

checkCIF/PLATON report

Structure factors have been supplied for datablock(s) PS_34_ECM_a_3_Eu23Cu7Mg4_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: PS_34_ECM_a_3_Eu23Cu7Mg4_0m_a

Bond precision:	Eu-Cu = 0.0011 A	Wavelength=0.71073	
Cell:	a=10.659 (2) alpha=90	b=10.659 (2) beta=90	c=24.379 (5) gamma=120
Temperature:	293 K		
	Calculated	Reported	
Volume	2398.7 (10)	2398.8 (10)	
Space group	P 63/m m c	P 63/m m c	
Hall group	-P 6c 2c	-P 6c 2c	
Moiety formula	Cu7 Eu23, 4 (Mg)	Cu7 Eu23 Mg4	
Sum formula	Cu7 Eu23 Mg4	Cu7 Eu23 Mg4	
Mr	4037.40	4037.10	
Dx, g cm ⁻³	5.590	5.589	
Z	2	2	
Mu (mm ⁻¹)	32.611	32.610	
F000	3400.0	3400.0	
F000'	3401.22		
h, k, lmax	15, 15, 34	15, 15, 34	
Nref	1438	1435	
Tmin, Tmax	0.228, 0.376	0.529, 0.746	
Tmin'	0.130		

Correction method= # Reported T Limits: Tmin=0.529 Tmax=0.746
AbsCorr = MULTI-SCAN

Data completeness= 0.998 Theta (max)= 30.501

R(reflections)= 0.0259 (1120)	wR2(reflections)= 0.0524 (1435)
S = 0.978	Npar= 40

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

PLAT042_ALERT_1_C	Calc. and Reported MoietyFormula Strings Differ	Please Check
PLAT905_ALERT_3_C	Negative K value in the Analysis of Variance ...	-0.954 Report
PLAT971_ALERT_2_C	Check Calcd Resid. Dens. 0.69Ang From Eu2	1.53 eA-3



Alert level G

PLAT004_ALERT_5_G	Polymeric Structure Found with Maximum Dimension	3 Info
PLAT083_ALERT_2_G	SHELXL Second Parameter in WGHT Unusually Large	41.59 Why ?
PLAT199_ALERT_1_G	Reported _cell_measurement_temperature (K)	293 Check
PLAT200_ALERT_1_G	Reported _diffrn_ambient_temperature (K)	293 Check
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
PLAT933_ALERT_2_G	Number of HKL-OMIT Records in Embedded .res File	1 Note
PLAT965_ALERT_2_G	The SHELXL WEIGHT Optimisation has not Converged	Please Check

- 0 **ALERT level A** = Most likely a serious problem - resolve or explain
0 **ALERT level B** = A potentially serious problem, consider carefully
3 **ALERT level C** = Check. Ensure it is not caused by an omission or oversight
8 **ALERT level G** = General information/check it is not something unexpected
- 4 ALERT type 1 CIF construction/syntax error, inconsistent or missing data
4 ALERT type 2 Indicator that the structure model may be wrong or deficient
2 ALERT type 3 Indicator that the structure quality may be low
0 ALERT type 4 Improvement, methodology, query or suggestion
1 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.

