

Title	Copper-catalysed asymmetric sulfide oxidation
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University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

checkCIF/PLATON report

You have not supplied any structure factors. As a result the full set of tests cannot be run.

No syntax errors found. CIF dictionary Interpreting this report

Datablock: 2g

Bond precision: C-C = 0.0051 Å

Wavelength=0.71073

Cell: a=5.7020(9) b=8.4251(13) c=14.510(2)
 alpha=75.881(3) beta=89.787(3) gamma=89.329(3)
Temperature: 296 K

	Calculated	Reported
Volume	675.96(18)	675.96(18)
Space group	P 1	P 1
Hall group	P 1	P 1
Moiety formula	C17 H14 O S	C17 H14 O S
Sum formula	C17 H14 O S	C17 H14 O S
Mr	266.35	266.34
Dx, g cm ⁻³	1.309	1.309
Z	2	2
Mu (mm ⁻¹)	0.227	0.227
F000	280.0	280.0
F000'	280.35	
h, k, lmax	6, 10, 17	6, 10, 17
Nref	2599[5198]	4784
Tmin, Tmax	0.957, 0.980	0.840, 0.980
Tmin'	0.917	

Correction method= MULTI-SCAN

Data completeness= 1.84/0.92 Theta(max)= 25.780

R(reflections)= 0.0433(3208) wR2(reflections)= 0.0938(4784)

S = 0.901 Npar= 343

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

PLAT029_ALERT_3_C _diffn_measured_fraction_theta_full Low	0.965
PLAT331_ALERT_2_C Small Average Phenyl C-C Dist. C34 -C39	1.37 Ang.
PLAT340_ALERT_3_C Low Bond Precision on C-C Bonds	0.0051 Ang

● Alert level G

REFLT03_ALERT_4_G Please check that the estimate of the number of Friedel pairs is correct. If it is not, please give the correct count in the _publ_section_exptl_refinement section of the submitted CIF.

From the CIF: _diffn_refl_theta_max 25.78

From the CIF: _reflns_number_total 4784

Count of symmetry unique reflns 2599

Completeness (_total/calc) 184.07%

TEST3: Check Friedels for noncentro structure

Estimate of Friedel pairs measured 2185

Fraction of Friedel pairs measured 0.841

Are heavy atom types Z>Si present yes

PLAT154_ALERT_1_G The su's on the Cell Angles are Equal 0.00300 Deg.

-
- 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
2 **ALERT level G** = General information/check it is not something unexpected

- 1 ALERT type 1 CIF construction/syntax error, inconsistent or missing data
1 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
1 ALERT type 4 Improvement, methodology, query or suggestion
0 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*, 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.

