NOTES AND NEWS

NOMINATIONS FOR OFFICERS OF THE MINERALOGICAL SOCIETY FOR 1929.

The Council unanimously nominates the following officers of The Mineralogical Society of America for the year 1929:

PRESIDENT: Arthur L. Parsons, University of Toronto, Toronto, Canada.

VICE-PRESIDENT: Edward Wigglesworth, Boston Society of Natural History, Boston, Mass.

SECRETARY: Frank R. Van Horn, Case School of Applied Science, Cleveland, Ohio.

TREASURER: Alexander H. Phillips, Princeton University, Princeton, New Jersey.

EDITOR: Walter F. Hunt, University of Michigan, Ann Arbor, Michigan.

COUNCILOR: 1929–1932, Clarence S. Ross, United States Geological Survey, Washington, D. C.

The ninth annual meeting of the Society will be held December 27-29, 1928, in New York City, in conjunction with that of the Geological Society of America and other affiliated Societies. It is planned to publish in the December issue of the Journal a *preliminary* list of titles of papers to be presented before the Society at its annual meeting. In order to appear on the advance program titles of papers should be in the hands of the Secretary by *November 10.*

FRANK R. VAN HORN, *Secretary*

Professor L. W. Currier, associate professor of mineralogy at the Missouri School of Mines, has been appointed associate professor of engineering geology at Purdue University.

Dr. Victor T. Allen, assistant professor of geology in the University of California, has been appointed assistant professor of geology at St. Louis University.

REVIEWS

THE PROPERTIES OF SILICA. ROBERT B. SOSMAN. 856 pages, with 187 figures and 113 tables. Published December 1927 by The Chemical Catalog Company, Inc., *New York.* $12.50.

This book appears as Number 37 of the American Chemical Society Monograph Series. It is divided into eight parts as follows: (1) Fundamentals, (2) Phases and Their Transformations, (3) Symmetry and Structure, (4) Thermal Energy, (5) Mechanical Energy, (6) Silica in the Electric and Magnetic Fields, (7) Silica in the Periodic Electro-magnetic Field, (8) Applications.

The physical and crystalline properties of eight modifications of silica, together with their transformations, stability, and inversion phenomena, are elaborately treated. Low-quartz, high-quartz, low-tridymite, lower high-tridymite, upper high-tridymite, low-cristobalite, high-cristobalite, and silica glass are considered. Beside these there are more than two score references to chalcedonic silica, its properties, occurrences, inversions, and stability. Opal is not considered by the author as within the scope of the book, as it belongs to the SiO_2:H_2O series. Lechateliérite is not mentioned.

The mechanical construction of the book is excellent. The printing, grade of paper used, and binding are very good. Figures are carefully prepared and clearly and accurately printed. The top of each page bears both the chapter and page number. The figures and bibliographic references are consecutively numbered for each chapter.

The many results of the research on silica conducted by Dr. Sosman and his associates at the Geophysical Laboratory of the Carnegie Institution and here published for the first time, the elaborate treatment of the structure of the silica molecule as shown by X-ray analysis, and the splendid bibliographies render the book of incalculable value to any mineralogist, or to the petrologist working in igneous rocks. The sedimentary petrologist and sedimentologist will find much of value and interest, but will be disappointed in the relatively small amount of matter dealing with the interrelations of low-quartz, chalcedony, and opal.

The general and economic geologists will find much of value in the chapters of Part 8. These chapters include: Geological Applications, Silica Minerals and Rocks, Industrial Applications of Silica, The Chemical Uses, The Physical Uses, and Silica Refractories.

Frederick A. Burt

GALLIUM I. ARC SPECTROGRAPHIC DETECTION AND ESTIMATION OF GALLIUM. II. EXTRACTION OF GALLIUM FROM LEPIDOLITE. Jacob Papish and Donald A. Holt, *Jour. Phys. Chem.*, Vol. XXXII, pp. 142–147, Jan. 1928.

GERMANIUM XXV. ARC SPECTROGRAPHIC DETECTION AND ESTIMATION OF GERMANIUM. OCCURRENCE OF GERMANIUM IN CERTAIN TIN MINERALS. ENARGITE AS A POSSIBLE SOURCE OF GERMANIUM. Jacob Papish, F. M. Brewer and Donald A. Holt. *Jour. Am. Chem. Soc.*, Vol. **49**, pp. 3028–3033, 1927.

A method is presented for the arc spectrographic detection and estimation of gallium. Artificial graphite rods are available for spectroscopic work which are of a very high degree of purity and the intensity and number of lines which the impurities produce are generally low. The spectrum given by these electrodes consist of lines and bands due to Mg, Na, Ca, Li, Si, Fe and Mn, as well as those due to carbon. While one gallium line is coincident with an iron line the latter is of low persistence and if visible many other lines due to iron should be present.

A carefully prepared gallium solution of great purity was used in different concentrations in the experimental work. Definite portions of each solution were added to the anode of the D. C. arc, fresh electrodes being used in each test. Spectral lines were observed at the highest concentration which became faint, very faint or missing at succeeding lower concentrations of the test solution. As a result of this experimental work it was possible to estimate the quantity of gallium, if present, in fifty-five minerals.

Lepidolite, from San Bernardino County, California; microcline, from California; microcline, from Virginia; and tourmaline, from San Diego County, California, contained the largest quantity of gallium of the minerals examined. This amount was expressed as "large trace."

In the case of the lepidolite, gallium was extracted by a new method. One kilogram of lepidolite yielded 0.0887 gm. of Ga_2O_3. The gallium content of the mineral is thus very close to 0.007 per cent.

In the second paper germanium has been detected and estimated by a similar method. Enargite, Santa Fé Mine, Chiapas, Mexico, was estimated to contain more than 0.1 per cent Ge. Enargite, Butte, Montana, 0.01 per cent Ge. Enargite, Central City, Colorado, and enargite, Braden Copper Company, Chile, more than 0.01 per cent. A cassiterite from north of Battle Mountain, Nevada, was estimated to contain more than 0.005 per cent Ge.

While the germanium content of enargite is less than that of the rare minerals argyrodite, canfieldite and germanite, it can be used as a source of this element on account of its much greater abundance. GeO_2 was extracted from two of the enargites.

E. E. FAIRBANKS

NEW MINERAL NAMES

Antamokite

Antamokite, a new telluride discovered in the Phillipines. *Eng. Min. Jour.*, (Reported by J. S. Colbath). **125**, 616, 1928.

NAME: From the town of *Antamok*, near which the mineral was found.

CHEMICAL PROPERTIES: A telluride of gold and silver. Analysis not given. Contains no lead, copper or antimony.

PHYSICAL PROPERTIES: Color bluish-grayish white. Streak dark gray. H. low, probably between 2 and 3.

METALLOGRAPHIC PROPERTIES: HNO_3 slowly tarnishes it slightly dark and rubs clean. Upon long interaction it becomes pitted. HCl, KCN, KOH are negative. $FeCl_3$ immediately tarnishes the mineral iridescent and remains so after rubbing. $HgCl_2$ slowly tarnishes it yellow and rubs faint yellow.

OCCURRENCE: Found in quartz veins in vugs in andesite associated with tetrahedrite, chalcopyrite and a little pyrite.

W. F. FOSHAG.

Tikhvinite

J. M. ANSHELESS AND N. J. VLODAVETZ: New Strontium Mineral from Bauxite Deposits in Tikhvin district, Russia. *Mem. Soc. Russ. Mineral.*, 2d series, **56**, 53-60, 1927. (Russian with English summary).

NAME: From the locality, *Tikhvin* district, Russia.

CHEMICAL PROPERTIES: A sulfate-phosphate of strontium and aluminum. Formula: $2SrO \cdot 3Al_2O_3 \cdot P_2O_5 \cdot SO_3 \cdot 6H_2O$. Analysis: SiO_2 0.56; TiO_2 0.16; Al_2O_3 31.14; Fe_2O_3 2.25; SrO 24.43; P_2O_5 18.05; SO_3 8.47; H_2O 12.54. Sum 97.60. Insoluble in acids.

PHYSICAL AND OPTICAL PROPERTIES: Color white. Optically anisotropic. $n=1.62$. H.=4.5. Sp. Gr. 3.32.

OCCURRENCE: Found as microcrystalline masses having the size of peas filling cavities in bauxite.

DISCUSSION: A well defined member of the alunite-beudantite group, corresponding to a sulfate-hamlinite.

W. F. F.