

Attention is called to the change of address of George S. Scott, dealer in high grade mineral specimens and rare ores, from 20 Nassau St., to 342 Madison Ave., New York City.

Dr. Fred Wright, petrologist at the Geophysical Laboratory, has been elected to the National Academy of Sciences.

Dr. Karl Mieleitner of Munich, Curator of the State Mineralogical Collection of Bavaria, died on March 15th. He was associated with Professor Groth in compiling the recently reviewed Tabellarische Uebersicht der Mineralien.

Remarkable photographs of high speed collisions of the nuclei of atoms obtained by the use of a moving picture machine were shown by Dr. William Draper Harkins, of Chicago University, in a series of lectures at Carnegie Institute of Technology, Pittsburgh. A new discovery by use of the photos was that the helium nucleus, used as a projectile, rebounds in a backward direction while the nucleus of the nitrogen atom which is struck is projected forward; both at speeds of several thousand miles per second.

NEW MINERALS: NEW SPECIES

CLASS: SULFIDES. DIVISION: R' : R'' : R''' : R'''' = 5 : 6 : 1 : 1. (?)

"Germanite"

O. PUF AHL: Germanite, a new germanium mineral and ore from Tsumeb, S. W. Africa. *Metall und Erz*, 19, 324, 1922; through *Chem. Abstr.*, 16, 3608, 1922. (Original not seen.)

NAME: From the presence of the element *germanium*.

CHEMICAL PROPERTIES: *Formula*, approximately $5\text{Cu}_2\text{S}_{12}(\text{Cu},\text{Fe})\text{S}_3\text{As}_2\text{S}_3$.— 2GeS_2 or $\text{Cu}_5(\text{Cu},\text{Fe})_6\text{AsGeS}_{12}$, the theory for which is (for all copper): Cu 56.8, As 6.1, Ge 5.9, S 31.2, sum 100.0%. Analysis gave Cu 45.4, Fe 7.2, As 5.0, Ge 6.2, S 31.3, sum 95.1%.

PHYSICAL PROPERTIES: Color dark reddish gray; luster metallic; structure massive. Sp. gr. = 4.46.

OCCURRENCE: Found intergrown with tetrahedrite at Tsumeb, Africa.

DISCUSSION: While a new species is probably represented here, its composition can not be regarded as established, for the material analyzed may not have been homogeneous, and the analysis is rather incomplete. A relationship to ultrabasite (abstracted in *Am. Min.*, 6, (3), 63-64, 1921), suggests itself, although that mineral appears to be somewhat more basic: (R' : R'' : R''' : R'''' = 6 : 8 : 1 : 1).

E. T. W.

CLASS: PHOSPHATES, ETC. DIVISION: R'' : R'''' : P : H₂O = 1 : 2 : 2 : X.

Meta-torbernite I

HALLIMOND, A. R.: The crystallography and dehydration of torbernite. *Min. Mag.*, 17, 326-339, 1916; *Am. Min.*, 1, 52, 1916. Meta-torbernite I, its physical properties and relation to torbernite. *Min. Mag.*, 19, 43-47, 1920. BOWEN, N. L.: Abnormal birefringence of torbernite. *Am. J. Sci.*, [4], 48, 195-198, 1919; *Am. Min.*, 5, 20, 1920.

NAME: A translation of the German "metakupferuranit I" (Rinne, 1901); comprises the prefix *meta*, which is commonly used to indicate alteration or variation, *torbernite*, the high-water species of the same anhydrous composition, and the roman numeral *I*, referring to the fact that this is the first product obtained on heating torbernite.

CHEMICAL PROPERTIES: A representative of torbernite, but lower in water: $\text{Cu}(\text{UO}_2)_2(\text{PO}_4)_2 \cdot (8\text{H}_2\text{O})$.

CRYSTALLOGRAPHIC PROPERTIES: Tetragonal, in plates; $a : c = 1 : 2.28$.

PHYSICAL AND OPTICAL PROPERTIES: Sp. gr. 3.68. Refractive indices (D): $\omega = 1.623$, $\epsilon = 1.625$, thus showing weak, + birefringence. Otherwise resembling torbernite.

OCCURRENCE: Originally recognized as an artificial product. First noted as occurring in nature by Bowen, *loc. cit.*, the localities being Spain and Cornwall, the latter being given more specifically by Hallimond as at Gunnislake.

DISCUSSION: The behavior of the water in torbernite indicates that 4 molecules of it are held in layers alternating with basal layers of meta-torbernite I. The latter is now to be accepted as an independent species. E. T. W.

REDEFINITION OF SPECIES

CLASS: HALIDES. SUB-CLASS, OXY-HALIDES. DIVISION: R'' : F : O = 3:4:1.

Nocerite

A. SCACCHI, 1881. Redefined by F. ZAMBONINI: The pipernoid tuffs of Campania and their minerals. *Mem. serv. descr. carta geol. Italiana*, 7, pt. 2, 1919; through *Z. Krist.*, 56, 219-220.

CHEMICAL PROPERTIES: Formula, $\text{Mg}_3\text{Ca}_3\text{F}_8\text{O}_2$. Analysis gave: Ca 27.97, Na 2.19, Li trace, K 0.69, Mg 18.18, Fe 0.59, Mn 0.03, F 40.08, Cl trace, O 8.30, H_2O 1.50, sum 99.53%.

CRYSTALLOGRAPHIC AND OPTICAL PROPERTIES: Hexagonal, with the two prisms, the base, and indeterminate pyramids. Uniaxial negative with $\omega_D = 1.5084 - 1.5098$, $\epsilon_D = 1.4855 - 1.4856$.

PHYSICAL PROPERTIES: Colorless, brownish or rarely greenish; transparent and lustrous; sp. gr. 2.96.

OCCURRENCE: With fluorite in limestone blocks in the tuffs of the Italian Campania.

DISCUSSION: This mineral is evidently a well-marked oxyhalide, perhaps belonging in a group with penfieldite, which is $\text{Pb}_3\text{Cl}_4\text{O}$. E. T. W.