

# 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: 4

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Bond precision:	C-C = 0.0038 A	Wavelength=0.71073
Cell:	a=7.1661(3)	b=15.0840(6)      c=19.1836(9)
	alpha=90	beta=103.732(4)      gamma=90
Temperature:	103 K	
	Calculated	Reported
Volume	2014.35(15)	2014.35(15)
Space group	P 2/c	P2/c
Hall group	-P 2yc	?
	4(C7 H7 N2 O), 4(C7 H9 N2	
Moiety formula	O), 4(Cl4 Zn), H4 O, 6(H2 ?	
	O), O	
Sum formula	C56 H80 Cl16 N16 O16 Zn4	C56 H80 Cl16 N16 O16 Zn4
Mr	2062.12	2062.04
Dx, g cm-3	1.700	1.700
Z	1	1
Mu (mm-1)	1.778	1.778
F000	1048.0	1048.0
F000'	1051.80	
h,k,lmax	10,21,27	8,18,27
Nref	6419	6299
Tmin,Tmax		0.751,1.000
Tmin'		

Correction method= # Reported T Limits: Tmin=0.751 Tmax=1.000  
AbsCorr = MULTI-SCAN

Data completeness= 0.981      Theta(max)= 30.980

R(reflections)= 0.1021( 4184)      wR2(reflections)= 0.2102( 5027)

S = 1.052      Npar= 220

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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.

### Alert level A

PLAT417_ALERT_2_A	Short Inter D-H..H-D	H4A	..H5D	.	1.68 Ang.
		-1+x,-1-y,-1/2+z	=		4_465 Check

### Alert level B

PLAT417_ALERT_2_B	Short Inter D-H..H-D	H6WA	..H1B	.	1.85 Ang.
		-1-x,-y,-1-z	=		3_454 Check
PLAT417_ALERT_2_B	Short Inter D-H..H-D	H6WA	..H1B	.	2.06 Ang.
		1+x,-y,1/2+z	=		4_656 Check
PLAT420_ALERT_2_B	D-H Without Acceptor	O6'	--H6WA	.	Please Check
PLAT420_ALERT_2_B	D-H Without Acceptor	O7	--H7B	.	Please Check

### 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

DIFMX02\_ALERT\_1\_C The maximum difference density is > 0.1\*ZMAX\*0.75

The relevant atom site should be identified.

PLAT053_ALERT_1_C	Minimum Crystal Dimension Missing (or Error) ...				Please Check
PLAT054_ALERT_1_C	Medium Crystal Dimension Missing (or Error) ...				Please Check
PLAT055_ALERT_1_C	Maximum Crystal Dimension Missing (or Error) ...				Please Check
PLAT097_ALERT_2_C	Large Reported Max. (Positive) Residual Density				2.45 eA-3
PLAT112_ALERT_2_C	ADDSYM Detects New (Pseudo) Symm. Elem	I			83 %Fit
PLAT218_ALERT_3_C	Constrained U(ij) Components(s) for O7'	.			2 Check
PLAT218_ALERT_3_C	Constrained U(ij) Components(s) for O7	.			2 Check
PLAT230_ALERT_2_C	Hirshfeld Test Diff for N1	--C1	.		5.3 s.u.
PLAT260_ALERT_2_C	Large Average Ueq of Residue Including	O6'			0.107 Check
PLAT260_ALERT_2_C	Large Average Ueq of Residue Including	O7			0.107 Check
PLAT260_ALERT_2_C	Large Average Ueq of Residue Including	O5			0.107 Check
PLAT260_ALERT_2_C	Large Average Ueq of Residue Including	O6			0.107 Check
PLAT790_ALERT_4_C	Centre of Gravity not Within Unit Cell: Resd. #				1 Note

C7 H7 N2 O

### Alert level G

PLAT002_ALERT_2_G	Number of Distance or Angle Restraints on AtSite				14 Note
PLAT005_ALERT_5_G	No Embedded Refinement Details Found in the CIF				Please Do !
PLAT007_ALERT_5_G	Number of Unrefined Donor-H Atoms .....				12 Report
PLAT093_ALERT_1_G	No s.u.'s on H-positions, Refinement Reported as				mixed Check
PLAT128_ALERT_4_G	Alternate Setting for Input Space Group P2/c				P2/n Note
PLAT300_ALERT_4_G	Atom Site Occupancy of O1	Constrained at			0.5 Check
PLAT300_ALERT_4_G	Atom Site Occupancy of O1'	Constrained at			0.5 Check
PLAT300_ALERT_4_G	Atom Site Occupancy of N2	Constrained at			0.5 Check
PLAT300_ALERT_4_G	Atom Site Occupancy of N2'	Constrained at			0.5 Check
PLAT300_ALERT_4_G	Atom Site Occupancy of C7	Constrained at			0.5 Check
PLAT300_ALERT_4_G	Atom Site Occupancy of C7'	Constrained at			0.5 Check
PLAT300_ALERT_4_G	Atom Site Occupancy of O6'	Constrained at			0.5 Check
PLAT300_ALERT_4_G	Atom Site Occupancy of O7	Constrained at			0.5 Check
PLAT300_ALERT_4_G	Atom Site Occupancy of O7'	Constrained at			0.5 Check
PLAT300_ALERT_4_G	Atom Site Occupancy of O6	Constrained at			0.5 Check
PLAT301_ALERT_3_G	Main Residue Disorder .....(Resd 1 )				30% Note
PLAT302_ALERT_4_G	Anion/Solvent/Minor-Residue Disorder (Resd 5 )				100% Note
PLAT302_ALERT_4_G	Anion/Solvent/Minor-Residue Disorder (Resd 6 )				100% Note

PLAT302_ALERT_4_G	Anion/Solvent/Minor-Residue Disorder (Resd 8 )	100%	Note
PLAT304_ALERT_4_G	Non-Integer Number of Atoms in ..... Resd 5	2.50	Check
PLAT304_ALERT_4_G	Non-Integer Number of Atoms in ..... Resd 8	0.25	Check
PLAT311_ALERT_2_G	Isolated Disordered Oxygen Atom (No H's ?) .....	07'	Check
PLAT311_ALERT_2_G	Isolated Disordered Oxygen Atom (No H's ?) .....	06	Check
PLAT720_ALERT_4_G	Number of Unusual/Non-Standard Labels .....	1	Note
PLAT779_ALERT_4_G	Suspect or Irrelevant (Bond) Angle in CIF .... #	27	Check
	C7 -C4 -C7' 1.555 1.555 1.555	0.00	Deg.
PLAT790_ALERT_4_G	Centre of Gravity not Within Unit Cell: Resd. #	2	Note
	C7 H9 N2 O		
PLAT790_ALERT_4_G	Centre of Gravity not Within Unit Cell: Resd. #	3	Note
	Cl4 Zn		
PLAT790_ALERT_4_G	Centre of Gravity not Within Unit Cell: Resd. #	4	Note
	Cl4 Zn		
PLAT790_ALERT_4_G	Centre of Gravity not Within Unit Cell: Resd. #	5	Note
	H4 O		
PLAT790_ALERT_4_G	Centre of Gravity not Within Unit Cell: Resd. #	6	Note
	H2 O		
PLAT790_ALERT_4_G	Centre of Gravity not Within Unit Cell: Resd. #	7	Note
	H2 O		
PLAT790_ALERT_4_G	Centre of Gravity not Within Unit Cell: Resd. #	8	Note
	O		
PLAT794_ALERT_5_G	Tentative Bond Valency for Zn1 (II) .	2.01	Info
PLAT794_ALERT_5_G	Tentative Bond Valency for Zn2 (II) .	2.01	Info
PLAT860_ALERT_3_G	Number of Least-Squares Restraints .....	9	Note
PLAT899_ALERT_4_G	SHELXL97 is Deprecated and Succeeded by SHELXL	2018	Note
PLAT950_ALERT_5_G	Calculated (ThMax) and CIF-Reported Hmax Differ	2	Units
PLAT951_ALERT_5_G	Calculated (ThMax) and CIF-Reported Kmax Differ	3	Units

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

6 ALERT type 1 CIF construction/syntax error, inconsistent or missing data  
 15 ALERT type 2 Indicator that the structure model may be wrong or deficient  
 4 ALERT type 3 Indicator that the structure quality may be low  
 27 ALERT type 4 Improvement, methodology, query or suggestion  
 6 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.

