STILBITE SERIES

$(Ca_{0.5},Na,K)_9[Al_9Si_{27}O_{72}] \cdot 28\ H_2O$

Stilbite-Ca and stilbite-Na form a solid solution series that is rare in Michigan, but widespread elsewhere as a hydrothermal mineral in cracks and cavities in basaltic rocks. "Stilbite" has been reported from several occurrences in the Keweenaw copper deposits, but none has been quantitatively analyzed. Northern Peninsula.

Houghton County: **1.** Osceola mine: In Osceola lode (Butler and Burbank, 1929). **2.** Bed of Seven Mile Creek just southeast of center of section 24, T56N, R34W: In poorly defined veins near the north side of the Bear Lake rhyolite intruded into the Freda sandstone. Bladed, brick-red crystals up to 4 mm occur vugs in massive stilbite, with minor quartz, laumontite, and supergene copper minerals (L. L. Babcock, personal communication). Energy dispersion X-ray spectra show this to be stilbite-Ca, colored red by iron oxide.

Keweenaw County: **1.** Copper Falls mine: Reported by Butler and Burbank (1929). An energy dispersion X-ray spectrum obtained from one specimen of orange stilbite crystals in the collection of the A. E. Seaman Mineral Museum (Michigan Technological University) and labelled as coming from Copper Falls, showed only Ca, Al, and Si, proving it to be stilbite-Ca. **2.** Phoenix mine (Jackson, 1845). **3.** Central mine. **4.** Delaware mine (4, 5, Morris, 1983).

Figure 137: Stilbite crystals with calcite from Copper Falls, Keweenaw County. Field of view approximately 4 cm, A. E. Seaman Mineral Museum specimen No. DM 22772, Jeffrey Scovil photograph.

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