Trippkeite  \( \text{CuAs}_{2}^{3+}\text{O}_{4} \)

Crystal Data: Tetragonal. **Point Group:** \( 4/m 2/m 2/m \). Crystals short prismatic to equant, with \{021\}, \{100\}, \{001\} dominant, four additional forms, may be bent.

Physical Properties: **Cleavage:** \{100\}, perfect; \{110\}, good. **Tenacity:** Fibers formed by cleavage are easily bent. **Hardness:** Soft. **Density (meas.):** 4.8(5) **Density (calc.):** 4.48

Optical Properties: Semitransparent. **Color:** Greenish blue; pale bluish green in transmitted light. **Luster:** Vitreous. **Optical Class:** Uniaxial (+). \( \omega = 1.90(1) \) \( \epsilon = 2.12(1) \)

Cell Data: **Space Group:** \( P4_{2}/mbc \) (synthetic). \( a = 8.592(4) \) \( c = 5.573(4) \) \( Z = 4 \)

X-ray Powder Pattern: Synthetic; calculated from crystal structure. 3.16 (100), 6.07 (57), 3.04 (47), 2.34 (36), 1.95 (36), 2.72 (34), 1.64 (25)

Chemistry: Apparently no analysis has ever been performed.

Occurrence: In a copper deposit.

Association: Cuprite, malachite, olivenite, chalcopyrite.

Distribution: From near Copiapó, Atacama, Chile.

Name: To honor Dr. Paul Trippke (1851–1880), Polish mineralogist, who discovered the mineral.

Type Material: n.d.