Bambollaite  $Cu(Se, Te)_2$ 

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**Crystal Data:** Tetragonal, pseudocubic. *Point Group:* 4/m or 4/m 2/m. Fine granular aggregates and lenses, intimately intermixed with klockmannite.

**Physical Properties:** Fracture: Fine conchoidal. Hardness = n.d. VHN = n.d. D(meas.) = 5.64 (synthetic). D(calc.) = [5.02]

**Optical Properties:** Opaque. *Color:* In polished section, creamy white. *Anisotropism:* Slight.  $R_1-R_2$ : n.d.

Cell Data: Space Group:  $P4_2/n$  or perhaps  $I4_1/amd$ . a = 5.466 c = 5.632 Z = [2]

X-ray Powder Pattern: Moctezuma mine, Mexico. 3.19 (100), 1.961 (70), 1.653 (50), 1.931 (40), 1.689 (30), 1.270 (20), 1.121 (20)

 $\begin{array}{ccc} \textbf{Chemistry:} & & & (1) \\ & & \text{Cu} & & 25.1 \\ & & \text{Se} & & 44.5 \\ & & & \text{Te} & & 31.0 \\ \end{array}$ 

(1) Synthetic material matching the X-ray powder pattern of the natural mineral; by electron microprobe, corresponding to  $\text{Cu}_{1.00}(\text{Se}_{1.43}\text{Te}_{0.62})_{\Sigma=2.05}$ .

Total

Occurrence: In oxidized Au–Te ore in subparallel quartz veins in a hydrothermally altered tuff.

100.6

**Association:** Klockmannite, tellurium, selenium, chalcomenite, tellurite, paratellurite, illite, calcite, quartz.

**Distribution:** In the Moctezuma (Bambolla) mine, 12 km south of Moctezuma, Sonora, Mexico [TL].

**Name:** For the Spanish nickname "La Bambolla" of the mine where it occurs, which roughly translates into "hot air" in allusion to exaggerated tales of rich gold ore.

**Type Material:** Royal Ontario Museum, Toronto, Canada, M27177; National Museum of Natural History, Washington, D.C., USA, 128391.

**References:** (1) Harris, D.C. and E.W. Nuffield (1972) Bambollaite, a new copper telluro-selenide. Can. Mineral., 11, 738–742. (2) (1973) Amer. Mineral., 58, 805 (abs. ref. 1).