

**Crystal Data:** Orthorhombic. *Point Group:* 2/m 2/m 2/m. As equidimensional crystals, and as rectangular crystals elongated along [010] to 0.2 mm, flattened on {001}, showing {001}, {010}, {100}, {110}, and {101}; also, pulverulent and as pseudomorphs after olivenite.

**Physical Properties:** *Cleavage:* Perfect on {001}. *Fracture:* Conchoidal. *Tenacity:* Brittle. Hardness = n.d. D(meas.) = n.d. D(calc.) = 4.72(1) Nonfluorescent. Soluble in HCl.

**Optical Properties:** Translucent. *Color:* Dark pistachio-green. *Streak:* Yellowish green. *Luster:* Vitreous to adamantine.

*Optical Class:* Biaxial (+).  $\alpha = 1.81(1)$   $\beta = 1.82(1)$   $\gamma = 1.86(1)$   $2V(\text{meas.}) = 57(3)^\circ$   $2V(\text{calc.}) = 54(1)^\circ$  *Dispersion:* Moderate,  $r > v$ . *Orientation:*  $X = a$ ,  $Y = c$ ,  $Z = b$ .

*Pleochroism:* Moderate,  $X =$  light olive-green,  $Y =$  olive-green,  $Z =$  dark green.

**Cell Data:** *Space Group:* *Pmma*.  $a = 8.3212(8)$   $b = 2.9377(3)$   $c = 4.6644(5)$   $Z = 2/3$

**X-ray Powder Pattern:** Roua mines, upper Var valley, Alpes-Maritimes, France. 3.104 (100), 2.486 (70), 1.672 (30), 2.400 (25), 1.596 (25), 1.330 (25), 4.065 (15)

Chemistry:	(1)	(2)
CuO	48.77	49.05
As <sub>2</sub> O <sub>5</sub>	47.68	47.25
H <sub>2</sub> O	[3.55]	[3.70]
Total	100.00	100.00

(1) Roua mines, upper Var valley, Alpes-Maritimes, France; average electron microprobe analysis, H<sub>2</sub>O by difference; corresponding to Cu<sub>2.99</sub>As<sub>2.02</sub>H<sub>1.92</sub>O<sub>9</sub>. (2) Cu<sub>3</sub>(OH)<sub>2</sub>As<sub>2</sub>O<sub>7</sub>.

**Occurrence:** A secondary mineral within ~1 mm geodes of cuprite.

**Association:** Olivenite, cornubite, connellite, clinotyrolite, brochantite, malachite, trippkeite, pharmacosiderite, gilmairite, strashimirite, cuprite, native copper, algonite, domeykite.

**Distribution:** From the old Cu mines of Roua, upper Var valley (the Daluis gorge), western margin of the Barrot Dome, Alpes-Maritimes, France.

**Name:** Honors Swiss scientist *Paracelse*, who was Philippus Theophrastus van Hohenheim (1493-1541). Paracelse is a Greek-Roman translation of Hohenheim.

**Type Material:** Natural History Museum, Geneva, Switzerland (447.010).

**References:** (1) Sarp, H. and R. Cerný (2001) Theoparacelsite, Cu<sub>3</sub>(OH)<sub>2</sub>As<sub>2</sub>O<sub>7</sub>, a new mineral: its description and crystal structure. *Archs Sci. Genève*, 54, 7-14. (2) (2002) *Amer. Mineral.*, 87, 356-357 (abs. ref. 1).