

# 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: a\_a\_sq

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Bond precision:	C-C = 0.0126 A	Wavelength=0.71073	
Cell:	a=10.6771(18)	b=15.343(2)	c=23.040(4)
	alpha=102.675(5)	beta=94.198(5)	gamma=99.900(5)
Temperature:	273 K		
	Calculated	Reported	
Volume	3603.3(10)	3603.5(10)	
Space group	P -1	P -1	
Hall group	-P 1	-P 1	
Moiety formula	C40 H48 Ca N20 O14, 3(C6 H5 N O3), Cl4 Zn [+ solvent]	Cl4 Zn, C40 H48 Ca N20 O14, 3(C6 H5 N O3)	
Sum formula	C58 H63 Ca Cl4 N23 O23 Zn [+ solvent]	C58 H63 Ca Cl4 N23 O23 Zn	
Mr	1697.59	1697.56	
Dx,g cm-3	1.565	1.565	
Z	2	2	
Mu (mm-1)	0.653	0.653	
F000	1748.0	1748.0	
F000'	1750.97		
h,k,lmax	12,18,27	12,18,27	
Nref	12695	12553	
Tmin,Tmax	0.901,0.925	0.492,0.746	
Tmin'	0.901		

Correction method= # Reported T Limits: Tmin=0.492 Tmax=0.746  
AbsCorr = MULTI-SCAN

Data completeness= 0.989      Theta(max)= 24.999

R(reflections)= 0.1330( 9442)      wR2(reflections)= 0.3776( 12553)

S = 1.448      Npar= 935

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**

PLAT084_ALERT_3_B	High wR2 Value (i.e. > 0.25)				0.38	Report
PLAT230_ALERT_2_B	Hirshfeld Test Diff for	O17	--N21	.	9.3	s.u.
PLAT230_ALERT_2_B	Hirshfeld Test Diff for	C42	--C43	.	7.3	s.u.
PLAT415_ALERT_2_B	Short Inter D-H..H-X	H19A	..H48	.	1.98	Ang.
			x,y,z =		1_555	Check
PLAT420_ALERT_2_B	D-H Bond Without Acceptor	O14	--H14	.		Please Check
PLAT420_ALERT_2_B	D-H Bond Without Acceptor	O18	--H18	.		Please Check
PLAT420_ALERT_2_B	D-H Bond Without Acceptor	O19	--H19B	.		Please Check
PLAT420_ALERT_2_B	D-H Bond Without Acceptor	O22	--H22C	.		Please Check

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**Alert level C**

DIFMX02_ALERT_1_C	The maximum difference density is > 0.1*ZMAX*0.75							
	The relevant atom site should be identified.							
RINTA01_ALERT_3_C	The value of Rint is greater than 0.12							
	Rint given	0.147						
PLAT020_ALERT_3_C	The Value of Rint is Greater Than 0.12					0.147	Report	
PLAT082_ALERT_2_C	High R1 Value					0.13	Report	
PLAT094_ALERT_2_C	Ratio of Maximum / Minimum Residual Density					2.26	Report	
PLAT097_ALERT_2_C	Large Reported Max. (Positive) Residual Density					2.27	eA-3	
PLAT218_ALERT_3_C	Constrained U(ij) Components(s) for O15					6	Check	
PLAT218_ALERT_3_C	Constrained U(ij) Components(s) for O13					6	Check	
PLAT218_ALERT_3_C	Constrained U(ij) Components(s) for O14					6	Check	
PLAT218_ALERT_3_C	Constrained U(ij) Components(s) for N22					6	Check	
PLAT218_ALERT_3_C	Constrained U(ij) Components(s) for O16					6	Check	
PLAT218_ALERT_3_C	Constrained U(ij) Components(s) for O18					6	Check	
PLAT220_ALERT_2_C	NonSolvent	Resd 1	C	Ueq(max)/Ueq(min) Range	3.2	Ratio		
PLAT223_ALERT_4_C	Solv./Anion	Resd 4	H	Ueq(max)/Ueq(min) Range	4.5	Ratio		
PLAT230_ALERT_2_C	Hirshfeld Test Diff for	C48	--C49	.	5.1	s.u.		
PLAT230_ALERT_2_C	Hirshfeld Test Diff for	C45	--C46	.	6.4	s.u.		
PLAT234_ALERT_4_C	Large Hirshfeld Difference C50					0.22	Ang.	
PLAT234_ALERT_4_C	Large Hirshfeld Difference C53					0.20	Ang.	
PLAT234_ALERT_4_C	Large Hirshfeld Difference C55					0.16	Ang.	
PLAT234_ALERT_4_C	Large Hirshfeld Difference N21					0.19	Ang.	
PLAT234_ALERT_4_C	Large Hirshfeld Difference C43					0.18	Ang.	
PLAT241_ALERT_2_C	High	'MainMol'	Ueq as Compared to Neighbors of			N22	Check	
PLAT241_ALERT_2_C	High	'MainMol'	Ueq as Compared to Neighbors of			C49	Check	
PLAT241_ALERT_2_C	High	'MainMol'	Ueq as Compared to Neighbors of			C42	Check	
PLAT242_ALERT_2_C	Low	'MainMol'	Ueq as Compared to Neighbors of			C47	Check	
PLAT242_ALERT_2_C	Low	'MainMol'	Ueq as Compared to Neighbors of			C50	Check	
PLAT242_ALERT_2_C	Low	'MainMol'	Ueq as Compared to Neighbors of			C55	Check	
PLAT242_ALERT_2_C	Low	'MainMol'	Ueq as Compared to Neighbors of			C58	Check	
PLAT242_ALERT_2_C	Low	'MainMol'	Ueq as Compared to Neighbors of			N21	Check	
PLAT242_ALERT_2_C	Low	'MainMol'	Ueq as Compared to Neighbors of			C44	Check	
PLAT242_ALERT_2_C	Low	'MainMol'	Ueq as Compared to Neighbors of			C45	Check	
PLAT242_ALERT_2_C	Low	'MainMol'	Ueq as Compared to Neighbors of			C46	Check	
PLAT244_ALERT_4_C	Low	'Solvent'	Ueq as Compared to Neighbors of			Zn1	Check	
PLAT260_ALERT_2_C	Large Average Ueq of Residue Including					O11	0.107	Check
PLAT260_ALERT_2_C	Large Average Ueq of Residue Including					O12	0.126	Check
PLAT260_ALERT_2_C	Large Average Ueq of Residue Including					O16	0.135	Check
PLAT334_ALERT_2_C	Small Aver. Benzene C-C Dist C47					-C52	1.35	Ang.
PLAT341_ALERT_3_C	Low Bond Precision on C-C Bonds						0.01261	Ang.
PLAT415_ALERT_2_C	Short Inter D-H..H-X	H22C	..H45	.	2.12	Ang.		
			x,y,z =		1_555	Check		

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● **Alert level G**

PLAT002_ALERT_2_G	Number of Distance or Angle Restraints on AtSite	9	Note
PLAT003_ALERT_2_G	Number of Uiso or Uij Restrained non-H Atoms ...	12	Report
PLAT004_ALERT_5_G	Polymeric Structure Found with Maximum Dimension	1	Info
PLAT007_ALERT_5_G	Number of Unrefined Donor-H Atoms .....	11	Report
PLAT042_ALERT_1_G	Calc. and Reported Moiety Formula Strings Differ		Please Check
PLAT072_ALERT_2_G	SHELXL First Parameter in WGHT Unusually Large	0.20	Report
PLAT154_ALERT_1_G	The s.u.'s on the Cell Angles are Equal ..(Note)	0.005	Degree
PLAT172_ALERT_4_G	The CIF-Embedded .res File Contains DFIX Records	6	Report
PLAT186_ALERT_4_G	The CIF-Embedded .res File Contains ISOR Records	6	Report
PLAT187_ALERT_4_G	The CIF-Embedded .res File Contains RIGU Records	1	Report
PLAT199_ALERT_1_G	Reported _cell_measurement_temperature ..... (K)	273	Check
PLAT200_ALERT_1_G	Reported _diffrn_ambient_temperature ..... (K)	273	Check
PLAT605_ALERT_4_G	Largest Solvent Accessible VOID in the Structure	47	A**3
PLAT720_ALERT_4_G	Number of Unusual/Non-Standard Labels .....	4	Note
PLAT794_ALERT_5_G	Tentative Bond Valency for Zn1 (II) .	2.05	Info
PLAT860_ALERT_3_G	Number of Least-Squares Restraints .....	78	Note
PLAT869_ALERT_4_G	ALERTS Related to the Use of SQUEEZE Suppressed		! Info
PLAT883_ALERT_1_G	No Info/Value for _atom_sites_solution_primary .		Please Do !
PLAT933_ALERT_2_G	Number of OMIT Records in Embedded .res File ...	113	Note

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

6 ALERT type 1 CIF construction/syntax error, inconsistent or missing data  
33 ALERT type 2 Indicator that the structure model may be wrong or deficient  
11 ALERT type 3 Indicator that the structure quality may be low  
13 ALERT type 4 Improvement, methodology, query or suggestion  
3 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 03/06/2021; check.def file version of 02/06/2021**

