

Name and formula

Reference code: 00-042-1430

Mineral name: Ammonioalunite
 PDF index name: Ammonium Aluminum Sulfate Hydroxide

Empirical formula: $\text{Al}_3\text{H}_{10}\text{NO}_{14}\text{S}_2$
 Chemical formula: $\text{NH}_4\text{Al}_3(\text{SO}_4)_2(\text{OH})_6$

Crystallographic parameters

Crystal system: Hexagonal

a (Å): 7.0060
 b (Å): 7.0060
 c (Å): 17.8040
 Alpha (°): 90.0000
 Beta (°): 90.0000
 Gamma (°): 120.0000

Volume of cell (10^6 pm^3): 756.81
 Z: 3.00

RIR: -

Status, subfiles and quality

Status: Marked as deleted by ICDD
 Subfiles: Inorganic
 Mineral
 Corrosion
 Quality: Indexed (I)

Comments

Deleted by: Deleted by 42-1334, lower F_N , PB 1992.
 Color: Yellowish, pinkish
 Sample source: Specimen from burning coal dump, Kladno, Czechoslovakia.
 Analysis: Chemical analysis (wt.%): Al_2O_3 21.20, Fe_2O_3 2.28, $(\text{NH}_4)_2\text{O}$ 4.50, SO_3 25.70, H_2O 13.81.

References

Primary reference: Zacek, V., *Acta Univ. Carol., Geol.* **1988**, 315, (1988)

Peak list

No.	h	k	l	d [Å]	2Theta[deg]	I [%]
1	0	0	3	5.92000	14.953	9.0
2	0	1	2	5.01000	17.689	100.0
3	1	1	0	3.50300	25.406	19.0
4	0	1	5	3.07000	29.063	12.0
5	1	1	3	3.01700	29.585	95.0
6	0	2	1	2.99600	29.797	50.0

7	0	0	6	2.96800	30.085	10.0
8	0	2	4	2.50800	35.774	3.0
9	1	0	7	2.34300	38.388	27.0
10	1	2	2	2.22100	40.587	2.0
11	0	0	9	1.98000	45.790	7.0
12	0	2	7	1.94900	46.560	2.0
13	1	2	5	1.92500	47.176	4.0
14	0	3	3	1.91600	47.411	33.0
15	2	2	0	1.75100	52.198	15.0
16	3	1	2	1.65300	55.550	3.0
17	1	2	8	1.59600	57.716	2.0
18	1	3	4	1.57300	58.642	1.0
19	0	2	10	1.53500	60.242	15.0
20	2	2	6	1.50800	61.435	7.0

Stick Pattern

