Sardignaite $BiMo_2O_7(OH)\cdot 2H_2O$

Crystal Data: Monoclinic. *Point Group*: 2/*m*. As prismatic crystals elongated along [010] and tabular on {100} to 1 mm, as sprays of subparallel crystals

Physical Properties: *Cleavage*: n.d. *Tenacity*: Brittle. *Fracture*: Conchoidal. Hardness = ~3 D(meas.) = n.d. D(calc.) = 4.82 Nonfluorescent.

Optical Properties: Transparent. *Color*: Pale yellow. *Streak*: White. *Luster*: Adamantine. *Optical Class*: *n*(calc.) = 2.04 Elongation positive on [010]. *Birefringence*: High.

Cell Data: *Space Group*: $P2_1/m$. $a = 5.7797(7)$ $b = 11.567(1)$ $c = 6.3344(8)$ $\beta = 113.360(9)°$

X-ray Powder Pattern: Su Senargiu, near Sarroch, Sardegna, Italy.
3.206 (100), 5.03 (80), 1.992 (45), 3.120 (32), 2.590 (30), 2.115 (30), 3.327 (28)

Chemistry:

	(1)
PbO	0.41
Bi_2O_3	41.21
MoO_3	52.14
H_2O	[8.13]
Total	101.89

(1) Su Senargiu, near Sarroch, Sardegna, Italy; average electron microprobe analysis, H_2O from structure, high total from minor dehydration under the electron beam; corresponds to $Bi_{0.980}Pb_{0.010}Mo_{2.007}O_7(OH)_{1.000}\cdot 2H_2O$.

Occurrence: A secondary mineral formed in the oxidation zone of a molybdenite-bismuthinite deposit in quartz veins within a granite.

Association: Bismuthinite, bismoclite, molybdenite, ferrimolybdite, koechlinite, wulfenite, gelosaite.

Distribution: From Su Senargiu, near Sarroch, Sardegna, Italy.

Name: For *Sardigna* (in Italian "Sardegna", in English "Sardinia"), the region in which the mineral was found, as spelt in the local language, which is an independent Romance language.

Type Material: Natural History Museum, University of Pisa, Italy (19350).

References: (1) Orlandi, P., M. Pasero, and S. Bigi (2010) Sardignaite, a new mineral, the second known bismuth molybdate: description and crystal structure. Mineralogy and Petrology, 100, 17-22.