Name and formula

Reference code: 01-089-3207

ICSD name: Aluminum Titanium Carbide

Empirical formula: $AlCTi_3$
Chemical formula: $AlTi_3C$

Crystallographic parameters

Crystal system: Cubic
Space group: Pm-3m
Space group number: 221

a (Å):	4.1500
b (Å):	4.1500
c (Å):	4.1500
Alpha (°):	90.0000
Beta (°):	90.0000
Gamma (°):	90.0000
Calculated density (g/cm^3):	4.24
Volume of cell (10^6 pm^3):	71.47
Z:	1.00
RIR:	5.20

Subfiles and Quality

Subfiles: Inorganic
Alloy, metal or intermetalic
Modelled additional pattern
Quality: Calculated (C)

Comments

ICSD collection code: 043867
Test from ICSD: No R value given.
At least one TF missing.

References

Primary reference: *Calculated from ICSD using POWD-12++*
Structure: Sridharan, S., Nowotny, H., Wayne, S.F., *Monatsh.Chem.*, **114**, 127, (1983)

Peak list

No.	h	k	l	d [A]	2Theta[deg]	I [%]
1	1	0	0	4.15000	21.394	17.1
2	1	1	0	2.93449	30.437	1.1
3	1	1	1	2.39600	37.507	100.0
4	2	0	0	2.07500	43.583	56.5
5	2	1	0	1.85594	49.044	3.7
6	2	1	1	1.69423	54.086	0.4

7	2	2	0	1.46725	63.336	26.4
8	2	2	1	1.38333	67.676	1.1
9	3	1	0	1.31235	71.883	0.1
10	3	1	1	1.25127	75.993	20.7
11	2	2	2	1.19800	80.030	6.9
12	3	2	0	1.15100	84.018	0.4
13	3	2	1	1.10913	87.976	0.1

Stick Pattern