NEW MINERAL NAMES

Ezcurrite

SIEGFRIED MUESSIG AND ROBERT D. ALLEN. Ezcurrite ($2Na_2O \cdot 5B_2O_3 \cdot 7H_2O$), a new sodium borate from Argentina; occurrence, mineralogy, and associated minerals. *Econ. Geol.*, **52,** 426–437 (1957).

Ezcurrite occurs in cleavable masses that have a bladed fibrous structure sometimes radiating; masses are up to 7 cm. long and 1.5 cm. wide. Chem. analyses by Ralph Mathieson and Henry Kramer gave, resp., B_2O_3 58.86, 59.34; Na_2O 20.67, 20.37; H_2O (20.47) (by diff.), 20.89; sum 100.00, 100.60%. Soluble in water, easily soluble in acids. When heated swells to an opaque white mass, then fuses to a clear glass.

Ezcurrite is colorless, transparent, luster vitreous to satiny. H. about 2.5, G. 2.153. Optically biaxial, neg., *n*s (Na) α 1.472, β 1.506, γ 1.526, all ± 0.002, 2V $73\frac{1}{2}$° (calcd.), elongation positive, γ; elongation 42.6°. There are two cleavages, one perfect, one less so, which intersect at 71° 18.5′. The optical data suggest that ezcurrite is triclinic. *X*-ray powder data are given; the strongest lines are in Å: 6.94 10, 3.08 6, 2.77 3, 4.48 2, 3.31 2, 3.13 2; 45 weaker lines are listed.

Differential thermal analysis curves show a large endothermic reaction beginning at 160–170° with a low of the trough at 260–265°.

The mineral occurs at the Tincalayu borax mine, Salta province, Argentina, associated with borax and kernite. Ulexite and inderite occur elsewhere in the deposit.

The name is for Juan Manuel de Ezcurra, manager of the Compania Productora de Boratos, S. A., which owns the deposit.

MICHAEL FLEISCHER

Wölsendorfite

JEAN PROTAS. La wölsendorfite, nouvelle espèce uranifère. *Compt. rend.*, **244,** 2942–2944 (1957).

The mineral, previously confused with fourmarierite, occurs in crystalline red masses in fissures in fluorite at Wölsendorf, Bavaria, in orange-red crystalline incrustations on pitchblende from Great Bear Lake, in orange-red spherulites with the pitchblende of Kerségalec, Lignol, France, and in small carmine red nodules with secondary uranium minerals at Shinkolobwe, Katanga. Analysis made on 120 mg. gave UO_3 69.80, PbO 23.14, CaO 1.24, H_2O 4.30, insol. in HNO_3 0.48, sum 98.96%, corresponding to $(Pb, Ca)U_2O_7 \cdot 2H_2O$, with Pb:Ca = 5:1

X-ray study indicates the mineral to be orthorhombic, with *a* 11.95 ± 0.05, *b* 13.99 ± 0.07, *c* 7.02 ± 0.05Å. The unit cell contains $CaPb_5U_{12}O_{42} \cdot 12H_2O$. There is one good cleavage (001). The *x*-ray powder pattern gave (in A.) for the strongest lines 3.09, 3.47, 6.93, 3.51, 14 more lines are given. D. 6.8 ± 0.1; *n*s on a cleavage flake, determined in S-Se melts, were n_1 2.09 ± 0.01, n_2 2.05 ± 0.03.

The name is for the locality.

DISCUSSION.—The *x*-ray pattern is very close to that of "Mineral C" of Frondel, *Am. Mineral.* **41,** 539–568 (1956), but the optics and analyses are quite different. Frondel states that the same pattern was given by a sample of synthetic hydrated lead diuranate.

M. F.

Kašparite

ALOIS DUBANSKÝ. Přispěvky k Poznani geochemie sekundarnich sulfatu. III. Sulfaty z Dubniku u Prešova. *Chem. Listy*, 50, 1347–1361 (1956).

Analysis of the fibrous mineral gave MgO 2.52, CoO 1.52, CaO 0.08, MnO 0.21, FeO 0.01, NiO, CuO tr., ZnO 0.11, Al_2O_3 13.37, Fe_2O_3 0.32, SO_3 35.45, H_2O 45.54, insol. 0.71, sum 99.84%. This corresponds to $(Mg, Co)Al_3(SO_4)_5(OH)\cdot 28H_2O$. A dehydration curve shows the loss of about 24 H_2O up to 300°, of 3 H_2O up to about 350°, and of SO_3 above 600°.

The mineral is monoclinic or triclinic. It has *ns* α 1.481, β 1.485, γ 1.487, γ:*c* 30°. *X*-ray powder data are given and compared with those of pickeringite; the spacings and intensities check very closely for 21 of 24 lines, but kašparite shows extra lines at 5.84 and 4.12 (the latter strong) and does not show a weak line at 5.38.

The name is for Professor Jan Kašpar of Prague.

DISCUSSION—Further work is needed, but the mineral would appear to be a cobaltoan pickeringite, perhaps with an admixed aluminum sulfate.

M. F.

Childro-Eosphorite

H. STRUNZ AND MARGARETE FISCHER. Childro-eosphorit, Tavorit, und Fairfieldit von Hagendorf. *Neues Jahrb. Mineral., Monatsh.*, **1957,** 78–88.

The name childro-eosphorite is given to a member of the childrenite-eosphorite series containing equal amounts of MnO and FeO. The analysis shows FeO 14.86, MnO 15.17, which gives MnO:FeO=1.034:1. It is therefore a ferroan eosphorite and the name is unnecessary.

M. F.

NEW DATA

Becquerelite

JEAN PROTAS. Propriétés et synthèse d'un oxyde hydraté d'uranium et de calcium de Shinkolobwe, *Katanga Compt. rend.*, **244,** 91–93 (1957).

All samples (20) of becquerelite examined were found by *x*-ray study to be identical with a synthetic compound $CaO\cdot 6UO_3\cdot 11H_2O$. Analysis of material from Shinkolobwe (on 160 mg.) gave UO_3 86.57, CaO 2.78, H_2O 10.16, sum 99.51%. D.T.A. study showed two breaks, at 160° and 360°.

X-ray study showed the mineral to be orthorhombic, *a* 13.86±0.03, *b* 12.42±0.03, *c* 14.96±0.03A. *Z*=4. G. 5.12±0.02 (natural), 5.10±0.02 (synthetic). Optically biaxial, negative, with *ns* α 1.725, β 1.815, γ 1.825, 2V 32°, X colorless, Y and Z yellow. *X*-ray powder patterns of the natural and synthetic compounds had the strongest lines 3.55, 3.55; 3.21, 3.20; 7.54, 7.48A.

DISCUSSION—The *x*-ray and optical data agree well with those of Frondel and Cuttitta, *Am. Mineral.* **38,** 1019–1024 (1953), who found no CaO, and gave the formula as $7UO_3\cdot 11H_2O$, but found $BaO\cdot 6UO_3\cdot 11H_2O$ for the closely related billietite.

M. F.

Gunnbjarnite (=a ferrian sepiolite)

H. STRUNZ. Gunnbjarnit, ein Ferri-Sepiolith. *Neues Jahrb. Mineral.*, Monatsh., **1957,** 75–77.

Gunnbjarnite, described in 1951 as a nontronite (*Am. Mineral.*, **37,** 1070 (1952)) is shown by *x*-ray study to be a member of the sepiolite group. Rotation photographs around [100] gave a_0 5.30, b_0 27.00, c_0 13.42. The unit cell contains 2

$$[(Mg_{2.27}Fe''_{0.10}Mn_{0.01}Ca_{0.45}Fe'''_{0.75})_{3.58}(Si_{5.03}Al_{0.45}Fe'''_{0.52})O_{15}(H_2O)_3(OH)_2\cdot 3H_2O.]$$

M.F.

DISCREDITED MINERALS

Laubanite (=Natrolite)

H. Strunz. Laubanit, ein Natrolith, *Neues Jahrb. Mineral.*, Monatsh. **1957,** 116–118.

Laubanite was described in 1887 by Traube as a zeolite. Analyses by Traube and by Brendler in 1955 agree well: SiO_2 47.84, 47.91; Al_2O_3 16.74, 16.60; FeO 0.56, trace; MgO 1.35, 1.46; CaO 16.07, 16.80; H_2O 17.08, 17.22; sum 99.74, 99.99%. G. 2.29, 2.24. The original samples were lost during the war, but samples from the type locality that corresponded to the original description were obtained from seven collections.

These showed G. 2.20–2.26, *ns* α 1.477, γ 1.489. Spectrographic analyses of several samples showed much Na, little Ca, very little Mg. Flame photometer determinations showed CaO 0.5–1.0%, Na_2O 6.88–6.94%. *X*-ray powder photographs agreed with that of natrolite.

Laubanite therefore appears to be a natrolite that has lost about half its Na_2O, perhaps by exchange for H^+ or $(H_3O)^+$. No explanation can be given for the two erroneous analyses.

M. F.

Galapektite (=Montmorillonite)

G. T. Faust. A study of the montmorillonite variety galapektite. *J. Wash. Acad. Sci.*, **47,** 143–146 (1957).

Galapektite was described by Breithaupt in 1832 as a clay mineral from Angleur, Belgium. Since then, it has been referred to montmorillonite and also to halloysite, both of which occur at Angleur. An analysis, published by Ross and Hendricks (1945), and new *x*-ray and D.T.A. data show that galapektite is a montmorillonite. The name should be dropped.

M. F.

Nocerite (=Fluoborite)

Cesare Brisi and Wilhelm Eitel. Identity of nocerite and fluoborite. *Die Naturwissenschaften*, **21,** 496 (1956).

Nocerite, supposedly $Ca_3Mg_3F_8O_2$ (see Dana's *System*, 7th Ed., Vol. **2,** p. 85), is shown by spectrographic analysis to be a fluoborate, the F end-member of the fluoborite series, as shown by the optical data and unit cell determinations (see Dana's *System*, 7th Ed., vol. **2,** p. 369). Presumably the high Ca reported in nocerite was due to admixed fluorite or limestone (but no CO_2 was reported).

See *Am. Mineral.*, **42,** 288–293. M. F.