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## CATAPLEIITE FROM ST. HILAIRE MOUNTAIN, QUEBEC

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Catapleiite, a rare hydrous sodium-zirconium-silicate has been found as a result of recent studies of the mineralogy of a quarry in nepheline-sodalite-syenite at St. Hilaire.

The catapleiite occurs both in irregular pegmatitic veins and in a vug which was found during quarry operations in the syenite that forms most of the eastern half of this Monteregian intrusive which lies twenty miles due east of Montreal.

In the pegmatitic veins, the translucent catapleiite is a tan colour with a pearly luster and is found as plates up to 7 cm. in width and 9 mm. in thickness, enclosed for the most part in analcite and penetrated only by aegirine. These plates result from parallel growth of the catapleiite. Crystal faces exhibiting the pseudo-hexagonal habit of the mineral are well developed around the margins of the plates. Although catapleiite crystallizes originally in the hexagonal system, on cooling it inverts to monoclinic symmetry at temperatures ranging from 8 degrees to 230 degrees, (Bøggild, 1953, p. 252). Aegirine, albite, astrophyllite, rhodochrosite, sphalerite, analcite and calcite are found with the catapleiite.

The catapleiite found in the vug occurred as individual, transparent, hexagonal crystals, either colourless or with a faint bluish tint, and averaging 2 mm. across. It is associated here with aegirine, sphalerite, pyrite, natrolite and calcite. Two larger parallel growths of catapleiite were also obtained from this same vug. On one of these, the faint blue tint of the thin edge of the crystal becomes a light tan colour as the crystal thickens.

In both occurrences, i.e. in the pegmatitic veins, and the vug, the crystals are tabular parallel to the base and are usually bounded by the faces of two dipyrramids. However, less frequently, prism faces are also observed.

Upon examination through the microscope, all the catapleiite can be seen to contain inclusions, both in the form of bubbles and foreign material. The optical properties as determined by the writer and confirming the identity of the mineral, (Tröger, 1959, p. 23–24.), are:  $\alpha = 1.590$ ,  $\beta = 1.592$ ,  $\gamma = 1.627$ ,  $r < v$  slight. The optic angle,  $2V$ , as visually estimated in interference figures, varies from 0 degrees to 40 degrees. Using the above indices and the formula, (Wahlstrom, 1962, p. 210):

$$\cos 2V_z = \frac{\epsilon - \delta}{\epsilon + \delta} - \frac{6\epsilon\delta}{(\epsilon + \delta)(n_z + n_x)}$$

the  $2V$  was calculated to be  $27^\circ 20'$ .

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#### LATRAPPITE—A PROPOSED NEW NAME FOR THE PEROVSKITE-TYPE CALCIUM NIOBATE MINERAL FROM THE OKA AREA OF QUEBEC<sup>1</sup>

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In a recent paper, Nickel & McAdam (1963), in describing a perovskite-type mineral from the Oka area of Quebec that varies in niobium content from 14.5 to 44.9%  $\text{Nb}_2\text{O}_5$ , referred to all members of the series as niobian perovskite. In subsequent communications, Dr. M. Fleischer, Chairman of the Commission on New Minerals and Mineral Names of the International Mineralogical Association, and Dr. M. H. Hey of the Department of Mineralogy of the British Museum (Natural History) both expressed the opinion that the name niobian perovskite should be restricted to perovskite with titanium predominating over niobium, and that it should not be used for minerals in which niobium predominates. They suggested, therefore, that a new name be given to the niobium-rich variety.

Nickel & McAdam did not propose a new mineral name because they wished to avoid adding unnecessarily to the number of mineral names already applied to perovskite-type minerals, and because there does not

<sup>1</sup>Name approved by the I.M.A. Commission on New Minerals and Mineral Names.