

checkCIF/PLATON report

Structure factors have been supplied for datablock(s) mof-508-no2

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: mof-508-no2

Bond precision: C-C = 0.0094 A Wavelength=0.41270

Cell: a=8.0536(13) b=10.1473(17) c=10.2709(17)
 alpha=63.945(4) beta=83.150(6) gamma=71.754(5)

Temperature: 195 K

| | Calculated | Reported |
|----------------|-----------------|--------------------|
| Volume | 716.0(2) | 716.0(2) |
| Space group | P -1 | P -1 |
| Hall group | -P 1 | -P 1 |
| Moiety formula | C13 H6 N2 O6 Zn | C26 H12 N4 O12 Zn2 |
| Sum formula | C13 H6 N2 O6 Zn | C26 H12 N4 O12 Zn2 |
| Mr | 351.59 | 703.14 |
| Dx,g cm-3 | 1.631 | 1.631 |
| Z | 2 | 1 |
| Mu (mm-1) | 0.404 | 0.404 |
| F000 | 352.0 | 352.0 |
| F000' | 352.46 | |
| h,k,lmax | 14,18,18 | 13,18,18 |
| Nref | 8612 | 7111 |
| Tmin,Tmax | | 0.500,1.000 |
| Tmin' | | |

Correction method= # Reported T Limits: Tmin=0.500 Tmax=1.000
AbsCorr = MULTI-SCAN

Data completeness= 0.826 Theta(max)= 21.678

R(reflections)= 0.0881(3537) wR2(reflections)= 0.2585(7111)

S = 1.017 Npar= 169

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

ABSTY02_ALERT_1_C An _exptl_absorpt_correction_type has been given without
a literature citation. This should be contained in the
_exptl_absorpt_process_details field.
Absorption correction given as multi-scan

CRYSC01_ALERT_1_C The word below has not been recognised as a standard
identifier.
yellowish

| | | | |
|-------------------|--|---------|-----------|
| PLAT084_ALERT_3_C | High wR2 Value (i.e. > 0.25) | 0.26 | Report |
| PLAT242_ALERT_2_C | Low 'MainMol' Ueq as Compared to Neighbors of | | Zn1 Check |
| PLAT242_ALERT_2_C | Low 'MainMol' Ueq as Compared to Neighbors of | | C11 Check |
| PLAT250_ALERT_2_C | Large U3/U1 Ratio for Average U(i,j) Tensor | | 2.1 Note |
| PLAT334_ALERT_2_C | Small Aver. Benzene C-C Dist C7 -C9_c | | 1.37 Ang. |
| PLAT334_ALERT_2_C | Small Aver. Benzene C-C Dist C11 -C13 | | 1.37 Ang. |
| PLAT341_ALERT_3_C | Low Bond Precision on C-C Bonds | 0.00937 | Ang. |
| PLAT906_ALERT_3_C | Large K Value in the Analysis of Variance | 35.485 | Check |
| PLAT906_ALERT_3_C | Large K Value in the Analysis of Variance | 2.156 | Check |
| PLAT906_ALERT_3_C | Large K Value in the Analysis of Variance | 6.281 | Check |
| PLAT906_ALERT_3_C | Large K Value in the Analysis of Variance | 3.020 | Check |
| PLAT975_ALERT_2_C | Check Calcd Resid. Dens. 0.91A From O7 | 0.40 | eA-3 |

● Alert level G

ABSMU01_ALERT_1_G Calculation of _exptl_absorpt_correction_mu
not performed for this radiation type.

| | | | |
|-------------------|--|---------|--------------|
| PLAT002_ALERT_2_G | Number of Distance or Angle Restraints on AtSite | 11 | Note |
| PLAT004_ALERT_5_G | Polymeric Structure Found with Maximum Dimension | 3 | Info |
| PLAT042_ALERT_1_G | Calc. and Reported MoietyFormula Strings Differ | | Please Check |
| PLAT045_ALERT_1_G | Calculated and Reported Z Differ by a Factor ... | 2.00 | Check |
| PLAT072_ALERT_2_G | SHELXL First Parameter in WGHT Unusually Large | 0.11 | Report |
| PLAT092_ALERT_4_G | Check: Wavelength Given is not Cu,Ga,Mo,Ag,In Ka | 0.41270 | Ang. |
| PLAT171_ALERT_4_G | The CIF-Embedded .res File Contains EADP Records | | 2 Report |
| PLAT172_ALERT_4_G | The CIF-Embedded .res File Contains DFIX Records | | 1 Report |
| PLAT173_ALERT_4_G | The CIF-Embedded .res File Contains DANG Records | | 1 Report |
| PLAT176_ALERT_4_G | The CIF-Embedded .res File Contains SADI Records | | 2 Report |
| PLAT300_ALERT_4_G | Atom Site Occupancy of O3 Constrained at | 0.5 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of O4 Constrained at | 0.5 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of N2 Constrained at | 0.5 | Check |
| PLAT301_ALERT_3_G | Main Residue Disorder(Resd 1) | 41% | Note |
| PLAT395_ALERT_2_G | Deviating X-O-Y Angle From 120 for O9 | 141.0 | Degree |
| PLAT395_ALERT_2_G | Deviating X-O-Y Angle From 120 for O10 | 95.3 | Degree |
| PLAT773_ALERT_2_G | Check long C-C Bond in CIF: C3B --C3B | 1.70 | Ang. |
| PLAT811_ALERT_5_G | No ADDSYM Analysis: Too Many Excluded Atoms | | ! Info |
| PLAT860_ALERT_3_G | Number of Least-Squares Restraints | 22 | Note |
| PLAT883_ALERT_1_G | No Info/Value for _atom_sites_solution_primary . | | Please Do ! |
| PLAT912_ALERT_4_G | Missing # of FCF Reflections Above STh/L= 0.600 | 1449 | Note |
| PLAT978_ALERT_2_G | Number C-C Bonds with Positive Residual Density. | | 2 Info |
| PLAT984_ALERT_1_G | The Zn-f'= 0.2616 Deviates from the B&C-Value | 0.2601 | Check |
| PLAT985_ALERT_1_G | The Zn-f"= 0.5384 Deviates from the B&C-Value | 0.5357 | Check |
| PLAT992_ALERT_5_G | Repd & Actual _reflns_number_gt Values Differ by | | 1 Check |

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

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

12 ALERT type 2 Indicator that the structure model may be wrong or deficient
8 ALERT type 3 Indicator that the structure quality may be low
9 ALERT type 4 Improvement, methodology, query or suggestion
3 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* 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 04/06/2020; check.def file version of 02/06/2020

