

Crystal Data: Hexagonal. *Point Group:* $3/m$. As flattened, stout, prisms elongated along [001] to 70 μm .

Physical Properties: *Cleavage:* Good on {010}. *Tenacity:* Brittle. *Fracture:* Irregular. Hardness = 3.5-4 D(meas.) = n.d. D(calc.) = 5.1

Optical Properties: Translucent. *Color:* Dark reddish-brown. *Streak:* Pale reddish brown to pinkish. *Luster:* Strong vitreous to adamantine. *Optical Class:* Uniaxial. $n(\text{calc.}) = 2.18$

Cell Data: *Space Group:* $P3_1/c$. $a = 7.653(5)$ $c = 9.411(6)$ $Z = 2$

X-ray Powder Pattern: San Samuel mine, Copiapó Province, Atacama Region, Chile. 2.974 (100), 1.712 (60), 3.810 (51), 2.702 (41), 2.497 (38), 1.450 (37), 6.786 (25)

Chemistry:	(1)
MoO ₃	55.45
SO ₃	0.94
SiO ₂	0.03
CuO	37.08
FeO	3.84
<u>H₂O</u>	<u>[2.39]</u>
Total	99.73

(1) San Samuel mine, Copiapó Province, Atacama Region, Chile; average electron microprobe analysis supplemented by IR spectroscopy, H₂O calculated from stoichiometry; corresponds to $(\text{Cu}_{3.52}\text{Fe}^{2+}_{0.40})_{\Sigma=3.92}(\text{Mo}_{2.91}\text{S}_{0.09})_{\Sigma=3.00}\text{O}_{12}(\text{OH})_{2.23}$.

Occurrence: An oxidation product of primary sulfides formed by late-stage hydrothermal fluids as open-space fillings in pipes of tourmalinized quartz porphyry, collapse-breccia.

Association: Lindgrenite, gypsum, tourmaline.

Distribution: From the San Samuel Mine, Carrera Pinto, Cachiyuyo de Llampos district, Copiapó Province, Atacama Region, Chile.

Name: Honors Edgar *Huen* (b. 1947), an Italian senior mineral collector, and expert in Alpine fissure minerals and worldwide systematic mineralogy.

Type Material: Mineralogy Laboratory, University of Liege, Belgium (20399).

References: (1) Vignola, P., N. Rotiroli, G.D. Gatta, A. Risplendente, F. Hatert, D. Bersani, and V. Mattioli (2019) Huenite, $\text{Cu}_4\text{Mo}_3\text{O}_{12}(\text{OH})_2$, a new copper-molybdenum oxy-hydroxide mineral from the San Samuel Mine, Carrera Pinto, Cachiyuyo de Llampos district, Copiapó Province, Atacama Region, Chile. *Can. Mineral.*, 57(4), 467-474. (2) (2021) *Amer. Mineral.*, 106, 1186 (abs. ref. 1).