_G There is a discrepancy between the atom counts in the
_chemical_formula_sum and _chemical_formula_moiety. This is
usually due to the moiety formula being in the wrong format.

Atom count from _chemical_formula_sum: C10.67 H11.56 N0.89 O1.78

Atom count from _chemical_formula_moiety: C10.656 H11.544 N0.888 O1.776

CELLZ01_ALERT_1_G Difference between formula and atom_site contents detected.

CELLZ01_ALERT_1_G ALERT: check formula stoichiometry or atom site occupancies.

From the CIF: _cell_formula_units_Z 9

From the CIF: _chemical_formula_sum C10.67 H11.56 N0.89 O1.78

TEST: Compare cell contents of formula and atom_site data

atom	Z*formula	cif sites	diff
C	96.03	96.00	0.03
H	104.04	104.00	0.04
N	8.01	8.00	0.01
O	16.02	16.00	0.02

PLAT032_ALERT_4_G Std. Uncertainty on Flack Parameter Value High . 0.400 Report
PLAT042_ALERT_1_G Calc. and Reported Moiety Formula Strings Differ Please Check
PLAT045_ALERT_1_G Calculated and Reported Z Differ by a Factor ... 0.4444 Check
PLAT720_ALERT_4_G Number of Unusual/Non-Standard Labels 56 Note
PLAT912_ALERT_4_G Missing # of FCF Reflections Above STh/L= 0.600 34 Note
PLAT916_ALERT_2_G Hooft y and Flack x Parameter Values Differ by . 0.30 Check
PLAT933_ALERT_2_G Number of HKL-OMIT Records in Embedded .res File 13 Note
PLAT941_ALERT_3_G Average HKL Measurement Multiplicity 3.8 Low
PLAT978_ALERT_2_G Number C-C Bonds with Positive Residual Density. 0 Info

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

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

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

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

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

4 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

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.

