



Aluminum Lanthanum Carbonate Hydroxide

Lattice : Orthorhombic

Mol. weight = 319.92

S.G. : Pbnm (62)

Volume [CD] = 321.92

a = 8.59450

b = 7.42470

c = 5.04490

a/b = 1.15756

c/b = 0.67948

<i>d</i> (Å)	<i>i</i>	<i>h</i>	<i>k</i>	<i>l</i>
5.60900	20	1	1	0
4.35400	100	1	0	1
4.29760	54	2	0	0
3.75270	80	1	1	1
3.71940	78	2	1	0
3.40780	50	1	2	0
2.99350	25	2	1	1
2.99050	90	0	2	1
2.82390	22	1	2	1
2.80800	22	2	2	0
2.67280	45	3	1	0
2.52220	41	0	0	2
2.49170	18	3	0	1
2.45380	40	2	2	1
2.36200	53	3	1	1
2.17490	21	2	0	2
2.14820	26	4	0	0
2.14490	20	2	3	0
2.08790	56	2	1	2
2.08600	56	0	2	2
2.06400	30	4	1	0
2.02730	41	1	2	2
1.97330	27	2	3	1
1.87720	22	2	2	2
1.87320	34	3	3	0
1.85640	15	0	4	0
1.83480	16	3	1	2
1.74500	10	4	2	1
1.74220	15	0	4	1
1.70450	21	2	4	0
1.67480	3	5	1	0
1.63590	6	4	0	2
1.61410	5	2	4	1
1.59720	18	4	1	2
1.55970	6	5	2	0
1.54440	10	4	3	1
1.53250	13	2	1	3
1.50350	24	3	3	2
1.49480	5	0	4	2
1.49030	3	5	2	1
1.47270	6	1	4	2
1.44310	4	2	2	3
1.43220	8	6	0	0
1.42310	5	3	1	3
1.41170	4	5	3	0
1.40350	9	2	5	0
1.39540	5	5	1	2

Sample Preparation: An aqueous solution of urea "(C H4 N2 O)" was added to an aqueous solution of aluminum and lanthanum nitrates. The solution was heated to 95 C and the precipitate was aged at 95 C for 4 hours. Structures: Structurally similar to "Y (O H) (C O3)". Unit Cell Data Source: Powder Diffraction. Data collection flag: Ambient.

Taspinar, E., Tas, C., J. Am. Ceram. Soc., volume 80, page 133 (1997)

Radiation : FeK α 1

Filter : Monochromator crystal

Lambda : 1.93604

d-sp : Diffractometer

SS/FOM : F30= 76(0.0092,42)