NEW MINERALS: NEW SPECIES

CLASS: SULFIDES. DIVISION: RS: R_2S_3=4:1.

Goongarrite.

EDWARD S. SIMPSON: Goongarrite, a new mineral from Comet Vale, Western Australia. *J. Roy. Soc. West. Australia,* **10,** 65 (1924).

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

CRYSTALLOGRAPHIC PROPERTIES: Probably monoclinic. Some interfacial angles given.

CHEMICAL PROPERTIES: A sulfide of lead and bismuth; 4PbS, Bi_2S_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. Sp. Gr. 7.29, H 3. Brittle.

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. $MnCl_2.3MnO_2.3H_2O$. Analysis: Mn 50.59, Cl 16.41, H_2O 11.60, O (by diff.) 21.40. Total 100. (Recalcd. after deducting insol. material). In closed tube gives H_2O 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. $\alpha=1.684$, $\beta=1.695$, $\gamma=1.698$. $a=\gamma$, $b=\beta$, $c=\alpha$. Plane of the optic axes parallel to (010).

OCCURRENCE: With pyrochroite, hausmannite and rhodocrosite 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.

WILLIAM F. FOSHAG AND R. B. GAGE: Chlorophoenicite, a new mineral from Franklin Furnace, New Jersey. (Preliminary description). *J. Wash. Acad. Sci.*, **14,** 362 (1924).

NAME: From $\chi\lambda\omega\rho\sigma\varsigma$=green and $\varphi o\iota\nu\iota\kappa o\varsigma$=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. As_2O_5. $7H_2O$. Analysis: H_2O 11.60, CaO 3.36, MgO 1.34, FeO 0.48, MnO 34.46, ZnO 29.72, As_2O_5 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 purlish red in artificial light. Plane of the optic axes across the prismatic crystals. $2V$ large with dispersion $\rho > \nu$, strong. $\alpha = 1.682$, $\beta = 1.690$, $\gamma = 1.697$.

OCCURRENCE: With calcite, tephroite and leucophoenicite in cracks in franklinitezincite ore.

DISCUSSION. The ratio of hydroxide to arsenate is larger than in any of the other well known arsenates. The formula may be written $R_3As_2O_8.7R(OH)_2$.

W. F. F.

CLASS: PHOSPHATES, ETC. DIVISION: R′:R‴:R⁗⁗=1:2:1.

Swedenborgite

G. AMINOFF: Ueber ein neues mineral von Langban (A new mineral from Langban). *Z. Krist.*, **60**, 262, (1924).

NAME: In honor of Emanuel *Swedenborg*.

CHEMICAL PROPERTIES: An antimonate of sodium and aluminum, Na_2O. $2Al_2O_3.Sb_2O_5$. Analysis: Sb_2O_5 54.14, P_2O_5 0.23, Al_2O_3 34.72, CaO 0.94, MgO 0.52, Na_2O 8.50, K_2O 0.21, H_2O 0.39, Sum 99.68. Insoluble in hydrochloric and sulphuric acids.

CRYSTALLOGRAPHIC PROPERTIES: Hexagonal, prismatic. Forms (0001), $(10\bar{1}4)$, $(10\bar{1}3)$, $(10\bar{1}2)$, $(10\bar{1}1)$, $(20\bar{2}1)$, $(10\bar{1}0)$. $P_0 = 1.8832$, $c = 2.8284$. $c:a = 1.6309$.

PHYSICAL AND OPTICAL PROPERTIES: Colorless to wine yellow, transparent. H. 8. Cleavage 0001, distinct. Uniaxial, negative. $\omega_{Na} = 1.7724$, $\epsilon_{Na} = 1.7700$. Dispersion strong.

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 nordenskiöldine:

Swedenborgite	$Na(AlO)_2SbO_4$	$c = 1.6309$
Nordenskiöldine	$Ca(BO)_2SnO_4$	$c = 1.6442$

W. F. F.

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

Vanoxite.

FRANK L. HESS: New and known minerals from the Utah-Colorado carnotite region. *Bull. U. S. Geol. Survey*, **750**, 63 (1924).

NAME: From *Van*adium *Ox*ide.

CRYSTALLOGRAPHIC PROPERTIES: Crystals minute with occasional rhombic outline.

CHEMICAL PROPERTIES: A hydrous vanadyl vanadate, $2V_2O_4.V_2O_5.\ 8H_2O$. Analyses: V_2O_4 53.1-50.9, V_2O_5 25.7-29.5, UO_3 0.5-0.11, H_2O 20.7-19.4. (Recalculated 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, tyuymunite, 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.

CLASS: SILICATES. DIVISION: $RO:R_2O_5:SiO_2:H_2O = 5:1:5:2$.

Chapmanite.

T. L. WALKER: Chapmanite, a new hydrous ferrous silicoantimonate, from South Lorrain, Ontario. *Contr. to Canadian Mineralogy*, p. 5, (1924).

NAME: In honor of the late Prof. E. J. CHAPMAN, Professor of Geology, University of Toronto.

CHEMICAL PROPERTIES: A hydrous silicoantimonate of ferrous iron, $5FeO.Sb_2O_5.\ 5SiO_2.2H_2O$. Analysis: FeO 33.91, Ni 0.36, Co 0.03, Cu 0.17, Bi 0.20, As 1.28, Al_2O_3 0.28, SiO_2 28.28, Sb_2O_5 31.65, H_2O 3.46. Sum 99.62.

PHYSICAL AND OPTICAL PROPERTIES: Finely divided, soft. Color green. Sp. Gr. 3.58. Optically negative (?). $2V$ small or moderate. $\alpha = 1.85$, $\gamma = 1.96$. γ parallel to the length and α 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.