SUPPLEMENTARY NOTE ON LIMURITE IN TASMANIA.

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In this paper the authors refer to their Note on the same rock presented to the Society last year, since when they have further examined it microscopically, and have studied its occurrence on the spot. They acknowledge their indebtedness to Mr. R. Williams, the Manager of the Colebrook, for many useful and interesting specimens. The mine is between Rosebery and Ringville, on the saddle of a hill about 1500 ft. above sea-level, and is remarkable for the quantity of pyrrhotite occurring in the rock, associated with copper pyrites in relatively small quantities. The authors do not regard the occurrence as a lode, but rather as a rock mass, in the form of an irregular dyke or intrusion. Generally, the country to the west is serpentine, and to the east slates; and the rock in question has been intruded along or near the line of contact, though at the top of the ridge it appears to have come up through the slates in several branches or bodies, leaving horses of metamorphic slate standing in its mass. Viewing the rock as a mass, it is composed of augite (altered largely to uralite and actinolite), axinite, calcite, datholite, danburite, with secondary chlorite and sphene. Essentially it is an ultrabasic rock (pyroxenite), which here and there receives the addition of other boric minerals and then becomes limurite, a composite rock, consisting practically of augite and axinite. How were the boric emanations introduced? Were they escapes from a neighbouring acid basin? That there was an acid reservoir not far off is shown by the tourmaline quartz porphyry at the Renison Bell Mine, and by the axinite quartz veins found on the West Coast Prospecting Association Section, and by the granite near the latter. A slide prepared from this vein-rock is referred to, and mention made of the association of tourmaline with axinite in other parts of the world. The authors arrive at the conclusion that the West Coast granite, or its elvan dykes, consolidated at the same time as the limurite dyke at the Colebrook. The action of boron vapours in the

granite area to the west is shown by the tourmaline and axinite just alluded to, and if these vapours extended to the pyroxenic magma at the Colebrook, and were carried up with it, the origin of the limurite rock would be accounted for. Last year a Note on Datholite was submitted by Mr. W. F. Petterd, and now the authors state the results of a microscopical examination of this mineral. Another new mineral is added to the list of the components of this singular rock, viz., the boro-calcium silicate, danburite, and its microscopical characters are enumerated. A further mineral with characters suggestive of its being a precipitate from a boric solution is mentioned. It is somewhat similar to the decomposition product of boracite known as parasite, a hydrous magnesian borate. The authors consider that the limurite rock throws light on the question of the age of the granite on the West Coast, as the Colebrook intrusion appears to be younger than the serpentinous and gabbroid rocks to the west of the mine.