

CUMMINGTONITE



(see also *grunerite*)

A member of the amphibole group occurring in metamorphic rocks such as schists, gneisses, amphibolites, and some iron formations. Cummingtonite forms a solid solution series with grunerite, and may contain considerable manganese. Northern Peninsula.

Baraga County: Spurr mine: Found by Dana Slaughter and identified by X-ray diffraction by T. M. Bee (T. M. Bee, personal communication, 1999).

Dickinson County: Groveland mine, Iron Mountain: In Vulcan Iron Formation. Said to consist chemically of 70% of the magnesium end-member (called “kupfferite”) and 30% of the iron end-member (Cumberlidge and Stone, 1964).

Marquette County: 1. Beacon iron mine (Dorr and Eschman, 1970). 2. Champion mine: Babcock (1966a, b) reports “tirodite” (probably a manganoan cummingtonite) to be associated with spessartine, rhodochrosite, and chlorite in manganese-rich quartzose shear veins cutting Negaunee Iron Formation. 3. Republic mine: Cummingtonite or grunerite schists have resulted from the hydrothermal alteration and metamorphism of diabase in the Republic mine area (Yin and Grant, 1992).

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