

Crystal Data: Monoclinic. *Point Group:* 2/m. As striated, prismatic crystals to 0.4 mm elongated along [010] and displaying {100}, {001}, {102}, {102}, and {114}.

Physical Properties: *Cleavage:* Perfect on {001}, good on {100}. *Fracture:* Splintery. *Tenacity:* Brittle. Hardness = 2.5 D(meas.) = 2.85(2) D(calc.) = 2.851

Optical Properties: Transparent. *Color:* Blue. *Streak:* White. *Luster:* Vitreous. *Optical Class:* Biaxial (+). $\alpha = 1.600(2)$ $\beta = 1.616(2)$ $\gamma = 1.713(3)$ $2V(\text{meas.}) = 47(1)^\circ$ $2V(\text{calc.}) = 46.3^\circ$ *Orientation:* $Z = b$, $X \approx a$, $Y \approx c$. *Pleochroism:* $X =$ very pale purple, $Y =$ purple, $Z =$ blue-green. *Absorption:* $X \ll Y < Z$. *Dispersion:* $r > v$, weak.

Cell Data: Space Group: $P2_1/c$. $a = 9.6838(5)$ $b = 5.75175(19)$ $c = 17.6339(12)$ $\beta = 90.553(6)^\circ$ $Z = 4$

X-ray Powder Pattern: North Star mine, Mammoth, Tintic district, Juab County, Utah, USA. 8.77 (100), 4.248 (85), 4.824 (71), 2.419 (50), 1.8929 (48), 4.392 (43), 2.733 (39)

Chemistry:	(1)	(2)
MgO	11.14	9.56
CuO	18.59	18.87
Sb ₂ O ₅	0.26	
TeO ₃	42.55	41.65
H ₂ O	[31.97]	29.91
Total	104.51	100.00

(1) North Star mine, Mammoth, Tintic district, Juab County, Utah, USA; average of 4 electron microprobe analyses supplemented by Raman spectroscopy, H₂O calculated from structure; corresponds to $(\text{Mg}_{1.01}\text{Cu}^{2+}_{0.93}\text{Te}^{6+}_{0.96}\text{Sb}^{5+}_{0.01})_{\Sigma=3.00}\text{O}_{12}\text{H}_{14.12}$. (2) $\text{Cu}^{2+}\text{Mg}[\text{Te}^{6+}\text{O}_4(\text{OH})_2]\cdot 6\text{H}_2\text{O}$.

Polymorphism & Series: Dimorph of raisaite.

Occurrence: An oxidation-zone mineral in a hydrothermal polymetallic Au-Ag-Cu-Pb vein deposit in contact-metamorphosed dolomite.

Association: Barite, goldfieldite, malachite, quartz.

Distribution: From the North Star mine, Mammoth, Tintic district, Juab County, Utah, USA.

Name: The Greek “*para*” for “near” and the relation to its $C2/c$ dimorph *raisaite*.

Type Material: National History Museum of Los Angeles County, Los Angeles, California, USA (67272).

References: (1) Kampf, A.R., R.M. Housley, and G.R. Rossman (2018) Pararaisaite, the dimorph of raisaite, from the North Star Mine, Tintic, Utah, USA. *Can. Mineral.*, 56(5), 811-820. (2) (2020) *Amer. Mineral.*, 105, 1115 (abs. ref. 1).