

checkCIF/PLATON report

You have not supplied any structure factors. As a result the full set of tests cannot be run.

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: Sm6Mg23C

Bond precision: Sm- C = 0.0030 Å Wavelength=1.54180

Cell: a=14.380(7) b=14.380(7) c=14.380(7)
 alpha=90 beta=90 gamma=90
Temperature: 298 K

	Calculated	Reported
Volume	2974(4)	2974(3)
Space group	F m -3 m	F m -3 m
Hall group	-F 4 2 3	-F 4 2 3
Moiety formula	C2 Sm12, 46(Mg)	?
Sum formula	C2 Mg46 Sm12	C Mg23 Sm6
Mr	2946.60	1473.24
Dx,g cm-3	3.291	0.000
Z	2	4
Mu (mm-1)	92.148	0.000
F000	2616.0	0.0
F000'	2521.36	
h,k,lmax	14,14,14	
Nref	110	
Tmin,Tmax		
Tmin'		

Correction method= Not given

Data completeness= 0.000 Theta(max)=

R(reflections)= wR2(reflections)=

S = Npar=

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 G

PLAT040_ALERT_1_G	No H-atoms in this Carbon Containing Compound ..	Please Check
PLAT045_ALERT_1_G	Calculated and Reported Z Differ by	0.50 Ratio
PLAT180_ALERT_4_G	Check Cell Rounding: # of Values Ending with 0 =	3
PLAT304_ALERT_4_G	Non-Integer Number of Atoms (5.98) in Resd. #	1 Check
PLAT304_ALERT_4_G	Non-Integer Number of Atoms (0.17) in Resd. #	2 Check
PLAT304_ALERT_4_G	Non-Integer Number of Atoms (0.17) in Resd. #	3 Check
PLAT304_ALERT_4_G	Non-Integer Number of Atoms (0.13) in Resd. #	4 Check
PLAT304_ALERT_4_G	Non-Integer Number of Atoms (0.02) in Resd. #	5 Check
PLAT982_ALERT_1_G	The C-f' = 0.017 Deviates from the IT-value	0.018 Check
PLAT982_ALERT_1_G	The Mg-f' = 0.165 Deviates from the IT-value	0.172 Check
PLAT982_ALERT_1_G	The Sm-f' = -5.696 Deviates from the IT-value	-5.324 Check
PLAT983_ALERT_1_G	The Sm-f" = 12.320 Deviates from the IT-Value	12.218 Check

0 **ALERT level A** = Most likely a serious problem - resolve or explain
0 **ALERT level B** = A potentially serious problem, consider carefully
0 **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

6 ALERT type 1 CIF construction/syntax error, inconsistent or missing data
0 ALERT type 2 Indicator that the structure model may be wrong or deficient
0 ALERT type 3 Indicator that the structure quality may be low
6 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*, 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.

