

Crystal Data: Orthorhombic. *Point Group:* $mm2$. As blades flattened on {010} and probably elongated along [001], to 200 μm .

Physical Properties: *Cleavage:* Perfect on {010}. *Tenacity:* Brittle. *Fracture:* Irregular. Hardness = 2-3 D(meas.) = n.d. D(calc.) = 6.987 Likely soluble in dilute HCl.

Optical Properties: Transparent. *Color:* Blue. *Streak:* Pale blue. *Luster:* Adamantine. *Optical Class:* Biaxial (-). $\alpha = [2.015]$ $\beta = [2.065]$ $\gamma = [2.070]$ (indices calculated). $2V(\text{meas.}) = 34(5)^\circ$ *Orientation:* $X = b$, $Y = c$, $Z = a$. *Pleochroism:* $X =$ pale blue, Y and $Z =$ blue. *Absorption:* $X < Y = Z$.

Cell Data: *Space Group:* $Pca2_1$. $a = 10.6522(7)$ $b = 9.1630(5)$ $c = 9.6011(7)$ $Z = 4$

X-ray Powder Pattern: Aga mine, Otto Mountain, near Baker, California, USA. 3.303 (100), 2.7472 (68), 1.7468 (40), 4.26 (28), 2.0814 (21), 2.0306 (17), 4.165 (14)

| Chemistry: | (1) | (2) |
|-------------------|--------|--------|
| PbO | 65.91 | 67.86 |
| CuO | 7.75 | 8.06 |
| TeO ₃ | 17.41 | 17.80 |
| CO ₂ | [4.33] | 4.46 |
| H ₂ O | [1.78] | 1.83 |
| Total | 97.18 | 100.00 |

(1) Aga mine, Otto Mountain, near Baker, California, USA; average of 4 electron microprobe analyses, low analytical total ascribed to electron beam damage, H₂O and CO₂ calculated from stoichiometry; corresponds to $\text{Pb}_{3.00}\text{Cu}^{2+}_{0.99}\text{Te}^{6+}_{1.01}\text{O}_5(\text{OH})_2(\text{CO}_3)$. (2) $\text{Pb}_3\text{Cu}^{2+}\text{Te}^{6+}\text{O}_5(\text{OH})_2(\text{CO}_3)$.

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

Association: Cerussite, Br-rich chlorargyrite, chrysocolla, goethite, khinite, markcooperite, muscovite, phosphohedyphane, timroseite, wulfenite.

Distribution: From the Aga mine, Otto Mountain, near Baker, California, USA.

Name: For the mine from which the first specimens were collected and for A.G. Andrews, from whose initials the name of the mine is derived.

Type Material: Natural History Museum of Los Angeles County, Los Angeles, California, USA (63590).

References: (1) Kampf, A.R., S.J. Mills, R.M. Housley, and J. Marty (2013) Lead-tellurium oxysalts from Otto Mountain near Baker, California: IX. Agaite, $\text{Pb}_3\text{Cu}^{2+}\text{Te}^{6+}\text{O}_5(\text{OH})_2(\text{CO}_3)$, a new mineral with CuO_5 - TeO_6 polyhedral sheets. *Amer. Mineral.*, 98, 512-517.