

**Crystal Data:** Monoclinic. *Point Group:* 2/m. As complex spear-shaped crystals elongate along [100] in subparallel to divergent intergrowths, to 0.5 mm. *Twining:* Merohedral twinning indicated by structure analysis.

**Physical Properties:** *Cleavage:* Two in the [100] zone at ~90°, possibly on {010} and {001}. *Tenacity:* Brittle. *Fracture:* Irregular. Hardness = 3 D(meas.) = n.d. D(calc.) = 8.721

**Optical Properties:** Transparent to translucent. *Color:* Yellow. *Streak:* Pale yellow. *Luster:* Adamantine. *Optical Class:* Biaxial (-). *n*(calc.) = 2.258 2*V*(meas.) = Large. *Orientation:* *Y* ≈ *a*. *Pleochroism:* None.

**Cell Data:** *Space Group:* I2/a. *a* = 7.5353(6) *b* = 5.7142(5) *c* = 10.8981(12) *β* = 91.330(6)° *Z* = 4

**X-ray Powder Pattern:** Otto Mountain, San Bernardino County, California, USA. 3.015 (100), 3.055 (90), 3.131 (64), 1.773 (43), 2.112 (29), 1.810 (21), 1.686 (20)

Chemistry:	(1)	(2)
PbO	68.88	71.77
TeO <sub>3</sub>	28.03	28.23
Total	96.95	100.00

(1) Otto Mountain, San Bernardino County, California, USA; average of 5 electron microprobe analyses; corresponds to Pb<sub>1.96</sub>Te<sub>1.01</sub>O<sub>5</sub>. (2) Pb<sub>2</sub>TeO<sub>5</sub>.

**Occurrence:** A secondary phase on fracture surfaces and in small vugs in quartz veins. Formed from the partial oxidation of primary sulfides (e.g., galena) and tellurides (e.g., hessite) during or following brecciation of the quartz veins.

**Association:** Acanthite, bromine-rich chlorargyrite, gold, iodargyrite, khinite, wulfenite, housleyite, markcooperite, thorneite, timroseite.

**Distribution:** From the Aga mine, and the Bird Nest Drift, Otto Mountain, ~2 km northwest of Baker, San Bernardino County, California, USA.

**Name:** For the locality, *Otto* Mountain, California, USA.

**Type Material:** Natural History Museum of Los Angeles County, Los Angeles, California, USA (62511, 62512, 62528, 62529, and 62530).

**References:** (1) Kampf, A.R., R.M. Housley, S.J. Mills, J. Marty, and B. Thorne (2010) Lead-tellurium oxysalts from Otto Mountain near Baker, California: I. Ottoite, Pb<sub>2</sub>TeO<sub>5</sub>, a new mineral with chains of tellurate octahedra. *Amer. Mineral.*, 95, 1329-1336.