SHORT COMMUNICATIONS

A crystal of sinhalite from Mogok, Burma.

On the 21st of May last, Mr. A. C. D. Pain submitted to this laboratory a number of unidentified rough stones from Mogok, Burma. Amongst these specimens was a crystal with well-developed though water-worn faces, showing a habit reminiscent of olivine but of brownish colour. An examination of its absorption spectrum and a density determination were sufficient to establish that the stone was sinhalite.

This had a double interest, since it was the first known occurrence of sinhalite in Mogok and also was the first well-developed crystal of the species to be discovered. Previously, water-worn pebbles had been recovered from the Ceylon gem gravels, though most known specimens were cut gemstones. In fact when it was first established as a new mineral by Claringbull and Hey[1] only cut stones were available.

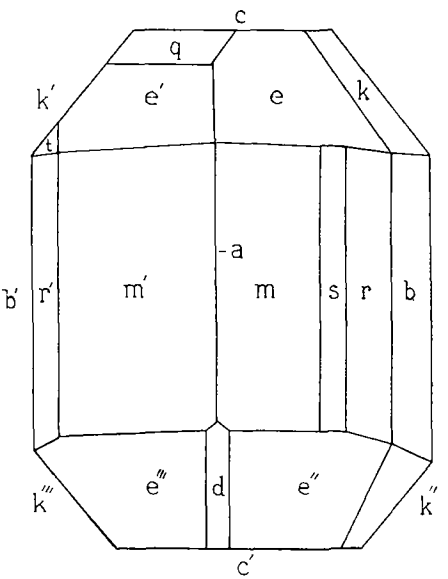

Fig. 1. Form development of a crystal of sinhalite from Mogok, Burma.

The specimen now briefly placed on record is an orthorhombic prismatic crystal, terminated at both ends with a basal pinacoid. It had grown on its back, which was not well developed. The crystal,

$8\frac{3}{4} \times 7 \times 5\frac{1}{2}$ mm., weighs 0·68 g, and a density value of 3·49 was obtained by hydrostatic weighing in ethylene dibromide. An idealized drawing, kindly made for the writer by Mr. T. H. Smith (fig. 1), shows the distribution of the different forms.

Owing to the roughened surface of the crystal, interfacial angles could only be determined approximately, using an eyepiece goniometer. But by calculation on the basis of the axial ratios previously measured by Claringbull and Hey, using X-ray methods, fair agreement was obtained with the measured values, and indices could be ascribed to the faces with reasonable certainty.

Forms shown were: Pinacoids, *b*{010}, *c*{001}, *a*{100}. Prisms, *m*{110}, *s*{120}, *r*{130}. Pyramids, *e*{111}, *q*{112}, *t*{132}. Domes, *d*{101}, *k*{021}. The angles, calculated and measured, were as follows (calculated angles in parentheses): *mm'* 47° (47° 20′), *me* 35° (34° 56′), *rb* 40° (40° 16′), *mq* 54° (54° 24′), *sb* 49° (48° 46′), *ck* 49° (48° 58′), *cd* 53° (52° 39′), *rt* 43° (42° 47′). The prism faces showed some of their original natural polish, and there was a suggestion of the *a* (100) face, by reflection.

It was not possible to measure the refractive indices of the specimen without damaging the crystal. The optic axial plane was parallel to (001), and the acute bisectrix was parallel to *b*. 2V was 55° approx., and the pleochroic colours were γ, pale greenish brown, β, pale brown, and α, brown; $\alpha > \beta > \gamma$.

Mr. Pain has kindly presented the crystal (B.M. 1958, 538) to the Mineral Department of the British Museum (Natural History).

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London Chamber of Commerce.

[1] G. F. Claringbull and M. H. Hey, Min. Mag., 1952, vol. 29, p. 841.

Condurrite: a mixture and not domeykite.

AN examination of the eight specimens labelled 'condurrite' in the British Museum collection, from Condurrow mine and from Wheal Druid, Cornwall, confirms the original observation by W. Phillips[1] that it is 'a mere mechanical deposit, arising from the natural decomposition of other ores which abounded in copper and arsenic'. Although condurrite has been taken as synonymous with domeykite,[2] Phillips stated specifically that he was giving the name to the black mineral and not to the metallic grains surrounded by it; our examination of X-ray powder patterns shows that these latter are either domeykite or β-domeykite,