

THE PHILADELPHIA MINERALOGICAL SOCIETY

The Academy of Natural Sciences of Philadelphia, January 4, 1945

Dr. W. Hersey Thomas presided, with 54 persons present. The appointment of a committee to aid in the restoration of the mineral collections of the Liège museum was announced, which included Harold Arndt, Charles R. Toothaker, and Dr. J. D. H. Donnay.

Dr. Donnay addressed the society on "Twinning," with lantern slide illustrations. He emphasized the geometrical laws and the reticular control of twinning in terms of the theory of the French crystallographers Haüy, Bravais, Mallard, and G. Friedel. The scope of the talk was limited to the cases of triperiodic twinning (by far the most common) twinning by merohedry, pseudo-merohedry, reticular merohedry, and by reticular pseudo-merohedry.

February 1, 1945

Dr. Thomas was in the chair, with 47 persons present. Dr. John Putnam Marble addressed the society on "Radioactive Minerals as Geological Clocks" with lantern slide illustrations.

March 1, 1945

Dr. Thomas presided, with 46 members present. Dr. Herman Yagoda of the National Institute of Health (Bethesda, Md.) spoke on "Printing Methods for the Analysis of Minerals" which was illustrated by numerous lantern slides in color.

April 5, 1945

Dr. Thomas in the chair, with 47 persons present. Mr. John Cochrane addressed the society on "Industrial Applications of the Lesser Known Elements: Indium, Gallium, Germanium, Thallium, Vanadium, Uranium, Lithium, Rubidium, Cesium, Cerium, Thorium, and Neodymium."

J. S. FRANKENFIELD, *Secretary*

NEW MINERAL NAMES

Viseite

J. MÉLON: Viseite, a new mineral species. *Ann. soc. geol. Belg., Bull.* **66**, 53-56 (1943); through *Chem. Zentr.* (1943), II, 995; through *Chem. Abstracts*, **38**, 6244 (1944). "In the examination of the minerals that occur with delvauxite at Visé, a new mineral was found to which the name viseite was given. It occurs in little papillary translucent masses which appear white, bluish-white or yellowish-white. It melts at once with efflorescence in the blowpipe giving a white pearl and coloring the flame green. $G. = 2.2$, $H. = 3-4$. Under the microscope the mineral appears transparent, homogeneous and similar to glass. Cleavage is not to be observed. It is isotropic and has $n = 1.530$. Chemical analysis leads to the formula $5CaO \cdot 5Al_2O_3 \cdot 3P_2O_5 \cdot 3SiO_2 \cdot nH_2O$ with n between 25 and 30. The mineral loses its water completely at red heat; the H_2O is not bound as water of constitution."

DISCUSSION. Further work is obviously needed.

MICHAEL FLEISCHER

Jusite

ILSE GRAMLING-MENDE AND GUSTAV LEOPOLD: "Jusite," ein vermutlich neues Mineral! *Neues Jahrb. Min. Monatshefte*, Abt. A (1943), 178-184; through *Mineralogical Abstracts*, **9**, 37 (1944).

NAME. For the locality, Jus in the Schwabian Alb, Württemberg.

CHEMICAL PROPERTIES. The mean of two analyses was: SiO_2 40.38, Al_2O_3 8.23, CaO 35.12, Na_2O 1.14, K_2O 2.47, $\text{H}_2\text{O} + \text{CO}_2$ 12.80; total 100.14%. The formula is given as " $(\text{Ca}, \text{Na}, \text{K})_5(\text{Si}, \text{Al})_6 \cdot 5\text{H}_2\text{O}$." [Should be $(\text{Ca}, \text{Na}, \text{K})_5(\text{Si}, \text{Al})_6\text{O}_{16} \cdot 5\text{H}_2\text{O}$. M.F.]. 8.31% H_2O is lost up to 230° and the remainder more slowly up to red heat.

PHYSICAL AND OPTICAL PROPERTIES. White, radially fibrous. The fine needles give parallel extinction with positive elongation and are probably orthorhombic; n (\perp fiber) 1.558, birefringence low. $G = 2.32$. X-ray rotation photographs give a spacing along the needle axis of 3.69\AA . The mineral differs from pectolite, thaumasite, ptilolite, inesite, riversideite, radiophyllite, yuksporite and the zeolites.

OCCURRENCE. As a filling of amygdaloidal cavities in a dike of melilitite.

M. F.

Calogerasite (= Simpsonite)

CAIO PANDIÁ GUIMARAENS: Calogerasita, um novo Mineral da Familia dos Tantalatos. *Mineração e Metalurgia* (Rio de Janeiro), **8**, No. 44, 135-136 (1944).

NAME: For João Pandiá Calogeras (1870-1935), Brazilian geologist.

CRYSTALLOGRAPHY: Hexagonal, habit prismatic. Forms observed (0001), (1010) and (1120).

PHYSICAL PROPERTIES: Colorless. $G = 7.10$ to 7.30 . $H = 6\frac{1}{2}$ to 7 . Fracture irregular; cleavage basal, good. Optically uniaxial, negative, with n approximately 2 and birefringence 0.042.

CHEMICAL PROPERTIES: Two samples were analyzed in duplicate by Willer Florencio, giving: #1, Ta_2O_5 73.60, 73.30; Al_2O_3 26.10, 26.20; #2, Ta_2O_5 73.80, Al_2O_3 26.20, 26.10. No columbium or other metals were detected spectrographically. This corresponds to $3\text{Al}_2\text{O}_3 \cdot 2\text{Ta}_2\text{O}_5$ or $\text{Al}_6\text{Ta}_4\text{O}_{19}$. The mineral fluoresces golden-yellow in ultraviolet light.

OCCURRENCE: Found in a pegmatite in the municipio Equador, Rio Grande do Norte and Paraíba provinces, Brazil.

DISCUSSION: Calogerasite is undoubtedly identical with simpsonite from Tabba Tabba, Australia, described by Bowley (see *Am. Mineral.*, **25**, 313 (1940); *Dana's System*, Seventh Edition, Vol. I, p. 771). X-ray powder photographs made in the chemical laboratory of the U. S. Geological Survey show that the Tabba Tabba material is identical with samples from Rio Grande do Norte province, Brazil. Bowley's statement that simpsonite is optically positive is incorrect. The name simpsonite has priority; the name calogerasite should be dropped.

M. F.

Genthelvite

J. J. GLASS, R. H. JAHNS, and R. E. STEVENS. *Am. Mineral.*, **29**, 163-191 (1944).

Hydrotungstite

P. F. KERR AND FORD YOUNG. *Am. Mineral.*, **29**, 192-210 (1944).

Mackayite

CLIFFORD FRONDEL AND F. H. POUGH. *Am. Mineral.*, **29**, 211-225 (1944).

Blakeite

CLIFFORD FRONDEL AND F. H. POUGH. *Am. Mineral.*, **29**, 211-225 (1944).

Minnesotaite

J. W. GRUNER. *Am. Mineral.*, **29**, 363-372 (1944).

M. F.

DISCREDITED MINERALS

Durdenite (=Emmonsite)CLIFFORD FRONDEL AND F. H. POUGH. *Am. Mineral.*, **29**, 211-225 (194).**Barthite = Austinite**

E. FISCHER: Ueber die Kristallform, chemische Zusammensetzung und systematische Stellung des Barthite. *Zeits. Krist.*, **105**, Heft 4, 268-272 (1944).

Re-examination of the type material shows it to be orthorhombic, bisphenoidal with $a:b:c=0.648:1:0.832$. The original analysis was faulty; the As_2O_5 content reported (64.0-65.7%) must have been the sum of As_2O_5 and CaO, as a new microchemical analysis gave As_2O_5 43.2%, CaO 22.5%. The colorless inner core of the mineral was copper-free, the outer green border contained appreciable copper.

DISCUSSION: The name barthite (1914) has priority over austinite (1935). However, the description of barthite, especially the chemical analysis, was so faulty that priority may be set aside and the name barthite (= cuprian austinite) should be dropped.

M. F.

NEW DATA

Vauxite

SAMUEL G. GORDON: The mineralogy of the tin mines of Cerro de Llallagua, Bolivia. *Proc. Acad. Nat. Sci. Phila.*, **96**, 279-359 (1944); see *Am. Mineral.*, **7**, 108 (1922). New crystallographic data and three analyses are given. The formula is $FeO \cdot Al_2O_3 \cdot P_2O_5 \cdot 6H_2O \pm 2H_2O$. $G.=2.389$.

Paravauxite

SAMUEL G. GORDON, *op. cit.*; see *Am. Mineral.*, **7**, 108 (1922). New crystallographic data and four analyses are given. The formula is $FeO \cdot Al_2O_3 \cdot P_2O_5 \cdot 5H_2O \pm 5H_2O$. $G.=2.358$.

Metavauxite

SAMUEL G. GORDON, *op. cit.*; see *Am. Mineral.*, **12**, 264 (1927). New crystallographic data and two analyses are given. The formula is $FeO \cdot Al_2O_3 \cdot P_2O_5 \cdot 4H_2O \pm 5H_2O$. $G.=2.345$.

M. F.