

checkCIF/PLATON report

Structure factors have been supplied for datablock(s) 2-La

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: 2-La

Bond precision:	C-C = 0.0054 A	Wavelength=1.54178
Cell:	a=13.0419 (6)	b=13.6428 (6) c=14.3634 (7)
	alpha=64.110 (3)	beta=79.865 (3) gamma=67.832 (3)
Temperature:	120 K	
	Calculated	Reported
Volume	2129.01 (18)	2129.01 (18)
Space group	P -1	P -1
Hall group	-P 1	-P 1
Moiety formula	C72 H108 La2 O6 P6, 2 (C7 H8)	C72 H108 La2 O6 P6, 2 (C7 H8)
Sum formula	C86 H124 La2 O6 P6	C86 H124 La2 O6 P6
Mr	1717.49	1717.48
Dx, g cm-3	1.340	1.340
Z	1	1
Mu (mm-1)	9.090	9.090
F000	892.0	892.0
F000'	892.95	
h, k, lmax	16, 16, 17	16, 16, 17
Nref	8455	8335
Tmin, Tmax	0.322, 0.358	0.533, 0.754
Tmin'	0.244	

Correction method= # Reported T Limits: Tmin=0.533 Tmax=0.754
AbsCorr = MULTI-SCAN

Data completeness= 0.986 Theta(max)= 72.507

R(reflections)= 0.0337 (7716)

wR2(reflections)=
0.0873 (8335)

S = 1.093

Npar= 464

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

PLAT911_ALERT_3_C Missing FCF Refl Between Thmin & STh/L= 0.600 85 Report
3 0 0, 4 0 0, 5 0 0, 6 0 0, 7 0 0, -7 1 0,
-2 1 0, 1 1 0, -1 2 0, -11 5 0, 6 5 0, -11 6 0,
-10 6 0, -10 7 0, 12 7 0, 9 -8 1, 10 -7 1, 10 -6 1,
11 -5 1, 12 -4 1, 1 -2 1, 2 -2 1, 1 -1 1, 7 -1 1,
1 0 1, 2 0 1, 5 0 1, 6 0 1, 7 0 1, -7 1 1,
-6 1 1, -4 1 1, -3 1 1, 1 1 1, -2 2 1, -1 3 1,
12 4 1, -11 6 1, -10 7 1, 11 -5 2, 12 -4 2, 1 -1 2,
2 -1 2, -2 0 2, 7 0 2, -5 2 2, -3 2 2, 3 2 2,
-3 3 2, -2 3 2, 2 3 2, 13 5 2, -11 6 2, -10 -8 3,
11 -5 3, 2 1 3, -5 3 3, 0 3 3, -3 5 3, 9 12 3,
12 7 4, 1 4 5, 12 4 5, 2 6 5, 12 6 5, 12 7 5,
12 8 5, 7 10 5, 7 11 5, 3 5 6, 2 6 6, 12 6 6,
1 7 6, 8 11 6, -7 -9 7, 11 2 7, 12 5 7, 2 7 7,
-1 1 8, -1 3 8, 2 7 8, 7 10 8, -5 -1 9, 0 2 9,
3 6 9,
PLAT971_ALERT_2_C Check Calcd Resid. Dens. 0.93Ang From Lal 1.54 eA-3
PLAT975_ALERT_2_C Check Calcd Resid. Dens. 0.71Ang From O2 . 0.54 eA-3
PLAT975_ALERT_2_C Check Calcd Resid. Dens. 0.72Ang From O1 . 0.41 eA-3

Alert level G

PLAT154_ALERT_1_G The s.u.'s on the Cell Angles are Equal ..(Note) 0.003 Degree
PLAT774_ALERT_1_G Check X-Y Bond in CIF: Lal --Lal .. 4.08 Ang.
PLAT794_ALERT_5_G Tentative Bond Valency for Lal (III) . 3.05 Info
PLAT910_ALERT_3_G Missing # of FCF Reflection(s) Below Theta(Min). 3 Note
1 0 0, 0 1 0, 0 0 1,
PLAT912_ALERT_4_G Missing # of FCF Reflections Above STh/L= 0.600 31 Note
PLAT913_ALERT_3_G Missing # of Very Strong Reflections in FCF 3 Note
1 -1 2, -2 0 2, 3 2 2,
PLAT933_ALERT_2_G Number of HKL-OMIT Records in Embedded .res File 3 Note
-5 3 3, -3 2 2, 2 -1 2,
PLAT969_ALERT_5_G The 'Henn et al.' R-Factor-gap value 2.413 Note
Predicted wR2: Based on SigI**2 3.62 or SHELX Weight 7.99
PLAT978_ALERT_2_G Number C-C Bonds with Positive Residual Density. 2 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
9 **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
1 ALERT type 4 Improvement, methodology, query or suggestion
2 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.

