No syntax errors found. CIF dictionary
Please wait while processing .... Interpreting this report

### Datablock: ws04

C-C = 0.0028 ABond precision: Wavelength=1.54184 a=8.5079(4)b=9.6156(4)c=10.3022(3)Cell: alpha=83.401(3) beta=88.993(3) gamma=79.248(4) Temperature: 293 K Calculated Reported 822.52(6) 822.51(5) Volume P -1 P -1 Space group -P 1 Hall group -P 1 C20 H13 Cl2 F O C20 H13 C12 F O Moiety formula C20 H13 C12 F O C20 H13 Cl2 F O Sum formula 359.20 359.20 Dx,g cm-3 1.450 1.450  $\mathbf{Z}$ 2 2 Mu (mm-1) 3.669 3.669 F000 368.0 368.0 F000' 370.40 h,k,lmax 10,11,12 10.11.12 Nref 3079 2958 Tmin,Tmax 0.416,0.618 0.400, 1.000 0.240 Tmin' Correction method= # Reported T Limits: Tmin=0.400 Tmax=1.000 AbsCorr = MULTI-SCAN Data completeness= 0.961 Theta(max)= 69.442R(reflections)= 0.0647(2901) wR2(reflections)= 0.1756( 2958) S = 1.641Npar= 217 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 PLAT934 ALERT 3 B Number of (Iobs-Icalc)/Sigma(W) > 10 Outliers ... 5 Check Alert level C PLAT029 ALERT 3 C diffrn measured fraction theta full value Low. 0.970 Why? PLAT790 ALERT 4 C Centre of Gravity not Within Unit Cell: Resd. # 1 Note C20 H13 C12 F O PLAT911 ALERT 3 C Missing FCF Refl Between Thmin & STh/L= 0.600 90 Report PLAT918 ALERT 3 C Reflection(s) with I(obs) much Smaller I(calc). 16 Check PLAT939 ALERT 3 C Large Value of Not (SHELXL) Weight Optimized S. 35.42 Check PLAT977 ALERT 2 C Check Negative Difference Density on H1A -0.50 eA-3 And 2 other PLAT977 Alerts More ... Alert level G PLAT199 ALERT 1 G Reported cell measurement temperature ..... (K) 293 Check PLAT200 ALERT 1 G Reported \_diffrn\_ambient\_temperature ..... (K) 293 Check PLAT343 ALERT 2 G Unusual sp3 Angle Range in Main Residue for C14 Check PLAT398 ALERT 2 G Deviating C-O-C Angle From 120 for O1 62.1 Degree PLAT793 ALERT 4 G Model has Chirality at C6 (Centro SPGR) S Verify PLAT793 ALERT 4 G Model has Chirality at C14 (Centro SPGR) R Verify PLAT912 ALERT 4 G Missing # of FCF Reflections Above STh/L= 0.600 32 Note PLAT941 ALERT 3 G Average HKL Measurement Multiplicity ...... 3.9 Low PLAT961 ALERT 5 G Dataset Contains no Negative Intensities ...... Please Check 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 8 ALERT level C = Check. Ensure it is not caused by an omission or oversight 10 ALERT level G = General information/check it is not something unexpected 2 ALERT type 1 CIF construction/syntax error, inconsistent or missing data 6 ALERT type 2 Indicator that the structure model may be wrong or deficient 6 ALERT type 3 Indicator that the structure quality may be low 4 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

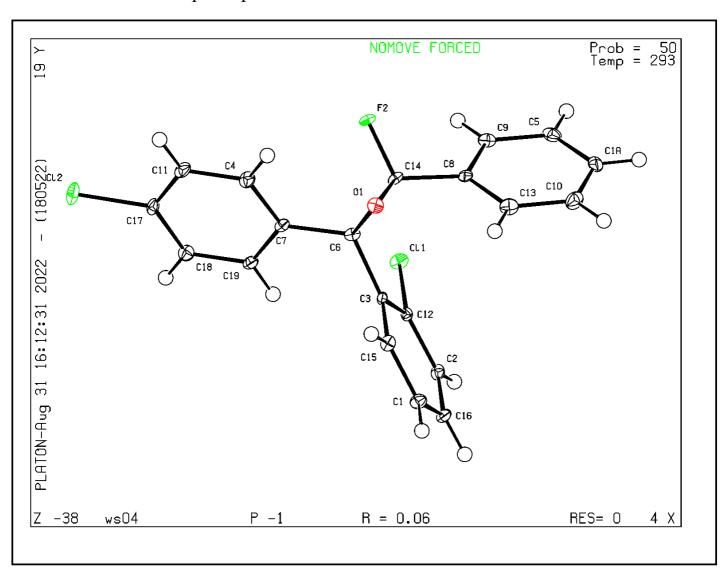
A basic structural check has been run on your CIF. These basic checks will be run on all CIFs submitted for publication in IUCr journals (*Acta Crystallographica*, *Journal of Applied Crystallography*, *Journal of Synchrotron Radiation*); however, if you intend to submit to *Acta Crystallographica Section C* or *E* or *IUCrData*, you should make sure that <u>full publication checks</u> 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 18/05/2022; check.def file version of 17/05/2022

### Datablock ws04 - ellipsoid plot



Download CIF editor (publCIF) from the IUCr Download CIF editor (enCIFer) from the CCDC Test a new CIF entry No syntax errors found. CIF dictionary
Please wait while processing .... Interpreting this report

## Datablock: ws03-op

```
C-C = 0.0040 A
                                                                         Wavelength=1.54184
Bond precision:
            a=5.79557(11)
                                    b=16.5797(4)
                                                             c=17.1963(4)
Cell:
            alpha=90
                                    beta=90
                                                             gamma=90
Temperature: 293 K
                            Calculated
                                                                          Reported
                            1652.37(6)
                                                                           1652.38(6)
Volume
                            P 21 21 21
                                                                          P 21 21 21
Space group
Hall group
                            P 2ac 2ab
                                                                          P 2ac 2ab
                            C21 H15 F3 O
                                                                          C21 H15 F3 O
Moiety formula
                                                                          C21 H15 F3 O
Sum formula
                            C21 H15 F3 O
                            340.33
                                                                          340.33
Dx,g cm-3
                            1.368
                                                                          1.368
\mathbf{Z}
                            4
                                                                          4
Mu (mm-1)
                            0.895
                                                                          0.895
F000
                            704.0
                                                                          704.0
F000'
                            706.51
h,k,lmax
                            7,20,20
                                                                          7.20.20
Nref
                            3091[1811]
                                                                          3071
                            0.910,0.946
                                                                          0.568, 1.000
Tmin,Tmax
                            0.887
Tmin'
Correction method= # Reported T Limits: Tmin=0.568 Tmax=1.000 AbsCorr = MULTI-SCAN
Data completeness= 1.70/0.99
                                               Theta(max)= 69.527
R(reflections)= 0.0403(2923)
                                                                  wR2(reflections)= 0.1060( 3071)
S = 1.053
                                 Npar= 226
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
PLAT934 ALERT 3 C Number of (Iobs-Icalc)/Sigma(W) > 10 Outliers ...
                                                                         1 Check
Alert level G
PLAT199 ALERT 1 G Reported _cell_measurement_temperature ..... (K)
                                                                        293 Check
PLAT200 ALERT 1 G Reported diffrn ambient temperature ..... (K)
                                                                      293 Check
PLAT343 ALERT 2 G Unusual sp3 Angle Range in Main Residue for
                                                                        C5 Check
PLAT398 ALERT 2 G Deviating C-O-C Angle From 120 for O2
                                                                     61.9 Degree
PLAT767 ALERT 4 G INS Embedded LIST 6 Instruction Should be LIST 4
                                                                        Please Check
PLAT791 ALERT 4 G Model has Chirality at C3
                                                   (Sohnke SpGr)
                                                                      R Verify
PLAT791 ALERT 4 G Model has Chirality at C5
                                                   (Sohnke SpGr)
                                                                      R Verify
PLAT912 ALERT 4 G Missing # of FCF Reflections Above STh/L= 0.600
                                                                          4 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

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

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

 ${\it 2~ALERT~type~1~CIF~construction/syntax~error, inconsistent~or~missing~data}\\$ 

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

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

4 ALERT type 4 Improvement, methodology, query or suggestion

0 ALERT type 5 Informative message, check

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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

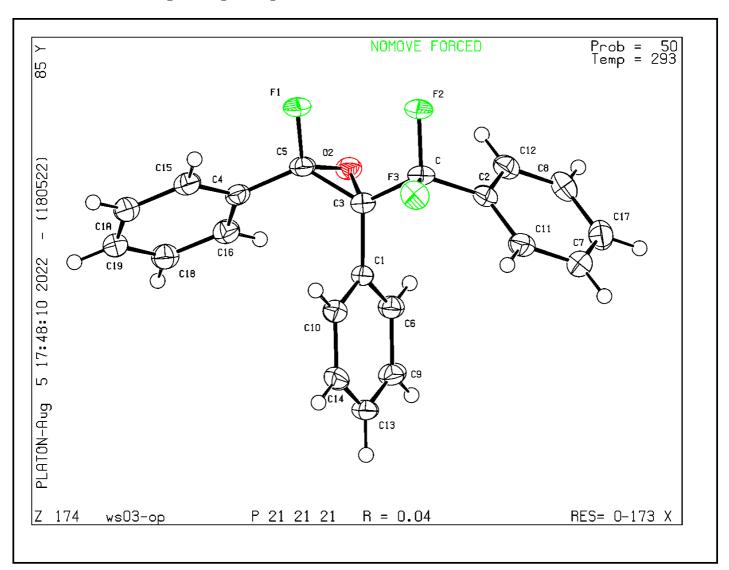
A basic structural check has been run on your CIF. These basic checks will be run on all CIFs submitted for publication in IUCr journals (*Acta Crystallographica*, *Journal of Applied Crystallography*, *Journal of Synchrotron Radiation*); however, if you intend to submit to *Acta Crystallographica Section C* or *E* or *IUCrData*, you should make sure that <u>full publication checks</u> are run on the final version of your CIF prior to submission.

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#### PLATON version of 18/05/2022; check.def file version of 17/05/2022

# Datablock ws03-op - ellipsoid plot



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