Ammonioleucite

\[(\text{NH}_4, \text{K})\text{AlSi}_2\text{O}_6\]

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**Crystal Data:** Tetragonal. Point Group: 4/m. As minute aggregates replacing analcime crystals. Twinning: Common, repeated on \{110\}.

**Physical Properties:** Hardness = n.d. \(D(\text{meas.}) = 2.29(5)\) \(D(\text{calc.}) = 2.24\)


**Cell Data:** Space Group: \(I4_1/a\). \(a = 13.214(1)\) \(c = 13.713(2)\) \(Z = 16\)

**X-ray Powder Pattern:** Fujioka, Japan.
5.43 (100), 3.30 (80), 5.53 (50), 3.43 (40), 2.955 (20), 2.859(20), 2.839 (10)

**Chemistry:**

| \(\text{SiO}_2\) | 62.67 |
| \(\text{Al}_2\text{O}_3\) | 22.43 |
| \(\text{K}_2\text{O}\) | 4.43 |
| \((\text{NH}_4)_2\text{O}\) | 8.70 |
| \(\text{H}_2\text{O}\) | 1.77 |
| \(\text{Total}\) | [100.00] |

(1) Fujioka, Japan; by electron microprobe; after subtraction of elements attributed to dolomite and analcime contamination, recalculated to 100.00%; corresponds to \[(\text{NH}_4)_{0.68}\text{K}_{0.19}\] \(\Sigma = 0.87\) \(\text{Al}_{0.89}\text{Si}_{2.12}\text{O}_6\).

**Occurrence:** In veinlets, fractures, and cavities in hydrothermally altered crystalline schist, as powdery pseudomorphous replacements of analcime crystals.

**Association:** Analcime, dolomite.

**Distribution:** In the Tatarazawa quarry, Fujioka, Gumma Prefecture, Japan.

**Name:** For ammonia in its chemical composition and its relation to leucite.

**Type Material:** National Science Museum, Tokyo, Japan; National Museum of Natural History, Washington, D.C., USA, 165991.