

Crystal Data: Monoclinic likely, pseudo-orthorhombic. *Point Group:* $2/m\ 2/m\ 2/m$, 222 , or $mm2$. Subhedral crystals, anhedral grains, to 200 μm . *Twinning:* Polysynthetic along one direction.

Physical Properties: Hardness = n.d. VHN = 168 (100 g load). D(meas.) = n.d. D(calc.) = 5.61

Optical Properties: Opaque. *Color:* Gray. *Luster:* Metallic.

R_1 – R_2 : (400) 36.2–44.3, (420) 36.3–44.2, (440) 35.8–44.2, (460) 35.2–43.8, (480) 35.0–43.9, (500) 34.7–43.7, (520) 34.5–43.4, (540) 34.1–43.3, (560) 33.8–43.0, (580) 33.5–42.6, (600) 33.2–42.4, (620) 33.0–42.0, (640) 32.7–41.8, (660) 32.3–41.2, (680) 31.8–40.6, (700) 31.2–39.9

Cell Data: *Space Group:* $Pmmm$, $P222$, or $Pmm2$. $a = 12.67$ $b = 19.32$ $c = 4.38$
Z = 2

X-ray Powder Pattern: Uchuc-Chacua deposit, Peru.
3.30 (100), 2.90 (80), 3.80 (30), 3.49 (30), 2.75 (30), 2.08 (30), 2.29 (10)

Chemistry:

	(1)	(2)
Ag	5.9	6.07
Pb	34.8	34.96
Mn	2.8	3.09
Fe	0.2	
Sb	34.4	34.24
Se	0.3	
S	21.1	21.64
Total	99.5	100.00

(1) Uchuc-Chacua deposit, Peru; by electron microprobe, corresponding to $\text{Ag}_{0.98}\text{Pb}_{3.04}(\text{Mn}_{0.91}\text{Fe}_{0.06})_{\Sigma=0.97}\text{Sb}_{5.09}(\text{S}_{11.93}\text{Se}_{0.07})_{\Sigma=12.00}$. (2) $\text{AgPb}_3\text{MnSb}_5\text{S}_{12}$.

Occurrence: In a telescoped polymetallic hydrothermal deposit.

Association: Alabandite, galena, benavidesite, sphalerite, pyrite, pyrrhotite, arsenopyrite.

Distribution: From the Uchuc-Chacua deposit, Cajatambo Province, Peru [TL].

Name: For the Uchuc-Chacua deposit in Peru.

Type Material: National School of Mines, Paris, France.

References: (1) Moëlo, Y., E. Oudin, P. Picot, and R. Caye (1984) L'uchucchacuaïte, $\text{AgMnPb}_3\text{Sb}_5\text{S}_{12}$, une nouvelle espèce minérale de la série de l'andorite. Bull. Minéral., 107, 597–604 (in French with English abs.). (2) (1985) Amer. Mineral., 70, 1332–1333 (abs. ref. 1).