DIOPSIDE

$CaMgSi_2O_6$

A common pyroxene occurring as a metamorphic species in silicate marbles and tactites. It also occurs as phenocrysts in basalts and andesites. Difficult to distinguish from augite and hedenbergite (with which it forms solid solution series) without chemical data. Northern Peninsula.

Dickinson County: 1. Metronite quarry near Felch: In the Randville Dolomite. **2.** Rian's quarry, south of Felch: It occurs in both quarries as light colored and medium to dark green masses (formerly called "salite") as much as 10 cm across (Pratt, 1954; Dorr and Eschman, 1970). It is associated with hornblende and serpentine (Heinrich, 1962b). Verified by electron microprobe analysis. **3.** Randville Dolomite (general): In Felch trough, with tremolite (James et al., 1961). **4.** Eastern part of section 10, T14N, R30W: Found in diopsidic schistose quartzite (Sturgeon Quartzite) (James et al., 1961). **5.** Groveland iron mine near Randville: In Vulcan Iron Formation (Cumberlidge and Stone, 1964).

Dickinson, Iron and Menominee Counties: Xenocrysts of diopside occur in many of the Michigan kimberlites. Some of the emerald green varieties contain appreciable chromium, and are commonly referred to as "chrome diopside" by diamond explorationists. However, much of this is actually chromian augite (augite) (S. M. Carlson, personal communication, 1995).

Houghton and Keweenaw Counties: In the Jacobsville Sandstone as an uncommon heavy accessory detrital species (Denning, 1949).

Marquette County: 1. Champion iron mine: Manganoan diopside ("schefferite") is reported by Babcock (1966a, b) from a vein cutting iron formation with several other manganese silicates, hematite, jacobsite, and carbonate. **2.** Republic mine, Republic: Associated with ilmenite and kutnohorite (q.v.), and partially altered to an unidentified phyllosilicate mineral. Verified by X-ray diffraction (T. M. Bee, personal communication, 2000).

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