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: calcioancylite-La

```
Wavelength=1.54184
Bond precision:
                O- C = 0.0235 A
Cell:
                    a=5.0253(3)
                                     b=8.5152(6)
                                                       c=7.2717(6)
                    alpha=90
                                     beta=90
                                                       gamma=90
                    296 K
Temperature:
                Calculated
                                             Reported
Volume
                311.17(4)
                                             311.17(4)
Space group
                P m c n
                                             P m c n
Hall group
                -P 2n 2a
                                            -P 2n 2a
Moiety formula C4 La2.64 O16, 1.36(Ca)
                                             C2 Ca0.677 La1.323 08
Sum formula
                C4 Ca1.36 La2.64 O16
                                             C2 Ca0.67 La1.32 O8
                725.27
                                             363.13
Mr
                                             3.876
Dx,g cm-3
                3.870
Mu (mm-1)
                74.745
                                             74.967
F000
                 329.7
                                             330.0
F000'
                 328.30
h, k, lmax
                6,10,9
                                             6,10,9
                 370
Nref
                                             360
Tmin, Tmax
                 0.559,0.687
                                             0.372,1.000
Tmin'
                 0.287
Correction method= # Reported T Limits: Tmin=0.372 Tmax=1.000
AbsCorr = MULTI-SCAN
Data completeness= 0.973
                                    Theta (max) = 76.790
                                                       wR2 (reflections) =
R(reflections) = 0.0652(347)
                                                       0.1551(360)
S = 1.259
                           Npar= 36
```

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

 $\label{lem:absorpt_correction_type} ABSTY02_ALERT_1_C \quad An \ _exptl_absorpt_correction_type \ has been given without a literature citation. This should be contained in the$

_exptl_absorpt_process_details field.
Absorption correction given as multi-scan

PLAT041_ALERT_1_C Calc. and Reported SumFormula Strings Differ Please Check PLAT042_ALERT_1_C Calc. and Reported MoietyFormula Strings Differ Please Check PLAT043_ALERT_1_C Calculated and Reported Mol. Weight Differ by .. 0.99 Check PLAT077_ALERT_4_C Unitcell Contains Non-integer Number of Atoms .. Please Check

Alert level G

PLAT004_ALERT_5_G Polymeric Structure Found with Maximum Dimension 3 Info PLAT005_ALERT_5_G No Embedded Refinement Details Found in the CIF Please Do ! PLAT040_ALERT_1_G No H-atoms in this Carbon Containing Compound .. Please Check PLAT045_ALERT_1_G Calculated and Reported Z Differ by a Factor ... 0.500 Check PLAT068_ALERT_1_G Reported F000 Differs from Calcd (or Missing)... Please Check PLAT083_ALERT_2_G SHELXL Second Parameter in WGHT Unusually Large 16.78 Why ? PLAT128_ALERT_4_G Alternate Setting for Input Space Group Pmcn Pnma Note PLAT301_ALERT_3_G Main Residue Disorder(Resd 1) 17% Note 100% Note PLAT302_ALERT_4_G Anion/Solvent/Minor-Residue Disorder (Resd 2) ${\tt PLAT883_ALERT_1_G~No~Info/Value~for~_atom_sites_solution_primary~.}$ Please Do !

- 0 **ALERT level A** = Most likely a serious problem resolve or explain
- 0 ALERT level B = A potentially serious problem, consider carefully
- 5 **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
- 8 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
- 3 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 28/11/2022; check.def file version of 28/11/2022

