

The book is up-to-date containing numerous cuts not generally found in a text of this type. The photographs are clearly recorded on the good quality of paper selected and very few typographical errors were noted. The clear style of presentation, the numerous illustrations and the popular interest in this phase of mineralogy should all combine to create a demand for this handy volume. W. F. H.

## NOTES AND NEWS

Virgil W. Field, a charter member of the Mineralogical Society of America, died at his home in Salt Lake City, Utah, August 14, at the age of fifty years.

Mr. Field died leaving a collection of two thousand specimens which he had been gathering since 1888. His first interest in mineralogy was awakened when a mere lad by a descent into a cave in the famous Hot Pots region, Midway, Utah. From that time on he pursued his study of mineralogy diligently, striving against tremendous odds, as his knowledge of minerals was acquired through his own efforts after his daily carpentry work had been finished.

Shortly before his death Mr. Field had housed his collection in a special laboratory at his home and had finished a complete catalogue of his specimens. It was his desire to have his collection moved to a place of learning, there to be used for educational and display purposes.

## NEW MINERALS: NEW SPECIES

### CLASS: SILICATES.

#### Afwillite.

JOHN PARRY AND F. E. WRIGHT: Afwillite, a new hydrous calcium silicate, from Dutoitspan Mine, Kimberly, South Africa. *Mineralog. Mag.*, **20**, 277 (1925).

NAME: In honor of Alpheus F. Williams, General Manager of the De Beers Consolidated Mines, Kimberly, South Africa.

CHEMICAL PROPERTIES: A hydrous silicate of calcium. Formula:  $3\text{CaO} \cdot 2\text{SiO}_2 \cdot 3\text{H}_2\text{O}$ . Several analyses are given. One by H. S. Washington, as follows:  $\text{SiO}_2$  35.10,  $\text{Al}_2\text{O}_3$ ,  $\text{Fe}_2\text{O}_3$  0.05,  $\text{MgO}$  0.02,  $\text{CaO}$  49.00,  $\text{BaO}$  none,  $\text{H}_2\text{O} + 110^\circ$  15.81,  $\text{H}_2\text{O} - 110^\circ$  0.01; sum 99.99. Soluble in hydrochloric acid.

CRYSTALLOGRAPHIC PROPERTIES: Monoclinic.  $a : b : c = 2.097 : 1 : 2.381$ .  $\beta = 98^\circ 26'$ .  $p_0 = 1.135$ ,  $q_0 = 2.355$ ,  $\mu = 81^\circ 34'$ . Crystals prismatic elongated parallel to the  $b$  axis. Forms: (001), (100), (110), (310), (102), (101), (102) and a number of doubtful ones.

PHYSICAL AND OPTICAL PROPERTIES: Color white or colorless. Luster vitreous; cleavage basal, perfect; orthopinacoidal, imperfect. Fracture conchoidal. Biaxial positive,  $2V_{Na} = 54^\circ 40'$ .  $\alpha = 1.6169$ ,  $\beta = 1.6204$ ,  $\gamma = 1.6336$ .  $b = Y$ ,  $X \wedge c = 30.6^\circ$ . Plane of the optic axes  $\perp$  to the elongation of the crystals. Dispersion inclined.  $H = 4$ . Sp. Gr. 2.630.

OCCURRENCE: Found in a large dolerite inclusion in the kimberlite at the Dutoitspan Mine, Kimberly, associated with apophyllite, calcite and natrolite in crystals up to 11 cm in length. W. F. FOSHAG.

**Kossmatite**

O. H. ERDMANNSDÖFFER; Über Kossmatite, ein neues Glied der Sprödglimmergruppe und seine Paragenese. (Kossmatite, a new member of the brittle mica group and its paragenesis.). *Centr. Min. Geol.*, p. 69, (1925).

NAME: In honor of the geologist, Fr. *Kossmat*.

CHEMICAL PROPERTIES: A hydrous silicate of magnesia and alumina. Formula:  $H_{13}Mg_3Ca_7Al_6Si_7O_{42}F$ . Analysis (by Werner Fisher):  $SiO_2$  28.47,  $TiO_2$  tr.,  $Al_2O_3$  22.84,  $Fe_2O_3$  0.26,  $MgO$  8.16,  $CaO$  27.10,  $Na_2O$  0.51,  $K_2O$  0.07,  $P_2O_5$  0.04, F 1.14,  $H_2O + 11.69$ ,  $H_2O - 0.82$ ; sum 101.10.  
Fusible to a white blebby glass.

PHYSICAL AND OPTICAL PROPERTIES: Colorless, luster vitreous to pearly. Cleavage basal, eminent, not elastic.  $2E_{Na} = 14^\circ 15'$ .  $\alpha = 1.560$ .  $\beta - \alpha = .004$ .

OCCURRENCE: Found as colorless scales in limestone near Prilep, West Macedonia, associated with corundum, pyrite, and another brittle mica.

DISCUSSION: This mineral is quite different in its ratios from the other members of the brittle mica group and can well be classed as a new member of this group.

W. F. F.

## NEW DATA

CLASS: PHOSPHATES, ETC.

**Merrillite.**

ORIGINAL DESCRIPTION: E. T. Wherry, *Am. Min.*, 2, 119 (1917).

NEW DATA: Earl V. Shannon and E. S. Larsen, *Am. Jour. Sci.*, 9, 250, (1925).

CHEMICAL PROPERTIES: A calcium sodium phosphate. Formula:  $3CaO \cdot Na_2O \cdot P_2O_5$ . Analysis (on .0702 gm. material): Insol. 6.69,  $CaO$  43.45,  $Na_2O$  14.67,  $P_2O_5$  36.47,  $Cl$  0.85,  $MgO$  tr, F none,  $CO_2$  none; sum 102.13.

OPTICAL AND PHYSICAL PROPERTIES: Uniaxial, negative.  $\omega = 1.623$ ,  $\epsilon = 1.620$ . Sp. Gr. 3.10.

W. F. F.

CLASS: SILICATES.

**Iddingsite.**

ORIGINAL DESCRIPTION: A. C. Lawson, *Univ. of Calif. Bull. Dept. Geol.*, No. 1, p. 31 (1893).

NEW DATA: Clarence S. Ross and Earl V. Shannon, *Proc. U.S. Nat'l. Museum*, 67, 1 (1925).

CHEMICAL PROPERTIES: A hydrous silicate of ferric iron and magnesia. Formula:  $MgO \cdot Fe_2O_3 \cdot 3SiO_2 \cdot 4H_2O$ . Analyses of nine different samples given. Average composition from five crystalline samples:  $SiO_2$  39.11,  $TiO_2$  0.18,  $Al_2O_3$  3.29,  $Fe_2O_3$  31.49,  $FeO$  0.96,  $CaO$  2.28,  $MgO$  8.05,  $H_2O + 8.49$ ,  $H_2O - 7.78$ ; sum 101.63.

OPTICAL AND PHYSICAL PROPERTIES: Color pale to deep reddish brown. Pleochroic. Biaxial, generally negative but sometimes positive.  $2V$  varies from medium small to large. Dispersion strong,  $\rho < \nu$ . Indices of refraction variable.  $\alpha = 1.608-1.730$ ,  $\beta = 1.650-1.725$ ,  $\gamma = 1.655-1.765$ . Cleavage perfect, (100), (001), (010), (101).  $X = a$ .  $Y = b$ ,  $Z = c$ . H. about 3. Optical data is given in detail for 8 localities.

W. F. F.