

THE NATURE, ORIGIN, AND INTERPRETATION OF THE ETCH FIGURES ON CRYSTALS. A. P. HONESS. XIII+171 pages, with 16 figures and 79 original photographs of etch figures. John Wiley and Sons, New York, 1927.

This is the first comprehensive treatise on etch figures to be published in the United States, for American mineralogists have generally paid but little attention to this field of investigation. The value of the etch method in the accurate classification of crystals as to symmetry, and especially in connection with X-ray analysis and other methods of study, is well presented.

The history of the development of the etch method is first discussed, and naturally the splendid contributions of Baumhauer and Becke are emphasized. Then follow chapters in which the following are some of the subjects considered: the production and examination of etch figures; the effect of changes in temperature and solvent on the form of the figure; growth, interpretation, and distribution of etch figures; anomalous etch figures; and the importance of the etch figure in isomorphism. A very considerable portion of the text is devoted to a report on the author's study of the etch figures on the following minerals: cuprite, apophyllite, wulfenite, apatite, endlichite, tourmaline, celestite, barite, anglesite, and topaz. The last chapter is devoted to a summary and conclusions. The illustrations are excellent, especially the original photographs of the etch figures observed by the author on the 10 minerals studied by him.

The text is a very creditable and timely contribution to our knowledge of the character and value of etch figures.

EDWARD H. KRAUS

## PROCEEDINGS OF SOCIETIES

### PHILADELPHIA MINERALOGICAL SOCIETY.

*Academy of Natural Sciences of Philadelphia, February 2, 1928.*

A stated meeting of the Philadelphia Mineralogical Society was held on the above date with an attendance of thirty-seven members and eleven visitors. The president, Mr. Clay, presided.

The following were elected to membership: Messrs. J. T. Hendren and H. Stafford; Messrs. Fred Reinitz and Mr. S. B. Gilliard were elected to junior membership.

Mr. Gage exhibited and described certain minerals recently found at Franklin, N. J.

Dr. Paul F. Kerr of Columbia University then addressed the society on "*Mineralogy applied to the study of gems.*" The speaker described the various methods used to distinguish between natural and synthetic sapphires and rubies, between culture pearls and natural pearls; also how to distinguish amber from its various imitations. The talk, which was illustrated by lantern slides was followed by a general discussion.

F. A. CAJORI, *Secretary*

## THE MINERALOGICAL SOCIETY (ENGLAND)

*Mineralogical Society*, January 10.—Dr. G. T. Prior, F.R.S., President, in the chair.

DR. L. J. SPENCER: *Potarite*, a new mineral discovered by the late Sir John Harrison in British Guiana. Small nuggets and grains of a brittle white metal have been found very sparingly by diamond-washers in the neighborhood of the Kaieteur Falls on the Potaro River. This mineral, previously erroneously described as "allopalladium," was proved by Harrison to be a compound of palladium and mercury, Pd Hg, with a density (15.0–16.1) considerably higher than that of either of the component metals. There is a crystalline structure which on the surface of one nugget is shown as indistinct cubic octahedra. The original "allopalladium" from the Harz Mts., supposed to be a hexagonal modification of palladium, could not be procured for a re-examination; it is probably the ordinary cubic palladium.

DR. H. V. ELLSWORTH: *A simple and accurate constant-volume pycnometer for specific gravity determination*. The pycnometer of 10c.c. capacity is made of silica-glass, thus possessing several advantages over one made of ordinary glass. The stopper is perforated by a capillary and is continued into a graduated side-tube, which dips under water while the apparatus is cooling. The volume of the contained water to the graduations on the side-tube can be readily and accurately determined to 0.0002c. c.

MR. W. CAMPBELL SMITH: *The optical orientation of labradorite from County Down (Ireland), determined by the Fedorov method*. The labradorite from basaltic dikes at St. John's Point, Ardglass, Co. Down, of which the chemical composition and refractive indices were published in 1912 has been studied by the Fedorov method and the optical orientation determined.

DR. C. E. TILLEY demonstrated the inversion of  $\text{Ca}_2\text{SiO}_4$  in a metamorphic limestone from Larne, Co. Antrim, (Ireland) and MR. A. F. HALLIMOND exhibited an electro-magnetic separator for mineral powders.

## NEW MINERAL NAMES

## Genevite

L. DUPARC AND M. GYPSIN: Sur la genevite, un Nouveau Mineral. (Genevite, a new mineral). *Bull. Soc. Fran. Mineral.*, 50, 41–46, 1927.

NAME: (Derivation not given, perhaps from *Geneva*, Switzerland, residence of L. DUPARC).

CHEMICAL PROPERTIES: Essentially a silicate of calcium and aluminum. Analysis:  $\text{SiO}_2$  37.11,  $\text{Al}_2\text{O}_3$  16.19,  $\text{Fe}_2\text{O}_3$  3.05, FeO 2.53, MnO trace, CaO 33.67, MgO 2.17,  $\text{K}_2\text{O}$  0.66,  $\text{Na}_2\text{O}$  0.46,  $\text{H}_2\text{O}$  2.70, Ign. loss 1.01; Sum 99.55. Easily attacked by hot HCl. Fuses at 3 to a gray enamel.

CRYSTALLOGRAPHIC PROPERTIES: Tetragonal. Prismatic. Faces  $m(110)$ . Cleavage (100) poor. The basal section shows two cleavages.

PHYSICAL AND OPTICAL PROPERTIES: Transparent, colorless. Uniaxial. Elongation negative.  $n_o = 1.707$ ,  $n_p = 1.698$ .

OCCURRENCE: Found as embedded crystals in a gray limestone interbedded in carbonaceous schists of Paleozoic Age.