

NOTES AND NEWS

OPTICALLY POSITIVE CORDIERITE FROM THE NORTHWEST TERRITORIES, CANADA

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Several samples of rocks and minerals brought to Dr. J. A. Allan in 1929 from the district southeast of Great Slave lake contained some specimens that appeared to be cordierite from their general physical properties. The writer was asked to check this material by optical methods. In general, the optical properties agreed with those given for cordierite except that the sign was positive, whereas in most references it is reported as negative. Chemical tests were made for magnesium, silicon and aluminum and the proportions found present were satisfactory for cordierite. The specimens were set aside until such time as better sections could be prepared.

In the meantime an article by Cooke¹ appeared in which he discussed the mineralogical character of a spotted type of rock that he had previously named dalmatianite.² In the printed discussion of Cooke's article the question was raised as to the mineralogical composition of some of the spots. Cooke had determined the mineral to be feldspar. Walker³ had also studied this spotted rock and concluded that cordierite was present in some of the spots. Merwin had determined the sign as negative for the material studied by Walker. Cooke states that if cordierite is sometimes optically positive, some of the minerals that he had determined as feldspar might be cordierite.

Since there appeared to be still some doubt as to the common occurrence of optically positive cordierite the writer had orientated sections prepared from the material sent in from the Northwest Territories. Further examination shows it to be definitely positive.

Optically positive cordierite has been reported from India⁴ but apparently it has not been commonly observed.

¹ Cooke, H. C., The Amulet Mine, Que.: *Trans. Can. Inst. Min. & Met.*, Vol. xxxiii, p. 398, 1930.

² Cooke, H. C., *Geol. Surv. Canada, Sum. Rept. 1925*, Part C, p. 41.

³ Walker, T. L., *Univ. of Toronto Studies, Geol. Series*, No. 29, p. 9, 1930.

⁴ Winchell A. N., *Elements of Optical Mineralogy*, II, p. 274, 1927.