checkCIF/PLATON report

Structure factors have been supplied for datablock(s) ao_of_audppe_c

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: ao_of_audppe_c

Bond precision: C-C = 0.0043 A   Wavelength=0.71073

Cell: a=25.617(3)   b=13.6294(11)   c=22.025(2)
                   alpha=90   beta=125.118(2)   gamma=90
Temperature: 180 K

	Calculated	Reported
Volume	6290.1(11)	6290.1(11)
Space group	C 2/c	C 1 2/c 1
Hall group	-C 2yc	-C 2yc
Moiety formula	C52 H44 Au P4, 4(C H Cl3), Cl	C52 H44 Au P4, Cl, 4(C H Cl3)
Sum formula	C56 H48 Au Cl13 P4	C56 H48 Au Cl13 P4
Mr	1502.64	1502.64
Dx,g cm-3	1.587	1.587
Z	4	4
Mu (mm-1)	3.029	3.029
F000	2976.0	2976.0
F000'	2978.04	
h,k,lmax	36,19,31	36,19,31
Nref	9473	9406
Tmin,Tmax	0.419,0.546	0.629,0.746
Tmin'	0.388	

Correction method= # Reported T Limits: Tmin=0.629 Tmax=0.746
AbsCorr = MULTI-SCAN

Data completeness= 0.993   Theta(max)= 30.337

R(reflections)= 0.0243(8453)   wR2(reflections)= 0.0545(9406)

S = 1.026   Npar= 335

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

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PLAT042_ALERT_1_C Calc. and Reported MoietyFormula Strings  Differ     Please Check
              Calc: C52 H44 Au P4, 4(C H Cl3), Cl
              Rep.: C52 H44 Au P4, Cl, 4(C H Cl3)
PLAT244_ALERT_4_C Low    'Solvent' Ueq as Compared to Neighbors of     C1S Check
PLAT244_ALERT_4_C Low    'Solvent' Ueq as Compared to Neighbors of     C2S Check
PLAT911_ALERT_3_C Missing FCF Refl Between Thmin & STh/L=    0.600        3 Report
              -2  0  2,  -6  0  4,   0  0  4,
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⚪ Alert level G

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PLAT083_ALERT_2_G SHELXL Second Parameter in WGHT  Unusually Large    12.57 Why ?
PLAT128_ALERT_4_G Alternate Setting for Input Space Group     C2/c      I2/a Note
PLAT304_ALERT_4_G Non-Integer Number of Atoms in ..... (Resd    4)     0.50 Check
PLAT720_ALERT_4_G Number of Unusual/Non-Standard Labels ..........       2 Note
              C00L    H00L
PLAT912_ALERT_4_G Missing # of FCF Reflections Above STh/L=  0.600      64 Note
PLAT913_ALERT_3_G Missing # of Very Strong Reflections in FCF ....       2 Note
              -6  0  4,   0  0  4,
PLAT969_ALERT_5_G The 'Henn et al.' R-Factor-gap value ...........    2.42 Note
              Predicted wR2: Based on SigI**2  2.25 or SHELX Weight  5.41
PLAT978_ALERT_2_G Number C-C Bonds with Positive Residual Density.       6 Info
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   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
   8 ALERT level G = General information/check it is not something unexpected

   1 ALERT type 1 CIF construction/syntax error, inconsistent or missing data
   2 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
   6 ALERT type 4 Improvement, methodology, query or suggestion
   1 ALERT type 5 Informative message, check
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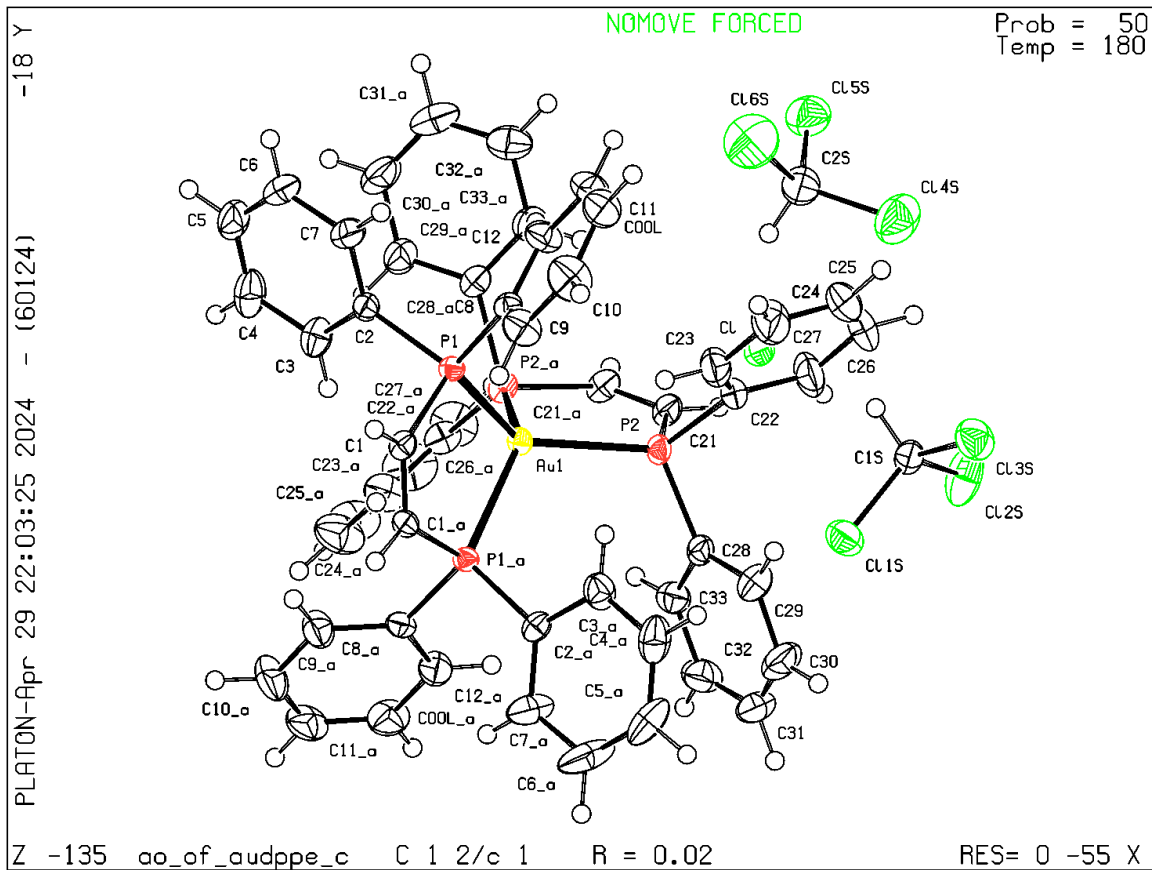
It is advisable to attempt to resolve as many as possible of the alerts in all categories. Often the minor alerts point to easily fixed oversights, errors and omissions in your CIF or refinement strategy, so attention to these fine details can be worthwhile. In order to resolve some of the more serious 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.

PLATON version of 06/01/2024; check.def file version of 05/01/2024