CLINOZOISITE

Ca₂Al₃(SiO₄)₃(OH)

(see also epidote)

The aluminum-dominant member of the epidoteclinozoisite series. It can usually be distinguished from epidote by optical techniques. A widespread and common rock-forming species in marble, amphibolite, actinolite schist, and hornblende schist. Northern Peninsula.

Dickinson County: 1. Badwater Greenstone: generally altered to albite, carbonate, chlorite, and biotite. 2. Greenstones in Michigamme Formation altered similarly (1, 2, James et al., 1961).

Houghton and Keweenaw Counties: Jacobsville Sandstone: As a rare heavy detrital accessory (Denning, 1949).

Iron County: 1. Section 17, T43N, R35W: In a vein cutting the Badwater Greenstone with quartz, tremolite, and adularia (James et al., 1968). 2. A widespread constituent of a number of mafic rocks in the Kiernan quadrangle-metabasalt, metagabbro, and metadiabase (Gair and Wier, 1956).

Marquette County: 1. Marquette: Along the contact of a pegmatite that cuts a lamprophyre dike along with biotite, muscovite, and microcline (Ayres and Higgins, 1939). 2. Yellow Dog peridotite, sections 11 and 12, T50N, R29W: A constituent of the secondary suite which includes serpentine (q.v.), chlorite (q.v.), actinolite, talc, carbonate, and spinel, which together comprise 5 to 10% of the partly altered plagioclase lherzolite (olivine, augite, enstatite) (Klasner et al., 1979).

FROM: Robinson, G.W., 2004 Mineralogy of Michigan by E.W. Heinrich updated and revised: published by A.E. Seaman Mineral Museum, Houghton, MI, 252p.