

## NEW MINERAL NAMES

### Falkmanite

PAUL RAMDOHR AND OLOF ÖDMAN: Falkmanit, ein neues Bleispiessglanzerz, und sein Vorkommen, besonders in Boliden und Grube Bayerland. *N. Jahrb. Min., Beil.-Bd.* 75, Abt. A (1939), 315-350, 2 figs., 4 pls.

NAME: In honor of Oscar Falkman, General director of the Bolidens Gruvaktiebolag.

CHEMICAL PROPERTIES: A sulfantimonide of lead, probably  $Pb_3Sb_2S_6$ . Analysis (by Th. Berggren) [on sample contaminated with bournonite (10%), arsenopyrite (1.5%), jamesonite, covellite, etc., (3%)] Pb 52.97, Sb 22.48, Bi 1.16, Cu 1.52, S 19.32, Se 0.42, As 1.00, Fe 0.50, Ag 0.002, Au 0.001, Insol 0.56; total 99.93.

CRYSTALLOGRAPHICAL PROPERTIES: Monoclinic. Habit tabular to (102) or acicular along *b*-axis, or with lenticular cross section due to strong development of (101) and (102). Forms (001), (106), (102), (101), (302), (100).

PHYSICAL PROPERTIES: Color, metallic gray-black toward lead gray. Streak black, when rubbed down light reddish to light brown. Cleavage (010), sometimes distinct, breaks to fine needle or fiber-like masses, along the *b*-axis. Hd.  $2\frac{1}{2}$ . G. 6.24.

METALLOGRAPHICAL PROPERTIES: Very similar to jamesonite and boulangerite. Cleavage distinct in sections nearly parallel to the *b*-axis, polish very good, color galena white, anisotropism distinct. Deep red inner reflection. Etch: positive with  $HNO_3$ , effervescences with slow blackening. Negative with HCl, KCN,  $FeCl_3$ ,  $HgCl_2$ , KOH. Twinning rare.

OCCURRENCE: Found as fibrous aggregates at Bayerland Mine, Bayerland, near Waldsassen, Upper Palatinate, Germany; with galena, jamesonite, bournonite, geonronite, arsenopyrite, chalcopyrite, blende, pyrrhotite, pyrite, tetrahedrite, vallerite in a quartz gangue. Also at Boliden, Sweden, with numerous other minerals, chiefly bournonite, galena, danaite, pyrite, chalcopyrite, tetrahedrite, bismuth, gudmundite and jamesonite; Minas Geraes, Brazil, with pyrite in quartz; Sala, Sweden, with galena and pyrite.

DISCUSSION: Differs from boulangerite (given as  $Pb_{2.5}Sb_2S_{5.5}$ ) in composition, crystallography and density. Slight but appreciable differences are shown by the *x*-ray powder diagrams and by their metallographical properties.

W. F. FOSHAG

### Falkmanite

J. E. HILLER: Über den Falkmanit: *Zeits. Krist.*, 102 heft 2, 138-142 (1939).

CRYSTALLOGRAPHICAL PROPERTIES: Monoclinic. Acicular tabular, parallel to *b*.  $a = 24.93 \text{ \AA}$ ;  $b = 8.10 \text{ \AA}$ ;  $c = 14.51 \text{ \AA}$ .  $\beta = 79^\circ 10'$ .  $a:b:c = 3.077:1:1.791$ .

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### Calcio-gadolinite

TOSHIO NAKAI: On calcio-gadolinite, a new variety of gadolinite found in Tadati Village, Nagano Prefecture. *Bull. Chem. Soc. Japan*, 13, No. 9, 591-594 (1938).

CHEMICAL PROPERTIES: A gadolinite rich in calcium,  $Be_2(Fe'', Fe''')$  ( $\Sigma Ce, Ca$ )<sub>2</sub>  $Si_2(O, OH)_{10}$ . Analysis CaO 11.91; MgO 0.14; MnO 0.84; FeO 11.24; BeO 10.73;  $Al_2O_3$  1.68;  $Fe_2O_3$  7.65;  $Ce_2O_3$  4.69; La,  $Y_2O_3$  24.47 [mean atomic weight about 130];  $ThO_2$  0.80;  $SiO_2$  23.89;  $U_3O_8$  0.10;  $H_2O - 0.14$ ;  $H_2O + 2.05$ ; sum 100.34%.

PHYSICAL PROPERTIES: Color black, streak greenish gray. G. = 4.5. Weakly radioactive.

Pleochroism strong, Z (dark brown) > Y (light yellow) = X (light brown).  $\alpha = 1.765$ ,  $\beta = 1.774$ ,  $\gamma = 1.787$ .

OCCURRENCE: Found massive or in rough prisms in a pegmatite, associated with al-  
lanite, zircon, fergusonite, etc., at Tadati Village, 12 km. N.N.E. of Naegi, Japan.

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$\alpha$ ,  $\beta$ ,  $\gamma$ ,  $\delta$ ,  $\epsilon$ , **montmorillonite**  
 $\alpha$ ,  $\beta$ ,  $\gamma$ ,  $\delta$ ,  $\epsilon$ , **sepiolite**  
**Alumodeveillite**  
**Hydromagniolite**  
**Hydrosyalite**

N. E. EFREMOV: On the classification of some magnesium silicates and their alu-  
mo-analogues. *Compt. Rend. (Doklady) Akad. Sci., U.R.S.S.*, **24**, 287-289 (1939).

Various ratios of  $\text{Al}_2\text{O}_3$ : $\text{SiO}_2$ : $\text{H}_2\text{O}$  and of  $\text{MgO}$ : $\text{SiO}_2$ : $\text{H}_2\text{O}$  are given  $\alpha$ ,  $\beta$ ,  $\gamma$ ,  $\delta$ ,  $\epsilon$  designa-  
tions. The undefined terms alumodeveillite, hydromagniolite and hydrosyalite also appear  
to be new.

W. F. F.

### Simpsonite

[Meta-simpsonite]

H. BOWLEY: Simpsonite (sp. nov.) from Tabba Tabba, Western Australia. *Jour. Roy.  
Soc. W. Australia*, **25**, 89-92 (1938-39).

L. E. R. TAYLOR: X-ray studies of simpsonite. *Ibid.*, 93-97, 3 figs.

NAME: In honor of Dr. E. S. Simpson, Government Mineralogist of Western Aus-  
tralia.

CHEMICAL PROPERTIES: Believed to be a tantalate of lime and alumina,  $2\text{H}_2\text{O} \cdot \text{CaO} \cdot$   
 $5\text{Al}_2\text{O}_3 \cdot 4\text{Ta}_2\text{O}_5$ . Analysis (on partially altered crystals) (D. G. Murray):  $\text{Ta}_2\text{O}_5$  72.31,  
 $\text{Nb}_2\text{O}_5$  0.33,  $\text{SnO}_2$  2.00,  $\text{FeO}$  0.16,  $\text{MnO}$  0.08,  $\text{CaO}$  3.40,  $\text{Fe}_2\text{O}_3$  0.14,  $\text{Al}_2\text{O}_3$  16.75,  $\text{K}_2\text{O}$  0.24,  
 $\text{Na}_2\text{O}$  1.16,  $\text{PbO}$  0.42,  $\text{F}$  0.21,  $\text{H}_2\text{O} +$  1.35,  $\text{H}_2\text{O} -$  0.20,  $\text{SiO}_2$  1.78. Sum 100.53. Another  
analysis (J. N. A. Grace) and three partial analyses are also given. Unattacked by  $\text{HCl}$  or  
 $\text{H}_2\text{SO}_4$  but readily decomposed by fusion with caustic alkalis, alkaline carbonates and  
potassium bisulfate.

CRYSTALLOGRAPHICAL PROPERTIES: Hexagonal Habit tabular or short prismatic.  
X-ray examination indicates hexagonal symmetry with  $c = 4.5 \text{ \AA}$ ,  $a = 6.2 \text{ \AA}$ .

PHYSICAL AND OPTICAL PROPERTIES: Colorless. G. (mixed with its alteration product)  
5.92-6.05. Uniaxial, positive.  $n = 2.06$ .

OCCURRENCE: Found as incomplete and partially altered crystals in quartz biotite  
pegmatite, near the tantalite workings at Tabba Tabba, Western Australia.

### Phosphorrösslerite Arsenrösslerite

O. M. FRIEDRICH AND J. ROBITSCH: Phosphorrösslerite ( $\text{MgHPO}_4 \cdot 7\text{H}_2\text{O}$ ) als Mineral  
aus dem Stüblbau zu Schellgaden. *Zentralb. Mineral. Geol. Paleon.*, Abt. A, Nr. 5, 142-  
155 (1939), 11 figs.

NAME: From its isomorphous relationship to rösslerite.

CHEMICAL PROPERTIES: Hydrous acid phosphate of magnesium,  $\text{MgHPO}_4 \cdot 7\text{H}_2\text{O}$ .  
Analysis (J. Robitsch):  $\text{MgO}$  16.28,  $\text{P}_2\text{O}_5$  28.07,  $\text{H}_2\text{O}$  (acid) 3.65,  $\text{H}_2\text{O}$  (crystallization)  
50.86, Insol. 0.08; Sum 98.94.

Easily soluble in dilute  $\text{HCl}$  or  $\text{HNO}_3$ . Readily attacked by water. In closed tube readily  
yields much water and turns white. Upon long exposure to air gradually turns white.  
B. B. on platinum wire, gives no flame and leaves a mass very difficultly soluble in dilute  
 $\text{HCl}$ .

CRYSTALLOGRAPHICAL PROPERTIES: Monoclinic, prismatic.  $a:b:c=0.4455:1:0.2602$ .  $\beta=94^{\circ}56'$ . Forms:  $b$  (010),  $a$  (100),  $p$  (110),  $r$  (011),  $q$  (120),  $w$  (111),  $l$  (140),  $o$  (111). Habit equidimensional or short prismatic, rarely tabular; often in twin-like intergrowths. Also skeletal crystals, drusy crusts and kidney or hyalite-like forms.

PHYSICAL AND OPTICAL PROPERTIES: Colorless to yellow or honey brown.  $G=1.725$ .  $Hd=2\frac{1}{2}$ . Cleavage none. Fracture conchoidal.

Biaxial, negative.  $2V=38^{\circ}70'$ .  $\alpha=1.477$ ,  $\beta=1.485$ ,  $\gamma=1.486$ . Plane of the optic axes almost parallel to  $a$  (100) and normal to  $b$  (010).  $X=a$ ,  $Y=b$ ,  $Z/c=6.5^{\circ}$ .

OCCURRENCE: Found as a secondary formation as crusts on, and as individual crystals, in accumulated muds in old mine stopes in the Stübbau works at Schellgaden, Germany.

The arsenic analogue, rösslerite, is referred to as arsenrösslerite.

W. F. F.

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### Communication

The remark in A. L. Howland's paper on "Specularite-alunite mineralization at Hickeys Pond, Newfoundland" (this Journal, vol. 25, p. 42, 1940) that "elsewhere [other than at Goldfield, Nevada], however, alunite is not associated with sulphide minerals, other than pyrite" reminds me that cinnabar is associated with alunite in the rhyolites east of Beatty in western Nevada, where the rhyolites have been silicified and alunitized in belts hundreds of yards long and as much as 200 feet wide.<sup>1</sup>

ADOLPH KNOPF

<sup>1</sup> Knopf, Adolph, Some cinnabar deposits in western Nevada: *U. S. Geol. Survey, Bull.* 620, 64-68 (1915).

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### Errata

The following corrections should be made in article by T. T. Quirke and W. C. Lacy, vol. 24, 705-724 (1939).

Page 713, error in calculation, for  $i$  of  $80^{\circ}$  calculated value should be  $42^{\circ}47'$ , instead of  $42^{\circ}43'$ ; in consequence the figure in the next column should be  $-2^{\circ}47'$  in place of  $-2^{\circ}43'$ .

The same recurs in the Table of Computations page 718, for  $80^{\circ}$   $r_{e1}$  should be  $33^{\circ}29'$ , in place of  $33^{\circ}36'$ .  $r_n - r_{e1}$  should read  $5^{\circ}59'$ , in place of  $5^{\circ}52'$ , and  $I$  should be  $9^{\circ}18'$  in place of  $9^{\circ}07'$ , and  $r_{e1} + I$  should read  $42^{\circ}47'$ , in place of  $42^{\circ}43'$ .

On page 722 a typographical error makes difference between observation and theory for  $i$   $70^{\circ}$  read  $-0^{\circ}07'$  instead of  $-1^{\circ}07'$ .

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In Table 2 on page 96 (February issue), substitute "NaF" for "Acid NaF" in the first column preceding Li F.