

ABSTRACTS OF MINERALOGICAL LITERATURE.

PLOTTING CRYSTAL ZONES ON PAPER, (3). JOHN M. BLAKE, of New Haven, Ct. *Am. J. Sci.*, [4], **42**, (6), 486-92, 1916.

A method of plotting for the purpose of bringing out zones of faces is described. It can not be briefly abstracted, but suggests in certain respects the more elaborate and significant methods of Prof. Goldschmidt.

E. T. W.

A GRADUATED SPHERE FOR THE SOLUTION OF PROBLEMS IN CRYSTAL OPTICS. CHARLES H. WARREN of the Mass. Inst. Tech. *Am. J. Sci.*, [4], **42**, (6), 493-495, 1916.

Description of the construction of an apparatus useful in teaching as well as investigation of optical mineralogy. It consists of a specially mounted brass sphere with enameled surface, and costs \$40-50 to construct.

E. T. W.

THE METEORIC STONES OF LAUNTON, WARBRECCAN, CRONSTAD, DANIEL'S KUIL, KHAIRPUR, AND SOKO BANJÁ. G. T. PRIOR, of the British Museum (Natural History). *Mineralog. Mag.*, **18**, (83), 1-25, 1916.

Descriptions and analyses of these stones.

S. G. G.

ON THE GENETIC RELATIONSHIP AND CLASSIFICATION OF METEORITES. G. T. PRIOR, of the British Museum (Natural History). *Mineralog. Mag.*, **18**, (83), 26-44, 1916. See *Am. Min.*, **1**, (3), 48, 1916.

THE ISOLATION OF THE DIRECTIONS—IMAGE OF SMALL OBJECTS. JOHN W. EVANS. *Mineralog. Mag.*, **18**, (83), 45-51, 1916.

A METHOD OF DETERMINING THE ANGULAR DIRECTION REPRESENTED BY A POINT IN THE DIRECTIONS—IMAGE OF AN OBJECT UNDER THE MICROSCOPE. JOHN W. EVANS. *Mineralog. Mag.*, **18**, (83), 52-57, 1916.

A BUTTERFLY—TWIN OF GYPSUM. L. J. SPENCER, of the British Museum (Natural History). *Mineralog. Mag.*, **18**, (83), 82-86, 1916.

BIBLIOGRAPHY OF AUSTRALIAN MINERALOGY. C. ANDERSON, of the Australian Museum. *Dept. of Mines, N. S. W., Geol. Survey, Mineral Resources*. No. 22, 164 pp., 1916.

A NEWLY FOUND METEORIC STONE FROM LAKE OKECHOBEE, FLORIDA. GEORGE P. MERRILL, of the U. S. National Museum. *Proc. U. S. Nat. Mus.*, **51**, 525-526, 1916.

This meteorite belongs to the class of chondritic tuffs (Cc., Brezina) or spherical chondrites. It was dredged up in the lake; the total weight of fragments is about 1,100 grams. This is the first meteorite described from Florida.

S. G. G.

HOPEITE FROM THE H. B. MINE, SALMO, B. C. T. L. WALKER, of the Royal Ontario Museum of Mineralogy. *J. Wash. Acad. Sci.*, **6**, (21), 685-688, 1916.

Hopeite occurs in solution-cavities in stalactites between the central core of spencerite and the outer zone of calamine. Crystals are usually under 3 mm. in length, altho some attain a length of 1 cm. The following forms were observed on three crystals measured (111), (133); (011), (021); (103), (101), (201); (670), (120), (5.11.0), (130), (3.11.0), (160); (010), and (100), of which (021), (670) and (3.11.0) are new. $a:b:c=0.5703:1:0.4720$. This represents the first report of hopeite in America. S. G. G.

THE POSSIBLE ERRORS OF SILICATE ANALYSES AND A RULE OF MIXTURES FOR ALKALI-FREE ALUMINOUS AUGITES. G. TSCHERMAK. *Centr. Min. Geol.*, **1916**, (1), 1-9. E. T. W.

SYNTHESIS OF SMALTITE AND LÖLLINGITE. A. BEUTELL AND F. LORENZ, of the Univ. of Breslau. *Centr. Min. Geol.*, **1916**, (1), 10-22.

The method consists of heating a metal or treated mineral in an evacuated tube in the presence of arsenic vapor. The compounds CoAs , Co_2As_3 , CoAs_2 , Co_2As_5 and CoAs_3 were produced at different temperatures. Natural smaltite is believed to be a mixture of two or more of these substances. Löllingite is the corresponding iron mineral, and is also a mixture of similar compounds. E. T. W.

SYNTHESIS OF NICKEL ARSENIDES. A. BEUTELL, of the University of Breslau. *Centr. Min. Geol.*, **1916**, (2), 49-56.

By the method described in the preceding abstract NiAs and NiAs_2 were formed; certain minerals consist of mixtures of these. E. T. W.

MINERALOGIC NOTES [On chlorites.] ESPER S. LARSEN AND GEORGE STEIGER, of the U. S. Geological Survey. *J. Wash. Acad. Sci.* **7**, (1), 6-12, 1917.

Comprises: APHROSIDERITE FROM BRITISH COLUMBIA; THURINGITE FROM COLORADO; and GRIFFITHITE, A NEW MEMBER OF THE CHLORITE GROUP (see under new minerals above). The aphrosiderite occurs in veins in slate, and has sp. gr. 2.959 and mean n 1.625. Analysis shows it to have the formula $5(\text{Mg}, \text{Fe})\text{O} \cdot 2\text{Al}_2\text{O}_3 \cdot 4\text{SiO}_2 \cdot 5\text{H}_2\text{O}$. The thuringite varies in color, n , and composition. Material analyzed had mean n 1.637. E. T. W.

EXCHANGE NOTICES

A. C. Bates, 320 Roseville Ave., Newark, N. J. A number of pseudomorphs of good quality offered in exchange for crystallized minerals; write for details.