Mambertiite $BiMo^{5+}_{2.80}O_8(OH)$

Crystal Data: Triclinic. *Point Group*: $\bar{1}$. Crystals tabular on {001} to 1 mm.

Physical Properties: *Cleavage*: None. *Fracture*: Conchoidal. *Tenacity*: Brittle. Hardness = n.d. D(meas.) = n.d. D(calc.) = 5.720

Optical Properties: Transparent. *Color*: Pale yellow. *Streak*: White. *Luster*: Adamantine. *Optical Class*: n.d. *n*(calc.) = 2.20

Cell Data: *Space Group*: $P\bar{1}$. a = 5.854(2) b = 9.050(3) c = 7.637(3) α = 112.85(1)° β = 102.58(1)° γ = 90.04(1)° Z = 2

X-ray Powder Pattern: Su Seinargiu, Sarroch, Cagliari, Sardinia, Italy. 3.417 (vs), 6.80 (s), 2.772 (s), 4.92 (s), 8.3 (ms), 3.136 (ms), 2.850 (ms)

Chemistry:	(1)	(2)
Mo_2O_5	59.59	61.13
Bi_2O_3	36.96	37.42
WO_3	2.03	
H_2O	[1.48]	1.45
Total	100.06	100.00

(1) Su Seinargiu, Sarroch, Cagliari, Sardinia, Italy; average of 12 electron microprobe analyses supplemented by IR spectroscopy, H_2O from stoichiometry; corresponding to $Bi_{0.99}(Mo^{5+}_{2.74}W_{0.05})_{\Sigma=2.79}O_{7.97}(OH)_{1.03}$.

Occurrence: A secondary oxidation product.

Association: Ferrimolybdite, muscovite, sardignaite, wulfenite, quartz, molybdenite, bismuthinite, bismuth.

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

Name: Honors Italian mineral collector Marzio Mamberti (b. 1959) for his contributions to Sardinian mineralogical science.

Type Material: Natural History Museum, University of Pisa, Pisa, Italy (19682).

References: (1) Orlandi, P., C. Biagioni, M. Pasero, F. Demartin, I. Campostrini, and S. Merlino (2015) Mambertiite, $BiMo^{5+}_{2.80}O_8(OH)$, a new mineral from Su Seinargiu, Sardinia, Italy: occurrence, crystal structure, and relationships with gelosaite. Eur. J. Mineral., 27(3), 405-415. (2) (2016) Amer. Mineral., 101, 1922 (abs. ref. 1).