

and the quality of the result rather than any special features of particular minerals. It seemed to the editor that the excellent colour photographs would probably suffer somewhat in quality during the steps necessary to produce a colour plate and therefore the high cost of colour plates did not seem justified. It is hoped that this omission will not detract from the author's purpose in bringing to our attention this simplified method of producing accurate colour photographs of mineralogical materials.

EUDIALYTE AND EUCOLITE IN CANADA

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Introduction

Eudialyte and a related mineral eucolite have been identified from two widely separated areas in Canada.

Mineralogy texts define eudialyte as a silicate of sodium, calcium, iron and zirconium with hydroxyl and chlorine. Eucolite is considered to be a variety with cerium and manganese. There appears, however, to be considerable uncertainty as to the chemistry of the two minerals, and indications are that they are chemically similar with rare earths and manganese being common to both. The only consistent difference the writer could find was in the optic sign, eudialyte being uniaxial positive and eucolite uniaxial negative.

The indices of refraction vary from 1.593 to 1.634 and the birefringence ranges from 0.000 to 0.010. The colours vary from yellow to pale pink, red and brown, the specific gravity from 2.8 to 3.1 and the hardness from 5 to 6. Eudialyte and eucolite are usually found in soda-rich syenite rocks.

Western Quebec

A sample of syenite rock, containing vivid pink granular aggregates of a vitreous silicate mineral was submitted for identification by Dr. W. A. Jones, Chief Geologist of Hollinger Consolidated Gold Mines. The sample was taken from an area in Pontiac County, Quebec, near the Ontario border.

A qualitative spectrographic analysis indicated that the chief constituents of the pink mineral were sodium, calcium, zirconium, silicon and yttrium with lesser amounts of cerium, manganese, iron and titanium. Optically the mineral was found to be uniaxial negative with weak birefringence of first order grey. The refractive indices were close to 1.611. A specific gravity measurement gave 2.81.

Known specimens of eudialyte and eucolite were obtained from the Royal Ontario Museum through the courtesy of Mr. L. I. Cowan. The x -ray powder patterns of these specimens were identical with each other and with that of the Hollinger sample. On the basis of its optic sign, the mineral is called eucolite.

Labrador

A sample from the Seal Lake area of Labrador was submitted for identification by W. B. Gordon Walker of Frobisher Ltd. The rock was a syenite containing large amounts of fine-grained vitreous reddish-pink material. An x -ray powder pattern gave the same pattern as eudialyte and eucolite. A qualitative spectrographic analysis indicated a composition similar to the Hollinger specimen. An optical study showed that the mineral was uniaxial positive with approximate indices of refraction, $\omega = 1.589$ and $\epsilon = 1.594$. On the basis of its optic sign, the mineral is considered to be eudialyte. No measurement of specific gravity was made due to fine-grained impurities.

Conclusion

A search of the literature has failed to reveal any published data on Canadian occurrences of eudialyte and eucolite. In the hand specimen they could be mistaken for garnet. For that reason, they may be more common than is suspected.

A CORRECTION

*The Editor,
The Canadian Mineralogist*

DEAR SIR,

May we correct a mis-statement, attributed to us, in Dr. R. L. Stanton's paper "Studies of Polished Surfaces of Pyrite and some Implications," *The Canadian Mineralogist*, Vol. 6, part I, pp. 87-118.

On p. 88 Dr. Stanton writes: "Recently McAndrew and Edwards (1954) have noted very weak anisotropism in pyrite from Rum Jungle, Australia, which they thought might be due to a high nickel content."

We wish to draw attention to there being no suggestion whatsoever in our report, *C.S.I.R.O. Mineragraphic Investigations Report No. 587*