

checkCIF/PLATON report

Structure factors have been supplied for datablock(s) dmwmsv6-25_sq

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 Interpreting this report

Datablock: dmwmsv6-25_sq

Bond precision: C-C = 0.0044 Å

Wavelength=0.68890

Cell: a=32.56923(10) b=30.16165(10) c=40.83634(17)
 alpha=90 beta=95.9061(3) gamma=90
Temperature: 100 K

| | Calculated | Reported |
|------------------------|-----------------------------------------------------------------------|-----------------------------------------------------------------------|
| Volume | 39902.3(2) | 39902.31(19) |
| Space group | C 2/c | C 1 2/c 1 |
| Hall group | -C 2yc | -C 2yc |
| Moiety formula | 2(C336 H264 Co8 N72), 8.9(C9 H10 O), 2(B2 F5), 24.905(B F4), 1. | C336 H264 Co8 N72, 6.226(B2 F8), B2 F5, 2.226(C18 H20 O2), 0.41 |
| Sum formula | C752.10 H617 B28.91 Co16 F109.62 N144 O10.56 [+ solvent] | C407.80 H417.66 B16 Co8 F64 N72 O31.03 |
| Mr | 15179.24 | 8684.25 |
| Dx, g cm ⁻³ | 1.263 | 1.446 |
| Z | 2 | 4 |
| Mu (mm ⁻¹) | 0.377 | 0.398 |
| F000 | 15570.4 | 17955.0 |
| F000' | 15587.94 | |
| h,k,lmax | 47,43,59 | 47,43,59 |
| Nref | 63592 | 63534 |
| Tmin,Tmax | | 0.973,1.000 |
| Tmin' | | |

Correction method= # Reported T Limits: Tmin=0.973 Tmax=1.000
AbsCorr = EMPIRICAL

Data completeness= 0.999

Theta(max)= 29.947

R(reflections)= 0.0827(37629)

wR2(reflections)= 0.2981(63534)

S = 1.083

Npar= 2727

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

| | | | | |
|-------------------|--------------------------------------|-----------------------------------|-----|--------|
| PLAT214_ALERT_2_B | Atom F73A | (Anion/Solvent) ADP max/min Ratio | 5.3 | prolat |
| PLAT934_ALERT_3_B | Number of (Iobs-Icalc)/Sigma(W) > 10 | Outliers .. | 7 | Check |

● Alert level C

| | | | |
|-------------------|-------------------------------------------------------------------|-------|--------|
| PLAT084_ALERT_3_C | High wR2 Value (i.e. > 0.25) | 0.30 | Report |
| PLAT250_ALERT_2_C | Large U3/U1 Ratio for Average U(i,j) Tensor | 2.1 | Note |
| PLAT250_ALERT_2_C | Large U3/U1 Ratio for Average U(i,j) Tensor | 2.6 | Note |
| PLAT260_ALERT_2_C | Large Average Ueq of Residue Including O22G | 0.105 | Check |
| PLAT260_ALERT_2_C | Large Average Ueq of Residue Including O22I | 0.111 | Check |
| PLAT260_ALERT_2_C | Large Average Ueq of Residue Including F92 | 0.105 | Check |
| PLAT260_ALERT_2_C | Large Average Ueq of Residue Including F22 | 0.141 | Check |
| PLAT260_ALERT_2_C | Large Average Ueq of Residue Including F32 | 0.125 | Check |
| PLAT260_ALERT_2_C | Large Average Ueq of Residue Including F42 | 0.131 | Check |
| PLAT260_ALERT_2_C | Large Average Ueq of Residue Including F52 | 0.113 | Check |
| PLAT260_ALERT_2_C | Large Average Ueq of Residue Including F52A | 0.118 | Check |
| PLAT260_ALERT_2_C | Large Average Ueq of Residue Including F72 | 0.168 | Check |
| PLAT260_ALERT_2_C | Large Average Ueq of Residue Including F22A | 0.179 | Check |
| PLAT260_ALERT_2_C | Large Average Ueq of Residue Including F62 | 0.115 | Check |
| PLAT260_ALERT_2_C | Large Average Ueq of Residue Including F72A | 0.150 | Check |
| PLAT260_ALERT_2_C | Large Average Ueq of Residue Including O16 | 0.152 | Check |
| PLAT309_ALERT_2_C | Single Bonded Oxygen (C-O > 1.3 Ang) | O22G | Check |
| PLAT790_ALERT_4_C | Centre of Gravity not Within Unit Cell: Resd. # C336 H264 Co8 N72 | 1 | Note |
| PLAT911_ALERT_3_C | Missing FCF Refl Between Thmin & STh/L= 0.600 | 22 | Report |
| PLAT918_ALERT_3_C | Reflection(s) with I(obs) much Smaller I(calc) . | 8 | Check |
| PLAT975_ALERT_2_C | Check Calcd Resid. Dens. 1.09A From O22G | 0.90 | eA-3 |
| PLAT975_ALERT_2_C | Check Calcd Resid. Dens. 0.69A From O22G | 0.81 | eA-3 |
| PLAT978_ALERT_2_C | Number C-C Bonds with Positive Residual Density. | 0 | Info |

● Alert level G

FORMU01_ALERT_1_G There is a discrepancy between the atom counts in the
_chemical_formula_sum and _chemical_formula_moiety. This is
usually due to the moiety formula being in the wrong format.
Atom count from _chemical_formula_sum: C407.8 H417.66 B16 Co8 F64 N7
Atom count from _chemical_formula_moiety: C376.0679 H308.5199 B14.452 C

FORMU01_ALERT_2_G There is a discrepancy between the atom counts in the
_chemical_formula_sum and the formula from the _atom_site* data.
Atom count from _chemical_formula_sum: C407.8 H417.66 B16 Co8 F64 N72 O
Atom count from the _atom_site data: C376.0501 H308.5 B14.45260 Co8 F

ABSMU01_ALERT_1_G Calculation of _exptl_absorpt_correction_mu
not performed for this radiation type.

CELLZ01_ALERT_1_G Difference between formula and atom_site contents detected.

CELLZ01_ALERT_1_G ALERT: Large difference may be due to a
symmetry error - see SYMMG tests
From the CIF: _cell_formula_units_Z 4
From the CIF: _chemical_formula_sum C407.80 H417.66 B16 Co8 F64 N72 O3
TEST: Compare cell contents of formula and atom_site data

| atom | Z*formula | cif sites | diff |
|------|-----------|-----------|--------|
| C | 1631.20 | 1504.20 | 127.00 |
| H | 1670.64 | 1234.00 | 436.64 |
| B | 64.00 | 57.81 | 6.19 |

| | | | |
|----|--------|--------|--------|
| Co | 32.00 | 32.00 | 0.00 |
| F | 256.00 | 219.24 | 36.76 |
| N | 288.00 | 288.00 | 0.00 |
| O | 124.12 | 21.12 | 103.00 |

| | | | |
|-------------------|--------------------------------------------------|---------|--------------|
| PLAT002_ALERT_2_G | Number of Distance or Angle Restraints on AtSite | 280 | Note |
| PLAT003_ALERT_2_G | Number of Uiso or Uij Restrained non-H Atoms ... | 299 | Report |
| PLAT014_ALERT_1_G | N.O.K. _shelx_fab_checksum Found in CIF | | Please Check |
| PLAT041_ALERT_1_G | Calc. and Reported SumFormula Strings Differ | | Please Check |
| PLAT042_ALERT_1_G | Calc. and Reported MoietyFormula Strings Differ | | Please Check |
| PLAT045_ALERT_1_G | Calculated and Reported Z Differ by a Factor ... | 0.50 | Check |
| PLAT072_ALERT_2_G | SHELXL First Parameter in WGHT Unusually Large | 0.19 | Report |
| PLAT092_ALERT_4_G | Check: Wavelength Given is not Cu,Ga,Mo,Ag,In Ka | 0.68890 | Ang. |
| PLAT142_ALERT_4_G | s.u. on b - Axis Small or Missing | 0.00010 | Ang. |
| PLAT143_ALERT_4_G | s.u. on c - Axis Small or Missing | 0.00017 | Ang. |
| PLAT145_ALERT_4_G | s.u. on beta Small or Missing | 0.0003 | Degree |
| PLAT175_ALERT_4_G | The CIF-Embedded .res File Contains SAME Records | 39 | Report |
| PLAT176_ALERT_4_G | The CIF-Embedded .res File Contains SADI Records | 3 | Report |
| PLAT178_ALERT_4_G | The CIF-Embedded .res File Contains SIMU Records | 1 | Report |
| PLAT187_ALERT_4_G | The CIF-Embedded .res File Contains RIGU Records | 1 | Report |
| PLAT244_ALERT_4_G | Low 'Solvent' Ueq as Compared to Neighbors of | B11 | Check |
| PLAT244_ALERT_4_G | Low 'Solvent' Ueq as Compared to Neighbors of | B31 | Check |
| PLAT244_ALERT_4_G | Low 'Solvent' Ueq as Compared to Neighbors of | B41 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of O22H Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C11H Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C12H Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C13H Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C14H Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C15H Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C16H Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C21H Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C23H Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C31H Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H13H Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H14H Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H15H Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H16H Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H23J Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H23K Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H23L Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H31D Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H31E Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H31F Constrained at | 0.6396 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of O22I Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C11I Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C12I Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C13I Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C14I Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C15I Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C16I Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C21I Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C23I Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of C31I Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H13I Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H14I Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H15I Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H16I Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H23M Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H23N Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H23O Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H31G Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H31H Constrained at | 0.3604 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of H31I Constrained at | 0.3604 | Check |

| | | | | |
|-------------------|----------------------------------------------------|----------------|--------|-------|
| PLAT300_ALERT_4_G | Atom Site Occupancy of F22 | Constrained at | 0.6 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F23 | Constrained at | 0.6 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F24 | Constrained at | 0.6 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F25 | Constrained at | 0.6 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of B21 | Constrained at | 0.6 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F52 | Constrained at | 0.5 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F53 | Constrained at | 0.5 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F54 | Constrained at | 0.5 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F55 | Constrained at | 0.5 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of B51 | Constrained at | 0.5 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F52A | Constrained at | 0.5 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F53A | Constrained at | 0.5 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F54A | Constrained at | 0.5 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F55A | Constrained at | 0.5 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of B51A | Constrained at | 0.5 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F72 | Constrained at | 0.5 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F73 | Constrained at | 0.5 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F74 | Constrained at | 0.5 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F75 | Constrained at | 0.5 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of B71 | Constrained at | 0.5 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F22A | Constrained at | 0.4 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F23A | Constrained at | 0.4 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F24A | Constrained at | 0.4 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F25A | Constrained at | 0.4 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of B21A | Constrained at | 0.4 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F72A | Constrained at | 0.3333 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F73A | Constrained at | 0.3333 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F74A | Constrained at | 0.3333 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of F75A | Constrained at | 0.3333 | Check |
| PLAT300_ALERT_4_G | Atom Site Occupancy of B71A | Constrained at | 0.3333 | Check |
| PLAT302_ALERT_4_G | Anion/Solvent/Minor-Residue Disorder (Resd 2) | | 100% | Note |
| PLAT302_ALERT_4_G | Anion/Solvent/Minor-Residue Disorder (Resd 3) | | 100% | Note |
| PLAT302_ALERT_4_G | Anion/Solvent/Minor-Residue Disorder (Resd 4) | | 100% | Note |
| PLAT302_ALERT_4_G | Anion/Solvent/Minor-Residue Disorder (Resd 5) | | 100% | Note |
| PLAT302_ALERT_4_G | Anion/Solvent/Minor-Residue Disorder (Resd 8) | | 100% | Note |
| PLAT302_ALERT_4_G | Anion/Solvent/Minor-Residue Disorder (Resd 11) | | 100% | Note |
| PLAT302_ALERT_4_G | Anion/Solvent/Minor-Residue Disorder (Resd 12) | | 100% | Note |
| PLAT302_ALERT_4_G | Anion/Solvent/Minor-Residue Disorder (Resd 13) | | 100% | Note |
| PLAT302_ALERT_4_G | Anion/Solvent/Minor-Residue Disorder (Resd 14) | | 100% | Note |
| PLAT302_ALERT_4_G | Anion/Solvent/Minor-Residue Disorder (Resd 15) | | 100% | Note |
| PLAT302_ALERT_4_G | Anion/Solvent/Minor-Residue Disorder (Resd 16) | | 100% | Note |
| PLAT302_ALERT_4_G | Anion/Solvent/Minor-Residue Disorder (Resd 17) | | 100% | Note |
| PLAT304_ALERT_4_G | Non-Integer Number of Atoms in Resd 2 | | 12.80 | Check |
| PLAT304_ALERT_4_G | Non-Integer Number of Atoms in Resd 3 | | 12.79 | Check |
| PLAT304_ALERT_4_G | Non-Integer Number of Atoms in Resd 4 | | 11.70 | Check |
| PLAT304_ALERT_4_G | Non-Integer Number of Atoms in Resd 5 | | 7.21 | Check |
| PLAT304_ALERT_4_G | Non-Integer Number of Atoms in Resd 11 | | 2.50 | Check |
| PLAT304_ALERT_4_G | Non-Integer Number of Atoms in Resd 12 | | 2.50 | Check |
| PLAT304_ALERT_4_G | Non-Integer Number of Atoms in Resd 13 | | 2.50 | Check |
| PLAT304_ALERT_4_G | Non-Integer Number of Atoms in Resd 15 | | 1.97 | Check |
| PLAT304_ALERT_4_G | Non-Integer Number of Atoms in Resd 16 | | 1.67 | Check |
| PLAT304_ALERT_4_G | Non-Integer Number of Atoms in Resd 17 | | 0.41 | Check |
| PLAT311_ALERT_2_G | Isolated Disordered Oxygen Atom (No H's ?) | | 016 | Check |
| PLAT380_ALERT_4_G | Incorrectly? Oriented X(sp2)-Methyl Moiety | | C31G | Check |
| PLAT380_ALERT_4_G | Incorrectly? Oriented X(sp2)-Methyl Moiety | | C23G | Check |
| PLAT380_ALERT_4_G | Incorrectly? Oriented X(sp2)-Methyl Moiety | | C31H | Check |
| PLAT380_ALERT_4_G | Incorrectly? Oriented X(sp2)-Methyl Moiety | | C23H | Check |
| PLAT380_ALERT_4_G | Incorrectly? Oriented X(sp2)-Methyl Moiety | | C31J | Check |
| PLAT380_ALERT_4_G | Incorrectly? Oriented X(sp2)-Methyl Moiety | | C23J | Check |
| PLAT432_ALERT_2_G | Short Inter X...Y Contact F34 ..C15H | | 2.90 | Ang. |
| | x,y,z = | 1_555 | Check | |
| PLAT606_ALERT_4_G | VERY LARGE Solvent Accessible VOID(S) in Structure | | ! | Info |

| | | |
|-------------------|--------------------------------------------------|--------------|
| PLAT773_ALERT_2_G | Check long C-C Bond in CIF: C21J --C23J | 1.73 Ang. |
| PLAT779_ALERT_4_G | Suspect or Irrelevant (Bond) Angle(s) in CIF . # | 779 Check |
| | B91 -F93 -B91 1.555 1.555 2.856 | 38.50 Deg. |
| PLAT779_ALERT_4_G | Suspect or Irrelevant (Bond) Angle(s) in CIF . # | 780 Check |
| | B91 -F94 -B91 2.856 1.555 1.555 | 32.50 Deg. |
| PLAT790_ALERT_4_G | Centre of Gravity not Within Unit Cell: Resd. # | 2 Note |
| | C9 H10 O | |
| PLAT790_ALERT_4_G | Centre of Gravity not Within Unit Cell: Resd. # | 4 Note |
| | C9 H10 O | |
| PLAT790_ALERT_4_G | Centre of Gravity not Within Unit Cell: Resd. # | 5 Note |
| | C9 H10 O | |
| PLAT790_ALERT_4_G | Centre of Gravity not Within Unit Cell: Resd. # | 6 Note |
| | B2 F5 | |
| PLAT790_ALERT_4_G | Centre of Gravity not Within Unit Cell: Resd. # | 7 Note |
| | B F4 | |
| PLAT790_ALERT_4_G | Centre of Gravity not Within Unit Cell: Resd. # | 8 Note |
| | B F4 | |
| PLAT790_ALERT_4_G | Centre of Gravity not Within Unit Cell: Resd. # | 10 Note |
| | B F4 | |
| PLAT790_ALERT_4_G | Centre of Gravity not Within Unit Cell: Resd. # | 11 Note |
| | B F4 | |
| PLAT790_ALERT_4_G | Centre of Gravity not Within Unit Cell: Resd. # | 12 Note |
| | B F4 | |
| PLAT790_ALERT_4_G | Centre of Gravity not Within Unit Cell: Resd. # | 13 Note |
| | B F4 | |
| PLAT790_ALERT_4_G | Centre of Gravity not Within Unit Cell: Resd. # | 14 Note |
| | B F4 | |
| PLAT790_ALERT_4_G | Centre of Gravity not Within Unit Cell: Resd. # | 15 Note |
| | B F4 | |
| PLAT790_ALERT_4_G | Centre of Gravity not Within Unit Cell: Resd. # | 16 Note |
| | B F4 | |
| PLAT790_ALERT_4_G | Centre of Gravity not Within Unit Cell: Resd. # | 17 Note |
| | O | |
| PLAT794_ALERT_5_G | Tentative Bond Valency for Co1 (II) . | 1.52 Info |
| PLAT794_ALERT_5_G | Tentative Bond Valency for Co2 (II) . | 1.54 Info |
| PLAT794_ALERT_5_G | Tentative Bond Valency for Co3 (II) . | 1.52 Info |
| PLAT794_ALERT_5_G | Tentative Bond Valency for Co4 (II) . | 1.49 Info |
| PLAT802_ALERT_4_G | CIF Input Record(s) with more than 80 Characters | 8 Info |
| PLAT860_ALERT_3_G | Number of Least-Squares Restraints | 7141 Note |
| PLAT869_ALERT_4_G | ALERTS Related to the Use of SQUEEZE Suppressed | ! Info |
| PLAT883_ALERT_1_G | No Info/Value for _atom_sites_solution_primary . | Please Do ! |
| PLAT910_ALERT_3_G | Missing # of FCF Reflection(s) Below Theta(Min). | 2 Note |
| PLAT912_ALERT_4_G | Missing # of FCF Reflections Above STh/L= 0.600 | 36 Note |
| PLAT913_ALERT_3_G | Missing # of Very Strong Reflections in FCF | 2 Note |
| PLAT933_ALERT_2_G | Number of OMIT Records in Embedded .res File ... | 12 Note |
| PLAT984_ALERT_1_G | The Co-f' = 0.3538 Deviates from the B&C-Value | 0.3480 Check |
| PLAT985_ALERT_1_G | The Co-f" = 0.9121 Deviates from the B&C-Value | 0.9239 Check |
| PLAT992_ALERT_5_G | Repd & Actual _reflns_number_gt Values Differ by | 1 Check |

0 **ALERT level A** = Most likely a serious problem - resolve or explain
 2 **ALERT level B** = A potentially serious problem, consider carefully
 23 **ALERT level C** = Check. Ensure it is not caused by an omission or oversight
 156 **ALERT level G** = General information/check it is not something unexpected

11 ALERT type 1 CIF construction/syntax error, inconsistent or missing data
 28 ALERT type 2 Indicator that the structure model may be wrong or deficient
 7 ALERT type 3 Indicator that the structure quality may be low
 130 ALERT type 4 Improvement, methodology, query or suggestion
 5 ALERT type 5 Informative message, check

Validation response form

Please find below a validation response form (VRF) that can be filled in and pasted into your CIF.

```
# start Validation Reply Form
_vrf_PLAT214_dmwmv6-25_sq
;
PROBLEM: Atom F73A      (Anion/Solvent) ADP max/min Ratio      5.3 prolat
RESPONSE: ...
;
_vrf_PLAT934_dmwmv6-25_sq
;
PROBLEM: Number of (Iobs-Icalc)/Sigma(W) > 10 Outliers ..      7 Check
RESPONSE: ...
;
# end Validation Reply Form
```

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 07/08/2019; check.def file version of 30/07/2019

