

On the occurrence of Linarite and Caledonite in County Wicklow.

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TO the north-west of Rathdrum, in the county of Wicklow, three important groups of lead mines were formerly worked, which are known respectively as the Glendasan or Lunganure, Glendalough, and Glenmalure mines, after the mountain glens in which they are situated. The lodes traverse the granite in a north and south direction close to its junction with the mica-schist, and are somewhat remarkable for the variety of their mineral contents.

During the summer of 1904, while examining the old burrows of the Moll Doyle mine in the vale of Glendasan, I came across two or three small specimens of a quartzose vein-stuff showing spots of chalcopyrite, malachite, and a deep azure-blue mineral. The quantity of the blue mineral was too small for a chemical examination, and I was unable to determine the species, but the general appearance and association at once recalled the linarite of Red Gill in Cumberland.

In February, 1906, I revisited the district, and while searching on the burrows of the Ballinafunshoge mine in the vale of Glenmalure, some four miles to the south of the Glendasan mines, I was fortunate enough to find several larger and more clearly defined specimens of the blue mineral. A qualitative chemical test made on one of these proved the mineral to be linarite. Two of the specimens show sharp, though minute, characteristic prismatic crystals, about 1 mm. in length, flattened parallel to s (101) and elongated parallel to the edge of the zone $[ac]$. The forms present are a {100}, c {001}, s {101}, m {110}. For the identification of the forms I am indebted to Dr. G. F. Herbert Smith, who, at my request, kindly measured one of the crystals. In the case of the Ballinafunshoge specimens the associated minerals are a peculiar black cerussite, malachite, and yellowish quartz. On two of the specimens the linarite occurs as small, indistinct crystals forming a crust on a decomposed granitic rock.

Associated with the linarite from the Moll Doyle mine there is, in

addition to chalcopyrite and malachite, a very small quantity of a pale greenish, pearly mineral, which is most probably aurichalcite.

The caledonite, of which only one specimen was found, occurs associated with the linarite as minute, though characteristic, bluish-green crystals implanted on the black cerussite from the Ballinahunshoge mine. The mineral was determined by a qualitative chemical test. The crystals were too intergrown and the faces too uneven to allow of crystallographic measurement.

Since the publication in 1868 of Townshend M. Hall's 'Mineralogist's Directory', comparatively few additions have been made to our knowledge of Irish mineral localities. I am therefore pleased to be able to add the names of two minerals which I believe to be new to that country. The two species are not included in the preliminary and supplementary lists of Irish minerals given by Mr. Henry J. Seymour in the British Association Reports for 1902 and 1903.
