

PDF#88-0826: QM=Calculated(C); d=Calculated; l=Calculated

Aluminum Oxide

Al₂O₃

Radiation=CuKα1 Lambda=1.54060 Filter=

Calibration= 2θ=25.566-88.953 I/Ic(RIR)=0.87

Ref: Calculated from ICSD using POWD-12++

Rhombohedral - Profile Analysis, R-3c (167) Z=6 mp=

CELL: 4.7607 x 4.7607 x 12.997 <90.0 x 90.0 x 120.0> P.S=hR10 (\$GA) (?)

Density(c)=3.981 Density(m)=3.39A Mwt=101.96 Vol=255.10 F(25)=99

9.9(.0000,25/0)

Ref: Liu, R.S., Shi, W.C., Cheng, Y.C., Huang, C.Y.

Mod. Phys. Lett. B, v11 p1169 (1997)

Strong Lines: 2.55/X 2.09/9 1.60/8 3.48/7 2.38/5 1.74/4 1.37/4 1.41/3 1.24/1 1.51/1

FIZ=085137: Rietveld profile refinement applied ITF See PDF 01-081-1667.

Crystal structures and peculiar magnetic properties of alpha- and gamma-(Al₂O₃) powders e c
(R3-CH) A2X3

2-Theta	d(?)	I(v)	(h k l)	Theta	1/(2d)	2pi/d	n ²
25.566	3.4814	43.1	(0 1 2)	12.783	0.1436	1.8048	
35.136	2.5520	79.4	(1 0 4)	17.568	0.1959	2.4621	
37.761	2.3804	38.6	(1 1 0)	18.881	0.2101	2.6396	
41.660	2.1662	0.5	(0 0 6)	20.830	0.2308	2.9006	
43.336	2.0862	91.2	(1 1 3)	21.668	0.2397	3.0118	
46.159	1.9649	1.3	(2 0 2)	23.080	0.2545	3.1976	
52.529	1.7407	49.2	(0 2 4)	26.265	0.2872	3.6096	
57.475	1.6021	100.0	(1 1 6)	28.737	0.3121	3.9219	
59.715	1.5472	2.7	(2 1 1)	29.858	0.3232	4.0610	
61.104	1.5153	3.6	(1 2 2)	30.552	0.3300	4.1464	
61.276	1.5115	9.2	(0 1 8)	30.638	0.3308	4.1569	
66.489	1.4051	39.7	(2 1 4)	33.245	0.3559	4.4718	
68.179	1.3743	61.1	(3 0 0)	34.090	0.3638	4.5719	
70.385	1.3365	1.4	(1 2 5)	35.192	0.3741	4.7011	
74.267	1.2760	1.4	(2 0 8)	37.133	0.3919	4.9242	
76.838	1.2396	17.3	(1 0 10)	38.419	0.4034	5.0688	
77.200	1.2347	10.5	(1 1 9)	38.600	0.4050	5.0890	
80.381	1.1936	1.0	(2 1 7)	40.190	0.4189	5.2640	
80.662	1.1902	6.6	(2 2 0)	40.331	0.4201	5.2792	
83.177	1.1604	0.5	(0 3 6)	41.589	0.4309	5.4144	
84.316	1.1477	5.5	(2 2 3)	42.158	0.4357	5.4748	
85.099	1.1391	0.4	(1 3 1)	42.550	0.4390	5.5160	
86.310	1.1262	4.1	(3 1 2)	43.155	0.4440	5.5792	
86.461	1.1246	3.1	(1 2 8)	43.231	0.4446	5.5870	
88.953	1.0994	7.2	(0 2 10)	44.477	0.4548	5.7149	