Bambollaite $Cu(Se, Te)_2$

(c)2001-2005 Mineral Data Publishing, version 1

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)

Chemistry: (1)
Cu 25.1
Se 44.5
Te 31.0

Total 100.6

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

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

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).