NEW MINERALS: NEW SPECIES

**Goongarrite.**


**Name:** From the locality, Lake Goongarrie, Western Australia.

**Crystallographic Properties:** Probably monoclinic. Some interfacial angles given.

**Chemical Properties:** A sulfide of lead and bismuth; $4\text{PbS}, \text{Bi}_2\text{S}_3$. Analysis: Pb 54.26, ZnO 0.6, Fe 0.17, Ag 1.05, Bi 28.81, Sb 0.11, As nil, S 15.24, Se 0.24, Sum 99.94. Soluble in strong HCl; soluble in HNO$_3$ with separation of PbSO$_4$.

**Physical Properties:** Structure fibrous, sub-fibrous to platy; cleavage good.


**Occurrence:** Forms small irregular masses, plates and stringers in quartz with no other metallic sulfide. Gold is associated with it as well as its alteration products, bismutite, cerussite, and anglesite.

**Discussion:** Apparently a well defined sulfobismuthide of lead of the jordanite group.

W. F. Foshag

CLASS: HALIDES. SUBCLASS: HYDROXYHALIDES

**Kempite.**

**Austin F. Rogers:** Kempite, a new manganese mineral from California. *Am. J. Sci.*, 8, 145-150 (1924).

**Name:** In honor of Prof. James Furman Kemp, Professor of Geology, Columbia University.

**Chemical Properties:** An oxychloride of manganese. MnCl$_2$.3MnO$_2$.3H$_2$O. Analysis: Mn 50.59, Cl 46.41, H$_2$O 11.60, O (by diff.) 21.40. Total 100. (Recalcd. after deducting insol. material). In closed tube gives H$_2$O with acid reaction and turns black. Soluble in HNO$_3$. Sol. in HCl with evolution of Cl.

**Crystallographic Properties:** Orthorhombic. $a:b:c=0.677:1:0.747$. Forms (011), (110), (121), (100), (010). Prismatic habit.

**Physical and Optical Properties:** Color emerald green. H. about 3 1/2. Sp. Gr. 2.94. Biaxial, negative. $a=1.684$, $\beta=1.695$, $\gamma=1.698$. $a=\gamma$, $b=\beta$, $c=a$.

**Occurrence:** With pyrochroite, hausmannite and rhodochrosite in the Alum Creek "Meteorite," a large mass of manganese ore, now consumed.

**Discussion:** This new mineral is similar in type of compound as well as in crystallography to the hydroxychloride of copper, atacamite and probably belongs in the atacamite group.

W. F. F.

CLASS: PHOSPHATES, ETC. DIVISION: $R''':R'''.H_2O=10:2.7$.

**Chlorophoenicite.**

THE AMERICAN MINERALOGIST

NAME: From χλωρίτης = green and φωμικός = purple red, in allusion to the property it possesses of changing from green in natural light to light purplish red in artificial light.

CHEMICAL PROPERTIES: A hydroxy-arsenate of zinc and manganese, 10 (Zn, Mn) O. As₂O₅. 7H₂O. Analysis: H₂O 11.60, CaO 3.36, MgO 1.34, FeO 0.48, MnO 34.46, ZnO 29.72, As₂O₅ 19.24, Sum 100.24. In closed tube gives off water and turns black.

CRYSTALLOGRAPHIC PROPERTIES: Monoclinic with habit like epidote.

PHYSICAL AND OPTICAL PROPERTIES: Color light grayish green in natural light but light purplish red in artificial light. Plane of the optic axes across the prismatic crystals. 2V large with dispersion ρ>γ, strong. α = 1.682, β = 1.690, γ = 1.697.

Occurrence: With calcite, tephroite and leucophoenitic in cracks in frank-linseite-zincite ore.

DISCUSSION: The ratio of hydroxide to arsenate is larger than in any of the other well known arsenates. The formula may be written R₃As₂O₇.7R(OH)₂.

W. F. F.


Swedenborgite


NAME: In honor of Emanuel Swedenborg.

CHEMICAL PROPERTIES: An antimonate of sodium and aluminum, Na₃O. 2Al₃O₅. Sb₂O₅. Analysis: Sb₂O₅ 54.14, P₂O₅ 0.23, Al₃O₅ 34.72, CaO 0.94, MgO 0.52, Na₂O 8.50, K₂O 0.21, H₂O 0.39, Sum 99.68. Insoluble in hydrochloric and sulphuric acids.

CRYSTALLOGRAPHIC PROPERTIES: Hexagonal, prismatic. Forms (0001), (1014), (1013), (1012), (1011), (2012), (1010). P₀ = 1.8832, c = 2.8284. c/a = 1.6309.


Occurrence: In the England stope at Langban in lenses of limestone with specular iron, richterite, manganophyllite, a berzeliite-like mineral and an unknown white hexagonal mineral.

DISCUSSION: Aminoff points out a relationship to nordenskiiildine:

Swedenborgite Na(AlO)₅SbO₄ c = 1.6309
Nordenskiiildine Ca(BO)₃SnO₄ c = 1.6442

W. F. F.

CLASS: PHOSPHATES, ETC. DIVISION: R'''':R'''':H₂O = 2:1:X.

Vanoxite.


NAME: From Vanadium Oxide.

CRYSTALLOGRAPHIC PROPERTIES: Crystals minute with occasional rhombic outline.
Chemical Properties: A hydrous vanadyl vanadate, $2V_2O_5 \cdot V_2O_8 \cdot 8H_2O$. Analyses: $V_2O_5$ 53.1-50.9, $V_2O_5$ 25.7-29.5, $UO_3$ 0.5-0.11, $H_2O$ 20.7-19.4. (Re-calculated after deduction of impurities).

Physical and Optical Properties: Color black. Opaque, compact.

Occurrence: Found as a replacement of wood and as a cement in sandstone at the Jo Dandy and other mines, Paradox Valley, Montrose Co., Colorado. Associated with gypsum, pyrite, tuyumunite, limonite and sometimes pascoite.

Discussion: Apparently new but its nature does not permit the accurate determination of its composition or properties. Apparently differs from alaite in the amount of water, stage of oxidation of some of its vanadium and some of its physical properties. The name is an unfortunate choice since the mineral is probably not an oxide of vanadium but a vanadyl vanadate.

W. F. F.


Chapmanite.


Name: In honor of the late Prof. E. J. Chapman, Professor of Geology, University of Toronto.

Chemical Properties: A hydrous silicoantimonate of ferrous iron, $5FeO \cdot Sb₂O₅ \cdot 5SiO₂ \cdot 2H₂O$. Analysis: FeO 33.91, Ni 0.36, Co 0.03, Cu 0.17, Bi 0.20, As 1.28, Al₂O₃ 0.28, SiO₂ 28.28, Sb₂O₅ 31.65, $H₂O$ 3.46. Sum 99.62.

Physical and Optical Properties: Finely divided, soft. Color green. Sp. Gr. 3.58. Optically negative (?). $2V$ small or moderate. $\alpha = 1.85$, $\gamma = 1.96$. $\gamma$ parallel to the length and $\alpha$ normal to a flat face.

Occurrence: At the Keeley Mine in South Lorrain near Cobalt, Ontario, intimately mixed with silver.

Discussion: Distinct from the other known silicoantimonate, långbanite, and not closely related to any other known mineral.

W. F. F.

Notes and News

Stromeyerite: Yellow Pine Mine, Boulder Co., Colorado. William P. Headden, Colorado Experiment Station.

The physical properties of this sample are those usually given for the mineral except that it shows only a slight degree of iridescence. It forms a layer of varying thickness covering a mass of zinc blende and galena. The locality is new, so far as I know, although the mine is an old one. This sample was found by parties who were searching for new bodies of ore. Their efforts were a failure. My information is that only a small amount of this ore was found. The Colorado localities given in Dana's Mineralogy for this mineral are: The Yankee Girl Mine, Ouray County, and The Black Prince Mine, Summit County. These localities are old and the mines closed.

This sample is massive and apparently perfectly homogeneous, but it contains a considerable amount of zinc and lead. No zinc blende or galena could be detected.