ABSTRACTS OF MINERALOGIC LITERATURE

CRYSTALLOGRAPHIC STUDIES OF BARITE. H. P. WHITLOCK. *14th Rept. Dir. N. Y. State Mus.* 1917 (*Bull.* **207**), 157–164, 1919.

Barite from Five Islands, N. S. gave the new forms: j_3 (053), ψ_2 (165), and ψ_3 (167); from McCormick, S. C. Σ_3 (510), *F* (380), and λ_5 (215). Crystals are also described from Black Cape, Quebec. S. G. G.

ANGLESITE FROM THE COEUR D'ALENE DISTRICT, IDAHO. E. V. SHANNON. *Am. J. Sci.* [4], **47** (4), 287–292, 1919.

Anglesite has been found in four mines in the district, as compact massive ash-gray coatings on galena; prismatic crystals elongated parallel to *b* up to 5 cm. long, and in transparent colorless prismatic crystals resembling and equalling in beauty those from Monte Poni. "It is doubtful whether any locality in the United States has equalled this mine in the size and beauty of its crystals." Nineteen forms were observed, two of which were new: (910) and (0.1.14), represented by very narrow line faces.

[Colorless crystals 15 cm. long and weighing over 200 g. were found at the Wheatley Mines, near Phoenixville, Pa. during the operation of these mines. Abstr.] S. G. G.

AN APPARATUS FOR GROWING CRYSTALS UNDER CONTROLLED CONDITIONS. J. C. HOSTETTER. *J. Wash. Acad. Sci.*, **9** (4), 85–94, 1919.

A HERETOFORE UNDESCRIBED METEORIC STONE FROM KANSAS CITY, MISSOURI. GEORGE P. MERRILL. *Proc. U. S. Nat. Mus.*, **55**, 95–96, 1919.

The stone was found in 1903 about 2 m. below the surface, in a stone quarry, having penetrated 1 m. of dirt and soil, and 8 dm. of shaly limestone. The stone is a crystalline spherulitic chondrite composed essentially of olivine and enstatite. The stone weighed 34,500 grams; allowing 1,500 grams thru lost fragments due to breaking and exfoliation, gives an approximate original weight of 36 kilograms. S. G. G.

THE CUMBERLAND FALLS METEORITE. ARTHUR M. MILLER. *Science*, **49** (1275), 541–542 (June 6), 1919.

An account of the phenomena attending the fall of a meteoritic stone near Sawyer P. O., Falls of the Cumberland, Kentucky, on April 9, 1919. Seven pieces ranging in weight from 350 g. to 2.5 kg. of one mass, and 52 pieces weighing from 20 g. to 2 kg. of a mass originally weighing 15 kg. have been found. S. G. G.

THE CUMBERLAND FALLS METEORITE. GEORGE P. MERRILL. *Science*, **50** (1282), 90, 1919.

The stone is a coarse enstatite breccia, closely compacted, showing evidences of compression and other indications of having been a portion of a body of considerable size. The metorite carries enclosures of a dark, nearly black, chondritic stone, sometimes 4 or 5 cm. in diameter. The name *whitleyite* is proposed for achondrites of this type. S. G. G.

CRYSTALLOLUMINESCENCE. H. B. WEISER. *J. Phys. Chem.*, **22**, 480–509, 576–595, 1918.

A study of the emission of light on crystallization and on crushing crystalline substances. In both cases the light is believed to be emitted in connection with the formation of molecules from ions. E. T. W.

TYPES OF PHOSPHORESCENCE. EDWARD L. NICHOLS AND H. L. HOWES. *Proc. Nat. Acad. Sci.*, **4**, 305–312, 1918.

The spectra of phosphorescent light under various conditions are described, and the theory of the subject discussed. Franklin Furnace calcite and other minerals are considered. E. T. W.

STRUCTURE OF CRYSTALS IN EXTREMELY THIN PLATES; A NEW EXPERIMENTAL DETERMINATION OF MOLECULAR MAGNITUDE. RENE MARCELIN. *Ann. phys.*, **10**, 189–194, 1918.

Sheets of mica of extreme thinness were made by pressing a piece against a bit of melted selenium, allowing to cool, and pulling apart. These were examined in the metallographic microscope, and their thickness determined with a quartz wedge, using a Michel-Levy comparator. The differences in thickness between different parts of a given sheet were found to be multiples of 0.70 $\mu\mu$, which is to be regarded as the thickness of a mica molecule; this value agrees with theory. Similar results were obtained with certain artificial chemical compounds. E. T. W.

THE ORIENTATION OF ANISOTROPIC LIQUIDS IN CONTACT WITH CRYSTALS. II. F. GRANDJEAN. *Bull. soc. franc. min.*, **40**, 69–105, 1917.

Several new anisotropic liquids were studied on cleavage surfaces of orpiment, sphalerite, phlogopite, brucite, talc, pyrophyllite, muscovite, halite sylvite and leadhillite. Definite forces are found to exist, acting between the molecules at the surface of the crystal and those of the anisotropic liquid. E. T. W.

RADIOACTIVITY OF ITALIAN MINERALS. L. FRANCESCONI, and others. *Gazz. chim. ital.*, **48**, i, 112–113, 1918; thru *Chem. Abstr.*, **13** (8), 811, 1919.

A number of minerals have been examined and pyromorphite, wulfenite, and chrysocolla, also certain minerals of tungsten and manganese, found to be radioactive. Malachite from Chile and galena from Argentine also showed this property. E. T. W.

THE ATOMIC STRUCTURE OF CARBORUNDUM DETERMINED BY X-RAYS. C. L. BURDICK AND E. A. OWEN. *J. Am. Chem. Soc.*, **40**, 1749–1759, 1918.

Carborundum crystals were examined with X-rays from a lead target by the Bragg method. The silicon and carbon atoms prove to lie in interpenetrating face-centered rhombohedral space-lattices, displaced slightly along the *c*-axis. This structure is similar to that of diamond. The distance between layers of atoms in the basal plane is 2.179×10^{-8} cm. [The structure deduced is apparently hemimorphic, indicating that this substance belongs to the trigonal-hemimorphic class. ABSTR.] E. T. W.