

ATACAMITE



Atacamite (orthorhombic) is dimorphous with paratacamite (trigonal) (q.v.). It is a secondary species in cupriferous ore deposits formed by action of chlorine-bearing waters on copper sulfides and native copper. Northern Peninsula.

Houghton County: **1.** Centennial mine: Associated with calumetite (q.v.) and other secondary copper minerals (Williams, 1963b). **2.** Laurium mine: As pseudo-octahedral microcrystals. **3.** Wolverine mine: As pseudo-octahedral microcrystals. Identified from microprobe data and crystal morphology. (1. 2., D. Behnke, written communication, 1994).

Keweenaw County: **1.** Allouez mine: As bladed emerald green crystals on fracture surfaces in conglomerate (K. Spiroff, personal communication). **2.** Phoenix mine: As a green stain with copper and microcline (Wilson and Dyl, 1992). As pseudo-octahedral microcrystals (D. Behnke, written communication, 1994).

Ontonagon County: **1.** Algomah mine: Well formed radial crystals associated with paramelaconite (q.v.) (Butler and Burbank, 1929; Williams, 1962a, b). **2.** White Pine mine: Green films of atacamite and paratacamite occur as post-mining products in standing pools of water that are also coated with a thin layer of petroleum residue (Robbins et al., 1994). SEM, TEM and stable isotope analyses suggest that bacteria may have played an important role in the formation of these minerals.

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