

# 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

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Bond precision:	C-C = 0.0035 A	Wavelength=0.71073
Cell:	a=11.8720(3)      b=8.8105(2)      c=14.5507(4)	
	alpha=90      beta=108.628(3)      gamma=90	
Temperature:	150 K	
	Calculated	Reported
Volume	1442.25(7)	1442.24(7)
Space group	P 21/c	P 21/c
Hall group	-P 2ybc	-P 2ybc
Moiety formula	C30 H20 F8 Mn N2 O4	C30 H20 F8 Mn N2 O4
Sum formula	C30 H20 F8 Mn N2 O4	C30 H20 F8 Mn N2 O4
Mr	679.42	679.42
Dx,g cm-3	1.564	1.565
Z	2	2
Mu (mm-1)	0.549	0.549
F000	686.0	686.0
F000'	687.15	
h,k,lmax	15,11,18	15,11,18
Nref	3314	3311
Tmin,Tmax	0.896,0.973	0.892,1.000
Tmin'	0.896	

Correction method= # Reported T Limits: Tmin=0.892 Tmax=1.000  
AbsCorr = MULTI-SCAN

Data completeness= 0.999      Theta(max)= 27.479

R(reflections)= 0.0399( 2663)      wR2(reflections)= 0.1037( 3311)

S = 1.044      Npar= 205

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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.



### Alert level C

PLAT094\_ALERT\_2\_C Ratio of Maximum / Minimum Residual Density .... 3.03 Report



### Alert level G

PLAT242_ALERT_2_G Low	'MainMol' Ueq as Compared to Neighbors of	C1 Check
PLAT794_ALERT_5_G Tentative Bond Valency for Mn1	(II)	2.09 Info
PLAT910_ALERT_3_G Missing # of FCF Reflection(s) Below Theta(Min).		3 Note
PLAT941_ALERT_3_G Average HKL Measurement Multiplicity .....		4.2 Low
PLAT965_ALERT_2_G The SHELXL WEIGHT Optimisation has not Converged		Please Check
PLAT978_ALERT_2_G Number C-C Bonds with Positive Residual Density.		8 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  
1 **ALERT level C** = Check. Ensure it is not caused by an omission or oversight  
6 **ALERT level G** = General information/check it is not something unexpected

- 0 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  
0 ALERT type 4 Improvement, methodology, query or suggestion  
1 ALERT type 5 Informative message, check
- 

## checkCIF publication errors



### Alert level A

PUBL012\_ALERT\_1\_A \_publ\_section\_abstract is missing.  
Abstract of paper in English.



### Alert level G

PUBL017\_ALERT\_1\_G The \_publ\_section\_references section is missing or empty.

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- 1 **ALERT level A** = Data missing that is essential or data in wrong format  
1 **ALERT level G** = General alerts. Data that may be required is missing
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## Publication of your CIF

You should 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 nature of your study may justify the reported deviations from journal submission requirements and the more serious of these should 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.

If level A alerts remain, which you believe to be justified deviations, and you intend to submit this CIF for publication in a journal, you should additionally insert an explanation in your CIF using the Validation Reply Form (VRF) below. This will allow your explanation to be considered as part of the review process.

## 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_PUBL012_GLOBAL
;
PROBLEM: _publ_section_abstract is missing.
RESPONSE: ...
;
# end Validation Reply Form
```

If you wish to submit your CIF for publication in Acta Crystallographica Section C or E, you should upload your CIF via the web. If you wish to submit your CIF for publication in IUCrData you should upload your CIF via the web. If your CIF is to form part of a submission to another IUCr journal, you will be asked, either during electronic submission or by the Co-editor handling your paper, to upload your CIF via our web site.

