## 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.

# Datablock: 1\_b

```
Wavelength=0.71073
Bond precision: O-B = 0.0144 A
Cell:
                  a=8.0910(8)
                                  b=16.0090(16)
                                                        c=3.5571(3)
                                  beta=101.267(2)
                  alpha=90
                                                        gamma=90
                  296 K
Temperature:
                Calculated
                                            Reported
Volume
                451.87(7)
                                            451.87(7)
Space group
                C m
                                            C m
                                            C -2y
Hall group
                C -2y
Moiety formula B3 Gd O10, 4(Ca)
                                            ?
Sum formula
                B3 Ca4 Gd O10
                                            B3 Ca4 Gd O10
                510.00
                                            510.00
Mr
                3.748
                                            3.748
Dx,g cm-3
Mu (mm-1)
                9.651
                                            9.651
F000
                478.0
                                            478.0
F000'
                479.73
h, k, lmax
                10,21,4
                                            10,21,4
Nref
                1164[ 587]
                                            1070
Tmin, Tmax
                0.167,0.145
                                            0.864,0.864
Tmin'
                0.126
Correction method= # Reported T Limits: Tmin=0.864 Tmax=0.864
AbsCorr = MULTI-SCAN
Data completeness= 1.82/0.92 Theta(max)= 28.364
                                                      wR2 (reflections) =
R(reflections) = 0.0290(1045)
                                                      0.0535(1070)
S = 1.030
                          Npar= 90
```

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

PLAT090\_ALERT\_3\_C Poor Data / Parameter Ratio (Zmax > 18) ...... 6.52 Note

## Alert level G

PLAT004\_ALERT\_5\_G Polymeric Structure Found with Maximum Dimension 3 Info
PLAT767\_ALERT\_4\_G INS Embedded LIST 6 Instruction Should be LIST 4 Please Check
PLAT794\_ALERT\_5\_G Tentative Bond Valency for Gd1 (III) . 2.93 Info
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

- 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
- 5 **ALERT level G** = General information/check it is not something unexpected
- 1 ALERT type 1 CIF construction/syntax error, inconsistent or missing data
- 1 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
- 1 ALERT type 4 Improvement, methodology, query or suggestion
- 2 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 19/02/2022; check.def file version of 19/02/2022

