NEW MINERALS: NEW SPECIES

CLASS: PHOSPHATES, ETC.

Sincosite.

WALDEMAR T. SCHALLER: The Occurrence and Properties of Sincosite, a new Vanadium Mineral from Peru. *Am. Jour. Sci.*, **8**, 462, (1924). (Preliminary note in *Jour. Wash. Acad. Sci.*, **12**, (8), 195, 1922. Cf. *Am. Min.*, **7**, 163, 1922.)

NAME: From the locality, *Sincos*, Peru.

CHEMICAL PROPERTIES. A hydrous vanadyl, lime phosphate, V_2O_4. CaO. P_2O_5. $5H_2O$. Analysis: V_2O_4 36.3, V_2O_5 0.0, CaO 12.1, P_2O_5 31.7, H_2O 19.9, insol., 0.3; sum 100.3. Soluble in dilute acids giving a blue solution.

CRYSTALLOGRAPHIC PROPERTIES. Tetragonal, basal plates bounded by the prism *a* (100). Basal plane striated parallel to the edges. Twinning plane *m* (110).

PHYSICAL AND OPTICAL PROPERTIES: Color leek green. Uniaxial, but some crystals are biaxial with 2E varying. Negative. $\epsilon = 1.655$, $\omega = 1.680$. Dispersion strong $\rho > \nu$. Pleochroism strong, ϵ = nearly colorless to pale yellow, ω = gray green. Plates change from uniaxial to biaxial with 2V as high as 83°. Dispersion increases with 2E. $\alpha = 1.675$, $\beta = 1.690$, $\gamma = 1.693$. The biaxial phase is probably a lower hydrate. Sp. Gr. 2.84. Cleavage basal and *a* (100) good, *m* (110) poor.

OCCURRENCE: Found in a black carbonaceous shale associated with black nodules of coaly material.

DISCUSSION: Believed by Schaller to be a member of the uranite group, together with torbernite and metatorbernite, which the sincosite greatly resembles.

W. F. FOSHAG

CLASS: PHOSPHATES, ETC.

Dumontite.

ALFRED SCHOEP: La Dumontite, nouveau Minéral radioactif. (Dumontite, a new radioactive mineral). *Compt. Rend.*, **179**, 693 (1924).

NAME: In honor of André *Dumont*, Belgian geologist.

CHEMICAL PROPERTIES: A hydrous phosphate of lead and uranium, 2PbO. $3UO_3$. P_2O_5. $5H_2O$. Analysis: H_2O 5.78, P_2O_5 8.65, UO_3 56.49, PbO 27.19, TeO_3 1.01; sum 99.12.

CRYSTALLOGRAPHIC PROPERTIES: Probably orthorhombic, prismatic, flattened parallel to the *a* axis. Forms: (001), (010), (100), (013), (011). $c:b = 1.327$ (approx.)

PHYSICAL AND OPTICAL PROPERTIES: Color yellow. Streak yellow. Translucent. Biaxial with 2V large, positive. Plane of the optic axes parallel to the elongation. *n* greater than 1.78. Extinction parallel. Pleochroism strong, Y = deep yellow, X = pale yellow.

OCCURRENCE: Found in pockets in torbernite from Chinkolobwe, Belgian Congo.

W. F. F.

CLASS: SILICATES

Sklodowskite

ALFRED SCHOEP: La Sklodowskite, nouveau Minéral radioactif. (Sklodowskite, a new radioactive mineral). *Compt. Rend.*, **179,** 413 (1924).

NAME: In honor of Mme. Curie-*Sklodowska.*

CHEMICAL PROPERTIES: A hydrous silicate of uranium and magnesium, $MgO.\ 2UO_3.\ 2SiO_2.\ 7H_2O$. Analysis: H_2O 13.41, SiO_2 14.28, UO_3 64.72, MgO 3.74, TeO_3 1.08, Na_2O+K_2O 1.79, NiO 0.20; sum 99.40. Analysis on material shown to be homogeneous by microscopic examination.

CRYSTALLOGRAPHIC PROPERTIES: Orthorhombic, prismatic.

PHYSICAL AND OPTICAL PROPERTIES: Color, pale lemon yellow. Brilliant luster. Translucent. Streak yellow. Pleochroism, Z=yellow, Y=pale yellow, X=colorless. Biaxial, negative. Dispersion distinct. (Plane of the optic axes across the prisms.) $\alpha=1.613$, $\beta=1.635$, $\gamma=1.657$. Sp. Gr. 3.54.

OCCURRENCE: Found in cracks in a siliceous breccia carrying some fragments of kasolite. W. F. F.

CLASS: SILICATES

Kalithomsonite.

SAMUEL G. GORDON: Minerals obtained in Greenland on the Second Academy —Vaux Expedition, 1923. *Proc. Acad. Nat. Sci. Phila.*, **76,** 261 (1924).

NAME: In allusion to its composition, a *thomsonite* with a considerable percentage of potash (*Kalium*).

CHEMICAL PROPERTIES: A hydrous silicate of soda, potash, lime and alumina, $(Na,K)_2O.\ CaO.\ 2Al_2O_3.\ 5SiO_2.\ 5H_2O$. Analysis: SiO_2 38.09, Al_2O_3 26.61, Fe_2O_3 tr., MnO 0.79, CaO 5.72, MgO 0.87, Na_2O 3.62, K_2O 5.65, H_2O+ 12.00, H_2O- 6.40; sum 99.75.

CRYSTALLOGRAPHIC PROPERTIES: Orthorhombic.

PHYSICAL AND OPTICAL PROPERTIES: Color, pale vinaceous pink. Biaxial, positive. $\alpha=1.535$, $\beta=1.537$, $\gamma=1.545$. X=*b*, Y=*a*, Z=*c*. Cleavage, *b* perfect, *a* less so, *c* imperfect.

OCCURRENCE: Found as a matted mass of small prisms in a pocket in augite-syenite at Narsarsuk, Greenland, associated with quartz, microcline, fluorite, epididymite, elpidite, calcite, albite and aegyrite.

DISCUSSION: The high content of potash, equalling the soda molecularly, should give this mineral a species rank. If the soda and potash are not isomorphous the formula becomes $K_2O.\ Na_2O.\ 2CaO.\ 4Al_2O_3.\ 10SiO_2.10H_2O$. W. F. F.

DOUBTFUL SPECIES

CLASS: SULPHIDES; DIVISION: R″: S = 2:1(?)

Violarite

WALDEMAR LINDGREN and MYRON DAVY: Nickel Ores from the Key West Mine, Nevada. *Econ. Geol.*, **19**, 309 (1924).

NAME: From the Latin *violaris* = violet, in allusion to its violet-gray color on the polished surface.

CHEMICAL PROPERTIES: A sulfide of nickel, suggested to be Ni_2S, but no analysis is given.

PHYSICAL PROPERTIES: Color violet gray. Brittle. Alters rapidly in air and tarnishes readily.

OCCURENCE: Found with pyrite, chalcopyrite and pentlandite at the Key West Mine, Clark Co., Nevada, as a replacement of the pentlandite. The Sudbury polydymite is shown to be a mixture of pentlandite and violarite in about equal amounts.

DISCUSSION: The same mineral has been found in S. E. Alaska by Dr. A. F. Buddington (*Econ. Geol.*, **19**, 521, 1924). He gives the following additional data: Cleavage in three directions. H = 4—4½. Non-magnetic. This mineral is possibly a member of the pyrite group; the sulfide analogue of chloanthite or of the marcasite group analogous to rammelsbergite. Until accurate analyses of the pure material is given the mineral is doubtful. W. F. FOSHAG.

CLASS: PHOSPHATES, ETC. DIVISION: R″:R‴″:R⁗″:H_2O = 1:2:6:X.

Rauvite

FRANK L. HESS: New and Known Minerals from the Utah-Colorado Carnotite Region. *Bull. U. S. Geol. Survey*, **750**, 63, (1924).

NAME: From the chemical symbols of radium, *Ra*, uranium, *U*, and vanadium, *V*.

CHEMICAL PROPERTIES: A hydrous calcium uranium vanadate, $CaO.\ 2UO_3.\ 6V_2O_5.\ 20H_2O$. Analysis: UO_3 20.82, V_2O_4 2.05, V_2O_5 36.33, CaO 2.00, K_2O tr., As_2O_5 tr., Fe_2O_3 2.39, H_2O 13.38, Se tr., MgO 0.12, SO_3 0.13, insol. 24.06, sum 101.28.

PHYSICAL AND OPTICAL PROPERTIES: Compact with slickensided surface. Color purplish black. Streak light brown. $n = 1.88$. Apparently metacolloidal.

OCCURRENCES: Found in cracks in sandstone associated with carnotite, hewettite, gypsum, hyalite and meta-torbernite at Temple Mt., San Rafael Swell, Utah.

DISCUSSION: While this material is apparently new its metacolloidal nature makes it impossible to determine whether this is a single mineral or not. Its exact nature must be considered doubtful. W. F. F.

CLASS: PHOSPHATES, ETC. DIVISION: $R'''{:}R''''{:}H_2O = 3{:}2{:}8$.

Ferrisymplessite

T. L. WALKER and A. L. PARSONS: The Arsenates of Cobalt, Nickel and Iron Observed in the Silver-bearing Veins at Cobalt, Ontario. *Contributions to Canadian Mineralogy*, p. 16, **1924**.

NAME: From its composition, a *ferric* arsenate with the ratios of *symplessite*.

CHEMICAL PROPERTIES: A hydrous arsenate of ferric iron, $3Fe_2O_3 \cdot 2As_2O_5 \cdot 16\ H_2O$. Analysis: As_2O_5 38.79, CoO 16.86, NiO 5.73, CaO 1.46, MgO 1.05, Fe_2O_3 11.67, Al_2O_3 0.31, H_2O 24.05, insol. 0.88, sum 100.80. (Analysis made on material containing much erythrite and annabergite).

PHYSICAL AND OPTICAL PROPERTIES: Color deep amber brown. Luster resinous. Fibrous. Under the microscope slightly pleochroic, strongly birefracting. $n = 1.650$. Sp. Gr. 2.885.

OCCURRENCE: Found associated with erythrite and annabergite in the upper workings of the Hudson Bay Mine, Colbalt, Ontario.

DISCUSSION: Suggested to be the arsenate analogue of kertschenite but the mineral needs further study. W. F. F.

CLASS: PHOSPHATES, ETC. DIVISION: $R'':R'''':CO_2:H_2O = 6{:}2{:}1{:}X$.

Grodnolite

M. J. MOROZEWICZ: La Grodnolite, Phosphate colloidal de Calcium. (Grodnolite, a colloidal phosphate of calcium). *Bull. Soc. Fr. Min.* **47**, 46 (1924).

NAME: From the locality at which it was found, *Grodno*, Poland.

CHEMICAL PROPERTIES: A carbonato-phosphate of calcium. Analysis: P_2O_5 32.65, CO_2 5.10, SiO_2 3.13, Fe_2O_3 3.68, Al_2O_3 1.43, CaO 51.24, H_2O 3.23.

PHYSICAL PROPERTIES: Color Brown. Isotropic, $n = 1.605$. Sp. Gr. 2.974. H = less than 4.

OCCURRENCE: Found as nodules in a sandy marl near Grodno, Poland.

DISCUSSION: This mineral differs in no essential respect from collophanite and is undoubtedly that mineral. The alumina and silica may be adsorbed but since microscopic examination showed inclusions of quartz, microcline, etc. they are more likely derived from soluble silicates. In the latter case the mineral is a normal collophanite. (See A. F. Rogers: Collophane, a much neglected mineral, *Am. Jour. Sci.*, **3**, 269, 1922.) W. F. F.

CLASS: SILICATES

Bardolite

M. J. MOROZEWICZ: Sur la Bardolite, mineral chloritique pyrogéne. (Bardolite, a pyrogene, chloritiitic mineral.) *Bull. Soc. Fr. Min.* **47**, 49 (1924).

NAME: From the locality at which it was found, *Bardo*, Poland.

CHEMICAL PROPERTIES: A hydrous silicate of iron, alumina, magnesia and potash. Analysis: SiO_2 38.45, Al_2O_3 6.09, Fe_2O_3 17.00, FeO 4.74, CaO 0.59, MgO 9.68, K_2O 4.65, Na_2O 0.35, H_2O 19.50, sum 99.78.

PHYSICAL AND OPTICAL PROPERTIES: Sp. Gr. 2.73. Birefringence strong, pleochroism feeble.

OCCURRENCE: Occurs as radiated plates in a fresh diabase. Believed by Morozewicz to be a primary mineral.

DISCUSSION: This mineral falls within the range of the mineral stilpnomelane, being, however, somewhat higher in potash. It can then be appropriately grouped with stilpnomelane unless more detailed work on this group shows it to be distinct. (See Frank F. Grout and George A. Thiel: Notes on stilpnomelane, *Am. Min.* **9**, 228, 1924.) W. F. F.

CLASS: SILICATES. SUB-CLASS: HYDROUS SILICATES. DIVISION: R″:Si : H_2O = 2:1:1.

Radio-active Chrysocolla

E. PUXEDDU and E. MANCA. Radioactive Chrysocolla from the Bena de Padru Mine. *Ann. Chim. Applicata*, **14**, 123 (1924).

NAME. Suggested to be new but no name given to it.

CHEMICAL PROPERTIES: A hydrous silicate of copper, $Cu_2SiO_4+H_2O$. Analysis: SiO_2 20, CuO 72.1, H_2O (loss at 100°) 4.5, (loss at 200°) 6.9, PbO 0.6, Fe_2O_3 0.3, CO_2 1.1, S 2.0.

PHYSICAL AND OPTICAL PROPERTIES: Color black to brown. Colloidal and radioactive.

OCCURRENCE: Found with other copper ores at Bena de Padru.

DISCUSSION: This may fall within the range of chrysocolla, especially the variety copper-pitch ore which it apparently resembles in physical properties.

W. F. F.

CLASS: SILICATES, TITANATES

Kalkowskyn

EBERHARD RIMANN: Ein neues Mineral, Kalkowskyn. (A new mineral, kalkowskite), (Preliminary description). *Centr. Min. Geol.*, **1925**, p. 18-25.

NAME: In honor of the mineralogist, Prof. Ernst *Kalkowsky*.

CHEMICAL PROPERTIES: A ferric titanate, $(Fe, Ce)_2O_3$. $4(Ti, Si)O_2$. Analysis: SiO_2 5.63; TiO_2 54.62; $(Ta, Cb)_2O_5$ 1.67; Fe_2O_3 28.66; Ce_2O_3, etc. 2.66; P_2O_5 0.28; Al_2O_3 2.21; CaO 1.64; MgO 0.48; K_2O 0.67; H_2O 3.27. The sample carried some mica and monazite. Partially decomposed by hydrochloric acid.

PHYSICAL AND OPTICAL PROPERTIES: Color black, dark to light brown. Streak, red brown. Luster, semi-metallic, waxy or horny. Index of refraction greater than 1.769. Birefringence weak. Nonpleochroic. H = 3–4. Sp. Gr. 4.01. Fracture conchoidal. No cleavage.

OCCURRENCE. Found as platy grains in a schistose mass of fine flaky muscovite, associated with zircon and monazite at Serra do Itacolumy, Minas Geraes, Brazil.

DISCUSSION: The exact relationship of this mineral is not clear. If the silica is included in the mineral the ratios are not far from 1 R_2O_3. 4 RO_2. If however the silica is foreign, the recalculated percentages of TiO_2 and R_2O_3 are 60.8 and 33.9, respectively, or not essentially different from arizonite. Rimann suggests that its partial decomposition by hydrochloric acid distinguishes it from arizonite. The description of arizonite (Chase Palmer: *Am. Jour. Sci.*, **28**, 355, 1909.) gives this mineral as being partially decomposed by hydrochloric acid. W. F. F.