

NEW MINERALS: NEW SPECIES.

CLASS: SULFO-SALTS. DIVISION: RS: $R_2S: Bi_2S_3 = 2 : 1 : 2$.

Hammarite

K. JOHANSSON: Bidrag till Gladhammar-gruvornas mineralogi. (Contributions to the Mineralogy of the Gladhammar Mine.) *Arkiv Kemi, Mineral., Geol.*, 9, No. 8, 11 (1924).

NAME: From the locality, Gladhammar, Province of Kalmar, Sweden.

CHEMICAL PROPERTIES: A sulfobismuthide of lead. FORMULA, $5PbS. 3Bi_2S_3$. Analysis: Pb 27.40, Cu 7.60, Bi 47.59, S 17.01, insol. 0.04; sum 99.64.

CRYSTALLOGRAPHIC PROPERTIES: Perhaps monoclinic. Short prisms or needles. Forms: (100), (010), (110), (210), (120), (230).

PHYSICAL PROPERTIES: Cleavage, 010, good. Color, steel gray inclining toward red. Fracture, flat conchoidal. High metallic luster. Streak black. $H=3-4$. Sp. gr. high.

OCCURRENCE: Found in crystals grown upon drusy quartz at Gladhammar.

DISCUSSION: Although the composition is given as a lead sulfo-bismuthide the mineral contains an appreciable content of copper. If this is calculated as non-isomorphous with the lead the agreement with the formula $2PbS. Cu_2S. 2Bi_2S_3$. (Theory: Pb 25.0, Cu 7.6, Bi 50.1, S 17.3.) is close. This places it in the 3 : 2 division of the sulfo-salts and as the copper analogue of schirmerite.

W. F. FOSHAG

CLASS: SULFO-SALTS. DIVISION: RS: $R_2S: Bi_2S_3 = 2 : 1 : 3$.

Lindstromite

K. JOHANSSON: *Op. cit.*; this mineral p. 14.

NAME: In honor of G. Lindstrom, of the Riksmuseet, Sweden.

CHEMICAL PROPERTIES. A sulfo-bismuthide of lead and copper. FORMULA, $2PbS. Cu_2S. 3Bi_2S_3$. Analysis: Pb 18.95, Cu 5.84, Fe tr., Bi 57.13, S 17.88, insol. 0.20; sum 100.00. Analysis made on selected crystals.

CRYSTALLOGRAPHIC PROPERTIES: Prismatic crystals, system unknown. Vertically striated. Forms. (100), (010), (110), (510), (410), (310), (520), (210), (530), (230), (120), (130), (140).

PHYSICAL PROPERTIES. Color lead gray; luster metallic. Cleavage 100 and 010, good; also prismatic 110. Fracture small conchoidal to uneven. $H=3-3.5$. Sp. gr. 7.01.

OCCURRENCE. On quartz in crystals 1 cm. long and several mm. thick.

DISCUSSION. Johansson points out the relation of lindstromite to andorite. This places lindstromite in the 1:1 division of the sulfo-salts.

W. F. F.

CLASS: SULFO-SALTS. DIVISION: RS: $R_2S: Bi_2S_3 = 2 : 1 : 5$.

Gladite

K. JOHANSSON: *Op. cit.*, this mineral p. 17.

NAME. From the locality, Gladhammar.

CHEMICAL PROPERTIES: A sulfo-bismuthide of lead and copper. FORMULA, $2PbS. Cu_2S. 5Bi_2S_3$. Analysis: Pb 12.40, FeO 0.19, Cu 3.98, Bi 64.96, S 18.04, insol. 0.12; sum 99.69. Analysis on selected crystals.

CRYSTALLOGRAPHIC PROPERTIES: Crystals prismatic with the forms (100), (010), (110), (250)?.

PHYSICAL PROPERTIES: Color lead gray. Streak black. Cleavage 010 good, 100 less so. $H=2-3$. Sp. gr. 6.96. Luster metallic.

OCCURRENCE: On quartz crystals with rezbanyite and galenobismutite. Crystals 2 cm. long and 2-6 mm. thick.

DISCUSSION: Gladite is the only member of the 3:5 division of the sulfo-salts. It therefore lies between the livingstonite and the rezbanyite groups. W. F. F.

NOTES AND NEWS

Mr. R. B. Gage of the Testing Laboratory, Trenton, New Jersey, reports on what appears to be a new mineral from Franklin Furnace, New Jersey. The material is similar in chemical composition to glaucochroite except that it contains over three per cent of water. It is light brown in color and occurs with leucophoenecite, bustamite and willemite. Publication will be withheld until additional analyses are made and the mineral has been studied optically.

The latest complete list of The Minerals of Franklin, New Jersey District, compiled by Chas. W. Hoadley and Wm. H. Broadwell, is now ready for distribution. The list, which contains 151 names with references to original descriptions, can be purchased for 10c per copy; postage 1 1/2 c extra. Address Wm. H. Broadwell, 571 Hawthorne Ave., Newark, N. J.

The Walker prize of the Boston Society of Natural History, for the best paper submitted in the field of geology or mineralogy, has been awarded to Edward F. Holden, instructor in mineralogy at the University of Michigan. The paper submitted was entitled "The Pigment of Amethyst."

According to Dr. Charles H. Viol, director of the Radium Research Laboratory of the Standard Chemical Co., less than half a pound (between 200 and 220 grams) of radium has been produced in the world since Madame Curie discovered the element in 1898. When carnotite is used as the source more than 500 tons of ore must be handled to yield one gram of radium. Radon, which is formed from radium, is 160,000 times as active but it loses its activity in about four days. Radon, therefore, can be used only in the treatment of a limited number of patients while radium can be used repeatedly.

Dr. David T. Day, an authority on mineral and petroleum deposits and for many years chief of the division of mining and mineral resources of the U. S. Geological Survey, died in Washington at the age of sixty-five years.

Dr. S. C. Lind has resigned as chief chemist of the Bureau of Mines to become associate director of the Fixed Nitrogen Research Laboratory of Washington, under the direction of Dr. F. G. Cottrell.

Dr. Henry S. Washington, of the geophysical laboratory of the Carnegie Institution of Washington, is in Europe to carry on archeological and volcanological studies in Italy and northern Africa.