

# checkCIF/PLATON report

No syntax errors found. CIF dictionary Interpreting this report

## Datablock: sw257B

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Bond precision: C-C = 0.0122 A Wavelength=1.54178

Cell: a=17.9349(5) b=17.9349(5) c=20.9310(7)  
alpha=90 beta=90 gamma=120

Temperature: 100 K

	Calculated	Reported
Volume	5830.7(3)	5830.7(3)
Space group	P -3	P -3
Hall group	-P 3	-P 3
Moiety formula	C16 Al F36 O4, C21 H15 Cu Mo3 O6 P9	C16 Al F36 O4, C21 H15 Cu Mo3 O6 P9
Sum formula	C37 H15 Al Cu F36 Mo3 O10 P9	C37 H15 Al Cu F36 Mo3 O10 P9
Mr	1960.57	1960.57
Dx,g cm-3	2.233	2.233
Z	4	4
Mu (mm-1)	9.653	9.653
F000	3776.0	3776.0
F000'	3793.80	
h,k,lmax	21,21,24	21,20,24
Nref	6628	6568
Tmin,Tmax	0.536,0.616	0.343,0.666
Tmin'	0.122	

Correction method= ANALYTICAL

Data completeness= 0.991 Theta(max)= 65.070

R(reflections)= 0.0458( 5918) wR2(reflections)= 0.1187( 6568)

S = 1.032 Npar= 604

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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.

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### Alert level A

PLAT241_ALERT_2_A Check High	Ueq as Compared to Neighbors for	F4
PLAT241_ALERT_2_A Check High	Ueq as Compared to Neighbors for	F7
PLAT241_ALERT_2_A Check High	Ueq as Compared to Neighbors for	F12
PLAT241_ALERT_2_A Check High	Ueq as Compared to Neighbors for	O7

PLAT242_ALERT_2_A	Check Low	Ueq as Compared to Neighbors for	A12
PLAT242_ALERT_2_A	Check Low	Ueq as Compared to Neighbors for	C21

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**Alert level B**

PLAT241_ALERT_2_B	Check High	Ueq as Compared to Neighbors for	F5
PLAT241_ALERT_2_B	Check High	Ueq as Compared to Neighbors for	F9
PLAT241_ALERT_2_B	Check High	Ueq as Compared to Neighbors for	O8
PLAT242_ALERT_2_B	Check Low	Ueq as Compared to Neighbors for	C16A
PLAT242_ALERT_2_B	Check Low	Ueq as Compared to Neighbors for	C18B
PLAT242_ALERT_2_B	Check Low	Ueq as Compared to Neighbors for	C22
PLAT242_ALERT_2_B	Check Low	Ueq as Compared to Neighbors for	C23

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**Alert level C**

THETM01\_ALERT\_3\_C The value of  $\sin(\theta_{\max})/\lambda$  is less than 0.590  
Calculated  $\sin(\theta_{\max})/\lambda = 0.5882$

PLAT213_ALERT_2_C	Atom F12	has ADP max/min Ratio .....	3.50	prola
PLAT213_ALERT_2_C	Atom C20A	has ADP max/min Ratio .....	3.90	prola
PLAT213_ALERT_2_C	Atom C20B	has ADP max/min Ratio .....	3.10	prola
PLAT213_ALERT_2_C	Atom O8	has ADP max/min Ratio .....	3.30	prola
PLAT213_ALERT_2_C	Atom O3	has ADP max/min Ratio .....	3.10	prola
PLAT241_ALERT_2_C	Check High	Ueq as Compared to Neighbors for	F3	
PLAT241_ALERT_2_C	Check High	Ueq as Compared to Neighbors for	F6	
PLAT241_ALERT_2_C	Check High	Ueq as Compared to Neighbors for	F8	
PLAT241_ALERT_2_C	Check High	Ueq as Compared to Neighbors for	P6	
PLAT241_ALERT_2_C	Check High	Ueq as Compared to Neighbors for	C11	
PLAT242_ALERT_2_C	Check Low	Ueq as Compared to Neighbors for	A11	
PLAT242_ALERT_2_C	Check Low	Ueq as Compared to Neighbors for	C17	
PLAT242_ALERT_2_C	Check Low	Ueq as Compared to Neighbors for	C18A	
PLAT242_ALERT_2_C	Check Low	Ueq as Compared to Neighbors for	C19A	
PLAT242_ALERT_2_C	Check Low	Ueq as Compared to Neighbors for	C19B	
PLAT242_ALERT_2_C	Check Low	Ueq as Compared to Neighbors for	C24	
PLAT242_ALERT_2_C	Check Low	Ueq as Compared to Neighbors for	C25	
PLAT242_ALERT_2_C	Check Low	Ueq as Compared to Neighbors for	C26	
PLAT242_ALERT_2_C	Check Low	Ueq as Compared to Neighbors for	Mo2	
PLAT250_ALERT_2_C	Large U3/U1 Ratio for Average U(i,j) Tensor ....		2.10	
PLAT342_ALERT_3_C	Low Bond Precision on C-C Bonds (x 1000) Ang ..		12	
PLAT369_ALERT_2_C	Long C(sp2)-C(sp2) Bond C10 - C11 ...		1.55	Ang.
PLAT431_ALERT_2_C	Short Inter HL..A Contact F14 .. O3 ..		2.83	Ang.
PLAT234_ALERT_4_C	Large Hirshfeld Difference Al2 -- O7 ..		0.19	Ang.
PLAT234_ALERT_4_C	Large Hirshfeld Difference F15 -- C22 ..		0.19	Ang.
PLAT234_ALERT_4_C	Large Hirshfeld Difference O7 -- C21 ..		0.19	Ang.

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**Alert level G**

PLAT083_ALERT_2_G	SHELXL Second Parameter in WGHT Unusually Large.	10.67
PLAT301_ALERT_3_G	Note: Main Residue Disorder .....	6.00 Perc.
PLAT860_ALERT_3_G	Note: Number of Least-Squares Restraints .....	105
PLAT328_ALERT_4_G	Check for Possibly Missing H on sp3? Phosphorus.	P3
PLAT328_ALERT_4_G	Check for Possibly Missing H on sp3? Phosphorus.	P6

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6 **ALERT level A** = In general: serious problem

7 **ALERT level B** = Potentially serious problem

27 **ALERT level C** = Check and explain

5 **ALERT level G** = General alerts; check

0 **ALERT type 1** CIF construction/syntax error, inconsistent or missing data

- 36 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
- 5 ALERT type 4 Improvement, methodology, query or suggestion
- 0 ALERT type 5 Informative message, check

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.

PLATON version of 13/08/2009; check.def file version of 12/08/2009

Datablock sw257B - ellipsoid plot

