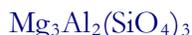


PYROPE



A species of garnet most commonly found in ultrabasic igneous rocks. In Michigan, it occurs in kimberlites. Pyrope has been found in nearly every county in Michigan as a trace constituent of tills, glaciofluvial deposits, and modern alluvium. Such specimens are most likely derived from kimberlites both within the state or in Canada. Only in situ occurrences are given here. Northern and Southern Peninsulas.

Dickinson County: Various types of pyrope and pyrope-almandine garnets occur in the site 69 and 70 kimberlites near Felch and Norway, in the site 910 and 912 kimberlites near Foster City, and in the Booga kimberlite located north of Waucedah. Many of these garnets are mantled with delicate “kelyphite,” a reaction product composed primarily of pyroxene, spinel, serpentine, and phlogopite. “Kelyphite” is common on chromian garnets from peridotites, but is relatively rare on garnets from eclogites (S. M. Carlson, personal communication, 1995).

Iron County: 1. Various garnets in the pyrope-almandine series occur in the *Lake Ellen kimberlite* in SW ¼ section 27, T44N, R31W (McGee and Hearn, 1983). These occur as purple, red, pink, orange, red-orange, and pale orange xenocrysts, and in various types of xenoliths, including eclogites and garnet pyroxenite. A few small crystals of gem quality have been found (Figure 23). **2.** Kimberlites near the Lake Ellen pipe, namely the Michigamme kimberlite and the Site 15 and Site 151 kimberlites near Mansfield: similar occurrence (S. M. Carlson, personal communication, 1995).

Menominee County: 1. Gravel pits located in and around the community of Loretto: In 1992, local prospector Stan Jezierski identified kimberlite boulders in the sandy gravel pits near the Sturgeon River. Many of these kimberlite fragments contain dark red-purple chromian pyrope up to 1 cm in diameter (S. M. Carlson, personal communication, 1995). **2.** “String of Pearls” kimberlite cluster near Hermansville: Similar occurrence. Electron microprobe analyses of garnets from the Site 732 kimberlite by Ruth Kramer (Michigan Technological University) show they are chromian

ferroan pyropes, with variable Ca contents (FeO 6.67 to 7.51, Cr₂O₃ 3.89 - 5.26, CaO 2.97 - 7.04 wt%).

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