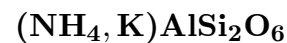


Ammonioleucite



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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. $D(\text{meas.}) = 2.29(5)$ $D(\text{calc.}) = 2.24$

Optical Properties: Translucent. *Color:* White. *Luster:* Resinous to vitreous. *Optical Class:* Uniaxial (+). $n = 1.518(2)$

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:

	(1)
SiO ₂	62.67
Al ₂ O ₃	22.43
K ₂ O	4.43
(NH ₄) ₂ O	8.70
H ₂ O	1.77
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.

References: (1) Hori, H., K. Nagashima, M. Yamada, R. Miyawaki, and T. Marubashi (1986) Ammonioleucite, a new mineral from Tatarazawa, Fujioka, Japan. *Amer. Mineral.*, 71, 1022–1027.