

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: mo_d8v3223_0m

Bond precision:	C-C = 0.0124 A	Wavelength=0.71073
Cell:	a=12.2312(9)	b=16.0108(12) c=20.7089(16)
	alpha=90	beta=90 gamma=90
Temperature:	122 K	
	Calculated	Reported
Volume	4055.5(5)	4055.5(5)
Space group	P 21 21 21	P 21 21 21
Hall group	P 2ac 2ab	P 2ac 2ab
Moiety formula	C30 H24 F18 Fe Gd O12	C30 H24 F18 Fe Gd O12
Sum formula	C30 H24 F18 Fe Gd O12	C30 H24 F18 Fe Gd O12
Mr	1131.59	1131.59
Dx,g cm-3	1.853	1.853
Z	4	4
Mu (mm-1)	2.117	2.117
F000	2208.0	2208.0
F000'	2210.60	
h,k,lmax	14,19,24	14,19,24
Nref	7153[3996]	7119
Tmin,Tmax	0.834,0.890	0.576,0.745
Tmin'	0.834	

Correction method= # Reported T Limits: Tmin=0.576 Tmax=0.745
AbsCorr = MULTI-SCAN

Data completeness= 1.78/1.00 Theta(max)= 25.025

R(reflections)= 0.0344(6777) wR2(reflections)= 0.0838(7119)

S = 1.254 Npar= 579

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

PLAT018_ALERT_1_C	_diffn_measured_fraction_theta_max .NE. *_full	! Check
PLAT090_ALERT_3_C	Poor Data / Parameter Ratio (Zmax > 18)	6.90 Note
PLAT094_ALERT_2_C	Ratio of Maximum / Minimum Residual Density	2.13 Report
PLAT213_ALERT_2_C	Atom F13 has ADP max/min Ratio	3.2 prolat
PLAT213_ALERT_2_C	Atom F16 has ADP max/min Ratio	3.4 prolat
PLAT220_ALERT_2_C	Non-Solvent Resd 1 F Ueq(max)/Ueq(min) Range	3.8 Ratio
PLAT234_ALERT_4_C	Large Hirshfeld Difference F19 --C6AA	0.18 Ang.
PLAT342_ALERT_3_C	Low Bond Precision on C-C Bonds	0.01237 Ang.

● Alert level G

PLAT003_ALERT_2_G	Number of Uiso or Uij Restrained non-H Atoms ...	2 Report
PLAT012_ALERT_1_G	No _shelx_res_checksum Found in CIF	Please Check
PLAT083_ALERT_2_G	SHELXL Second Parameter in WGHT Unusually Large	14.19 Why ?
PLAT186_ALERT_4_G	The CIF-Embedded .res File Contains ISOR Records	2 Report
PLAT242_ALERT_2_G	Low 'MainMol' Ueq as Compared to Neighbors of C3AA	Check
PLAT242_ALERT_2_G	Low 'MainMol' Ueq as Compared to Neighbors of C6AA	Check
PLAT242_ALERT_2_G	Low 'MainMol' Ueq as Compared to Neighbors of C0BA	Check
PLAT242_ALERT_2_G	Low 'MainMol' Ueq as Compared to Neighbors of C12	Check
PLAT242_ALERT_2_G	Low 'MainMol' Ueq as Compared to Neighbors of C14	Check
PLAT242_ALERT_2_G	Low 'MainMol' Ueq as Compared to Neighbors of C15	Check
PLAT301_ALERT_3_G	Main Residue Disorder(Resd 1)	5% Note
PLAT720_ALERT_4_G	Number of Unusual/Non-Standard Labels	31 Note
PLAT794_ALERT_5_G	Tentative Bond Valency for Gd1 (III) .	3.42 Info
PLAT794_ALERT_5_G	Tentative Bond Valency for Fe2 (III) .	3.11 Info
PLAT860_ALERT_3_G	Number of Least-Squares Restraints	12 Note
PLAT933_ALERT_2_G	Number of OMIT Records in Embedded .res File ...	5 Note

0 **ALERT level A** = Most likely a serious problem - resolve or explain
0 **ALERT level B** = A potentially serious problem, consider carefully
8 **ALERT level C** = Check. Ensure it is not caused by an omission or oversight
16 **ALERT level G** = General information/check it is not something unexpected

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

PLATON version of 23/04/2018; check.def file version of 23/04/2018

