

## 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: rac-cu4au8

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Bond precision:	C-C = 0.0267 A	Wavelength=1.54184	
Cell:	a=17.2705 (1)	b=16.4232 (1)	c=22.2882 (1)
	alpha=90	beta=99.2500	gamma=90
Temperature:	200 K		
	Calculated	Reported	
Volume	6239.55 (6)	6239.57 (6)	
Space group	P n	P 1 n 1	
Hall group	P -2yac	P -2yac	
Moiety formula	2(C120 H90 Au8 Cu4 N6 P6 S6), C H2 Cl2 [+ solvent]	C120 H90 Au8 Cu4 N6 P6 S6, 0.5(C H2 Cl2)	
Sum formula	C241 H182 Au16 Cl2 Cu8 N12 P12 S12 [+ solvent]	C120.50 H91 Au8 Cl Cu4 N6 P6 S6	
Mr	7733.18	3866.51	
Dx, g cm <sup>-3</sup>	2.058	2.058	
Z	1	2	
Mu (mm <sup>-1</sup> )	20.141	20.141	
F000	3614.0	3614.0	
F000'	3542.16		
h, k, lmax	21, 20, 27	21, 20, 27	
Nref	25400 [ 12710]	19719	
Tmin, Tmax	0.122, 0.133	0.875, 1.000	
Tmin'	0.019		

Correction method= # Reported T Limits: Tmin=0.875 Tmax=1.000

AbsCorr = MULTI-SCAN

Data completeness= 1.55/0.78

Theta(max)= 74.109

R(reflections)= 0.0351( 18944)

wR2(reflections)=  
0.0911( 19719)

S = 1.073

Npar= 1552

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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 B**

PLAT342\_ALERT\_3\_B Low Bond Precision on C-C Bonds ..... 0.02674 Ang.

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**Alert level C**

PLAT220_ALERT_2_C	NonSolvent	Resd 1 C	Ueq(max)/Ueq(min)	Range	3.8	Ratio
PLAT234_ALERT_4_C	Large Hirshfeld Difference	P1	--C13	.	0.16	Ang.
PLAT234_ALERT_4_C	Large Hirshfeld Difference	P1	--C25	.	0.16	Ang.
PLAT234_ALERT_4_C	Large Hirshfeld Difference	P5	--C91A	.	0.18	Ang.
PLAT234_ALERT_4_C	Large Hirshfeld Difference	C5	--C6	.	0.22	Ang.
PLAT234_ALERT_4_C	Large Hirshfeld Difference	C69	--C70	.	0.24	Ang.
PLAT241_ALERT_2_C	High	'MainMol'	Ueq as Compared to Neighbors of		C22	Check
PLAT241_ALERT_2_C	High	'MainMol'	Ueq as Compared to Neighbors of		C35	Check
PLAT241_ALERT_2_C	High	'MainMol'	Ueq as Compared to Neighbors of		C41	Check
PLAT241_ALERT_2_C	High	'MainMol'	Ueq as Compared to Neighbors of		C63	Check
PLAT241_ALERT_2_C	High	'MainMol'	Ueq as Compared to Neighbors of		C69	Check
PLAT241_ALERT_2_C	High	'MainMol'	Ueq as Compared to Neighbors of		C107	Check
PLAT242_ALERT_2_C	Low	'MainMol'	Ueq as Compared to Neighbors of		C37	Check
PLAT260_ALERT_2_C	Large Average Ueq of Residue Including			C11	0.143	Check
PLAT721_ALERT_1_C	Bond Calc	1.41(5), Rep	1.39000 Dev...		0.02	Ang.
	C88A	-C87A	1_555 1_555 .....	#	256	Check

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**Alert level G**

PLAT002_ALERT_2_G	Number of Distance or Angle Restraints on AtSite				16	Note
PLAT003_ALERT_2_G	Number of Uiso or Uij Restrained non-H Atoms ...				73	Report
PLAT042_ALERT_1_G	Calc. and Reported Moiety Formula Strings Differ					Please Check
PLAT045_ALERT_1_G	Calculated and Reported Z Differ by a Factor ...				0.5000	Check
PLAT083_ALERT_2_G	SHELXL Second Parameter in WGHT Unusually Large				20.64	Why ?
PLAT142_ALERT_4_G	s.u. on b - Axis Small or Missing .....				0.00010	Ang.
PLAT143_ALERT_4_G	s.u. on c - Axis Small or Missing .....				0.00010	Ang.
PLAT145_ALERT_4_G	s.u. on beta Small or Missing .....				0.0000	Degree
PLAT172_ALERT_4_G	The CIF-Embedded .res File Contains DFIX Records				6	Report
PLAT177_ALERT_4_G	The CIF-Embedded .res File Contains DELU Records				2	Report
PLAT186_ALERT_4_G	The CIF-Embedded .res File Contains ISOR Records				5	Report
PLAT232_ALERT_2_G	Hirshfeld Test Diff (M-X) Cu2	--S3	.		5.5	s.u.
PLAT300_ALERT_4_G	Atom Site Occupancy of C11	Constrained at			0.5	Check
PLAT300_ALERT_4_G	Atom Site Occupancy of C12	Constrained at			0.5	Check
PLAT300_ALERT_4_G	Atom Site Occupancy of COAA	Constrained at			0.5	Check
PLAT300_ALERT_4_G	Atom Site Occupancy of HOAA	Constrained at			0.5	Check
PLAT300_ALERT_4_G	Atom Site Occupancy of HOAB	Constrained at			0.5	Check
PLAT301_ALERT_3_G	Main Residue Disorder .....	(Resd 1 )			21%	Note
PLAT302_ALERT_4_G	Anion/Solvent/Minor-Residue Disorder (Resd 2 )				100%	Note
PLAT304_ALERT_4_G	Non-Integer Number of Atoms in .....	(Resd 2 )			2.50	Check
PLAT432_ALERT_2_G	Short Inter X...Y Contact C12	..C1A	.		3.21	Ang.
		1/2+x, -y, 1/2+z =			2_555	Check

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PLAT606_ALERT_4_G Solvent Accessible VOID(S) in Structure ..... ! Info
PLAT720_ALERT_4_G Number of Unusual/Non-Standard Labels ..... 3 Note
PLAT722_ALERT_1_G Angle Calc 117.00, Rep 118.10 Dev... 1.10 Degree
      C90 -C89 -H89 1_555 1_555 1_555 # 595 Check
PLAT794_ALERT_5_G Tentative Bond Valency for Cu3 (I) . 1.04 Info
PLAT860_ALERT_3_G Number of Least-Squares Restraints ..... 476 Note
PLAT883_ALERT_1_G No Info/Value for _atom_sites_solution_primary . Please Do !

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

5 ALERT type 1 CIF construction/syntax error, inconsistent or missing data
14 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
20 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.

