

## 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: p4mnc\_sq

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Bond precision:    C-C = 0.0137 Å                      Wavelength=0.70000

Cell:                      a=30.221(4)              b=30.221(4)              c=34.460(7)  
                                    alpha=90              beta=90              gamma=90  
Temperature:              213 K

|                        | Calculated                                       | Reported                          |
|------------------------|--|-----------------------------------|
| Volume                 | 31473(11)  | 31473(11)                         |
| Space group            | P 4/m n c  | P 4/m n c                         |
| Hall group             | -P 4 2n  | -P 4 2n                           |
| Moiety formula         | 2(C79 H41.60 N7.40 O17.90<br>Zn5.50) [+ solvent] | ?                                 |
| Sum formula            | C158 H83.20 N14.80 O35.80<br>Zn11 [+ solvent]    | C158 H83.20 N14.80 O35.80<br>Zn11 |
| Mr                     | 3480.89  | 3480.66                           |
| Dx, g cm <sup>-3</sup> | 0.735  | 0.735                             |
| Z                      | 4  | 4                                 |
| Mu (mm <sup>-1</sup> ) | 0.826  | 0.826                             |
| F000                   | 7004.8   | 7005.0                            |
| F000'                  | 7020.42  |                                   |
| h,k,lmax               | 34,34,39   | 34,34,39                          |
| Nref                   | 12444  | 12392                             |
| Tmin,Tmax              | 0.820,0.862                                      | 0.713,0.866                       |
| Tmin'                  | 0.695  |                                   |

Correction method= # Reported T Limits: Tmin=0.713 Tmax=0.866  
AbsCorr = MULTI-SCANS

Data completeness= 0.996                      Theta(max)= 23.497

R(reflections)= 0.1312( 10593)              wR2(reflections)= 0.4437( 12392)

S = 2.097                      Npar= 511

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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

THETM01\_ALERT\_3\_B The value of  $\sin(\theta_{\max})/\lambda$  is less than 0.575  
Calculated  $\sin(\theta_{\max})/\lambda = 0.5696$   
PLAT084\_ALERT\_3\_B High wR2 Value (i.e. > 0.25) ..... 0.44 Report  
PLAT241\_ALERT\_2\_B High 'MainMol' Ueq as Compared to Neighbors of 02W Check  
PLAT241\_ALERT\_2\_B High 'MainMol' Ueq as Compared to Neighbors of 04 Check  
PLAT241\_ALERT\_2\_B High 'MainMol' Ueq as Compared to Neighbors of C33 Check  
PLAT242\_ALERT\_2\_B Low 'MainMol' Ueq as Compared to Neighbors of Zn5 Check

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### ● Alert level C

ABSMU01\_ALERT\_1\_C The ratio of given/expected absorption coefficient lies  
outside the range 0.99 <> 1.01  
Calculated value of  $\mu = 0.861$   
Value of  $\mu$  given = 0.826  
GOODF01\_ALERT\_2\_C The least squares goodness of fit parameter lies  
outside the range 0.80 <> 2.00  
Goodness of fit given = 2.097  
RADNW01\_ALERT\_1\_C The radiation wavelength lies outside the expected range  
for the supplied radiation type. Expected range 0.71065-0.71075  
Wavelength given = 0.70000  
PLAT082\_ALERT\_2\_C High R1 Value ..... 0.13 Report  
PLAT087\_ALERT\_2\_C Unsatisfactory S value (Too High) ..... 2.10 Check  
PLAT213\_ALERT\_2\_C Atom N2 has ADP max/min Ratio .... 3.4 prolat  
PLAT213\_ALERT\_2\_C Atom O1W has ADP max/min Ratio .... 3.6 prolat  
PLAT213\_ALERT\_2\_C Atom C21 has ADP max/min Ratio .... 3.3 prolat  
PLAT213\_ALERT\_2\_C Atom C23 has ADP max/min Ratio .... 3.1 prolat  
PLAT213\_ALERT\_2\_C Atom C28 has ADP max/min Ratio .... 3.4 prolat  
PLAT220\_ALERT\_2\_C Non-Solvent Resd 1 C Ueq(max)/Ueq(min) Range 3.2 Ratio  
PLAT220\_ALERT\_2\_C Non-Solvent Resd 1 O Ueq(max)/Ueq(min) Range 3.6 Ratio  
PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of 01 Check  
PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of 02 Check  
PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of 03 Check  
PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of 05 Check  
PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of 06 Check  
PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of N2 Check  
PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of N4 Check  
PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of C7 Check  
PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of C16 Check  
PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of C17 Check  
PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of C23 Check  
PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of C25 Check  
PLAT241\_ALERT\_2\_C High 'MainMol' Ueq as Compared to Neighbors of C28 Check  
PLAT242\_ALERT\_2\_C Low 'MainMol' Ueq as Compared to Neighbors of Zn2 Check  
PLAT242\_ALERT\_2\_C Low 'MainMol' Ueq as Compared to Neighbors of N1P Check  
PLAT242\_ALERT\_2\_C Low 'MainMol' Ueq as Compared to Neighbors of C10 Check  
PLAT242\_ALERT\_2\_C Low 'MainMol' Ueq as Compared to Neighbors of C13 Check  
PLAT242\_ALERT\_2\_C Low 'MainMol' Ueq as Compared to Neighbors of C19 Check  
PLAT242\_ALERT\_2\_C Low 'MainMol' Ueq as Compared to Neighbors of C22 Check  
PLAT242\_ALERT\_2\_C Low 'MainMol' Ueq as Compared to Neighbors of C27 Check  
PLAT242\_ALERT\_2\_C Low 'MainMol' Ueq as Compared to Neighbors of C30 Check  
PLAT242\_ALERT\_2\_C Low 'MainMol' Ueq as Compared to Neighbors of C32 Check  
PLAT242\_ALERT\_2\_C Low 'MainMol' Ueq as Compared to Neighbors of C34 Check  
PLAT250\_ALERT\_2\_C Large U3/U1 Ratio for Average U(i,j) Tensor .... 2.6 Note  
PLAT341\_ALERT\_3\_C Low Bond Precision on C-C Bonds ..... 0.01371 Ang.  
PLAT368\_ALERT\_2\_C Short C(sp2)-C(sp2) Bond C29 - C29\_k .. 1.22 Ang.

PLAT731\_ALERT\_1\_C Bond Calc 1.485(15), Rep 1.48(7) ..... 5 su-Rat  
 C27 -C35 1.555 3.755 ..... # 67 Check

**Alert level G**

ABSTY01\_ALERT\_1\_G Extra text has been found in the \_exptl\_absorpt\_correction\_type field, which should be only a single keyword. A literature citation should be included in the \_exptl\_absorpt\_process\_details field.

PLAT002\_ALERT\_2\_G Number of Distance or Angle Restraints on AtSite 8 Note  
 PLAT003\_ALERT\_2\_G Number of Uiso or Uij Restrained non-H Atoms ... 18 Report  
 PLAT004\_ALERT\_5\_G Polymeric Structure Found with Maximum Dimension 3 Info  
 PLAT068\_ALERT\_1\_G Reported F000 Differs from Calcd (or Missing)... Please Check  
 PLAT072\_ALERT\_2\_G SHELXL First Parameter in WGHT Unusually Large 0.20 Report  
 PLAT092\_ALERT\_4\_G Check: Wavelength given is not Cu,Ga,Mo,Ag,In Ka 0.70000 Ang.  
 PLAT172\_ALERT\_4\_G The CIF-Embedded .res File Contains DFIX Records 6 Report  
 PLAT173\_ALERT\_4\_G The CIF-Embedded .res File Contains DANG Records 5 Report  
 PLAT174\_ALERT\_4\_G The CIF-Embedded .res File Contains FLAT Records 3 Report  
 PLAT177\_ALERT\_4\_G The CIF-Embedded .res File Contains DELU Records 5 Report  
 PLAT178\_ALERT\_4\_G The CIF-Embedded .res File Contains SIMU Records 5 Report  
 PLAT186\_ALERT\_4\_G The CIF-Embedded .res File Contains ISOR Records 6 Report  
 PLAT300\_ALERT\_4\_G Atom Site Occupancy of Zn4 is Constrained at 0.55 Check  
 PLAT300\_ALERT\_4\_G Atom Site Occupancy of Zn3 is Constrained at 0.45 Check  
 PLAT300\_ALERT\_4\_G Atom Site Occupancy of O1W is Constrained at 0.45 Check  
 PLAT300\_ALERT\_4\_G Atom Site Occupancy of C1P is Constrained at 0.5 Check  
 PLAT300\_ALERT\_4\_G Atom Site Occupancy of C2P is Constrained at 0.5 Check  
 PLAT300\_ALERT\_4\_G Atom Site Occupancy of N2P is Constrained at 0.45 Check  
 PLAT300\_ALERT\_4\_G Atom Site Occupancy of C4P is Constrained at 0.45 Check  
 PLAT300\_ALERT\_4\_G Atom Site Occupancy of C5P is Constrained at 0.45 Check  
 PLAT300\_ALERT\_4\_G Atom Site Occupancy of C6P is Constrained at 0.45 Check  
 PLAT300\_ALERT\_4\_G Atom Site Occupancy of C7P is Constrained at 0.45 Check  
 PLAT300\_ALERT\_4\_G Atom Site Occupancy of C8P is Constrained at 0.45 Check  
 PLAT300\_ALERT\_4\_G Atom Site Occupancy of H1P is Constrained at 0.5 Check  
 PLAT300\_ALERT\_4\_G Atom Site Occupancy of H2P is Constrained at 0.5 Check  
 PLAT300\_ALERT\_4\_G Atom Site Occupancy of H4P is Constrained at 0.45 Check  
 PLAT300\_ALERT\_4\_G Atom Site Occupancy of H5P is Constrained at 0.45 Check  
 PLAT300\_ALERT\_4\_G Atom Site Occupancy of H7P is Constrained at 0.45 Check  
 PLAT300\_ALERT\_4\_G Atom Site Occupancy of H8P is Constrained at 0.45 Check  
 PLAT301\_ALERT\_3\_G Main Residue Disorder .....(Resd 1).. 9% Note  
 PLAT367\_ALERT\_2\_G Long? C(sp?)-C(sp?) Bond C3P - C3P\_h .. 1.52 Ang.  
 PLAT606\_ALERT\_4\_G VERY LARGE Solvent Accessible VOID(S) in Structure ! Info  
 PLAT779\_ALERT\_4\_G Suspect or Irrelevant (Bond) Angle in CIF .... # 150 Check  
 ZN4 -O2 -ZN3 1.555 1.555 1.555 27.99 Deg.  
 PLAT779\_ALERT\_4\_G Suspect or Irrelevant (Bond) Angle in CIF .... # 154 Check  
 ZN3 -O4 -ZN4 1.555 1.555 1.555 20.55 Deg.  
 PLAT779\_ALERT\_4\_G Suspect or Irrelevant (Bond) Angle in CIF .... # 158 Check  
 ZN4 -O6 -ZN3 1.555 1.555 1.555 21.99 Deg.  
 PLAT779\_ALERT\_4\_G Suspect or Irrelevant (Bond) Angle in CIF .... # 192 Check  
 ZN4 -O2W -ZN3 1.555 1.555 1.555 29.44 Deg.  
 PLAT860\_ALERT\_3\_G Number of Least-Squares Restraints ..... 219 Note  
 PLAT869\_ALERT\_4\_G ALERTS Related to the use of SQUEEZE Suppressed ! Info

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

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

43 ALERT type 2 Indicator that the structure model may be wrong or deficient  
5 ALERT type 3 Indicator that the structure quality may be low  
30 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.

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**PLATON version of 13/08/2017; check.def file version of 27/07/2017**

