

Pyrochlore supergroup minerals from the alkaline pegmatites in the Larvik Plutonic Complex, southern Norway

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Introduction

Pyrochlore supergroup minerals are ubiquitous phases within all alkaline pegmatites in the Larvik Plutonic Complex, Oslo rift, southern Norway. It was first discovered in the 1820's by N.O. Tank from a locality near Stavern, Larvik, Vestfold, and was described in 1826 by Wöhler. Pyrochlore was the second mineral to be described as a new species from the alkaline pegmatites of the Larvik Plutonic Complex, next to zirconolite (*polymignite*). It is one of the earliest minerals to crystallize in the alkaline pegmatites, and occurs dominantly as subhedral to anhedral yellow, orange and reddish-orange to dark red-brown grains up to 1 cm in width embedded in perthitic feldspar, amphibole, aegirine, magnetite and zircon. Primary, euhedral octahedra up to 2-4 cm have been found at Stavern (Larvik, Vestfold; Fig. 1) and Stokkøya (Langesundsfjord). The majority of these pyrochlore supergroup minerals are metamict and have undergone extensive alteration. Late-stage euhedral crystals of pyrochlore, most only a few mm's across, are often late-stage phases, found crystallizing on acicular aegirine in the agpaitic pegmatites at Lysebo (Hedrum). Pyrochlore supergroup minerals have only rarely been found in the agpaitic pegmatites in ring sections 9 and 10; perovskite-group minerals are the common Nb-oxide phase.

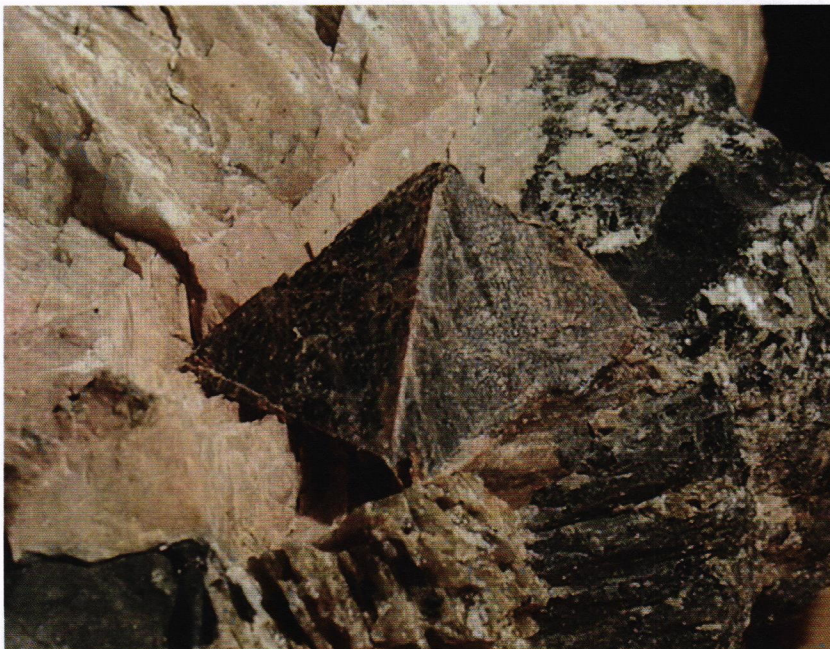


Fig. 1. Pyrochlore crystal from the Håkestad quarry, Tjølling, Larvik, collected in June 2000. The crystal is 10 mm along the edge. Collection and photo A.O. Larsen.