

Crystal Data: Tetragonal. *Point Group:* $4/m$. Acicular crystals form hemispherical aggregates to 0.3 mm.

Physical Properties: *Cleavage:* n.d. *Fracture:* n.d. *Tenacity:* Brittle.
Hardness = n.d. $D(\text{meas.}) = \text{n.d.}$ $D(\text{calc.}) = 5.597$

Optical Properties: Transparent. *Color:* Colorless. *Streak:* n.d. *Luster:* Pearly to adamantine.
Optical Class: n.d. Highly birefringent. $n(\text{calc.}) = 2.11$

Cell Data: *Space Group:* $I4_1/a$. $a = 5.296(1)$ $c = 11.673(2)$ $Z = 4$

X-ray Powder Pattern: Su Seinargiu, northwest of Sarroch, Cagliari, Sardinia, Italy.
3.146 (100), 1.964 (34), 1.616 (28), 1.728 (19), 2.652 (18), 1.875 (15), 2.912 (13)

Chemistry:	(1)	(2)	(3)
MoO ₃	49.03	45.59	52.17
Bi ₂ O ₃	42.97	34.47	42.21
PbO	2.89	12.04	
<u>Na₂O</u>	<u>3.69</u>	<u>3.03</u>	<u>5.62</u>
Total	98.58	95.13	100.00

(1) Su Seinargiu, Sardinia, Italy; average of 12 electron microprobe analyses supplemented by IR spectroscopy, outer zone of the crystal; corresponding to $(\text{Na}_{0.35}\text{Bi}_{0.54}\text{Pb}_{0.04})_{\Sigma=0.93}\text{Mo}_{0.99}\text{O}_4$.

(2) Su Seinargiu, Sardinia, Italy, average of 14 electron microprobe analyses supplemented by IR spectroscopy, low analytical total ascribed to porous sample, inner zone of the crystal; corresponding to $(\text{Na}_{0.31}\text{Bi}_{0.46}\text{Pb}_{0.17})_{\Sigma=0.94}\text{Mo}_{0.99}\text{O}_4$. (3) $(\text{Na}_{0.5}\text{Bi}_{0.5})\text{MoO}_4$.

Occurrence: Formed by hydrothermal and/or supergene alteration of a primary Mo-Bi mineral assemblage.

Association: Wulfenite, molybdenite, chalcocopyrite, galena, sphalerite, bismuthinite.

Distribution: From Su Seinargiu, northwest of Sarroch, Cagliari, Sardinia, Italy.

Name: For the locality that produced the first specimens, *Su Seinargiu*, Italy.

Type Material: Museum of Natural History, University of Pisa, Pisa, Italy (19692).

References: (1) Orlandi, P., C. Biagioni, Y. Moëlo, J. Langlade, and E. Faulques (2015) Suseinargiuite, $(\text{Na}_{0.5}\text{Bi}_{0.5})\text{MoO}_4$, the Na-Bi analogue of wulfenite, from Su Seinargiu, Sardinia, Italy. *Eur. J. Mineral.*, 27(5), 695-699. (2) (2016) *Amer. Mineral.*, 101, 1924 (abs. ref. 1).