

## checkCIF (basic structural check) running

---

Checking for embedded fcf data in CIF ...

Found embedded fcf data in CIF. Extracting fcf data from uploaded CIF, please wait . . .

## checkCIF/PLATON (basic structural check)

---

Structure factors have been supplied for datablock(s) 221022\_s2\_ning

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](#)

Please wait while processing .... [Interpreting this report](#)

### Structure factor report

## Datablock: 221022\_s2\_ning

---

Bond precision: C-C = 0.0103 A Wavelength=0.71073

Cell: a=7.7284(10) b=14.1348(19) c=18.518(3)  
 alpha=90 beta=90 gamma=90

Temperature: 293 K

	Calculated	Reported
Volume	2022.9(5)	2022.9(5)
Space group	P 21 21 21	P 21 21 21
Hall group	P 2ac 2ab	P 2ac 2ab
Moiety formula	C22 H33 N O2, Cl	C22 H33 N O2, Cl
Sum formula	C22 H33 Cl N O2	C22 H33 Cl N O2
Mr	378.94	378.94
Dx, g cm <sup>-3</sup>	1.244	1.244
Z	4	4
Mu (mm <sup>-1</sup> )	0.205	0.205
F000	820.0	820.0
F000'	820.89	
h,k,lmax	9,17,23	9,17,23
Nref	4137[ 2371]	3692
Tmin,Tmax	0.931,0.950	0.407,1.000
Tmin'	0.931	

Correction method= # Reported T Limits: Tmin=0.407 Tmax=1.000

AbsCorr = MULTI-SCAN

Data completeness= 1.56/0.89 Theta(max)= 26.372

R(reflections)= 0.0679( 2361) wR2(reflections)= 0.2271( 3692)

S = 1.050 Npar= 238

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**

PLAT340\_ALERT\_3\_B Low Bond Precision on C-C Bonds ..... 0.01033 Ang.

**Alert level C**

PLAT410\_ALERT\_2\_C Short Intra H...H Contact H15B ..H17B . 1.93 Ang.

x,y,z = 1\_555 Check

PLAT906\_ALERT\_3\_C Large K Value in the Analysis of Variance ..... 2.090 Check

PLAT910\_ALERT\_3\_C Missing # of FCF Reflection(s) Below Theta(Min). 6 Note

PLAT911\_ALERT\_3\_C Missing FCF Refl Between Thmin & STh/L= 0.600 4 Report

PLAT915\_ALERT\_3\_C No Flack x Check Done: Low Friedel Pair Coverage 75 %

PLAT918\_ALERT\_3\_C Reflection(s) with I(obs) much Smaller I(calc) . 1 Check

PLAT934\_ALERT\_3\_C Number of (Iobs-Icalc)/Sigma(W) > 10 Outliers .. 1 Check

**Alert level G**

PLAT007\_ALERT\_5\_G Number of Unrefined Donor-H Atoms ..... 2 Report

PLAT072\_ALERT\_2\_G SHELXL First Parameter in WGHT Unusually Large 0.11 Report

PLAT199\_ALERT\_1\_G Reported \_cell\_measurement\_temperature ..... (K) 293 Check

PLAT200\_ALERT\_1\_G Reported \_diffn\_ambient\_temperature ..... (K) 293 Check

PLAT791\_ALERT\_4\_G Model has Chirality at C1 (Sohnke SpGr) R Verify

**And 6 other PLAT791 Alerts**

More ...

PLAT883\_ALERT\_1\_G No Info/Value for \_atom\_sites\_solution\_primary . Please Do !

PLAT933\_ALERT\_2\_G Number of HKL-OMIT Records in Embedded .res File 2 Note

PLAT941\_ALERT\_3\_G Average HKL Measurement Multiplicity ..... 2.6 Low

PLAT978\_ALERT\_2\_G Number C-C Bonds with Positive Residual Density. 0 Info

0 **ALERT level A** = Most likely a serious problem - resolve or explain

1 **ALERT level B** = A potentially serious problem, consider carefully

7 **ALERT level C** = Check. Ensure it is not caused by an omission or oversight

15 **ALERT level G** = General information/check it is not something unexpected

3 ALERT type 1 CIF construction/syntax error, inconsistent or missing data

4 ALERT type 2 Indicator that the structure model may be wrong or deficient

8 ALERT type 3 Indicator that the structure quality may be low

7 ALERT type 4 Improvement, methodology, query or suggestion

1 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**

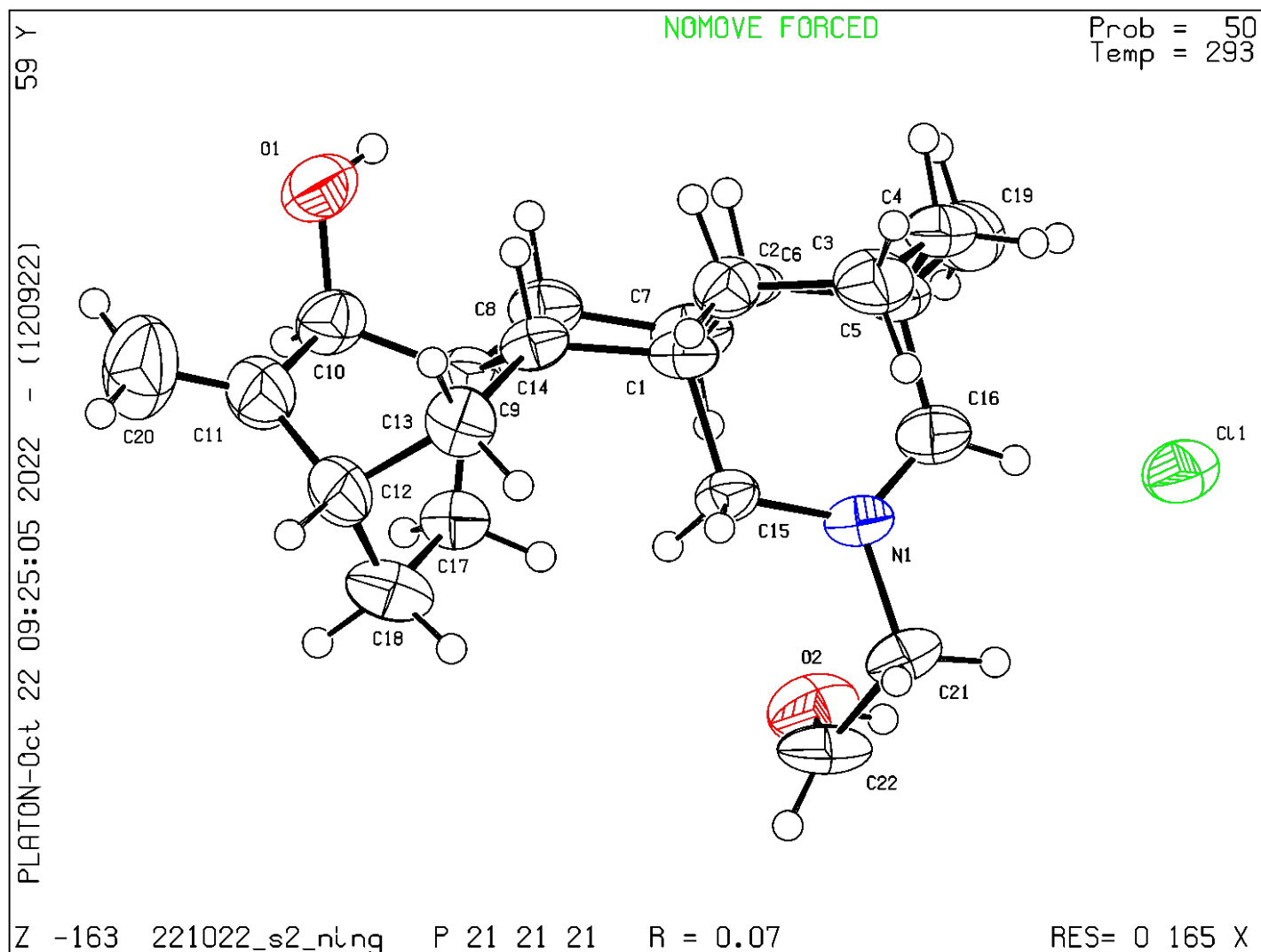
A basic structural check has been run on your CIF. These basic checks will be run on all CIFs submitted for publication in IUCr journals (*Acta Crystallographica*, *Journal of Applied Crystallography*, *Journal of Synchrotron Radiation*); however, if you intend to submit to *Acta Crystallographica Section C* or *E* 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.

PLATON version of 12/09/2022; check.def file version of 09/08/2022

## Datablock 221022\_s2\_ning - ellipsoid plot



[Download CIF editor \(pubCIF\) from the IUCr](#)  
[Download CIF editor \(enCIFer\) from the CCDC](#)  
[Test a new CIF entry](#)