# checkCIF/PLATON report

You have not supplied any structure factors. As a result the full set of tests cannot be run.

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## Datablock: 1

Bond precision:	C-C = 0.0035 A	Wavelength=0.71073				
Cell:	a=27.5082(16) alpha=90	b=9.2312(beta=92.5				
Temperature:	293 K	, , , <u>, , , , , , , , , , , , , , , , </u>				
Volume Space group Hall group			Reported 5249.0(5) P21/c ?			
Moiety formula	C24 H30 Cu F2 N4	O5, 2(H2	?			
F000 F000' h,k,lmax Nref Tmin,Tmax Tmin'	C24 H34 Cu F2 N4 592.10 1.498 8 0.897 2472.0 2475.78 35,12,26 12099		592.10 1.498 8 0.897 2472.0 35,12,26 12040 0.910,0.9			
AbsCorr = MULTI-SCAN						
Data completeness= 0.995 The			ta(max) = 27.550			
R(reflections) = 0.0426( 8696) wR2(reflections) = 0.1050( 12040)						
S = 1.023 Npar= 675						

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		
PLAT165_ALERT_3_C Nr. of Status R Flagged Non-Hydrogen Atoms	4	
PLAT241_ALERT_2_C High	C2	Check
PLAT241_ALERT_2_C High	C26	Check
PLAT417_ALERT_2_C Short Inter D-HH-D H6W2 H1W1	2.14	Ang.
9		
Alert level G		
PLAT002_ALERT_2_G Number of Distance or Angle Restraints on AtSite	18	Note
PLAT005_ALERT_5_G No _iucr_refine_instructions_details in the CIF	Please	Do !
PLAT007_ALERT_5_G Number of Unrefined Donor-H Atoms	12	Report
PLAT063_ALERT_4_G Crystal Size Likely too Large for Beam Size	0.80	mm
PLAT093_ALERT_1_G No su's on H-positions, refinement reported as .	mixed	Check
PLAT199_ALERT_1_G Reported _cell_measurement_temperature (K)	293	Check
PLAT200_ALERT_1_G Reporteddiffrn_ambient_temperature (K)	293	Check
PLAT232_ALERT_2_G Hirshfeld Test Diff (M-X) Cu2 N2	6.8	su
PLAT720_ALERT_4_G Number of Unusual/Non-Standard Labels	12	Note
PLAT794_ALERT_5_G Tentative Bond Valency for Cul (II)	2.15	Note
PLAT794_ALERT_5_G Tentative Bond Valency for Cu2 (II)	2.17	Note
PLAT860_ALERT_3_G Number of Least-Squares Restraints	18	Note
PLAT899_ALERT_4_G SHELXL97 is Deprecated and Succeeded by SHELXL	2014	Note
0 ALERT level A = Most likely a serious problem - resolve or explain	L	
0 ALERT level B = A potentially serious problem, consider carefully		

- 4 ALERT level  ${\bf C}$  = 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
- 5 ALERT type 2 Indicator that the structure model may be wrong or deficient
- 2 ALERT type 3 Indicator that the structure quality may be low
- 3 ALERT type 4 Improvement, methodology, query or suggestion
- 4 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.

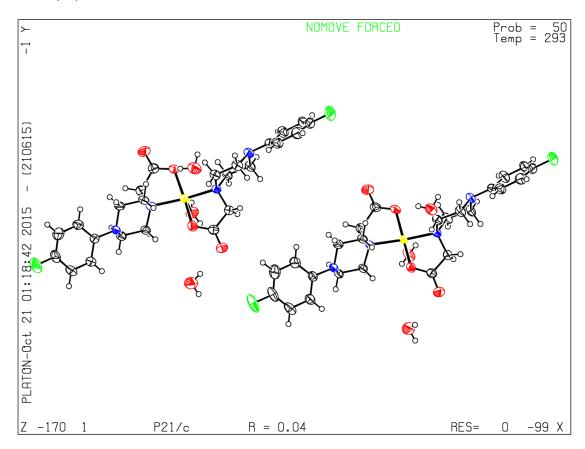
#### **Publication of your CIF in IUCr journals**

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.

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PLATON version of 21/06/2015; check.def file version of 21/06/2015



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### Datablock: 1

```
Bond precision: C-C = 0.0062 A
                                       Wavelength=0.71073
Cell:
              a=6.6508(6)
                              b=7.2655(6) c=15.3900(14)
              alpha=95.281(3) beta=95.647(3) gamma=115.921(2)
Temperature: 293 K
               Calculated
                                         Reported
Volume
               657.99(10)
                                         657.98(10)
Space group
              P -1
                                         P - 1
Hall group
               -P 1
Moiety formula C24 H32 F2 N4 Ni O6
                                         ?
Sum formula
             C24 H32 F2 N4 Ni O6
                                         C24 H32 F2 N4 Ni O6
Mr
               569.23
                                         569.23
               1.436
                                         1.437
Dx,g cm-3
Ζ
               1
                                         1
Mu (mm-1)
               0.797
                                         0.797
F000
               298.0
                                         298.0
F000′
               298.48
h,k,lmax
               8,8,18
                                         8,8,18
Nref
               2440
                                         2413
               0.569,0.727
                                         0.789,0.820
Tmin,Tmax
Tmin'
               0.523
Correction method= # Reported T Limits: Tmin=0.789 Tmax=0.820
AbsCorr = MULTI-SCAN
Data completeness= 0.989
                                 Theta(max) = 25.490
R(reflections) = 0.0374(2264) wR2(reflections) = 0.0980(2413)
S = 1.095
                         Npar= 166
```

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

 ${\tt CRYSC01\_ALERT\_1\_C}$  The word below has not been recognised as a standard identifier.

#### aquamarine

CRYSC01_ALERT_1_C No recognised colour has been given for crystal colour	r.	
PLAT094_ALERT_2_C Ratio of Maximum / Minimum Residual Density	2.65	Report
PLAT165_ALERT_3_C Nr. of Status R Flagged Non-Hydrogen Atoms	1	
PLAT220_ALERT_2_C Large Non-Solvent C Ueq(max)/Ueq(min) Range	3.8	Ratio
PLAT241_ALERT_2_C High	C9	Check
PLAT242_ALERT_2_C Low Ueq as Compared to Neighbors for	C10	Check
PLAT250_ALERT_2_C Large U3/U1 Ratio for Average U(i,j) Tensor	2.5	Note
PLAT341_ALERT_3_C Low Bond Precision on C-C Bonds	0.0062	Ang.

#### Alert level G

```
PLAT002_ALERT_2_G Number of Distance or Angle Restraints on AtSite
                                                                       3 Note
PLAT005_ALERT_5_G No _iucr_refine_instructions_details in the CIF
                                                                  Please Do !
PLAT007_ALERT_5_G Number of Unrefined Donor-H Atoms .....
                                                                      2 Report
                                                                    0.80 mm
PLAT063_ALERT_4_G Crystal Size Likely too Large for Beam Size ....
PLAT093_ALERT_1_G No su's on H-positions, refinement reported as .
                                                                   mixed Check
PLAT199_ALERT_1_G Reported _cell_measurement_temperature .... (K)
                                                                    293 Check
PLAT200_ALERT_1_G Reported __diffrn_ambient_temperature .... (K)
                                                                     293 Check
PLAT710_ALERT_4_G Delete 1-2-3 or 2-3-4 Linear Torsion Angle ... #
                                                                       1 Do !
           O2 -NI1 -O2 -C1 -48.00 78.00 2.656 1.555 1.555
                                                                   1.555
PLAT710_ALERT_4_G Delete 1-2-3 or 2-3-4 Linear Torsion Angle ... #
                                                                      10 Do !
           N2 -NI1 -N2 -C2 18.00 0.00 2.656
                                                   1.555 1.555
                                                                   1.555
PLAT710_ALERT_4_G Delete 1-2-3 or 2-3-4 Linear Torsion Angle ... #
                                                                      15 Do !
           N2 -NI1 -N2 -C3 7.00 0.00
                                            2.656 1.555 1.555
                                                                   1.555
PLAT710_ALERT_4_G Delete 1-2-3 or 2-3-4 Linear Torsion Angle ... #
                                                                      20 Do !
           N2 -NI1 -N2 -C6
                                 6.00 0.00
                                             2.656 1.555 1.555
                                                                   1.555
PLAT720_ALERT_4_G Number of Unusual/Non-Standard Labels .......
                                                                       2 Note
PLAT860_ALERT_3_G Number of Least-Squares Restraints .....
                                                                       3 Note
PLAT899_ALERT_4_G SHELXL97 is Deprecated and Succeeded by SHELXL
                                                                    2014 Note
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