

## MINERALOGICAL SOCIETY (LONDON)

The anniversary meeting of the Society was held on Thursday, November 1st, 1951, in the apartments of the Geological Society of London, Burlington House, Piccadilly, W.1 (by kind permission).

### EXHIBITS

- (1) *Dalyite* ( $K_2ZrSi_6O_{18}$ ), a new mineral from Ascension Island (Atlantic); by Prof. C. E. Tilley on behalf of Dr. R. van Tassel.
- (2) Silica glass from a crater in the western Sahara; by Dr. W. Campbell Smith.
- (3) *Adamite* from Ojuella mine, Mapimi, Durango, Mexico; by the Department of Mineralogy, British Museum (Natural History), on behalf of Mr. D. E. Mayers.

### PAPERS

The following papers were read:

- (1) ON THE OCCURRENCE OF VARLAMOFFITE IN CORNWALL.  
By Sir Arthur Russell, Bart., and Dr. E. A. Vincent.
- (2) A NOTE ON THE OCCURRENCE OF COLUMBITE IN THE MELDON APLITE, DEVONSHIRE.  
By Mr. Oleg von Knorring.

Small (0.3 mm.) tabular crystals, associated with tourmaline, apatite, topaz, fluorite, etc., were identified by  $x$ -rays and the predominance of niobium determined spectrographically.

- (3) X-RAY DATA FROM ARTIFICIAL BREDIGITE,  $\alpha C_2S$ .  
By Mrs. A. M. B. Douglas.

Single crystal  $x$ -ray work has been done on material extracted from spiegeleisen slag. As suggested by Bredig, the structure is similar to, but is not identical with, orthorhombic  $\beta K_2SO_4$  and a detailed analysis is in progress. Twinning on (110) has been confirmed. In some crystals a small amount of a trigonal phase, probably  $\alpha C_2S$  has been found to co-exist with bredigite, and in one crystal a monoclinic phase was also found. The relative orientations of the trigonal, orthorhombic and monoclinic lattices in this crystal are in agreement with a simple mechanism of phase transformation.

- (4) THE MELILITE GROUP OF MINERALS.  
By Dr. H. G. Midgley.

Calculation of the atomic ratios of the constituent atoms in some artificial melilites shows that they may be regarded as members of an isomorphous series with the general formula  $(Ca, Na, K)_2(MgFe^{2+}Fe^{3+}Al)(SiAl)_2O_7$ .

- (5) THE LEDMORITE DIKE OF ACHMELVICH, NEAR LOCHINVER, SUTHERLAND.  
By Dr. P. A. Sabine.

The presence of a dike cutting Lewisian gneiss near Achmelvich was recorded in the Geological Survey Memoir upon the Geological Structure of the north-west Highlands of Scotland and shown upon the Geological Survey maps. Re-examination of the dike has shown it to have affinities with the nepheline syenites. Its field occurrence and petrography are described and an analysis is given of the rock, which is classed as a ledmorite. There is little doubt that the dike belongs to the post-Cambrian pre-thrust-movement period of igneous activity of Assynt.

The following papers were taken as read:

## (1) ON CROSSITE FROM ANGLESEY.

By Dr. N. Holgate.

A more detailed study of the Anglesey "glaucophane" than has previously been attempted shows that in chemical constitution and in optical properties it has more in common with the crossites than with any other of the amphiboles of the glaucophane-riebeckite series. Although the chemical analysis reveals some four per cent of lime, it is believed that the mineral is best described as a crossite, especially as all analysed crossites show some degree of "contamination" of this kind.

## (2) THE "SUPERPOSITION ERROR" IN THE MICROMETRIC ANALYSIS OF ROCKS.

By Dr. R. B. Elliott.

Where a mineral of high relief overlaps one of low relief in thin section, the low relief mineral is unnoticed and only the high relief mineral is seen. In micrometric analysis, therefore, high relief minerals will be overestimated and an error introduced. The amount of over-estimation is called the "error of superposition." Calculations are made, and graphs drawn, to relate the error to grain-size, making the assumptions, for mathematical simplicity, that the grains are orientated cubes. The error increases rapidly with diminution in grain-size and when the cubes are 0.03 mm. it is 100%.

*(Titles and abstracts kindly submitted by G. F. Claringbull, General Secretary.)*

## GERMAN MEETINGS AND EXCURSIONS IN 1952

The 30th annual meeting of the German Mineralogical Society will take place in Regensburg between August 1-5, in connection with which a 3- to 4-day excursion has been planned through the Oberpfalz Forest and adjacent region including the localities: Wackersdorf (brown coal with a layer of pure, high temperature cristobalite), Wölsendorf (fluorite-barite veins), Amberg-Sulzbach (brown iron ore, weinschenkite, etc.), Hirschau-Schnaittenbach (kaolin), Hagendorf-Pleystein (feldspar pegmatite with triphylite alteration and rose quartz), and the Bayerland pit (pyrrhotite).

The German Geological Society will gather for its annual meeting August 10-15 in Osnabrück. An excursion is scheduled for August 9

The Swiss Mineralogical-Petrographical Society meets August 23-25. Very likely an excursion of several days will precede the gathering.

Geologists and mineralogists who are planning to participate in the International Geological Congress in Algeria from September 8-15, with the advance excursion beginning in Marseille on August 24 and whose itineraries will take them through Germany and Switzerland may wish to take part in the above listed meetings. They should contact respectively: (1) Prof. Strunz, Regensburg, Germany; (2) Prof. Stille, Hannover, Germany; (3) Prof. Galopin, Geneva, Switzerland.