

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.  $MnCl_2 \cdot 3MnO_2 \cdot 3H_2O$ . 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  $3 \frac{1}{2}$ . 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  $\varphi\omicron\iota\nu\iota\kappa\omicron\varsigma$  = 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.  $\text{As}_2\text{O}_5 \cdot 7\text{H}_2\text{O}$ . Analysis:  $\text{H}_2\text{O}$  11.60,  $\text{CaO}$  3.36,  $\text{MgO}$  1.34,  $\text{FeO}$  0.48,  $\text{MnO}$  34.46,  $\text{ZnO}$  29.72,  $\text{As}_2\text{O}_5$  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 purplish 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 franklinite-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  $\text{R}_3\text{As}_2\text{O}_8 \cdot 7\text{R}(\text{OH})_2$ .

W. F. F.

CLASS: PHOSPHATES, ETC. DIVISION:  $\text{R}' : \text{R}''' : \text{R}'''' = 1 : 2 : 1$ .

#### 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,  $\text{Na}_2\text{O} \cdot 2\text{Al}_2\text{O}_3 \cdot \text{Sb}_2\text{O}_5$ . Analysis:  $\text{Sb}_2\text{O}_5$  54.14,  $\text{P}_2\text{O}_5$  0.23,  $\text{Al}_2\text{O}_3$  34.72,  $\text{CaO}$  0.94,  $\text{MgO}$  0.52,  $\text{Na}_2\text{O}$  8.50,  $\text{K}_2\text{O}$  0.21,  $\text{H}_2\text{O}$  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 $\bar{1}$ 2), (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.  $\omega_{\text{Na}} = 1.7724$ ,  $\epsilon_{\text{Na}} = 1.7700$ . 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	$\text{Na}(\text{AlO})_2\text{SbO}_4$	$c = 1.6309$
Nordenskiöldine	$\text{Ca}(\text{BO})_2\text{SnO}_4$	$c = 1.6442$

W. F. F.

CLASS: PHOSPHATES, ETC. DIVISION:  $\text{R}'''' : \text{R}'''' : \text{H}_2\text{O} = 2 : 1 : \text{X}$ .

#### Vanoxite.

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

NAME: From Vanadium Oxide.

CRYSTALLOGRAPHIC PROPERTIES: Crystals minute with occasional rhombic outline.

CHEMICAL PROPERTIES: A hydrous vanadyl vanadate,  $2V_2O_4 \cdot V_2O_5 \cdot 8H_2O$ . 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,  $5FeO \cdot Sb_2O_5 \cdot 5SiO_2 \cdot 2H_2O$ . 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.  $\alpha = 1.85$ ,  $\gamma = 1.96$ .  $\gamma$  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, lāngbanite, 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.