# checkCIF/PLATON report

Structure factors have been supplied for datablock(s) I

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: I

Bond precision:	C-C = 0.0016 A	Wavelength=0.71073			
Cell:	a=26.2536(4) alpha=90	b=11.6384(2) beta=107.0100	c=29.4236(4) gamma=90		
Temperature:	100 K				
	Calculated	Reported			
Volume	8597.1(2)	8596.9(2)			
Space group	P 21/c	P 1 21/c 1	L		
Hall group	-P 2ybc	-P 2ybc			
Moiety formula	C17 H21 N3 O2 Si	C17 H21 N3	3 02 Si		
Sum formula	C17 H21 N3 O2 Si	C17 H21 N3	3 02 Si		
Mr	327.46	327.46			
Dx,g cm-3	1.265	1.265			
Z	20	20			
Mu (mm-1)	0.149	0.149			
F000	3480.0	3480.0			
F000'	3482.86				
h,k,lmax	35, 15, 39	35,15,39			
Nref	21370	21341			
•	0.918,0.946	0.717,0.74	16		
Tmin'	0.910				
Correction method= # Reported T Limits: Tmin=0.717 Tmax=0.746 AbsCorr = MULTI-SCAN					
Data completenes	ss= 0.999	Theta( $max$ ) = 28.298	:		
R(reflections)=	0.0343( 18466)		wR2(reflections) = 0.0940( 21341)		
S = 1.024	Npar= 10	56	,		

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

PLAT150_ALERT_1_C Volume as Calculated Differs from that Given	8596.90 Ang-3
PLAT220_ALERT_2_C NonSolvent Resd 5 C Ueq(max)/Ueq(min) Range	3.7 Ratio
PLAT222_ALERT_3_C NonSolvent Resd 5 H Uiso(max)/Uiso(min) Range	4.6 Ratio
PLAT230_ALERT_2_C Hirshfeld Test Diff for Si1C13 .	5.2 s.u.
PLAT230_ALERT_2_C Hirshfeld Test Diff for O2C15 .	5.3 s.u.
PLAT230_ALERT_2_C Hirshfeld Test Diff for O2AC15A .	5.3 s.u.
PLAT230_ALERT_2_C Hirshfeld Test Diff for O2BC15B .	5.7 s.u.
PLAT230_ALERT_2_C Hirshfeld Test Diff for O2DC15D .	5.5 s.u.
PLAT242_ALERT_2_C Low 'MainMol' Ueq as Compared to Neighbors of	Si1D Check
PLAT910_ALERT_3_C Missing # of FCF Reflection(s) Below Theta(Min).	9 Note
PLAT911_ALERT_3_C Missing FCF Refl Between Thmin & STh/L= 0.600	11 Report
PLAT913_ALERT_3_C Missing # of Very Strong Reflections in FCF	7 Note

## Alert level G

PLAT003_ALERT_2_G Number of Uiso or Uij Restrained non-H Atoms	3	Report
PLAT063_ALERT_4_G Crystal Size Possibly too Large for Beam Size	ze 0.63	mm
PLAT145_ALERT_4_G s.u. on beta Small or Missing	0.0000	Degree
PLAT186_ALERT_4_G The CIF-Embedded .res File Contains ISOR Rec	cords 1	Report
PLAT793_ALERT_4_G Model has Chirality at C1 (Centro S	SPGR) R	Verify
PLAT793_ALERT_4_G Model has Chirality at C1A (Centro S	SPGR) S	Verify
PLAT793_ALERT_4_G Model has Chirality at C1B (Centro S	SPGR) S	Verify
PLAT793_ALERT_4_G Model has Chirality at C1C (Centro S	SPGR) S	Verify
PLAT793_ALERT_4_G Model has Chirality at C1D (Centro S	SPGR) S	Verify
PLAT793_ALERT_4_G Model has Chirality at C2 (Centro S	SPGR) S	Verify
PLAT793_ALERT_4_G Model has Chirality at C2A (Centro S	SPGR) R	Verify
PLAT793_ALERT_4_G Model has Chirality at C2B (Centro S	SPGR) R	Verify
PLAT793_ALERT_4_G Model has Chirality at C2C (Centro S	SPGR) R	Verify
PLAT793_ALERT_4_G Model has Chirality at C2D (Centro S	SPGR) R	Verify
PLAT793_ALERT_4_G Model has Chirality at C3 (Centro S	SPGR) R	Verify
PLAT793_ALERT_4_G Model has Chirality at C3A (Centro S	SPGR) S	Verify
PLAT793_ALERT_4_G Model has Chirality at C3B (Centro S	SPGR) S	Verify
PLAT793_ALERT_4_G Model has Chirality at C3C (Centro S	SPGR) S	Verify
PLAT793_ALERT_4_G Model has Chirality at C3D (Centro S	SPGR) S	Verify
PLAT793_ALERT_4_G Model has Chirality at C4 (Centro S	SPGR) S	Verify
PLAT793_ALERT_4_G Model has Chirality at C4A (Centro S	SPGR) R	Verify
PLAT793_ALERT_4_G Model has Chirality at C4B (Centro S	SPGR) R	Verify
PLAT793_ALERT_4_G Model has Chirality at C4C (Centro S	SPGR) R	Verify
PLAT793_ALERT_4_G Model has Chirality at C4D (Centro S	SPGR) R	Verify
PLAT860_ALERT_3_G Number of Least-Squares Restraints	18	Note
PLAT912_ALERT_4_G Missing # of FCF Reflections Above STh/L= 0	0.600	Note
PLAT933_ALERT_2_G Number of HKL-OMIT Records in Embedded .res	File 3	Note
PLAT978_ALERT_2_G Number C-C Bonds with Positive Residual Dens	sity. 16	Info

<sup>0</sup> **ALERT level A** = Most likely a serious problem - resolve or explain

<sup>0</sup> ALERT level  ${\bf B}$  = A potentially serious problem, consider carefully

<sup>12</sup> **ALERT level C** = Check. Ensure it is not caused by an omission or oversight

<sup>28</sup> **ALERT level G** = General information/check it is not something unexpected

```
1 ALERT type 1 CIF construction/syntax error, inconsistent or missing data
10 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
24 ALERT type 4 Improvement, methodology, query or suggestion
0 ALERT type 5 Informative message, check
```

## checkCIF publication errors

#### **Publication of your CIF**

You should 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 nature of your study may justify the reported deviations from journal submission requirements and the more serious of these should 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.

If level A alerts remain, which you believe to be justified deviations, and you intend to submit this CIF for publication in a journal, you should additionally insert an explanation in your CIF using the Validation Reply Form (VRF) below. This will allow your explanation to be considered as part of the review process.

#### Validation response form

Please find below a validation response form (VRF) that can be filled in and pasted into your CIF.

```
# start Validation Reply Form
_vrf_PUBL004_GLOBAL
PROBLEM: The contact author's name and address are missing,
RESPONSE: ...
_vrf_PUBL005_GLOBAL
PROBLEM: _publ_contact_author_email, _publ_contact_author_fax and
RESPONSE: ...
_vrf_PUBL006_GLOBAL
PROBLEM: _publ_requested_journal is missing
RESPONSE: ...
_vrf_PUBL008_GLOBAL
PROBLEM: _publ_section_title is missing. Title of paper.
RESPONSE: ...
_vrf_PUBL009_GLOBAL
PROBLEM: _publ_author_name is missing. List of author(s) name(s).
RESPONSE: ...
_vrf_PUBL010_GLOBAL
PROBLEM: _publ_author_address is missing. Author(s) address(es).
RESPONSE: ...
_vrf_PUBL012_GLOBAL
PROBLEM: _publ_section_abstract is missing.
RESPONSE: ...
# end Validation Reply Form
```

If you wish to submit your CIF for publication in Acta Crystallographica Section C or E, you should upload your CIF via the web. If you wish to submit your CIF for publication in IUCrData you should upload your CIF via the web. If your CIF is to form part of a submission to another IUCr journal, you will be asked, either during electronic submission or by the Co-editor handling your paper, to upload your CIF via our web site.

