

Crystal Data: Monoclinic. *Point Group:* 2/m. As rectangular crystals elongate along [010] to 0.2 mm, flattened on (001), displaying {100}, {010}, and {001}; as acicular fibrous crystals or powdery masses. *Twinning:* Ubiquitous by mirror reflection on (001) observed in X-ray analysis.

Physical Properties: *Cleavage:* Perfect on {001}. *Tenacity:* Brittle. *Fracture:* Conchoidal. Hardness = n.d. $D(\text{meas.}) = \sim 4.3$ $D(\text{calc.}) = 4.385$ Dissolves slowly in dilute HCl.

Optical Properties: Transparent to translucent (aggregates). *Color:* Dark pistachio-green; pistachio-green in transmitted light. *Streak:* Yellowish green. *Luster:* Vitreous to adamantine. *Optical Class:* Biaxial (+). $\alpha \approx 1.82$ $\beta \approx 1.85$ $\gamma \approx 1.902$ $2V(\text{meas.}) = 76^\circ$ $2V(\text{calc.}) = 77^\circ$ *Pleochroism:* Strong, X = light yellow-green, Y = pistachio-green, Z = dark pistachio-green. *Dispersion:* $r > v$, medium. *Orientation:* $X \wedge c \approx 12^\circ$, $Y = a$, $Z = b$.

Cell Data: *Space Group:* C2/m. $a = 19.158(3)$ $b = 2.9361(6)$ $c = 9.193(2)$ $\beta = 103.26(1)^\circ$ $Z = 8/3$

X-ray Powder Pattern: Roua copper deposits, Var valley, northwest Alpes-Maritimes, France. 2.984 (100), 3.173 (90), 2.484 (80), 5.842 (40), 2.396 (40), 4.476 (35), 2.337 (35)

Chemistry:	(1)	(2)
CuO	46.49	47.73
As ₂ O ₅	45.82	45.97
<u>H₂O</u>	<u>[6.30]</u>	<u>6.30</u>
Total	98.61	100.00

(1) Roua copper deposits, Var valley, northwest Alpes-Maritimes, France; average of 10 electron microprobe analyses; H₂O calculated from structure analysis; corresponds to $\text{Cu}_{2.96}\text{As}_{2.01}\text{O}_{6.99}(\text{OH})_{2.01} \cdot 0.77\text{H}_2\text{O}$. (2) $\text{Cu}_3\text{O}[\text{AsO}_3(\text{OH})]_2 \cdot 0.75\text{H}_2\text{O}$.

Occurrence: A secondary mineral in geodes of cuprite in a weathering zone.

Association: Trippkeite, olivenite, malachite, gilmarite, cornubite, connellite, theoparacelsite, brochantite, cuprite, native copper, algonite, domeykite.

Distribution: From the old copper mines of Roua (North and South group, districts of Guillaumes and Daluis, respectively), upper part of the Var valley (Daluis gorge), ~50 km from Nice, northwest Alpes-Maritimes department, France.

Name: Honors Laurent *Lapeyre* (b. 1973), the mineral collector who found the mineral.

Type Material: Laboratory of Crystallography, University of Geneva, Switzerland (CR.010); the University of Adnan Menderes, Vocational School of Memnune Inci, Karacasu-Aydın (KMY.25) and the University of Dokuz Eylül, Vocational School of Izmir, Buca-Izmir (BM.73), Turkey.

References: (1) Sarp, H., R. Černý, H. Babalik, M. Hatipoğlu, and G. Mari (2010) Lapeyreite, $\text{Cu}_3\text{O}[\text{AsO}_3(\text{OH})]_2 \cdot 0.75\text{H}_2\text{O}$, a new mineral: Its description and crystal structure. *Amer. Mineral.*, 95, 171-176.