

Crystal Data: Hexagonal. *Point Group:* $\bar{3}$. As six-sided prismatic crystals to 0.2 mm, in divergent sprays.

Physical Properties: *Cleavage:* None. *Fracture:* n.d. *Tenacity:* n.d. *Hardness:* = n.d.
D(meas.) = 2.12(1) D(calc.) = 2.143

Optical Properties: Transparent. *Color:* Colorless to white. *Streak:* White. *Luster:* Vitreous.
Optical Class: Uniaxial (-). $\omega = 1.545(3)$ $\epsilon = 1.532(3)$

Cell Data: *Space Group:* $R\bar{3}$. $a = 15.0324(8)$ $c = 8.8776(5)$ $Z = 6$

X-ray Powder Pattern: La Fossa crater, Vulcano, Aeolian Islands, Sicily, Italy.
3.336 (100), 7.469 (62), 3.288 (60), 4.289 (45), 2.824 (29), 4.187 (27), 2.796 (26)

Chemistry:	(1)	(2)
K ₂ O	1.26	
Fe ₂ O ₃	0.30	
Al ₂ O ₃	16.07	13.81
SO ₃	62.22	65.04
(NH ₄) ₂ O	[20.15]	21.15
Total	100.00	100.00

(1) La Fossa crater, Vulcano, Aeolian Islands, Sicily, Italy; average of 12 electron microprobe analyses, (NH₄)₂O by difference and confirmed by IR spectroscopy; corresponding to [(NH₄)_{2.89}K_{0.10}]_{Σ=2.99}(Al_{1.18}Fe_{0.01})_{Σ=1.19}S_{2.91}O₁₂. (2) (NH₄)₃Al(SO₄)₃.

Occurrence: A sublimate from medium-temperature (~250° C) gases emanating from an intracrater volcanic fumarole.

Association: Adranosite, mascagnite, alunite, salammoniac.

Distribution: La Fossa crater, Vulcano, Aeolian Islands, Sicily, Italy.

Name: For the essential *aluminum* and chemical analogy with *pyracmonite*.

Type Material: Reference Collection, Department of Chemistry, University of Milan, Italy (2012-01).

References: (1) Demartin, F., C. Castellano, and I. Campostrini (2013) Aluminopyracmonite, (NH₄)₃Al(SO₄)₃, a new ammonium aluminium sulfate from La Fossa crater, Vulcano, Aeolian Islands, Italy. *Mineral. Mag.*, 77(4), 443-451. (2) (2015) *Amer. Mineral.*, 100, 2352 (abs. ref. 1).