NEW MINERAL NAMES

Rabbitite

M. E. Thompson, A. D. Weeks, and A. M. Sherwood, Rabbitite, a new uranyl carbonate from Utah U. S. Geol. Survey Trace Elements Investigation Report **405** (1954), as summarized by A. D. Weeks and M. E. Thompson. Identification and occurrence of uranium and vanadium minerals from the Colorado Plateaus: *U. S. Geol. Survey, Bull.* **1009-B** (1954).

Rabbitite occurs as fibrous or finely acicular microscopic crystals, elongated parallel to (001). Color pale greenish yellow, luster silky, fluorescence weak, G. approximately $2\frac{1}{2}$, soft. Monoclinic, cleavage (001); the strongest lines of the x-ray pattern in Å. are 8.1 S, 11.1 m, 4.37 m. Analysis by A. M. Sherwood gave CaO 10.6, MgO 9.2, UO_3 37.4, CO_2 17.8, H_2O 24.5; total 99.5%, corresponding to $Ca_3Mg_3(UO_2)_2(CO_3)_6(OH)_4\cdot 18\,H_2O$. It is biaxial, positive (?), with large 2V, $\alpha=1.502\pm0.005$, $\beta=1.508\pm0.005$, $\gamma=1.525\pm0.003$, $Y=b$, $Z\wedge c=15°$. Slowly soluble in water, effervesces with HCl. It occurs at the Lucky Strike No. 2 mine, San Rafael district, Utah, as an efflorescent coating on the mine wall, and is associated with gypsum, cobaltocalcite, bieberite, and uranium sulfates.

The name is for John C. Rabbitt, geologist, U. S. Geological Survey.

Michael Fleischer

Unnamed New Black Uranium Mineral; Coffinite

A. D. Weeks and M. E. Thompson, *op cit.*, pp. 31–32.

The mineral is black, opaque, translucent in very thin fragments. Tetragonal, strongest lines of x-ray patterns, which is very similar to that of thorite, in Å, 3.48 S, 4.62 Ms, 2.64 m, 1.80 m. Analyses show as much as 61% U and varying amounts of Si, As, and V. It may be $USiO_4$ with OH substituting for Si, or it may be a hydrated oxide. No analysis of pure material is yet available. G. greater than 3.3. It has been found with uraninite, a new V oxide, carbonaceous material, and pyrite, impregnating sandstone and replacing wood, at 9 mines in Colorado, Utah, and New Mexico.

This mineral is referred to as "coffinite" by Rosenzweig, Gruner, and Gardiner, *Econ. Geol.*, **49,** 356 (1954).

M. F.

Metatyuyamunite

A. D. Weeks and M. E. Thompson, *op. cit.*, pp. 37–38.

The name is for a lower hydrate of tyuyamunite with formula $Ca(UO_2)_2(V_2O_4)_2\cdot 5-7\,H_2O$ (tyuyamunite has $7\text{–}10\frac{1}{2}$ H_2O). Resembles tyuyamunite; properties variable with water content. G. = 3.81–3.93. Optically biaxial, neg., $\alpha=1.67$ (calculated), $\beta=1.835$, $\gamma=1.865$, 2V = 44°. The strongest lines of the x-ray pattern, in Å., are 8.4 S, 4.21 m, 3.24 m, 3.04 m.

M. F.

Two Unnamed New Vanadium Oxides

A. D. Weeks and M. E. Thompson, *op cit.*, p. 54.

The first mineral is nearly black with bronze tint, opaque, adamantine luster, occurring in massive, fibrous, radial aggregates, in veinlets along grain of mineralized wood. One perfect cleavage. G. = 3.25. Strongest lines of x-ray powder pattern, in Å., 4.72 S, 2.47 S, 3.88 M, 3.17 m. No analysis of pure material yet available, probably a hydrated V^3, V^4 oxide. Occurs with new U mineral (above) and new V oxide (below) at La Sal No. 2 mine, Mesa County, Colorado, with clausthalite and pitchblende at Corvusite mine, Grand County, Utah, at the Mi Vida mine, San Juan County, Utah.

The second mineral is known only from the *x*-ray powder pattern and single crystal *x*-ray data on a few microscopic crystals. It is orthorhombic and the formula, according to *x*-ray data of H. T. Evans, is probably $V_2O_3 \cdot V_2O_4 \cdot H_2O$. The *x*-ray intensities are consistent with an atomic arrangement that contains elements of the montroseite structure and the rutile-type structure of VO_2.

M. F.

Unnamed Sodium Analogue of Hewettite

A. D. Weeks and M. E. Thompson, *op cit.*, pp. 57–58.

Analysis by A. M. Sherwood gave V_2O_5 77.17, V_2O_4 1.56, Na_2O 9.17, K_2O 1.35, CaO 0.12, insol. in acid 0.31, H_2O^- 1.83, H_2O^+ 7.86; total 99.37%, corresponding to $Na_2V_6O_{16} \cdot 3\,H_2O$. The mineral is monoclinic, bladed or acicular or botryoidal; color deep red, brownish red on exposure, luster adamantine to dull on exposure, fluorescence none. The strongest lines of the *x*-ray pattern, in Å., are 7.97 VS, 3.13 S, 2.27 S. Optically biaxial, neg., $\alpha = 1.797 \pm 0.003$, β and γ above 2.0, 2V medium, $Z = b$, pleochroic with X yellow, Y orange-yellow, Z orange-red. Occurs with steigerite coating a fracture in the roof of the Cactus Rat mine, Grand County, Utah.

M. F.

Kahlerite

Heinz Meixner, Kahlerit, ein neues Mineral der Uranglimmergruppe, aus der Huttenberger Erzlagerstatte. *Der Karinthin*, **23**, 277–280 (1953).

In 1939, Meixner observed that "autunite" from Huttenberg, Austria, did not fluoresce under ultraviolet light. Qualitative tests at that time showed the presence of U, As, and H_2O and the absence of P; the mineral was supposed to be troegerite. New microchemical tests show the presence of Fe, which is in accord with its occurrence associated with scorodite, symplesite, and pitticite on altered loellingite. The mineral is therefore probably the arsenate analogue of bassetite and its formula is probably $Fe(UO_2)_2(AsO_4)_2 \cdot nH_2O$ ($n = 8$?). It occurred as a rarity in tabular lemon-yellow crystals 2 mm. in size. Tetragonal with excellent basal cleavage, forms are *t* (111), *i* (021), *y* (012), *P* (011), and *n* (010). Optically negative, nearly uniaxial to biaxial, $\beta = 1.632 \pm .005$, γ 1.634 ± 0.005, $2V = 9$ to 33°. The name is for Dr. F. Kahler, geologist of the Carinthian Landesmuseum, Klagenfurt.

M. F.

Laueite

H. Strunz, Laueit, $MnFe_2^{III}(OH)_2(PO_4)_2 \cdot 8\,H_2O$, ein neues Mineral. *Naturwissenschaften*, **41**, 256 (1954).

Triclinic crystals up to 2 mm. occur on rockbridgeite at the Hagendorf pegmatite, eastern Bavaria. Space group $Ci^1 - P^1$. a_0 5.28, b_0 10.66, c_0 7.14 Å., alpha 107°55′, beta 110°59′, gamma 71°07′, $Z = 1$. Cleavage perfect (010), very brittle. Color honey-brown, hardness 3, G. 2.44–2.49. Most common forms are *a* (100), *b* (010), *m* (110), *M* $(1\bar{1}0)$, *k* $(0\bar{1}1)$, and *f* (011). Analysis: P_2O_5 26.47, CaO 0.23, MnO 11.06, FeO 1.34, MgO 0.52, Fe_2O_3 27.54, Al_2O_3 1.76, H_2O 30.84%. Laueite is isotypic with gordonite (MgAl) and paravauxite (Fe″Al). No optical data are given.

The name is for Max von Laue.

M. F.

REDEFINITION OF NAMES

Riversideite, Tobermorite, Plombierite

J. D. C. McConnell, The hydrated calcium silicates riversideite, tobermorite, and plombierite. *Mineralog. Mag.*, **30**, 293–305 (1954).

Recent work by Claringbull and Hey (Abst. in *Am. Mineral.*, **39**, 407 (1954)) showed tobermorite (Heddle, 1880) to be a valid species, probably $CaSiO_3 \cdot H_2O$. Taylor (Abs. in *Am. Mineral.*, **39**, 405 (1954)) showed that crestmoreite and riversideite were mixtures of tobermorite and wilkeite. In a recent study of artificial preparations, H. F. W. Taylor, *J. Chem. Soc. London*, 163–171 (1953) showed that three distinct calcium silicate hydrates could be distinguished on the basis of their 002 spacings.

The data follow:

Compound	*Approx. molar ratio* $H_2O:SiO_2$	*002 spacing*	α	β	γ
A	0.5	9.6 Å	1.600	1.601	1.605
B	1.0	11.3	1.570	1.571	1.575
C	2.0	14.6	—	1.550	—

Examination of these compounds is made difficult by the ease of re-hydration of the lower hydrates. It is believed that this happened to Eakle's samples of riversideite, which now contain only small amounts of *A*, the 9.6 Å hydrate. It is suggested that the name riversideite be reserved for *A*, should this be found and preserved in the unhydrated state.

The name tobermorite is to be used for *B*, the 11.3 Å. hydrate. New *x*-ray, *D.T.A.*, and optical data are given for this mineral from Ballycraigy, Larne, Antrim County, Ireland. An analysis gives the formula $5CaO \cdot 6SiO_2 \cdot 5H_2O$, assuming that drying at 105° drives off water in excess of the 11.3 Å hydration stage.

X-ray data and a chemical analysis are given of gelatinous material from Ballycraigy that corresponds to *C*. The analysis is very close to that of plombierite (Daubrée, 1858), but Daubrée's material is not available for *x*-ray study. *C* is therefore provisionally named plombierite.

M. F.

ERRATUM

Unfortunately the author's name (Kedesdy) was misspelled on the cover and also in connection with the title of the paper on page 750 of the September–October issue of the Journal.