

Crystallized fluorite, varying in color from nearly colorless to yellow, violet, and green, has been collected recently by the author from Abergairn Lead mine, Ballater; Creag an t-Seabhaig, on the north side of the Pass of Ballater; and Na Tri Chaochain, River Avon, between Tomintoul and Inchroly, Banffshire. The fluorite and associated minerals are described.

(2) On the occurrence of chondrodite in the Glenelg Limestone of Inverness-shire.

By Prof. H. H. READ and Mr. I. S. DOUBLE.

Small grains of chondrodite have been identified in forsterite-marbles from several localities in the Glenelg district. Its most common mode of occurrence is as small granules forming rims round crystals of forsterite, and it is suggested that the chondrodite has been formed from forsterite by the accession of fluorine- and hydroxyl-bearing fluids. Previous records of chondrodite in the British Isles have not been confirmed by recent work.

(3) Ankerites of the Northumberland coalfield. By Dr. L. HAWKES and Dr. J. A. SMYTHE.

Ankerite and ankeritic calcite are described from veins in the Coal Measures on the coast at Hartley, and from various seams in the Northumberland Coal field. Evidence is given that, in the portion of the coal-field examined, both minerals are of constant composition, and that the deposition of the ankerite preceded that of the calcite. The ankerites are members of an isomorphous series consisting of dolomite $MgCO_3 \cdot CaCO_3$, and ferro-dolomite $FeCO_3 \cdot CaCO_3$, with small amounts of mangan-dolomite $MnCO_3 \cdot CaCO_3$, and they may hold up to 20% of $CaCO_3$ in solid solution.

(4) Apophyllite from Traprain Law, East Lothian. By Mr. J. G. C. ANDERSON and Mr. S. ELDER.

Well-crystallized apophyllite is described from druses in phonolite. The apophyllite is associated with analcime and pectolite. Other localities for apophyllite in Scotland are mentioned.

(5) Studies on the Zeolites, Part IX. Scolecite and Metascolecite. By Mr. M. H. HEY.

Results of *x*-ray, goniometric and optical studies on analysed specimens of scolecite and of base exchange experiments are given. Vapour pressure work clearly shows that the water is divided into a more volatile group of 16 and a less volatile group of 8 mols. per unit cell. Before the whole of the first 8 of the more volatile water molecules have been expelled, transition occurs to metascolecite.

(6) A new apparatus for the determination of carbon dioxide. By Mr. H. H. HEY.

A simple apparatus is described for the collection of carbon dioxide in baryta solution, and the subsequent filtration and washing of the barium carbonate produced with complete exclusion of atmospheric carbon dioxide.

NEW MINERAL NAMES

Janite

THUGUTT, STANISAW JÓZEF: O janicie, nowym mineralu z Janowej Doliny na Wołyniu (Janite, a new mineral from Janowa Dolina in Volhynia). *Arch. Mineral.* Warsaw, vol. 9, pp. 93-98, 1933. Polish with French summary.

NAME: From the locality, Janowa Dolina.

CHEMICAL PROPERTIES: A hydrous silicate of aluminum, iron, calcium, magnesium, etc. (R₂O, RO) $R_2O_3 \cdot 5SiO_2 \cdot 5H_2O$; (approx.) Analysis: SiO_2 49.67,

Al_2O_3 7.58, Fe_2O_3 15.67, MnO 0.85, CaO 3.33, MgO 3.25, K_2O 0.92, Na_2O 1.46, H_2O 16.57; sum 99.30. Insoluble in hydrochloric and sulfuric acids.

PHYSICAL AND OPTICAL PROPERTIES: Color dark red. G. 2.32. Soft to the touch.

Optically negative. $1.527 > n > 1.516$. Birefringence feeble. Not pleochroic. Extinction parallel. Cleavage basal, pronounced.

OCCURRENCE: Found in a plagioclase-pyroxene rock with secondary quartz, chalcedony, opal, chlorite and iron oxides in segmental spherulites of plates.

W. F. FOSHAG

Sahlinite

AMINOFF, G.: Note on a new Mineral from Långban (Sahlinite). *Geol. Fören. Förhandl.*, Stockholm, vol. 56, pp. 493-4, 1934.

NAME: In honor of Dr. Carl Sahlin.

CHEMICAL PROPERTIES: A basic chlor-arsenate of lead, $12\text{PbO} \cdot \text{As}_2\text{O}_5 \cdot 2\text{PbCl}_2$. Analysis: (by R. Blix) PbO 89.33, As_2O_5 6.57, CaO 0.46, CO_2 0.43, Cl_2 4.05, H_2O 0.10; sum 100.94, ($-\text{O} = \text{Cl}_2$ 0.91) = 100.03.

CRYSTALLOGRAPHICAL PROPERTIES: Monoclinic, cleavage parallel to plane of symmetry, prominent.

PHYSICAL AND OPTICAL PROPERTIES: Color sulfur yellow. Hd. 2-3, G. 7.95.

Biaxial, negative. Bx_a is normal to (010). $2E = 96^\circ 38'$. n high.

OCCURRENCE: As aggregates of thin scales with hausmannite in dolomite.

W. F. F.

Kiscellite

L. ZECHMEISTER, G. TÓTH AND A. KOCH: Untersuchung eines neuen fossilen Harzes: Kiscellit. (Investigation of a new fossil resin: Kiscellite). *Centr. Min. Geol.*, Abt. A, No. 2, pp. 60-61, 1934.

NAME: From the name—Kiscellar Tegel (formation) of Budapest.

CHEMICAL PROPERTIES: A sulfur bearing hydrocarbon resin (without oxygen). Analysis: C 84.47, H 11.12, S 3.99, Ash 0.31; sum 99.89. Difficulty soluble. m , p . not sharp. Upon heating evolves H_2S . Ignited burns with a smoky flame with a resinous, aromatic odor.

PHYSICAL PROPERTIES: Color on surface brown, interior olive green in spots. Streak pale yellow. Transparent in splinters. $n_D = 1.5418$ (20°). $G = 1.186$ (20°). Resembles amber, ajkaite and telegdite.

OCCURRENCE: From a sandy layer in the littoral formations of the kiscellar Tegel (Middle Oligocene) formation. Plant remains including conifers, are found in this formation.

W. F. F.

Pseudosillimanite

JACQUES DE LAPPARENT: Conglomérats et Phtanites des Terrains Dévoniens de la Vallée de la Bruche (Vosges d'Alsace). *Compt. Rend. Congrès Soc. Savantes Sci. Paris*, 1920, pp. 73-77.

In a black aphanitic rock in the conglomerates of Hersback occurs small needle like crystals with lozenge shaped cross section with strong refraction (less than epidote), strong birefringence and positive elongation. The plane of the optic axes

lies across one diagonal and the obtuse bisectrix is perpendicular to the elongation. 2V is not large. From its resemblance to sillimanite it is called pseudo-sillimanite.

W. F. F.

Lusakite

A. C. SKERL, F. A. BANNISTER AND A. W. GROVES: Lusakite, a cobalt-bearing silicate from Northern Rhodesia. *Mineral. Mag.*, vol. 23, no. 146, pp. 598-606, 1934.

NAME: From the locality Lusaka, Northern Rhodesia.

CHEMICAL COMPOSITION: A silicate of iron, aluminum, cobalt and magnesia: $H_2O.4R''O.9Al_2O_3.8SiO_2(R''=Co.Mg.Fe)$ Analysis no. 1 (not quite pure); SiO_2 27.07, TiO_2 0.80, Al_2O_3 48.15, Cr_2O_3 trace, Fe_2O_3 10.83, FeO 2.22, NiO 0.53, CoO 6.79, MnO trace, MgO 2.44, CaO nil, $H_2O (+110^\circ)$ 1.00, $H_2O (-110^\circ)$ 0.35, S 0.07; total 100.25. Analysis no. 2; SiO_2 27.23, TiO_2 0.50, Al_2O_3 50.72, Cr_2O_3 n.d., Fe_2O_3 4.96, FeO 3.42, NiO 0.89, CoO 8.48, MnO 0.03, MgO 2.56, CaO nil, $H_2O (+110^\circ)$ 1.19, $H_2O (-110^\circ)$ nil; total 100.03. Insoluble in all acids including HF. B. B. infusible but yields a black bead in the electric arc.

CRYSTALLOGRAPHICAL PROPERTIES: Orthorhombic; habit tabular to equidimensional. Forms (010) and (110). $010 \wedge 110 = 64^\circ 37'$. $a:b:c = 0.474:1$ (Goniometric); 0.473:1:0.340 (x-ray). Space group V_h^{17} . Unit cell dimensions $a = 7.86$, $b = 16.62$, $c = 5.65 \text{ \AA}$.

PHYSICAL AND OPTICAL PROPERTIES: Color black, small crystals deep cobalt blue by transmitted light. Streak light blue. Luster vitreous. Brittle. Fracture subconchoidal. Hd. 7-1/2. G. 3.767. Under the microscope vivid cobalt blue. Cleavage (010) distinct, (100) less so. n about 1.74. 2V large, parallel extinction. Strongly pleochroic. X = cobalt-blue, Y = violet blue, Z = violet.

OCCURRENCE: Found in a gneissoid rock intimately associated with quartz, cyanite and magnetite, about 80 miles east of Lusaka, Northern Rhodesia. Lusakite forms from 5-40% (average 30%) of the rock.

W. F. F.

Hydrocalumite

C. E. TILLEY: Hydrocalumite ($4CaO.Al_2O_3.12H_2O$), a new mineral from Scawt Hill, Co. Antrim. *Mineral. Mag.*, vol. 23, no. 146, pp. 607-615, 1934.

NAME: In allusion to its composition as an hydrated calcium aluminate.

CHEMICAL COMPOSITION: An hydrated calcium aluminate; $4CaO.Al_2O_3.12H_2O$. Analyses (by M. H. Hey): CaO 41.5, 40.0; Al_2O_3 18.8, 18.1; H_2O 38.5; CO_2 1.8; [ign. 40.3]. Soluble in weak HCl. Alkaline to litmus. In closed tube decrepitates and gives off water.

CRYSTALLOGRAPHICAL PROPERTIES: Monoclinic, pseudo-hexagonal. $a = 9.6 \text{ \AA}$, $b = 11.4 \text{ \AA}$, $c = 16.84 \text{ \AA}$, $\beta = 69^\circ$. Space-group $P2_1$. Cleavage: basal, perfect.

PHYSICAL AND OPTICAL PROPERTIES: Colorless to light green. Luster vitreous inclining to pearly on cleavage surfaces. Biaxial negative. Cleavage fragments show emergence of acute bisectrix almost normal to cleavage. Plane of optic axis parallel to (010). $Y = b$. $\alpha = 1.535$, $\beta = 1.553$, $\gamma = 1.557$. 2V = $24^\circ + 2^\circ$. Uniaxial at 90-95°C. Hd. 3. G. 2.15.

OCCURRENCE: Found as infillings in larnite rock from Scawt Hill with awillite, portlandite and ettringite.

W. F. F.

Matlockite

F. A. BANNISTER, (with chemical analysis by M. H. Hey). The crystal-structure and optical properties of matlockite (PbFCl). *Mineral. Mag.*, vol. **23**, no. 146, pp. 587-597, 1934.

A new analysis of matlockite from Cromford, Derbyshire, gave: Pb 79.55, F 7.11, Cl 13.44. G.=7.05. These results confirm the suggestion of Nieuwenkamp (cf. *Am. Mineral.*, vol. **19**, p. 287, 1934) that matlockite is a lead fluochloride. X-ray and optical data are also given.

W. F. F.

Errata

The following corrections should be noted in the article by N. Sundius, *Am. Mineralogist*, vol. **16**, pp. 488-518, 1931: Page 505, fourth line from top, read " $\gamma - \beta = 0.014$," instead of " $\beta - \alpha = 0.014$." Read " $\beta = 1.740$ " instead of " $\beta = 1.752$." Page 518, Table II, for No. 13, Sobralite, V. Silberg (anal. 14), read under β "1.740" instead of "1.752."