

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: dp

Bond precision:	C-C = 0.0156 Å	Wavelength=0.71073
Cell:	a=15.216(10)	b=15.491(10) c=17.603(14)
	alpha=90	beta=93.895(11) gamma=90
Temperature:	293 K	
	Calculated	Reported
Volume	4140(5)	4140(5)
Space group	P 21/n	P2(1)/n
Hall group	-P 2yn	?
Moiety formula	C34 H32 Cr Mn N8 O5, C H4 O, 3(H2 O)	C34 H32 Cr Mn N8 O5, C H4 O, 3(H2 O)
Sum formula	C35 H42 Cr Mn N8 O9	C35 H42 Cr Mn N8 O9
Mr	825.71	825.71
Dx, g cm-3	1.325	1.325
Z	4	4
Mu (mm-1)	0.626	0.626
F000	1716.0	1716.0
F000'	1719.31	
h, k, lmax	18, 18, 20	16, 18, 19
Nref	7287	7117
Tmin, Tmax	0.914, 0.933	0.912, 0.934
Tmin'	0.910	

Correction method= MULTI-SCAN

Data completeness= 0.977 Theta(max)= 25.000

R(reflections)= 0.0826(4690) wR2(reflections)= 0.2438(7117)

S = 1.009 Npar= 490

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 B

PLAT213_ALERT_2_B	Atom C23	has ADP max/min Ratio	.....	4.1	prolat
PLAT220_ALERT_2_B	Large Non-Solvent C	Ueq(max)/Ueq(min) Range		7.8	Ratio
PLAT222_ALERT_3_B	Large Non-Solvent H	Uiso(max)/Uiso(min)	..	7.6	Ratio
PLAT230_ALERT_2_B	Hirshfeld Test Diff for	C28 -- C29	..	8.1	su
PLAT242_ALERT_2_B	Low	Ueq as Compared to Neighbors for	.....	C22	Check
PLAT341_ALERT_3_B	Low Bond Precision on	C-C Bonds	.....	0.0156	Ang.
PLAT360_ALERT_2_B	Short C(sp3)-C(sp3) Bond	C22 - C23	...	1.25	Ang.
PLAT410_ALERT_2_B	Short Intra H...H Contact	H18 .. H22A	..	1.85	Ang.
PLAT420_ALERT_2_B	D-H Without Acceptor	O6 - H6A	...		Please Check
PLAT420_ALERT_2_B	D-H Without Acceptor	O7 - H7A	...		Please Check
PLAT420_ALERT_2_B	D-H Without Acceptor	O9 - H9A	...		Please Check
PLAT420_ALERT_2_B	D-H Without Acceptor	O9 - H9B	...		Please Check

🟡 Alert level C

PLAT029_ALERT_3_C	_diffn_measured_fraction_theta_full	Low	.....	0.977	Note
PLAT213_ALERT_2_C	Atom C22	has ADP max/min Ratio	.....	3.6	prolat
PLAT234_ALERT_4_C	Large Hirshfeld Difference	O4 -- C17	..	0.18	Ang.
PLAT234_ALERT_4_C	Large Hirshfeld Difference	N3 -- C3	..	0.16	Ang.
PLAT234_ALERT_4_C	Large Hirshfeld Difference	N5 -- C9	..	0.18	Ang.
PLAT234_ALERT_4_C	Large Hirshfeld Difference	C7 -- C8	..	0.17	Ang.
PLAT234_ALERT_4_C	Large Hirshfeld Difference	C10 -- C11	..	0.17	Ang.
PLAT234_ALERT_4_C	Large Hirshfeld Difference	C15 -- C21	..	0.16	Ang.
PLAT234_ALERT_4_C	Large Hirshfeld Difference	C25 -- C26	..	0.16	Ang.
PLAT241_ALERT_2_C	High	Ueq as Compared to Neighbors for	.....	N1	Check
PLAT241_ALERT_2_C	High	Ueq as Compared to Neighbors for	.....	C6	Check
PLAT241_ALERT_2_C	High	Ueq as Compared to Neighbors for	.....	C8	Check
PLAT241_ALERT_2_C	High	Ueq as Compared to Neighbors for	.....	C28	Check
PLAT242_ALERT_2_C	Low	Ueq as Compared to Neighbors for	.....	O4	Check
PLAT412_ALERT_2_C	Short Intra XH3 .. XHn	H22A .. H23B	..	1.89	Ang.
PLAT412_ALERT_2_C	Short Intra XH3 .. XHn	H22B .. H23A	..	1.88	Ang.
PLAT417_ALERT_2_C	Short Inter D-H...H-D	H7B .. H9A	..	2.12	Ang.

🟢 Alert level G

PLAT005_ALERT_5_G	No _iucr_refine_instructions_details	in the CIF			Please Do !
PLAT007_ALERT_5_G	Number of Unrefined Donor-H Atoms	.....		9	Report
PLAT066_ALERT_1_G	Predicted and Reported Tmin&Tmax Range	Identical		?	Check
PLAT072_ALERT_2_G	SHELXL First Parameter in WGHT	Unusually Large.		0.12	Report
PLAT199_ALERT_1_G	Reported _cell_measurement_temperature	 (K)		293	Check
PLAT200_ALERT_1_G	Reported _diffn_ambient_temperature	 (K)		293	Check
PLAT779_ALERT_4_G	Suspect or Irrelevant (Bond) Angle in CIF	 #		39	Check
	H6B -O6 -H6B	1.555 1.555 1.555		0.00	Deg.
PLAT779_ALERT_4_G	Suspect or Irrelevant (Bond) Angle in CIF	 #		42	Check
	H7B -O7 -H7B	1.555 1.555 1.555		0.00	Deg.
PLAT779_ALERT_4_G	Suspect or Irrelevant (Bond) Angle in CIF	 #		45	Check
	H7A -O7 -H7A	1.555 1.555 1.555		0.00	Deg.
PLAT779_ALERT_4_G	Suspect or Irrelevant (Bond) Angle in CIF	 #		50	Check
	H9B -O9 -H9B	1.555 1.555 1.555		0.00	Deg.
PLAT779_ALERT_4_G	Suspect or Irrelevant (Bond) Angle in CIF	 #		51	Check
	H9A -O9 -H9A	1.555 1.555 1.555		0.00	Deg.
PLAT899_ALERT_4_G	SHELXL97	is Deprecated and Succeeded by SHELXL		2014	Note
PLAT950_ALERT_5_G	Calculated (ThMax) and CIF-Reported Kmax	Differ		2	Units

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

3 ALERT type 1 CIF construction/syntax error, inconsistent or missing data
20 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
13 ALERT type 4 Improvement, methodology, query or suggestion
3 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*, 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 20/08/2014; check.def file version of 18/08/2014

