# 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.

## **Datablock:** new\_sq

```
Bond precision: C-C = 0.0120 A
                                        Wavelength=0.70000
Cell:
                 a=30.344(4)
                                 b=30.344(4)
                                                 c=34.461(7)
                 alpha=90
                                  beta=90
                                                  gamma=90
Temperature:
                  293 K
               Calculated
                                         Reported
Volume
               31730(11)
                                         31731(11)
              P 4/m n c
                                         P 4/m n c
Space group
Hall group
               -P 4 2n
                                         -P 4 2n
               2(C79 H41.60 N7.40 O17.90
Moiety formula
               Zn5.50) [+ solvent]
               C158 H83.20 N14.80 O35.80 C158 H83.20 N14.80 O35.80
Sum formula
               Zn11 [+ solvent]
                                         Zn11
               3480.89
Mr
                                         3480.66
               0.729
                                         0.729
Dx,q cm-3
               4
Mu (mm-1)
              0.819
                                         0.819
F000
               7004.8
                                         7005.0
F000′
              7020.42
h,k,lmax
               35,35,40
                                         35,35,40
               13300
Nref
                                         13244
Tmin,Tmax
              0.822,0.863
                                         0.714,0.867
Tmin'
               0.697
Correction method= # Reported T Limits: Tmin=0.714 Tmax=0.867
AbsCorr = MULTI-SCANS
Data completeness= 0.996
                                 Theta(max) = 23.999
R(reflections) = 0.1111( 10344) wR2(reflections) = 0.3992( 13244)
S = 1.731
                          Npar= 511
```

Click on the hyperlinks for more details of the test.

```
风 Alert level B
PLAT084_ALERT_3_B High wR2 Value (i.e. > 0.25) .....
                                                                         0.40 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
PLAT241_ALERT_2_B High
PLAT241_ALERT_2_B High
PLAT242_ALERT_2_B Low
PLAT242_ALERT_2_B Low
MainMol' Ueq as Compared to Neighbors of
PLAT242_ALERT_2_B Low
'MainMol' Ueq as Compared to Neighbors of
PLAT242_ALERT_2_B Low
'MainMol' Ueq as Compared to Neighbors of
                                                                          C16 Check
                                                                         C33 Check
Zn5 Check
                                                                         C32 Check
 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 = 0.854
Value of mu given = 0.819
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
THETM01_ALERT_3_C The value of sine(theta_max)/wavelength is less than 0.590
            Calculated sin(theta_max)/wavelength = 0.5810
                                                                         0.11 Report
PLAT082_ALERT_2_C High R1 Value ......
                                                                         3.3 prolat
PLAT213_ALERT_2_C Atom C21 has ADP max/min Ratio .....
                                                                          4.1 Ratio
PLAT220_ALERT_2_C Non-Solvent Resd 1 C Ueq(max)/Ueq(min) Range
                                                                         5.2 Ratio
PLAT220_ALERT_2_C Non-Solvent Resd 1 O Ueq(max)/Ueq(min) Range
                                                                          01 Check
PLAT241_ALERT_2_C High 'MainMol' Ueq as Compared to Neighbors of
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
                                                                          C2 Check
PLAT241_ALERT_2_C High 'MainMol' Ueq as Compared to Neighbors of
                                                                          C8 Check
                                                                        C8 Check
C17 Check
C25 Check
PLAT241_ALERT_2_C High 'MainMol' Ueq as Compared to Neighbors of
PLAT241_ALERT_2_C High 'MainMol' Ueq as Compared to Neighbors of
                        'MainMol' Ueq as Compared to Neighbors of
                                                                         Zn2 Check
PLAT242_ALERT_2_C Low
                                                                        N1P Check
C15 Check
C18 Check
C19 Check
C22 Check
C24 Check
PLAT242_ALERT_2_C Low 'MainMol' Ueq as Compared to Neighbors of
PLAT242_ALERT_2_C Low 'MainMol' Ueq as Compared to Neighbors of
PLAT242_ALERT_2_C Low 'MainMol' Ueq as Compared to Neighbors of
                       'MainMol' Ueq as Compared to Neighbors of
PLAT242_ALERT_2_C Low
                       'MainMol' Ueq as Compared to Neighbors of 'MainMol' Ueq as Compared to Neighbors of
PLAT242_ALERT_2_C Low
PLAT242_ALERT_2_C Low
                       'MainMol' Ueq as Compared to Neighbors of
PLAT242_ALERT_2_C Low
                                                                          C27 Check
                         'MainMol' Ueq as Compared to Neighbors of
PLAT242_ALERT_2_C Low
                                                                          C30 Check
                       'MainMol' Ueq as Compared to Neighbors of
                                                                        C34 Check
2.1 Note
PLAT242_ALERT_2_C Low
PLAT250_ALERT_2_C Large U3/U1 Ratio for Average U(i,j) Tensor ....
PLAT341_ALERT_3_C Low Bond Precision on C-C Bonds .....
                                                                      0.01205 Ang.
5 su-Rat
              C27 -C35 1.555 6.565 ..... # 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.

```
PLAT003_ALERT_2_G Number of Uiso or Uij Restrained non-H Atoms ...
                                                                                                                                    6 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.
PLAT174_ALERT_4_G The CIF-Embedded .res File Contains FLAT Records
                                                                                                                                  1 Report
PLAT177_ALERT_4_G The CIF-Embedded .res File Contains DELU Records
                                                                                                                                  1 Report
PLAT178_ALERT_4_G The CIF-Embedded .res File Contains SIMU Records
                                                                                                                                  1 Report
PLAT186_ALERT_4_G The CIF-Embedded .res File Contains ISOR Records
                                                                                                                                  2 Report
PLAT199_ALERT_1_G Reported _cell_measurement_temperature .... (K)
                                                                                                                               293 Check
PLAT200_ALERT_1_G Reported __diffrn_ambient_temperature .... (K)
                                                                                                                               293 Check
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
                                                                                  is Constrained at
PLAT300_ALERT_4_G Atom Site Occupancy of N2P
                                                                                                                             0.45 Check
PLAT300_ALERT_4_G Atom Site Occupancy of N2P

PLAT300_ALERT_4_G Atom Site Occupancy of C4P

PLAT300_ALERT_4_G Atom Site Occupancy of C5P

PLAT300_ALERT_4_G Atom Site Occupancy of C6P

PLAT300_ALERT_4_G Atom Site Occupancy of C7P

PLAT300_ALERT_4_G Atom Site Occupancy of C8P

PLAT300_ALERT_4_G Atom Site Occupancy of H1P

PLAT300_ALERT_4_G Atom Site Occupancy of H2P

PLAT300_ALERT_4_G Atom Site Occupancy of H2P

PLAT300_ALERT_4_G Atom Site Occupancy of H4P

PLAT300_ALERT_4_G Atom Site Occupancy of H5P

PLAT300_ALERT_4_G Atom Site Occupancy of H5P

Is Constrained at Constr
                                                                                                                              0.45 Check
                                                                                                                             0.45 Check
                                                                                                                             0.45 Check
0.45 Check
0.45 Check
                                                                                                                              0.5 Check
                                                                                                                               0.5 Check
                                                                                                                              0.45 Check
                                                                                                                             0.45 Check
PLAT300_ALERT_4_G Atom Site Occupancy of H7P is Constrained at PLAT300_ALERT_4_G Atom Site Occupancy of H8P is Constrained at
                                                                                                                             0.45 Check
                                                                                                                             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 ..
                                                                                                                             1.53 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
                                                                                                                       26.34 Deg.
                        ZN4 -O2 -ZN3 1.555 1.555 1.555
PLAT779_ALERT_4_G Suspect or Irrelevant (Bond) Angle in CIF .... #
                                                                                                                                154 Check
                         ZN3 -O4 -ZN4 1.555 1.555 1.555
                                                                                                                       19.03 Deg.
PLAT779_ALERT_4_G Suspect or Irrelevant (Bond) Angle in CIF .... #
                                                                                                                               158 Check
                        ZN4 -O6 -ZN3 1.555 1.555 1.555
                                                                                                                       20.98 Deg.
PLAT779_ALERT_4_G Suspect or Irrelevant (Bond) Angle in CIF .... #
                                                                                                                       192 Check
                         ZN4 -O2W -ZN3 1.555 1.555 1.555
                                                                                                                       27.57 Deg.
PLAT860_ALERT_3_G Number of Least-Squares Restraints .....
                                                                                                                                44 Note
PLAT869_ALERT_4_G ALERTS Related to the use of SQUEEZE Suppressed
                                                                                                                                   ! Info
```

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0 ALERT level A = Most likely a serious problem - resolve or explain
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<sup>7</sup> ALERT level B = A potentially serious problem, consider carefully

<sup>31</sup> ALERT level C = Check. Ensure it is not caused by an omission or oversight

<sup>38</sup> ALERT level G = General information/check it is not something unexpected

<sup>7</sup> ALERT type 1 CIF construction/syntax error, inconsistent or missing data

<sup>35</sup> ALERT type 2 Indicator that the structure model may be wrong or deficient

<sup>5</sup> ALERT type 3 Indicator that the structure quality may be low

<sup>28</sup> ALERT type 4 Improvement, methodology, query or suggestion

<sup>1</sup> 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 27/03/2017; check.def file version of 24/03/2017

