

## KYANITE



A common metamorphic mineral found primarily in regionally metamorphosed intermediate-grade rocks derived from shales. It is less common in some veins and pegmatites. Kyanite is very rare in Michigan. It sometimes occurs as a detrital accessory mineral in glacial sands. Northern and Southern Peninsulas.

**Genesee County:** SW ¼ NW ¼ section 6, T8N, R7E: As a detrital accessory in glacial lake sand in a water well (Stewart, 1937).

**Iron County:** The Lake Ellen kimberlite, SW ¼ section 27, T44N, R31W, contains a variety of megacrysts, xenocrysts, and xenoliths (Cannon and Mudrey, 1981; McGee and Hearn, 1983; McGee, 1984; Hearn and McGee, 1985). About 85% of the upper mantle xenoliths collected are eclogites with granulitic textures. Most of these contain only garnet, clinopyroxene, and rutile, but some also have kyanite + sanidine + corundum + sulfides. The very pale blue-to-white kyanite is in 1 mm blades. In one specimen these have a subparallel orientation. An analysis is given in McGee and Hearn (1983). The presence of kyanite in the eclogite xenoliths indicates pressures were at least 18 to 20 kb (kimberlite).

**Marquette County:** Champion mine on 36th level drift. Sky-blue kyanite has been reported in association with coarse, massive andalusite, and orthoclase, muscovite, quartz, biotite, and chlorite (Babcock, 1966a, b). At least one such specimen, however, has been shown by X-ray diffraction to be blue corundum (q.v.).

**Menominee County:** Site 73 kimberlite, north of Hermansville: Small pale blue kyanite crystals have been recovered from heavy mineral concentrates produced from this kimberlite (S. M. Carlson, written communication, 1997).

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