ALLANITE-(Ce)

$(Ce, Ca, Y)_2(Al, Fe^{2+}, Fe^{3+})_3(SiO_4)_3(OH)$

The rare earth-dominant member of the epidote group. It occurs in pegmatites and as a microscopic accessory in granitoids. It often becomes altered through metamictization. Northern Peninsula.

Gogebic County: 1. Marenisco: Accessory mineral in Presque Isle Granite (Trent, 1969). **2.** In an Archean tonalitic augen gneiss from the Watersmeet dome, as a microscopic accessory partly rimmed by epidote-clinozoisite. Also in unconformably overlying biotite gneiss, locally with fluorite (q.v.) (Sims et al., 1984).

Iron County: Peavy Pond complex: Occurs as a microscopic accessory mineral in various rocks, namely hornblende metadiorite, hornblende metatonalite, granodiorite dikes, and granite dikes. In the granite dikes it is mantled by epidote (Bayley, 1959).

Marquette County: In a pegmatite quarry near Republic, section 22, T47N, R29W: Altered and isotropic with n = 1.703, and G = 3.2-3.4. The cerium content is 3-4% (Snelgrove et al., 1944).

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