

checkCIF/PLATON report

Structure factors have been supplied for datablock(s) Ha2019_99g_0m_a

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: Ha2019_99g_0m_a

Bond precision:	C-C = 0.0020 A	Wavelength=0.71073
Cell:	a=7.8503 (3) alpha=90	b=7.8844 (3) beta=98.483 (2)
		c=17.5192 (6) gamma=90
Temperature:	100 K	
	Calculated	Reported
Volume	1072.49 (7)	1072.49 (7)
Space group	P 21/n	P 21/n
Hall group	-P 2yn	-P 2yn
Moiety formula	C4 H12 O7 Sm, Cl	?
Sum formula	C4 H12 Cl O7 Sm	C4 H12 Cl O7 Sm
Mr	357.95	357.94
Dx, g cm ⁻³	2.217	2.217
Z	4	4
Mu (mm ⁻¹)	5.728	5.728
F000	684.0	684.0
F000'	684.32	
h, k, lmax	10, 10, 23	10, 10, 23
Nref	2596	2595
Tmin, Tmax	0.468, 0.647	0.416, 0.749
Tmin'	0.076	

Correction method= # Reported T Limits: Tmin=0.416 Tmax=0.749
AbsCorr = MULTI-SCAN

Data completeness= 1.000 Theta(max)= 27.998

R(reflections)= 0.0101 (2537)	wR2(reflections)= 0.0236 (2595)
S = 1.129	Npar= 126

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**

PLAT004_ALERT_5_G	Polymeric Structure Found with Maximum Dimension	1	Info
PLAT007_ALERT_5_G	Number of Unrefined Donor-H Atoms	6	Report
PLAT232_ALERT_2_G	Hirshfeld Test Diff (M-X) Sm1 --O1W .	5.8	s.u.
PLAT232_ALERT_2_G	Hirshfeld Test Diff (M-X) Sm1 --O3W .	5.3	s.u.
PLAT232_ALERT_2_G	Hirshfeld Test Diff (M-X) Sm1 --O11_a .	14.2	s.u.
PLAT232_ALERT_2_G	Hirshfeld Test Diff (M-X) Sm1 --O12_a .	5.3	s.u.
PLAT232_ALERT_2_G	Hirshfeld Test Diff (M-X) Sm1 --O21_b .	7.2	s.u.
PLAT232_ALERT_2_G	Hirshfeld Test Diff (M-X) Sm1 --O22_b .	7.2	s.u.
PLAT794_ALERT_5_G	Tentative Bond Valency for Sm1 (III) .	3.25	Info
PLAT910_ALERT_3_G	Missing # of FCF Reflection(s) Below Theta(Min).	1	Note
PLAT933_ALERT_2_G	Number of HKL-OMIT Records in Embedded .res File	1	Note
PLAT967_ALERT_5_G	Note: Two-Theta Cutoff Value in Embedded .res ..	56.0	Degree
PLAT978_ALERT_2_G	Number C-C Bonds with Positive Residual Density.	1	Info

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

0 ALERT type 1 CIF construction/syntax error, inconsistent or missing data
8 ALERT type 2 Indicator that the structure model may be wrong or deficient
1 ALERT type 3 Indicator that the structure quality may be low
0 ALERT type 4 Improvement, methodology, query or suggestion
4 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.

