

Crystal Data: Triclinic. *Point Group:* $\bar{1}$. As blades, to 0.5 mm, elongated along [100] and flattened on {001}; typically grouped in radial sprays. *Twinning:* Multiple twinning ubiquitous, probably by rotation on [100].

Physical Properties: *Cleavage:* Perfect on {001}. *Fracture:* Irregular. *Tenacity:* Brittle. Hardness = ~ 2 D(meas.) = n.d. D(calc.) = 3.535 Dissolves in dilute HCl.

Optical Properties: Transparent. *Color:* Green. *Streak:* Pale green. *Luster:* Vitreous to silky. *Optical Class:* Biaxial (-). $\alpha(\text{calc.}) = [1.667]$ $\beta = 1.723(2)$ $\gamma = 1.743(2)$ $2V(\text{meas.}) = 60(2)^\circ$ *Orientation:* $X \approx c^*$, $Y \approx b$, $Z \approx a$. *Dispersion:* Strong, $r > v$. *Pleochroism:* $X =$ light yellowish green, $Y =$ bluish green, $Z =$ nearly colorless. *Absorption:* $Y > X > Z$.

Cell Data: *Space Group:* $P\bar{1}$. $a = 6.0742(7)$ $b = 8.4147(11)$ $c = 10.7798(15)$
 $\alpha = 103.665(7)^\circ$ $\beta = 95.224(7)^\circ$ $\gamma = 90.004(6)^\circ$ $Z = 2$

X-ray Powder Pattern: Santa Rosa mine, Darwin district, Inyo County, California, USA. 3.245 (100), 3.994 (67), 2.692 (57), 5.81 (50), 2.743 (49), 10.5 (46), 2.485 (39)

Chemistry:	(1)	(2)
CuO	48.96	54.74
ZnO	3.56	
SeO ₂	18.82	19.09
SO ₃	13.90	13.77
H ₂ O	[13.29]	12.40
Total	98.53	100.00

(1) Santa Rosa mine, Darwin district, Inyo County, California, USA; average of 5 electron microprobe analyses supplemented by Raman and FTIR spectroscopy, H₂O calculated for charge balance; corresponds to $(\text{Cu}_{3.55}\text{Zn}_{0.25})_{\Sigma=3.80}\text{Se}_{0.98}\text{SO}_{13}\text{H}_{8.50}$. (2) $\text{Cu}_4(\text{SeO}_3)(\text{SO}_4)(\text{OH})_4 \cdot 2\text{H}_2\text{O}$.

Occurrence: In the oxidation-zone of a polymetallic hydrothermal sulfide deposit.

Association: Brochantite, chalcantite, gypsum, ktenasite, mimetite, schulenbergite, smithsonite, goethite, hematite.

Distribution: From the Santa Rosa mine, Darwin district, Inyo County, California, USA.

Name: Honors Paul M. Adams (b. 1954) who discovered/collected the mineral and is coauthor of seven other new mineral descriptions.

Type Material: Natural History Museum of Los Angeles County, Los Angeles, California, USA (65569, 65570, 65571, 65572, and 65573).

References: (1) Kampf, A.R., S.J. Mills, and B.P. Nash (2016) Pauladamsite, $\text{Cu}_4(\text{SeO}_3)(\text{SO}_4)(\text{OH})_4 \cdot 2\text{H}_2\text{O}$, a new mineral from the Santa Rosa mine, Darwin district, California, USA. *Mineral. Mag.*, 80(6), 949-958. (2) (2017) *Amer. Mineral.*, 102, 697-698 (abs. ref. 1).