

checkCIF/PLATON report

Structure factors have been supplied for datablock(s) I

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: I

Bond precision: C-C = 0.0018 A

Wavelength=0.71073

Cell: a=10.7068(3) b=16.6627(6) c=17.9475(9)
 alpha=117.108(2) beta=92.836(2) gamma=106.327(2)
Temperature: 100 K

	Calculated	Reported
Volume	2675.5(2)	2675.49(19)
Space group	P -1	P -1
Hall group	-P 1	-P 1
Moiety formula	C60 H70 Ni P2 S2	?
Sum formula	C60 H70 Ni P2 S2	C60 H70 Ni P2 S2
Mr	975.91	975.91
Dx,g cm-3	1.211	1.211
Z	2	2
Mu (mm-1)	0.537	0.537
F000	1040.0	1040.0
F000'	1041.86	
h,k,lmax	14,22,24	14,22,24
Nref	14421	14341
Tmin,Tmax	0.913,0.933	0.704,0.746
Tmin'	0.913	

Correction method= # Reported T Limits: Tmin=0.704 Tmax=0.746
AbsCorr = MULTI-SCAN

Data completeness= 0.994

Theta(max)= 29.129

R(reflections)= 0.0265(13208)

wR2(reflections)= 0.0717(14341)

S = 1.019

Npar= 602

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	Non-Solvent Resd 1 C Ueq(max)/Ueq(min) Range	3.2 Ratio
PLAT911_ALERT_3_C	Missing FCF Refl Between Thmin & STh/L= 0.600	6 Report
PLAT977_ALERT_2_C	Check Negative Difference Density on H17A	-0.33 eA-3
PLAT977_ALERT_2_C	Check Negative Difference Density on H17B	-0.33 eA-3

● Alert level G

PLAT154_ALERT_1_G	The s.u.'s on the Cell Angles are Equal ..(Note)	0.002 Degree
PLAT910_ALERT_3_G	Missing # of FCF Reflection(s) Below Theta(Min).	3 Note
PLAT912_ALERT_4_G	Missing # of FCF Reflections Above STh/L= 0.600	70 Note
PLAT978_ALERT_2_G	Number C-C Bonds with Positive Residual Density.	20 Info

- 0 **ALERT level A** = Most likely a serious problem - resolve or explain
0 **ALERT level B** = A potentially serious problem, consider carefully
4 **ALERT level C** = Check. Ensure it is not caused by an omission or oversight
4 **ALERT level G** = General information/check it is not something unexpected
- 1 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
2 ALERT type 3 Indicator that the structure quality may be low
1 ALERT type 4 Improvement, methodology, query or suggestion
0 ALERT type 5 Informative message, check
-

Validation response form

Please find below a validation response form (VRF) that can be filled in and pasted into your CIF.

```
# start Validation Reply Form
_vrf_PLAT220_I
;
PROBLEM: Non-Solvent Resd 1 C Ueq(max)/Ueq(min) Range 3.2 Ratio
RESPONSE: ...
;
_vrf_PLAT911_I
;
PROBLEM: Missing FCF Refl Between Thmin & STh/L= 0.600 6 Report
RESPONSE: ...
;
_vrf_PLAT977_I
;
PROBLEM: Check Negative Difference Density on H17A -0.33 eA-3
RESPONSE: ...
;
# end Validation Reply Form
```

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

