

Crystal Data: Monoclinic. *Point Group:* 2. As thin lamellae, to 2 mm; in fan-shaped aggregates.

Physical Properties: *Cleavage:* Perfect micaceous, on {010}; good on $\{\bar{1}01\}$; distinct on {101}. *Tenacity:* Brittle. *Hardness* = < 4 *D*(meas.) = 3.30(2) *D*(calc.) = 3.274 Capable of absorbing organic compounds between structural layers.

Optical Properties: Translucent. *Color:* Pale rose. *Streak:* White with a faint rose tint. *Optical Class:* Biaxial (+). *Orientation:* $X = b$; $Z \wedge \{\bar{1}01\} = 16^\circ$. $\alpha = 1.620(2)$ $\beta = 1.639(2)$ $\gamma = 1.686(2)$ $2V(\text{meas.}) = 65(5)^\circ$

Cell Data: *Space Group:* $P2_1$ (synthetic). $a = 8.012(2)$ $b = 15.956(4)$ $c = 6.801(2)$ $\beta = 96.60(3)^\circ$ $Z = 8$

X-ray Powder Pattern: Săcărîmb, Romania.
7.96 (10), 3.84 (7), 3.17 (7), 3.27 (5), 2.480 (4), 3.96 (3), 2.730 (3)

Chemistry:	(1)	(2)
As ₂ O ₅	53.7	53.98
MnO	33.0	33.32
H ₂ O	12.8	12.70
Total	99.5	100.00

(1) Săcărîmb, Romania; corresponds to $\text{Mn}_{0.99}(\text{AsO}_3\text{OH})_{1.00}\cdot 1.52\text{H}_2\text{O}$. (2) $\text{Mn}(\text{AsO}_3\text{OH})\cdot\text{H}_2\text{O}$.

Occurrence: Found on museum mineral specimens.

Association: Rhodochrosite, nagyágite, quartz (Săcărîmb, Romania).

Distribution: From Săcărîmb (Nagyág) and Cavnic (Kapnikbánya), Romania. At Jáchymov (Jochimsthal), Czech Republic.

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Type Material: National School of Mines, Paris, France, 100329, 132295; Natural History Museum, Vienna, Austria, J8927; National Museum of Natural History, Washington, D.C., USA, R10961.

References: (1) Fontan, F., M. Orliac, and F. Permingeat (1975) La krautite $\text{MnHAsO}_4\cdot\text{H}_2\text{O}$, une nouvelle espèce minérale. Bull. Minéral., 98, 78–84 (in French with English abs.). (2) (1976) Amer. Mineral., 61, 503 (abs. ref. 1). (3) Catti, M. and M. Franchini-Angela (1979) Krautite, $\text{Mn}(\text{H}_2\text{O})(\text{AsO}_3\text{OH})$: crystal structure, hydrogen bonding and relations with haidingerite and pharmacolite. Amer. Mineral., 64, 1248–1254. (4) Beneke, K. and G. Lagaly (1981) Krautite, $\text{MnHAsO}_4\cdot\text{H}_2\text{O}$ – an intracrystalline reactive mineral. Amer. Mineral., 66, 432–435.