

Crystal Data: Monoclinic. *Point Group:* 2/m. As steeply terminated, bladed crystals flattened on {100}, to 110 μm ; in divergent sprays to 200 μm .

Physical Properties: *Cleavage:* Perfect on {100}. *Tenacity:* Brittle. *Fracture:* Uneven. Hardness = n.d. D(meas.) = n.d. D(calc.) = 3.40

Optical Properties: Transparent. *Color:* Pale blue. *Streak:* White. *Luster:* Vitreous. *Optical Class:* Uniaxial (+). $\alpha = 1.637(3)$ $\beta = 1.638(3)$ $\gamma = 1.638(3)$ $2V(\text{meas.}) = 20(2)^\circ$ $2V(\text{calc.}) = 18.1^\circ$ *Orientation:* $Z \approx a$. Non-pleochroic.

Cell Data: *Space Group:* $P2_1/c$. $a = 7.320(1)$ $b = 25.424(5)$ $c = 11.283(2)$ $\beta = 91.62(3)^\circ$ $Z = 4$

X-Ray Diffraction Pattern: Laurani Mine, Aroma Province, La Paz Department, Bolivia. 7.34 (100), 3.626 (52), 2.581 (37), 7.04 (35), 2.774 (34), 2.648 (30), 2.819 (25)

Chemistry:	(1)	(2)
CuO	45.20	43.69
ZnO	1.82	
CdO	19.28	23.51
SO ₃	14.58	14.66
Cl	0.18	
H ₂ O	[18.52]	18.14
-O = Cl	0.04	
Total	99.48	100.00

(1) Laurani mine, Laurani District, Aroma Province, La Paz Department, Bolivia; average electron microprobe and FTIR spectroscopic analyses, H₂O calculated from structure; corresponds to $\text{Cu}_{6.13}(\text{Cd}_{1.62}\text{Zn}_{0.24})(\text{SO}_4)_{1.96}(\text{OH}_{12.03}\text{Cl}_{0.05})_{12.08}\cdot 5.08\text{H}_2\text{O}$. (2) $\text{Cu}_6\text{Cd}_2(\text{SO}_4)_2(\text{OH})_{12}\cdot 5\text{H}_2\text{O}$.

Occurrence: A secondary weathering-derived mineral in a zoned, high-sulfidation type deposit, with a pyrite-enargite core, enargite-tennantite middle zone, and a sphalerite-silver bearing galena outer zone.

Association: Serpierite, brochantite, tennantite, chalcocite (Laurani); edwardsite, niedermayrite, lazaridisite (Tsumeb)

Distribution From the Laurani mine, Laurani District, Aroma Province, La Paz Department, Bolivia [TL]. At the Tsumeb Mine, Namibia.

Name: For the locality (the *Laurani* mine) where the studied material was collected.

Type Material: South Australian Museum, Adelaide, South Australia, Australia (G34801).

References: (1) Peter, E. and A.R. Kampf (2022) Lauraniite, $\text{Cu}_6\text{Cd}_2(\text{SO}_4)_2(\text{OH})_{12}\cdot 5\text{H}_2\text{O}$, a New Copper Cadmium Sulfate Mineral from the Laurani Mine, Bolivia. Can. Mineral., 60(5), 825-836.