ANTHOPHYLLITE

$\square Mg_7Si_8O_{22}(OH)_2$

The only common orthorhombic member of the amphibole group; forms a solid solution series with ferro-anthophyllite. Anthophyllite is a metamorphic mineral, occurring in various schists, gneisses, and some iron formations. It also occurs as a hydrothermal mineral species in altered peridotites. The Marquette County localities cited below were reported by Brooks (1873). The identity of his anthophyllites has never been verified or supported by optical data. It is suspected that some, if not all, of the amphibole he reported as anthophyllite may actually be grunerite, inasmuch as some of Brooks' localities are underlain by Bijiki or Negaunee Iron Formation which in the Marquette district includes grunerite-magnetite schists (Van Hise and Leith, 1911; Richarz, 1927a, b, c; 1932). Northern Peninsula.

Baraga County: Spurr Mountain: "Anthophylite" containing 1.78% Mn is reported by Brooks (1873).

Dickinson County: **1.** Metronite quarry near Felch: Lamey (1934) reports, along with other silicates, the presence of "feranthophyllite" (=ferro-anthophyllite). This has not been verified and is very doubtful (Heinrich, 1962b). **2.** NE ¼ NE ¼, section 23, T42N, R29W: In the Skunk Creek Member of the Solberg Schist, actinolite(?) fringed by an amphibole that "may be anthophyllite" was found in a hornblende-magnetite schist (James et al., 1961). **3.** Vulcan Iron Formation: One variant consists of grunerite with magnetite, quartz, and anthophyllite (James et al., 1961).

Marquette County: **1.** Washington mine: Anthophyllite-quartz-magnetite schist. **2.** South of New England mine: In slaty magnetite schist. **3.** Lot 5, section 20, T48N, R30W: In quartzite with minor magnetite. **4.** Lot 3, section 30, T48N, R30W: In magnetite schist. **5.** NW ¼, section 25, T48N, R30W: In schist with magnetite. **6.** Mouth of Bijiki River in a railroad cut: Anthophyllite schist. **7.** Southeast of the Edwards mine: Anthophyllite schist. **8.** North shore of Lake Michigamme. **9.** Champion mine: 4.37% Mn. (1-9, Brooks, 1873). The presence of the Mn suggests that 9 is manganoan grunerite.

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