

# checkCIF/PLATON report (full structural check)

No syntax errors found.  
Please wait while processing ....

[CIF dictionary](#)  
[Interpreting this report](#)

## Datablock: PIYA

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Bond precision:	C-C = 0.0118 A	Wavelength=0.71073
Cell:	a=9.0686(4)      b=10.1876(4)      c=27.0683(13)	
	alpha=90      beta=90      gamma=90	
	Calculated	Reported
Volume	2500.77(19)	2500.8(2)
Space group	P 21 21 21	P 21 21 21
Hall group	P 2ac 2ab	P 2ac 2ab
Moiety formula	C13 H7 Br Cr O3	C13 H7 Br Cr O3
Sum formula	C13 H7 Br Cr O3	C13 H7 Br Cr O3
Mr	343.09	343.10
Dx, g cm-3	1.822	1.823
Z	8	8
Mu (mm-1)	4.105	4.110
F000	1344.0	1344.0
F000'	1344.87	
h,k,lmax	11,13,34	11,13,34
Nref	3116( 5476)	5466
Tmin,Tmax	0.416,0.848	0.471,0.850
Tmin'	0.377	
Correction method=	AbsCorr=NUMERICAL	
Data completeness=	1.75(1.00)      Theta(max)= 27.000	
R(reflections)=	0.0250( 3407)      wR2(reflections)= wR= 0.0270( 3407)	
S =	1.880      Npar= 368	

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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

[PLAT432\\_ALERT\\_2\\_B](#) Short Inter X...Y Contact Br1B .. C3B .. 3.23 Ang.

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### ● Alert level C

[REFNR01\\_ALERT\\_3\\_C](#) Ratio of reflections to parameters is < 10 for a non-centrosymmetric structure, where ZMAX > 18  
 sine(theta)/lambda 0.6388  
 Proportion of unique data used 0.6233  
 Ratio reflections to parameters 9.2582

[PLAT164\\_ALERT\\_4\\_C](#) Nr. of Refined C-H H-Atoms in Heavy-At Struct... 14  
[PLAT341\\_ALERT\\_3\\_C](#) Low Bond Precision on C-C Bonds (x 1000) Ang ... 12  
[PLAT350\\_ALERT\\_3\\_C](#) Short C-H Bond (0.96A) C4A - H4A ... 0.80 Ang.  
[PLAT350\\_ALERT\\_3\\_C](#) Short C-H Bond (0.96A) C5A - H5A ... 0.81 Ang.  
[PLAT350\\_ALERT\\_3\\_C](#) Short C-H Bond (0.96A) C9A - H9A ... 0.82 Ang.

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### ● Alert level G

[ABSTM02\\_ALERT\\_3\\_G](#) The ratio of expected to reported Tmax/Tmin(RR) is > 1.10

Tmin and Tmax reported: 0.471 0.850  
 Tmin and Tmax expected: 0.422 0.848  
 RR = 1.115

Please check that your absorption correction is appropriate.

[REFLT03\\_ALERT\\_4\\_G](#) Please check that the estimate of the number of Friedel pairs is correct. If it is not, please give the correct count in the \_publ\_section\_exptl\_refinement section of the submitted CIF.

From the CIF: \_diffrn\_reflns\_theta\_max 27.00  
 From the CIF: \_reflns\_number\_total 5466  
 Count of symmetry unique reflns 3116  
 Completeness (\_total/calc) 175.42%  
 TEST3: Check Friedels for noncentro structure  
 Estimate of Friedel pairs measured 2350  
 Fraction of Friedel pairs measured 0.754  
 Are heavy atom types Z>Si present yes

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- 0 **ALERT level A** = In general: serious problem
- 1 **ALERT level B** = Potentially serious problem
- 6 **ALERT level C** = Check and explain
- 2 **ALERT level G** = General alerts; check

0 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  
6 ALERT type 3 Indicator that the structure quality may be low  
2 ALERT type 4 Improvement, methodology, query or suggestion  
0 ALERT type 5 Informative message, check

## Publication of your CIF

A full structural check has been run on your CIF. This includes checks on:

- CIF syntax and construction
- Cell and geometry details
- Space-group symmetry
- Anisotropic displacement parameters

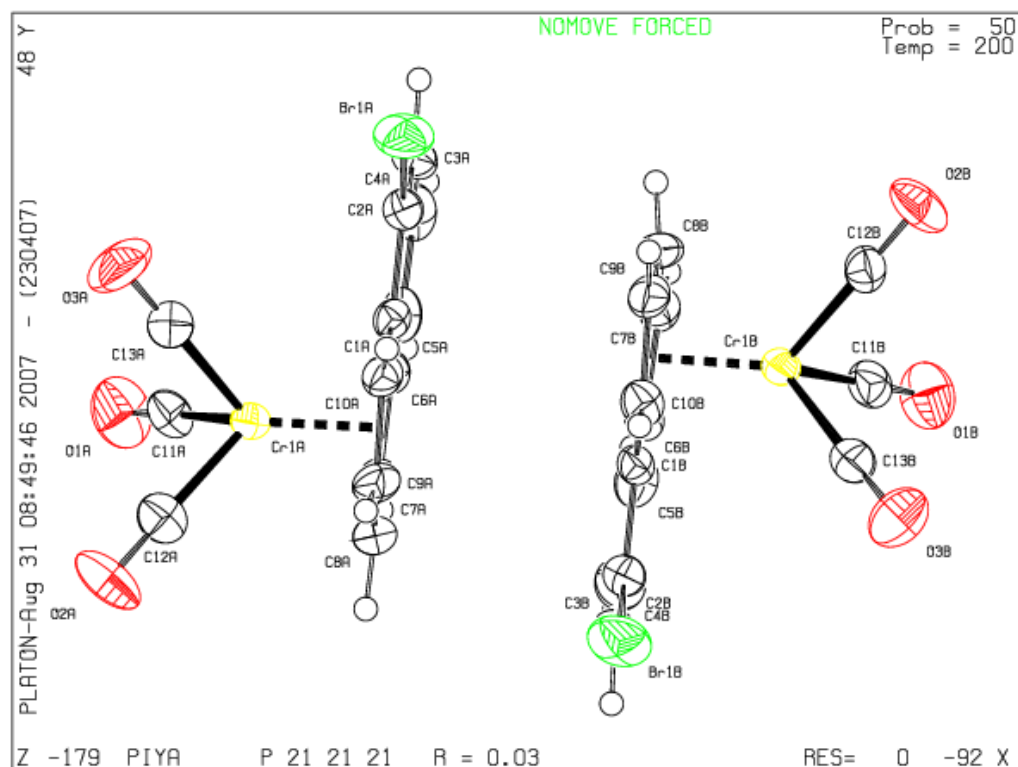
These full checks give an indication of potential problems with your CIF. Please note that if you intend to submit your CIF for publication in Acta Crystallographica Section C or E, you must make sure that [full publication checks](#) are run on the final version of the CIF prior to submission.

If you intend to submit to another section of Acta Crystallographica, Journal of Applied Crystallography or Journal of Synchrotron Radiation, you should make sure that at least [basic structural checks](#) are run on the final version of your CIF prior to submission.

To submit your CIF for publication in an IUCr journal click [here](#).

PLATON version of 23/04/2007; check.def file version of 23/04/2007

## Datablock PIYA - ellipsoid plot



[Test a new CIF entry](#)