STILPNOMELANE

 $K(Fe^{2+},Mg,Fe^{3+})_8(Si,Al)_{12}(O,OH)_{27}$

A mica-like mineral relatively common in lowgrade regionally metamorphosed schists, greenstones, iron formations, and graywackes. It is difficult to distinguish from biotite without X-ray data. Northern Peninsula.

Gogebic County: 1. Gogebic iron range generally: Very abundant in iron formation in the eastern part of the range in iron silicate-siderite-chert rocks of the Ironwood Formation (Tyler, 1949; Mann, 1953). 2. Geneva mine, near Bessemer: As golden brown, radiating, spherical clots to 1 cm in pale green, granular prehnite in an altered dike (verified by X-ray diffraction and energy dispersion X-ray spectrometry).

Iron County: 1. East bank of the Paint River approximately 150 meters below the dam in SE 1/4 section 20, T43N, R32W: Quartz-adularia veins in ferruginous Stambaugh Formation are bordered by plates of chestnut brown stilpnomelane as much as 12 cm long. Exceptional specimens (Ayres, 1940; James et al., 1968). 2. Sections 13, 24 and 25, T43N, R32W: Golden brown needles and plates transected by plagioclase crystals in matrix of greenstone unit in the Hemlock Formation (James et al., 1968). 3. Section 21, T42N, R34W: With carbonate, chlorite, and titanite in vesicles in the agglomeratic Badwater Greenstone (James et al., 1968). 4. Lake Mary Quadrangle: Widely distributed in vesicle fillings in metabasalt of the Hemlock Formation, volcanic slate, basaltic sills, and metacrysts with magnetite in iron formation (Bayley, 1959). 5. Crystal Falls area: In magnetic Riverton Iron Formation as massive layers and as scattered grains in chert and siderite (Tyler, 1949; James et al., 1968). Also in Hiawatha Graywacke (James et al., 1968), and chert-chlorite-siderite graywacke of the Fortune Lakes Slate Formation (James et al., 1968). 6. Section 36, T43N, R32W, north of state highway M-69: In greenstone of the Hemlock Formation (James et al., 1968). 7. SW ¹/₄ NW 1/4 section 21, T43N, R32W: In Riverton Iron Formation in Jones and Laughlin drill hole #2111. Massive layers and scattered grains (James et al., 1968).

Marquette County: 1. Negaunee Iron Formation in the eastern Marquette range: Very

abundant (Tyler, 1949; Mann, 1953; Gair, 1975). **2.** Empire mine: In magnetite-carbonate-silicate-chert facies of iron formation (Sliter, 1970). **3.** Palmer quadrangle: In Goose Lake member of the Siamo Slate (Gair, 1975).

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