

various pre-Cambrian minerals, over .10; being for most of the pitchblendes that have been most closely studied .16, plus or minus .015.

The committee consists of Alfred C. Lane, chairman; H. V. Ellsworth, Frank L. Hess, S. C. Lind, R. B. Moore, and Roger C. Wells. The names of T. W. Richards and F. F. Grout have been recommended to be added to the committee.

Dr. Wheeler P. Davey, of the research laboratory of the General Electric Company, delivered a series of lectures on "X-ray Analysis of Crystal Structure" at the summer session of the graduate school in the physics department of the University of Michigan.

By making use of spectra obtained by passing X-rays through concentrated solutions of platinum ores and of the minerals gadolinite and columbite, Dr. Walter Noddack and his assistants, Otto Berg and Ida Tacke, discovered the missing chemical elements numbers 43 and 75. These elements fall in the group with manganese in the periodic table. Dr. Noddack has named them *masurium* and *rhenium*, after the territories lost by Germany as a result of the peace treaty.

Donald H. McLaughlin, chief geologist of the Cerro del Pasco Mining Corporation, in Peru, has been called to the professorship of mining engineering at Harvard University.

NEW MINERALS: NEW SPECIES

CLASS: NATIVE ELEMENTS.

"Palladium Amalgam"

J. B. HARRISON AND C. L. C. BOURNE. *The Official Gazette, British Guiana*, No. 71, (1925); Also No. 181, (1924).

NAME None given.

CHEMICAL PROPERTIES: A mercury amalgam of palladium. Formula: (Pd, Hg). Analysis: Pd 34.8-45.6, Hg 65.2-54.4. Upon heating it loses mercury leaving the palladium as a spongy mass.

PHYSICAL PROPERTIES: Malleable but somewhat brittle. Color white. Luster metallic. Sp. Gr. variable; with 64% Hg, 15.82; with 54% Hg, 13.48.

OCCURRENCE: Found in the diamond gravels of the Potaro River in the Kangeruma District, British Guiana, associated with gold.

DISCUSSION: The allopladium from British Guiana described by L. J. Spencer (*Mineralog. Mag.*, 20, 217, 1924) came from the same source as the material here described and is believed by the above writers to be the same mineral as theirs. Dr. Spencer's material was apparently too scanty for detailed investigation. Artificial amalgams of palladium are well known but this is the first reported occurrence in nature.

W. F. FOSHAG

CLASS: SULFIDES, ETC. DIVISION: $R_2S : RS : R_2S = 1 : 2 : 2$.

Benjaminite

EARL V. SHANNON: Benjaminite, a new sulphosalt mineral of the klaprotholite group. *Proc. U. S. Nat. Mus.* **65**, 1, (1924).

NAME: In honor of Dr. Marcus *Benjamin*, of the United States National Museum.

CHEMICAL PROPERTIES: An argentiferous sulphobismuthite of lead and copper, $(Cu, Ag)_2S \cdot 2PbS \cdot 2Bi_2S_3$. Analysis (average of four analyses): Sb 25.18, Cu 4.69, Ag 3.51, Bi 50.78, S 15.84. No effect with HCl, FeCl₃, HgCl₂ or KOH. With HNO₃ effervesces and blackens, fumes tarnish brown.

PHYSICAL AND OPTICAL PROPERTIES: Strongly anisotropic. $H = 3.3-3.5$. Color on fresh fracture, gray but tarnishing. Luster metallic with greasy appearance. Good cleavage in one direction.

OCCURRENCE: Found with chalcopyrite, pyrite, covellite, muscovite, molybdenite, and fluorite in quartz at the Outlaw Mine, twelve miles north of Manhattan, Nevada.

DISCUSSION: The samples were critically examined for homogeneity and apparently represented one mineral. It is, therefore, a new mineral, but the exact composition is unknown as the individual analyses show some variation.

W. F. F.

CLASS: PHOSPHATES, ETC. SUB-CLASS: HYDROXY-PHOSPHATES

Dussertite

J. BARTHOUX: Description d'un mineral nouveau: la dussertite. (Description of a new mineral: dussertite.). *Compt. Rend.*, **180**, 299-301 (1925).

NAME: In honor of M. *Dussert*.

CHEMICAL PROPERTIES: A hydrous arsenate of lime and ferric iron. Formula: $3(Fe, Al)_2O_3 \cdot 6(Ca, Mg)O \cdot 2As_2O_5 \cdot 9H_2O$. Analysis: As₂O₅ 31.90, Fe₂O₃ 31.24, FeO 0.52, CaO 22.03, Al₂O₃ 2.37, MgO 0.34, SO₃ 1.08, Cl tr, H₂O 10.61; total 100.09. Soluble in dilute hydrochloric acid.

CRYSTALLOGRAPHIC PROPERTIES: Hexagonal or trigonal. Small crystals tabular to the base.

PHYSICAL AND OPTICAL PROPERTIES: Color, green; in thin section, greenish yellow. Index of refraction between 1.80 and 1.88. Birefringence about 0.012. Uniaxial, negative. Pleochroic in shades of greenish yellow. Sp. Gr. 3.75. $H = 3.5$.

OCCURRENCE: Found as crusts on tabular or cavernous quartz at Djebel Debar, Northeast of Hammon Meskhoutine, Province of Constantine, Algeria.

DISCUSSION: The composition of dussertite can be expressed by the formula $Ca_3(AsO_4)_2 \cdot 3Fe(OH)_3$. This brings it near the chondrarsenite group but differs from the members of that group by the presence of the iron in a higher state of oxidation and crystallographically by being hexagonal instead of monoclinic.

W. F. F.