

Zeitschrift für Kristallographie, Dr. P. Niggli, is planning a special number (Vol. 58 or 59) of the Zeitschrift in honor of this eminent mineralogist. Manuscripts for this volume which should not exceed three pages in length, should be in the possession of Dr. Niggli, Mineralog.-petrogr. Institut der Eidg. Techn. Hochschule, Zürich, Sonneggstrasse 5, by December 31st, 1922. Also contributions towards defraying the cost of the volume will be gratefully received.

Friends and former students of Professor Victor Goldschmidt are planning a memorial to be presented on his 70th birthday which falls on the 10th of February, 1923. This memorial will also commemorate Dr. Goldschmidt's 35th year as teacher at the University of Heidelberg. Those wishing to participate in honoring this noted crystallographer are asked to send their name and contribution to Dr. Oscar Neff, Karlsruhe, Kriegsstr. 85.

## PROCEEDINGS OF SOCIETIES

### PHILADELPHIA MINERALOGICAL SOCIETY

*Academy of Natural Sciences of Philadelphia, June 8, 1922*

A stated meeting of the Philadelphia Mineralogical Society was held on the above date with the president, Mr. Trudell, in the chair. Nineteen members were present.

Mr. John Frankenfield addressed the society on "A MINERALOGICAL TRIP TO VIRGINIA." The localities at Amelia, Natural Bridge, Midvale, Irish Creek, and Luray, were described, and illustrated with many beautiful lantern slides. Specimens of albite, beryl, scorodite, dufrenite, and strengite were exhibited.

Trips to Vanartsdalen's quarry, Jones mine, and quarries in Germantown and Frankford were reported by Messrs. Knabe, Biernbaum, and Oldach.

The president described the following excursions of the society: on May 21st, to the American Museum of Natural History in New York to see the new installation of the Clarence Bement collection of minerals; and on June 4th, to Dover, N. J., to see the magnificent collection of Mr. Frederick Canfield. The serpentine locality at Hoboken was also visited, specimens of brucite, magnesite, and hydromagnesite being obtained. Lantern slides were exhibited of pictures taken on the two occasions.

The secretary announced that Mr. Charles K. Shaw of Chester, Pa. had presented to the Academy the mineral collection of his father, William H. Shaw (1855-1900). The collection is extremely rich in Delaware County amethysts, beryls, garnets, etc., although by no means limited to local minerals. Of exceptional interest are three large amethysts from the Shaw and Esrey quarry, two of which are over a foot in length; and a suite of amethysts from the Morgan Station locality. A selected series of specimens was exhibited. SAMUEL G. GORDON, *Secretary*.

## BOOK REVIEW

ESSENTIALS FOR THE MICROSCOPICAL DETERMINATION OF ROCK-FORMING MINERALS AND ROCKS. ALBERT JOHANNSEN. 53 pages, 8vo, 24 figures, 4 tables. The University of Chicago Press, Chicago, 1922.

This book is designed primarily as a *laboratory manual* for students of petrography and should be used in conjunction with the writer's *Manual of Petrographic*

*Methods*, or some other text of a similar character. The laboratory manual contains much of the material originally published in the author's *Determination of Rock-Forming Minerals*, but the scope of this work has been somewhat enlarged by including modes of occurrence, distinguishing characters of similar minerals, and a survey of a quantitative mineralogical classification of igneous rocks.

The main optical constants of the rock-forming minerals are very conveniently condensed into six one page charts. This has been made possible by grouping the minerals having birefringences greater or less than quartz, and refractive indices greater or less than Canada balsam (1.537); thus avoiding needless repetition and saving the student considerable time.

The portion devoted to the determination of the feldspars is both helpful and suggestive. Thirteen methods (one physical and twelve optical) are discussed for determining the various members of the plagioclases, and in many instances the results obtained are plotted graphically. The separation lines between the various plagioclases are now given at 5, 27½, 50, 72½, and 95 per cent anorthite. Albite and anorthite have been limited to a variation of only 5 per cent since these names are also applied to the pure end members. Compound names such as oligoclase-albite, labradorite-bytownite, etc., have been dropped.

The portion dealing with a summary of the optical methods used in determining minerals hardly seems adequate, as the space thus devoted is limited to three pages and placed *after* the description of the minerals, instead of *before* where it logically belongs.

A very welcome contribution is the portion, consisting of 9 pages and 4 tables, relating to the writer's quantitative mineralogical classification of igneous rocks. Rules for the determination of rocks are likewise given, so that when the minerals and their percentages have been ascertained, the rock name also may be known.

Because of the convenient and condensed manner in which the material has been presented and the up-to-date treatment of the subject, especially from the quantitative view-point, this book should make a strong appeal to every student of petrography.

W. F. H.

## NEW MINERALS: NEW SPECIES

FAMILY: SILICATES. DIVISION: R'' : R''' = 1:2.

### Gillespite

WALDEMAR T. SCHALLER: Gillespite, a new mineral. *J. Wash. Acad. Sci.*, 12(1), 7-8, 1922.

NAME: After Frank *Gillespie* of Richardson, Alaska, its discoverer.

CHEMICAL PROPERTIES: *Formula*:  $\text{FeO} \cdot \text{BaO} \cdot 4\text{SiO}_2$  or  $\text{FeBaSi}_4\text{O}_{10}$ . Not closely related to any well-marked mineral group. Before the blowpipe it fuses easily to non-magnetic globule; in closed tube darkens but regains original color on cooling. Readily decomposed by HCl with the separation of flakes of silica, which are doubly refracting; also decomposed by  $\text{H}_2\text{SO}_4$ . A hand-picked sample gave,  $\text{SiO}_2$  50.08, FeO 14.60, BaO 31.02,  $\text{Al}_2\text{O}_3$  0.34,  $\text{Fe}_2\text{O}_3$  0.56, " $\text{Mn}_2\text{O}_3$ " 0.14, insol. 2.20,  $\text{H}_2\text{O}$  (non-essential) 0.82, sum 99.76%. Ratios very close to 4:1:1 for first 3 oxides.

CRYSTALLOGRAPHIC AND OPTICAL PROPERTIES: System either tetragonal or hexagonal, only basal planes being definitely recognizable. Uniaxial negative with very low birefringence; strongly pleochroic. Refractive indices:  $\epsilon$  (rose-red) 1.619,  $\omega$  (pale pink) 1.621.