

PROCEEDINGS OF SOCIETIES

MINERALOGICAL SOCIETY OF GREAT BRITAIN AND IRELAND

January 26th, 1939.

Dr. L. J. Spencer, President, in the chair.

The following were exhibited: a slide rule designed to facilitate geological calculations by Dr. A. T. J. Dollar; native silver from Kongsberg, Norge, by Prof. H. F. Harwood; axinite, apatite and prehnite from Graubünden, Switzerland, by Mr. F. N. Ashcroft and a flawless, step-cut danburite weighing 138.61 carats, by Mr. C. W. Mathews.

The following papers were read:—

(1) *An x-ray examination of some potash-soda-feldspars.* By MR. S. H. CHAO, MR. D. L. SMARE, and DR. W. H. TAYLOR.

The paper presents the results of an examination by x-ray methods of a series of microperthitic potash-soda-feldspars of varying composition, in the normal state and after homogenization by prolonged heating at high temperatures. The crystal of the natural microperthite contains two closely related structures, one (containing the potash-feldspar) being monoclinic, the other (containing most of the soda-feldspar) being triclinic but different from ordinary albite. The crystal of the homogenized specimen contains only one single structure. The cell dimensions of both normal and treated specimens depend in a rather complicated way upon the amount of soda-feldspar present.

(2) *Some minerals from the leucite-rich rocks of the West Kimberley area, Western Australia.* By DR. R. T. PRIDER.

Three minerals have been described, with chemical and optical data, from these leucite-lamproites. Magnophorite is the name suggested for a new amphibole which shows affinities with katophorite but which differs from known amphiboles in having $K_2O > Na_2O$ combined with high TiO_2 and MgO and low Al_2O_3 and iron. Wadeite is a new potassium-zirconium silicate which occurs sparingly in colorless hexagonal prisms. The third mineral is titaniferous phlogopite.

(3) *The composition of francolite.* By MR. E. B. SANDELL, DR. M. H. HEY, and MR. D. McCONNELL.

A chemical analysis, and optical and x-ray examination have been made of a specimen of francolite from the original occurrence; francolite is shown to be a fluor-carbonate apatite with some hydroxyl. The analysis indicates that carbon enters the lattice positions of calcium and phosphorus.

(4) *An eyepiece micro-planimeter.* By MR. H. B. S. COOKE (Communicated by DR. F. COLES PHILLIPS).

A photographically reproduced micrometer scale is fitted in the ocular of the microscope in place of the usual linear scale. From a zero point at the centre of the field of view, distances are marked proportional to the radii of concentric circles of regularly increasing area. Thus for a circular object centred on the stage the scale reading of the circumference would at once give the area. For an object of irregular outline the area is integrated as the sum of a number of circular segments, successive readings being taken at regular intervals of rotation of the stage. The device is cheap, yields accurate results quickly, and does not strain the eyes.

(5) *A new occurrence of bavenite.* By DR. G. F. CLARINGBULL.

X-ray and spectrographic data show that a white fibrous mineral from Muotta Nera, Graubünden, Switzerland, is bavenite.

(6) *The Huchkitta meteorite, Central Australia.* By DR. C. T. MADIGAN, with chemical analyses by DR. A. R. ALDERMAN.

A large pallasite was found in 1937 near Huckitta station, 135 miles N.E. of Alice Springs. The mass of 1415 kg. (3112 lb.) and 927 kg. of weathered iron-shale have been transported to Adelaide. Slices, one nearly four feet long, show fragments of olivine embedded in a ground of granular kamacite, with some plessite areas and little troilite and schreibersite. Olivine, with $MgO:FeO=6.8$, forms 58% by volume (40.1% by weight), and the metal has a ratio $Fe:Ni=9.95$. The Alice Springs pallasite, described in 1932, is no doubt a transported fragment of this mass.

(7) *Sapphirine crystals from Blinkwater, Transvaal*. By PROFESSOR E. D. MOUNTAIN.

Crystals up to 2 inches across are tabular parallel to the clinopinacoid and show a characteristic habit with interfacial angles measurable only to the nearest degree. The elements $a:b:c=0.6889:1:1.4056$, $\beta=68^{\circ}33'$, based on previous work, are consistent with the results obtained. Optic axial plane parallel to (010) with $\gamma:c=6^{\circ}$ in the obtuse axial angle. A chemical analysis agrees approximately with the accepted formula.

G. F. CLARINGBULL, *General Secretary*

NEW YORK MINERALOGICAL CLUB, INC.,

The American Museum of Natural History,

New York City

Meeting of February 15, 1939.

The meeting was called to order by first Vice-President Lee at 8:10 P.M., with about 45 members and guests present. After the election of a Nominating Committee for the officers of the next year, the speaker, Mr. James F. Morton, was introduced.

Mr. Morton addressed the Club upon "Zeolite Collecting in Nova Scotia." He described the country as being wild and rugged, an ideal resort country. Nova Scotia is famous for the zeolites which are to be picked up along the shore at the foot of the cliffs during the time the tide is out. Cape Blomiden and Cape Split, on the south side of the Minas Basin and Wasson's Bluff, Partridge Island and Cape Sharp on the north side, were described, and the minerals distinctive of each region were mentioned and shown. Mr. Morton called attention especially to the tides, and cautioned the members against letting their enthusiasm get the better of their judgment. He said it was best to start just after the tide was full, as soon as a little beach was exposed and work for four hours in safety, collecting the zeolites along the shore, like so many shells on the beach. The winter storms guarantee a perpetually renewed supply and one can be certain of finding some good specimens.

F. H. POUGH, *Secretary*

NEW MINERAL NAMES

Weberite

RICHARD BØGVAD: Weberite, a new mineral from Ivigtut. *Meddelelser om Grønland*, 119, No. 7, 1-11 (1938), 2 figs., 1 plate.

NAME: In honor of Theobald Weber, who was active in the early development of the Greenland cryolite deposits.

CHEMICAL PROPERTIES: A sodium, magnesium, aluminum fluoride: Na_2MgAlF_7 . Analysis (by H. Buchwald): Al 11.65; Fe 0.37; Ca 0.08; Mg 10.43; Na 19.08; K 1.19; F 57.58, remainder 0.16. Sum 100.54. Slightly soluble in water (0.02 gm./100 c.c. H_2O); soluble in an aqueous solution of $AlCl_3 \cdot 6H_2O$. B.B. turns white and swells up, but does not fuse to a drop. After ignition shows an alkaline reaction and with cobalt nitrate an Al re-