

there are no volcanic rocks. The Agni Manis found in Biliton are strongly etched and bear no relation to the country rock. On Biliton the natives believe them to be "seeds of tin" and on finding one, bury it again so the tin mines will not become exhausted. Throughout the Orient, the Agni Mani is credited with bringing the wearer riches and a long line of descendants.

PURFIELD KENT, *Secretary*

NEW MINERAL NAMES

Falkenstenite

TOM. F. W. BARTH, Falkenstenite, a new zeolite in variolite from Horten, and the surface conditions during the effusion of the oldest Permian lavas. *Skrifter Norsk. Videnskaps-Akad. Oslo*, No. 8, 13-22 (1945).

Varioles in basaltic lava near Falkensten, Oslo area, are described. The rock had the mode: pyroxene (diopsidic augite) 24.3, chlorite 23.3, zeolite 40.2, ore 10.2, apatite 1.6, calcite 0.4. A complete analysis of the rock is given from this, and assuming compositions for the pyroxene and chlorite that are in accord with the optical data, the composition of the zeolite is calculated to be $K_{2.5}Na_{2.5}Ca_{0.7}Mg_{2.9}Al_{12.6}Si_{27.4}O_{80} \cdot 16\frac{1}{2}H_2O$. The rock lost its water (6.49%) as follows: at 110° C. 2.76, at 500° 1.40, at 800° 2.33%.

Falkenstenite occurs intergrown with chlorite, or it is fibrous, thread-like with quadratic cross section and prismatic cleavage. It is uniaxial, negative, $n_o = 1.508$, birefringence about 0.003. The optical data are very close to those of gonnardite, but the latter contains no magnesium. The chemical composition, except for H_2O , is similar to that of ashcroftine, but the latter is optically positive, with $n_o = 1.536$. Hence falkenstenite does not seem to correspond with any known zeolite.

DISCUSSION: Further study is needed, including chemical, x-ray, and dehydration studies, before this mineral can be classified.

MICHAEL FLEISCHER

Courzite

ST. J. THUGUTT, Sur la courzite des environs de Symphéropol. *Archivum Mineralogiczne* (Warsaw) 15, 182-184 (in French), 185-187 (in Polish) (1945).

There are two analyses in the literature of wellsite, the original by Foote (1897), No. 1 below, and a second by Fersman (1909), No. 2 below. Each of these is the average of two analyses.

	SiO_2	Al_2O_3	Fe_2O_3	BaO	SrO	CaO	MgO
1.	43.86	24.96	—	5.07	1.15	5.80	0.62
2.	49.40	19.14	0.12	4.84	0.61	5.67	—
	K_2O	Na_2O	H_2O	<i>Sum</i>			
1.	3.40	1.80	13.35	100.01			
2.	3.50	0.12	16.78	100.18			

Thugutt calculates these analyses in terms of molecules such as $CaO-Al_2O_3-3SiO_2$ and arrives at the conclusion that the first analysis represents largely trisilicates, the second largely hexasilicates ($RO-Al_2O_3-6SiO_2$). Hence the material studied by Fersman, despite its crystallographic similarity, must be different from wellsite, and the new name Courzite (modified version of the locality name Kurzy, Crimea) is proposed.

DISCUSSION: The method of calculation is invalid and the new name is a useless burden on mineralogy. If the same principle were to be applied to similar variations of Si and Al in all the zeolites, some dozens of new names would be required.

M.F.

Rooseveltite

ROBERT HERZENBERG, Nuevos minerales de Bolivia. *Bol. Técnico No. 1, Fac. Nac. Ingeniera, Univ. Técnica Oruro* (1946).

CHEMICAL PROPERTIES: Composition BiAsO_4 . Analysis Bi_2O_3 67.2, As_2O_5 33.2; sum 100.4%. Easily soluble in HCl, more slowly in HNO_3 and H_2SO_4 . In closed tube, decrepitate slightly, turns yellow when hot, but gives original color on cooling. B.B. on charcoal, fuses to bead.

PHYSICAL PROPERTIES: Color gray, luster adamantine. No cleavage, fracture conchoidal; very brittle. $H. = 4-4\frac{1}{2}$, $G. = 6.86$ (pycnometer). Refraction very high, strongly anisotropic. Crystallographic system not determined. Synthetic BiAsO_4 , prepared in 1903 by de Schulten, was reported to be monoclinic, with $G. = 7.14$.

OCCURRENCE: Found as a crystalline crust on wood tin veinlets in rhyolitic and dacitic lava flows at Santiaguillo, Macha, Potosi, Bolivia.

NAME: For Franklin Delano Roosevelt.

M.F.

Souxite

ROBERT HERZENBERG, Nuevos minerales de Bolivia. *Bol. Técnico No. 1, Fac. Nac. Ingeniera, Univ. Técnica Oruro* (1946).

The name souxite is given to $\text{SnO}_2 \cdot x\text{H}_2\text{O}$, supposed to be the form in which tin soluble in HCl occurs in some Bolivian deposits. Analysis of a light yellow tin ore from the Utne veins, Cotamitos mine, Cerro de Potosi, gave: Sn total 25.8, Sn soluble in HCl 17.2, Sb 2.45, As 4.10, Bi 0.33, WO_3 0.19, S total 2.10, S as sulfide 1.04, SO_3 2.65, Fe 8.90, SiO_2 25.8, Al_2O_3 3.40, H_2O 11.89%. This is recalculated to give the following mineral composition of the ore: SnO_2 as cassiterite 10.95, SnO_2 as $\text{SnO}_2 \cdot x\text{H}_2\text{O}$ 21.85, wolframite 0.25, pyrite or marcasite 1.95, $\text{Fe}_2(\text{SO}_4)_3 \cdot x\text{H}_2\text{O}$ 4.41, $\text{Fe}_5\text{As}_3\text{O}_{15} \cdot x\text{H}_2\text{O}$ 13.60, $\text{Fe}_5\text{Sb}_3\text{O}_{15} \cdot x\text{H}_2\text{O}$ 5.07, Sb_2O_4 0.46, Bi_2O_3 0.37, Al_2O_3 3.40, SiO_2 25.80, H_2O 11.89; sum 100.00%.

NAME: For Mr. Luis Soux, a mine owner.

DISCUSSION: The only fact that emerges is that the material contains tin in some form soluble in HCl (and also in H_2SO_4). This may be a new mineral, but the evidence is certainly insufficient to justify a name or the assignment of a formula.

M.F.

Dunhamite

ERNEST E. FAIRBANKS, The punched card identification of ore minerals. *Econ. Geol.*, **41**, 761-768 (1946).

The name dunhamite is given to the oxidation product of altaite described by K. C. Dunham (*N. Mex. Bur. Mines, Bull.* **11**, 159-160 (1935)) from the Organ Mts., N. Mex., which is similar to material mentioned by Schneiderhöhn-Ramdohr. The statement is made, "Its mode of formation suggests the possible formula $\text{PbO} \cdot \text{TeO}_2$ (?)."

DISCUSSION: Fairbanks makes a plea for the naming of such material. He says, "If the determinative data are substantial, a name is certainly justified in spite of the inability to obtain a quantitative chemical analysis."

It is not clear whether Fairbanks re-examined this material or depended on the literature entirely. He reports the mineral to be anisotropic; Dunham says it is distinctly

isotropic (a misprint ?); Schneiderhölz-Ramdohr describe the oxidation product of altaite as strongly anisotropic. Fairbanks says the mineral contains Pb and Te; Dunham does not mention making any tests, but suggests that it may be a lead tellurite. Writing a formula under such circumstances has no justification.

If Dunham's judgment was that the data available were insufficient to justify a name, it seems inadvisable for a later worker to reverse the decision of the man who saw the material, unless new work had added further information.

M.F.

Fersmite

E. M. BOHNSTEDT-KUPLETSKAYA AND T. A. BUROVA, Fersmite, a new calcium niobate from the pegmatites of the Vishnevye Mts., the Central Urals. *Compt. rend. (Doklady) Acad. Sci. U.R.S.S.*, **52**, 69-71 (1946).

CRYSTALLOGRAPHY: Orthorhombic. The crystals were imperfect, and the axial ratio found, $a:b:c=0.377:1:0.356$, is approximate. The main forms observed were: b (010), m (110) and p (111); n (130) is rather common; r (131) and k (021) have been observed.

CHEMICAL PROPERTIES: Essentially a calcium columbate of the AB_2O_6 group, (Ca, Ce, Na) (Cb, Ti, Fe, Al)₂ (O, OH, F)₆. A complete and a partial analysis of material from two pegmatites gave (n.d.=not determined): SiO₂ 0.715, n.d.; Cb₂O₅ 70.12, 71.51; Ta₂O₅ traces, n.d.; TiO₂ 3.21, 2.94; Fe₂O₃ 1.71, 1.25; Al₂O₃ 1.28, n.d.; rare earths 4.79, 3.98; CaO 14.49, 15.53; MgO 0.98, 0.97; MnO 0.48, n.d.; Na₂O 0.46, n.d.; H₂O 0.72, n.d.; F 1.87, n.d.; sum 100.86, —; less O = F₂ = 100.07%. X-ray chemical study by I. B. Borovsky showed the rare earth precipitate of #1 (4.79%) to consist of 80% Ce group, 10% Y group, 10% ThO₂. A qualitative x-ray chemical analysis is given.

Fersmite decrepitates before the blow-pipe. Brown and translucent on ignition. Sparingly attacked by H₂SO₄.

PHYSICAL AND OPTICAL PROPERTIES: Color black, powder grayish-brown. In thin section transparent to translucent. Luster resinous. No cleavage, fracture uneven to subconchoidal. $H.=4\frac{1}{2}$, $G.=4.69$. Radioactivity equivalent to 0.845% U₃O₈.

Optically, distinctly anisotropic, n about 2, birefringence medium; biaxial, probably positive, $2V$ large.

OCCURRENCE: In two syenitic pegmatites, northern part of Vishnevye Mts., region of Lake Buldym. The rock of the veins is composed of microcline and plagioclase. Fersmite usually forms segregations with irregular outlines, up to 1-1.5 cm.; it is confined to oligoclase. Associated minerals include biotite, pyrochlore, hornblende, apatite, sphene, and quartz; accessories include pyrite, magnetite, muscovite, zircon, and xenotime.

NAME: For A. E. Fersman. Not to be confused with fersmanite.

M.F.

Mansfieldite

VICTOR T. ALLEN AND JOSEPH J. FAHEY, *Am. Mineral.*, **31**, 189 (1946) (Abstract).

Bastinite

D. JEROME FISHER, *Am. Mineral.*, **31**, 192 (1946) (Abstract).

Tinticite

BRONSON STRINGHAM, *Am. Mineral.*, **31**, 395-400 (1946).

Montbrayite

M. A. PEACOCK AND R. M. THOMPSON, *Am. Mineral.*, **31**, 515-526 (1946).

M.F.

DISCREDITED MINERALS

Antamokite

R. M. THOMPSON, Antamokite discredited. *Univ. Toronto Studies*, Geol. Series No. 50, 79 (1946).

X-ray and microscopic study of material from the type locality, Benguet mine, Antainok, Philippine Islands, indicate that the supposed new mineral was a mixture of petzite and calaverite.

M.F.

Klaprothite (= Wittichenite + Emplectite)

E. W. NUFFIELD, *Am. Mineral.*, **31**, 201 (1946) (abs.)

NEW DATA

Sauconite

CLARENCE S. ROSS, *Am. Mineral.*, **31**, 411-424 (1946).

M.F.