

STAUROLITE



A metamorphic mineral characteristic of medium-grade schists and gneisses formed by regional metamorphism of iron-bearing, aluminum-rich rocks. It also occurs as an accessory detrital mineral in glacio-fluvial sand or sandstones (e.g., Stewart, 1937; Denning, 1949). Mainly Northern Peninsula.

Baraga County: Imperial Heights, near Michigamme (Morris, 1983).

Dickinson County: North parts of section 19, T41N, R29W; section 24, T41N, R28W; section 24, T41N, R30W; and NW ¼ section 19, T41N, R38W: Disseminated euhedra up to 1.5 cm long, largely altered to muscovite (“sericite”), chlorite, and quartz occur in a lens of staurolite schist in the graywacke unit of the Michigamme Slate with biotite, muscovite, and quartz (James et al., 1961).



Figure 136: Staurolite crystals in mica schist from south of the Imperial mine, near Michigamme, Baraga County. Average crystal size approximately 1 cm. A. E. Seaman Mineral Museum specimen No. DM 11525, Jeffrey Scovil photograph.

Iron County: 1. Peavy Dam on Michigamme River: In sillimanite-staurolite schist of the Michigamme Formation (James, 1955). **2.** Horserace Rapids on the Paint River: Staurolite schist in Michigamme Formation (James et al., 1968). **3.** Southwest corner of Lake Mary quadrangle: As individual and twinned crystals up to 1 cm in staurolite-rich layers nearly a meter thick in mica schist of the Michigamme Formation. (Bayley, 1959). **4.** Vicinity of Crystal Falls:

Rominger (1895) reports angular blocks of mica schist full of staurolite crystals in glacial drift. Doubtless derived from outcrops of mica schist (Michigamme Formation) further to the north and northwest in the county.

Marquette County: 1. *Lake Michigamme area:* In the Michigamme Formation in schists with muscovite, biotite, chlorite, quartz, feldspar, andalusite, garnet, and locally chloritoid (Van Hise and Bayley, 1897). Twinned crystals up to 2 cm occur in mica schist in outcrops near the Marquette-Baraga county line, south of Lake Michigamme (DeMark, 2000). Lamey (1934) and Poindexter et al. (1939) report crystals “up to several inches long” in schist of the Michigamme Formation with andalusite and garnet from the north side of a roadcut 2.4 km southeast of Michigamme Beach. This is probably the same locality as “near south end of Lake Michigamme” reported by James (1955). Crystals 1 to 2 cm across have been found in mica schist that outcrops on a small island near the south end of Lake Michigamme, in section 4, T47N, R30W (Brooks, 1873; Lamey, 1931). **2.** Republic iron mine: In mica schist (Poindexter et al., 1939). **3.** Beacon mine: Long, slender crystals in schist (Mandarino, 1950). **4.** Champion mine Number 7 shaft, 36th level: Staurolite-muscovite-specularite schist (Babcock, 1966a, b). **5.** SE ¼ section 20, T45N, R30W: Andalusite-staurolite schist (James, 1955). **6.** NE ¼ section 20, T47N, R30W: Lenticular segregations of staurolite as large as a hen’s egg in mica-staurolite schist (Rominger, 1895).

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