

Crystal Data: Hexagonal. *Point Group:* $\bar{3}$. As thick tabular to short prismatic crystals to 50 μm exhibiting {100} and {001} or {101} and {001}.

Physical Properties: *Cleavage:* Perfect on {001}. *Tenacity:* Brittle. *Fracture:* Irregular
Hardness = 2-3 D(meas.) = n.d. D(calc.) = 5.552 Soluble in dilute HCl.

Optical Properties: Transparent. *Color:* Bluish green. *Streak:* Pale bluish green.
Luster: Adamantine.

Optical Class: Uniaxial (-). $\omega = 2.04$ $\varepsilon = 1.97$ *Pleochroism:* Bluish green. *Absorption:* $E < O$.

Cell Data: *Space Group:* $R\bar{3}$. $a = 8.4035(12)$ $c = 44.681(4)$ $Z = 6$

X-ray Powder Pattern: Otto Mountain, near Baker, California, USA.

3.733 (100), 1.9637 (87), 2.749 (53), 2.6686 (49), 1.8999 (48), 6.106 (44), 1.5843 (44)

Chemistry:	(1)	(2)
PbO	41.45	43.97
CuO	30.35	31.34
Al ₂ O ₃	0.23	
TeO ₃	12.80	11.53
Cl	12.08	11.64
H ₂ O	[3.55]	4.14
<u>-O=Cl₂</u>	<u>2.73</u>	<u>2.63</u>
Total	97.73	100.00

(1) Otto Mountain, near Baker, California, USA; average of 2 electron microprobe analyses, low analytical total ascribed to electron beam damage, H₂O calculated from stoichiometry; corresponds to $\text{Pb}_{2.88}\text{Cu}^{2+}_{5.92}\text{Al}_{0.07}\text{Te}^{6+}_{1.13}\text{O}_{6.59}(\text{OH})_{6.12}\text{Cl}_{5.29}$. (2) $\text{Pb}_3\text{Cu}^{2+}_6\text{Te}^{6+}\text{O}_6(\text{OH})_7\text{Cl}_5$.

Occurrence: A secondary phase formed by partial oxidation of tellurides, chalcopyrite and galena in quartz veins.

Association: Br-rich chlorargyrite, iodargyrite, telluroperite (association 1); paratacamite, anglesite, anatacamite, atacamite, chalcopyrite, galena, goethite, hematite, muscovite, phosphohedyphane, timroseite, wulfenite (association 2).

Distribution: From the NE2 vein and the Bird Nest drift, Otto Mountain, near Baker, California, USA.

Name: Honors Otto Fuetterer (1880-1970), who is largely responsible for the development of the mining claims on Otto Mountain.

Type Material: Natural History Museum of Los Angeles County, Los Angeles, California, USA (63588 and 64589).

References: (1) Kampf, A.R., S.J. Mills, R.M. Housley, and J. Marty (2013) Lead-tellurium oxysalts from Otto Mountain near Baker, California: VIII. Fuettererite, $\text{Pb}_3\text{Cu}^{2+}_6\text{Te}^{6+}\text{O}_6(\text{OH})_7\text{Cl}_5$, a new mineral with double spangolite-type sheets. *Amer. Mineral.*, 98, 506-511.