

Crystal Data: Hexagonal. *Point Group:* 32. As minute hexagonal prisms terminated by the base or a pyramid, in crusts.

Physical Properties: Hardness = n.d. $D(\text{meas.}) = 2.755$ $D(\text{calc.}) = 2.74$ Slightly soluble in H₂O.

Optical Properties: Semitransparent. *Color:* Pale rose.
Optical Class: Uniaxial (-). $n = \sim 1.31$, birefringence weak.

Cell Data: *Space Group:* P321 (synthetic). $a = 8.859(2)$ $c = 5.038(2)$ $Z = 3$

X-ray Powder Pattern: Synthetic.
4.429 (100), 4.213 (95), 3.331 (90), 2.281 (90), 1.7962 (55), 3.056 (30), 1.6629 (20)

Chemistry: No analyses have been performed; the composition has been established through analogy to synthetic material.

Occurrence: As a volcanic sublimate.

Association: Avogadrite, hieratite, sal ammoniac, ferruccite, sassolite (Vesuvius, Italy); barberiite, sassolite (Vulcano, Italy).

Distribution: In Italy, from Vesuvius, Campania, and on Vulcano, Lipari Islands.

Name: Honors Professor Alessandro Malladra (1868–1945), Italian volcanologist, Director, Vesuvius Observatory, Italy.

Type Material: University of Florence, Florence, Italy, 226/1.

References: (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 105–106. (2) Zalkin, A., J.D. Forrester, and D.H. Templeton (1964) The crystal structure of sodium fluosilicate. *Acta Cryst.*, 17, 1408–1412. (3) (1979) NBS Mono. 25, 16, 68.