



checkCIF/PLATON report

Structure factors have been supplied for datablock(s) 1

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: 1

Bond precision:	C-C = 0.0078 Å		Wavelength=0.71073
Cell:	a=9.8223 (11)	b=11.7221 (12)	c=18.8168 (16)
	alpha=90	beta=104.772 (1)	gamma=90
Temperature:	298 K		
	Calculated	Reported	
Volume	2094.9 (4)	2094.9 (4)	
Space group	P 21/c	P 21/c	
Hall group	-P 2ybc	-P 2ybc	
Moiety formula	C42 H50 N4 Ni3 O10	C42 H50 N4 Ni3 O10	
Sum formula	C42 H50 N4 Ni3 O10	C42 H50 N4 Ni3 O10	
Mr	946.93	946.99	
Dx, g cm ⁻³	1.501	1.501	
Z	2	2	
Mu (mm ⁻¹)	1.396	1.396	
F000	988.0	988.0	
F000'	990.40		
h, k, lmax	11, 14, 22	11, 14, 22	
Nref	3896	3799	
Tmin, Tmax	0.703, 0.725	0.721, 0.732	
Tmin'	0.689		

Correction method= # Reported T Limits: Tmin=0.721 Tmax=0.732
AbsCorr = MULTI-SCAN

Data completeness= 0.975

Theta(max)= 25.489

R(reflections)= 0.0591(3099)

wR2(reflections)=
0.2003(3799)

S = 1.053

Npar= 270

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

PLAT341_ALERT_3_C Low Bond Precision on C-C Bonds 0.00783 Ang.
PLAT410_ALERT_2_C Short Intra H...H Contact H9 ..H11 . 1.99 Ang.
x,y,z = 1_555 Check
PLAT911_ALERT_3_C Missing FCF Refl Between Thmin & STh/L= 0.600 97 Report
0 2 0, 0 2 1, -1 2 5, -1 0 8, 0 5 8, 0 3 9,
0 5 9, -1 0 10, -1 1 10, 0 1 10, 0 5 10, 1 6 10,
0 2 11, 0 3 11, 0 4 11, 0 5 11, 2 8 11, -1 0 12,
0 0 12, -1 1 12, 0 1 12, 0 2 12, 1 3 12, 0 4 12,
1 4 12, 1 6 12, 2 10 12, 3 10 12, 0 2 13, 0 3 13,
(67 More NOT listed: see .ckf listing file)
PLAT977_ALERT_2_C Check Negative Difference Density on H15A . -0.47 eA-3
PLAT977_ALERT_2_C Check Negative Difference Density on H21C . -0.35 eA-3



Alert level G

PLAT232_ALERT_2_G Hirshfeld Test Diff (M-X) Nil --O4 . 7.0 s.u.
PLAT794_ALERT_5_G Tentative Bond Valency for Nil (II) . 1.99 Info
PLAT794_ALERT_5_G Tentative Bond Valency for Ni2 (II) . 1.92 Info
PLAT883_ALERT_1_G Absent Datum for _atom_sites_solution_primary .. Please Do !
PLAT941_ALERT_3_G Average HKL Measurement Multiplicity 2.7 Low
PLAT967_ALERT_5_G Note: Two-Theta Cutoff Value in Embedded .res .. 51.0 Degree
PLAT969_ALERT_5_G The 'Henn et al.' R-Factor-gap value 5.162 Note
Predicted wR2: Based on SigI**2 3.88 or SHELX Weight 19.02 Note
PLAT978_ALERT_2_G Number C-C Bonds with Positive Residual Density. 1 Info

- 0 **ALERT level A** = Most likely a serious problem - resolve or explain
0 **ALERT level B** = A potentially serious problem, consider carefully
5 **ALERT level C** = Check. Ensure it is not caused by an omission or oversight
8 **ALERT level G** = General information/check it is not something unexpected
- 1 ALERT type 1 CIF construction/syntax error, inconsistent or missing data
5 ALERT type 2 Indicator that the structure model may be wrong or deficient
3 ALERT type 3 Indicator that the structure quality may be low
0 ALERT type 4 Improvement, methodology, query or suggestion
4 ALERT type 5 Informative message, check
-

checkCIF publication errors

Alert level A

PUBL004_ALERT_1_A The contact author's name and address are missing,
_publ_contact_author_name and _publ_contact_author_address.
PUBL005_ALERT_1_A _publ_contact_author_email, _publ_contact_author_fax and
_publ_contact_author_phone are all missing.
At least one of these should be present.
PUBL006_ALERT_1_A _publ_requested_journal is missing
e.g. 'Acta Crystallographica Section C'
PUBL008_ALERT_1_A _publ_section_title is missing. Title of paper.
PUBL009_ALERT_1_A _publ_author_name is missing. List of author(s) name(s).
PUBL010_ALERT_1_A _publ_author_address is missing. Author(s) address(es).
PUBL012_ALERT_1_A _publ_section_abstract is missing.
Abstract of paper in English.

Alert level G

PUBL017_ALERT_1_G The _publ_section_references section is missing or
empty.

-
- 7 **ALERT level A** = Data missing that is essential or data in wrong format
1 **ALERT level G** = General alerts. Data that may be required is missing
-

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.

