

Crystal Data: Hexagonal. *Point Group:* 6mm. As euhedral hexagonal pyramidal crystals to 0.3 mm.

Physical Properties: *Cleavage:* n.d. *Tenacity:* n.d. *Fracture:* n.d. *Hardness:* = n.d.
D(meas.) = 2.85 D(calc.) = 2.87

Optical Properties: Transparent. *Color:* Colorless. *Streak:* n.d. *Luster:* n.d.
Optical Class: Uniaxial (-). $\omega = 1.350(5)$ $\epsilon = 1.340(5)$ Nonpleochroic.

Cell Data: *Space Group:* P6₃mc. $a = 5.6461(8)$ $c = 9.2322(18)$ $Z = 2$

X-Ray Diffraction Pattern: La Fossa Crater, Vulcano, Aeolian Islands, Italy.
2.301 (100), 4.62 (75), 2.155 (54), 4.32 (43), 4.90 (25), 2.358 (22), 1.909 (14)

Chemistry:	(1)
K	35.1
Si	12.4
F	51.0
Na	0.2
Total	98.7

(1) La Fossa Crater, Vulcano, Aeolian Islands, Italy; average electron microprobe analysis; corresponds to (K_{2.00}Na_{0.02}) $\Sigma=2.02$ Si_{0.99}F_{5.99}.

Polymorphism & Series: Polymorph of potassium fluorosilicate.

Occurrence: Near volcanic fumaroles.

Association: Hieratite, avogadrite, knasibfite.

Distribution: From La Fossa Crater, Vulcano, Aeolian Islands, Italy.

Name: Honors Francesco *Demartin* (b. 1953), Professor of General and Inorganic Chemistry, State University of Milan, Italy, for contributions to the chemistry of metallic clusters and to the crystal structures of Alpine rare-earth minerals and uranium minerals.

Type Material: State University of Milan, Italy.

References: (1) Gramaccioli, C.M. and I. Campostrini (2007) Demartinite, a new polymorph of K₂SiF₆ from La Fossa Crater, Vulcano, Aeolian Islands, Italy. *Can. Mineral.*, 45, 1275-1280.