

# checkCIF/PLATON report

Structure factors have been supplied for datablock(s) MnAs4H10O16

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: MnAs4H10O16

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Bond precision:    As- O = 0.0011 A                      Wavelength=0.71073

Cell:                      a=5.5602(2)                      b=7.4100(3)                      c=8.4276(4)  
                                    alpha=100.110(2)                      beta=98.578(2)                      gamma=92.744(2)  
Temperature:    296 K

	Calculated	Reported
Volume	337.03(2)	337.03(2)
Space group	P -1	P -1
Hall group	-P 1	-P 1
Moiety formula	As4 H10 Mn O16	As4 H10 Mn O16
Sum formula	As4 H10 Mn O16	As4 H10 Mn O16
Mr	620.70	620.70
Dx,g cm-3	3.058	3.058
Z	1	1
Mu (mm-1)	10.808	10.808
F000	295.0	295.0
F000'	295.75	
h,k,lmax	10,14,16	10,14,15
Nref	4886	4843
Tmin,Tmax	0.324,0.806	0.479,0.748
Tmin'	0.263	

Correction method= # Reported T Limits: Tmin=0.479 Tmax=0.748  
AbsCorr = MULTI-SCAN

Data completeness= 0.991                      Theta(max)= 42.615

R(reflections)= 0.0264( 3767)                      wR2(reflections)= 0.0538( 4843)

S = 1.010                                      Npar= 113

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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**

PLAT242_ALERT_2_C	Low	'MainMol' Ueq as Compared to Neighbors of	As1	Check
PLAT911_ALERT_3_C	Missing FCF Refl Between Thmin & STh/L=	0.600	4	Report
PLAT975_ALERT_2_C	Check Calcd Resid. Dens.	0.92A From O5	0.48	eA-3
PLAT975_ALERT_2_C	Check Calcd Resid. Dens.	1.05A From O5	0.48	eA-3
PLAT975_ALERT_2_C	Check Calcd Resid. Dens.	0.88A From O5	0.44	eA-3

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● **Alert level G**

PLAT002_ALERT_2_G	Number of Distance or Angle Restraints on AtSite		10	Note
PLAT004_ALERT_5_G	Polymeric Structure Found with Maximum Dimension		3	Info
PLAT154_ALERT_1_G	The s.u.'s on the Cell Angles are Equal ..(Note)		0.002	Degree
PLAT172_ALERT_4_G	The CIF-Embedded .res File Contains DFIX Records		5	Report
PLAT794_ALERT_5_G	Tentative Bond Valency for Mn1 (II)		2.08	Info
PLAT860_ALERT_3_G	Number of Least-Squares Restraints .....		5	Note
PLAT883_ALERT_1_G	No Info/Value for _atom_sites_solution_primary .			Please Do !
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	33	Note
PLAT992_ALERT_5_G	Repd & Actual _reflns_number_gt Values Differ by		1	Check

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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  
5 **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
- 2 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  
3 ALERT type 3 Indicator that the structure quality may be low  
2 ALERT type 4 Improvement, methodology, query or suggestion  
3 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.

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**PLATON version of 07/08/2019; check.def file version of 30/07/2019**

