

treatment of the various phases of crystal habit and related phenomena the author has rendered an excellent service to the many investigators now studying these interesting problems.

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## PROCEEDINGS OF SOCIETIES

### PHILADELPHIA MINERALOGICAL SOCIETY

*Academy of Natural Sciences of Philadelphia, April 7, 1927.*

A stated meeting of the Philadelphia Mineralogical Society was held on the above date; the vice-president, Mr. Clay, presided. Twenty-three members and four visitors were present.

Mr. Harold Poole of Miquon, Pa., was elected to membership.

Mr. Samuel G. Gordon presented a paper on *A Preliminary Note on Metavauxite, a New Phosphate Mineral from Llallagua, Bolivia*. It has the following properties: colorless or white; luster, vitreous or silky; form, acicular crystals or radiating fibrous aggregates; hardness 3; specific gravity 2.34. Monoclinic:  $a:b:c=1.2044:1:0.7272$ ;  $\mu=61^{\circ}19'$ ;  $p_0=0.6037$ ,  $q_0=0.6379$ ;  $e=0.4800$ ; habit prismatic. Optically +,  $X=b$ ,  $Z/c=17^{\circ}$ ;  $\alpha=1.550$ ,  $\beta=1.561$ ,  $\gamma=1.577$ ;  $\gamma-\alpha=0.027$ . The formula from an analysis by Mr. Earl V. Shannon is compared below with those of vauxite, paravauxite, etc.

Vauxite (blue)	$\text{FeO} \cdot \text{Al}_2\text{O}_3 \cdot \text{P}_2\text{O}_5 \cdot 6\text{H}_2\text{O}$	Triclinic
Paravauxite	$\text{FeO} \cdot \text{Al}_2\text{O}_3 \cdot \text{P}_2\text{O}_5 \cdot 5\text{H}_2\text{O}$	Triclinic
Metavauxite	$\text{FeO} \cdot \text{Al}_2\text{O}_3 \cdot \text{P}_2\text{O}_5 \cdot 4\text{H}_2\text{O}$	Monoclinic
Lazulite (Fe,Mg)O	$\cdot \text{Al}_2\text{O}_3 \cdot \text{P}_2\text{O}_5 \cdot \text{H}_2\text{O}$	Monoclinic
Wavellite	$2\text{Al}_2\text{O}_3 \cdot 2\text{P}_2\text{O}_5 \cdot 2\text{Al}(\text{OH},\text{F})_3 \cdot 10\text{H}_2\text{O}$	Orthorhombic

Mr. Biernbaum reported on a trip taken by several members to Avondale and Lieperville, Delaware Co. He exhibited cyanite from Ridley Park and Mr. Clay displayed garnet, likewise collected on this trip. Mr. Hoadley reported on trips to Danbury, Conn., where at the original locality danburite was found; and Monroe township, Conn., where native bismuth was collected. Other localities were visited and the specimens collected exhibited. Dr. Wills described a trip to the Poorhouse Quarry where he found chesterlite.

Dr. Wills then addressed the society on *Microscopic Mineralogy*. The technique of preparing and mounting specimens was described, the speaker exhibiting many box mounts. Six revolving tables, each equipped with a microscope were used, and the members seated about these tables examined the choice mounts which were shown.

F. A. CAJORI, *Secretary*

### NEW YORK MINERALOGICAL CLUB

*Regular Monthly Meeting of March 16, 1927.*

At the regular meeting held on March 16 Miss Catherine Schroder read an interesting paper on the *Minerals of British Columbia*. The speaker touched upon the minerals associated with those of economic value around Banff and Lake Louise, Alberta. She also spoke of the gold and silver locality over the boundary line in

British Columbia. She described the placer mining for gold in the Caribou District of British Columbia, and mentioned the valuable lode district of southeastern British Columbia as furnishing many specimens of minerals. Lake Kootenai in this district furnishes mainly gold, lead, copper and zinc minerals. Among the minerals described and illustrated by specimens were gold, pyrrargyrite, fluorite, cassiterite, galena, cerussite, siderite and molybdenite.

The second paper was given by Dr. Alfred C. Hawkins, who spoke on the *Minerals of Western New York*. Dr. Hawkins mentioned the localities of Rochester, Lockport and Syracuse as rich in minerals. Emphasizing the Rochester locality he cited pyrite of a dodecahedral habit in dolomite as one of the rare occurrences. He described the dolomite of Rochester as being white rather than yellow and mentioned light purple fluorite as occurring in the cavities of the dolomite. Of less frequent occurrence in these cavities are selenite, anhydrite, celestite, galena and sulphur. At Lockport the dolomite contains selenite, fluorite and calcite. Between Rochester and Lockport are several quarries which have not been visited. In conclusion, Dr. Hawkins showed a number of excellent slides of the region.

Dr. George F. Kunz showed a magnificent topaz crystal from Burma which was cinnamon brown in color, and was the largest found in the locality. Also a suite of blue zircons both cut and uncut. He stated that the blue color was in reality produced from hyacinth zircons by the action of cobalt nitrate and potassium ferrocyanide vapors. He suggested that for these artificially colored stones the name of "Starlight" be used.

Mr. O. I. Lee showed several rare minerals including naëgite (an altered zircon), turanite, schizolite, taeniolite and erikite.

HERBERT P. WHITLOCK, *Secretary*

## NEW MINERAL NAMES

### Aramayoite

L. J. SPENCER: Aramayoite, a new mineral, from Bolivia. With the chemical analysis by E. D. Mountain. *Mineral. Mag.*, 21, No. 115, pp. 156-162 (1926).

KATHLEEN YARDLEY: X-ray examination of aramayoite. *Ibid.*, pp. 163-168.

NAME: In honor of Señor Don Felix Avelino *Aramayo*, former Managing Director of the Compagnie Aramayo de Mines en Bolivie.

CHEMICAL PROPERTIES: A sulfide of silver, bismuth and antimony. Formula:  $\text{Ag}_2\text{S} \cdot (\text{Sb, Bi})_2\text{S}_3$ . Analysis: S 20.87, Sb 29.95, Bi 13.75, Ag 34.74, Cu 0.53, Fe tr.; Sum 99.84.

CRYSTALLOGRAPHIC PROPERTIES: Triclinic.  $a:b:c=0.9972:1:0.9886$ .  $\alpha=86^\circ 55'$ ,  $\beta=90^\circ 53'$ ,  $\gamma=93^\circ 18'$ . Cleavage  $c(001)$  perfect. Angle between the perfect and the fibrous cleavage is about  $77^\circ$ .

PHYSICAL AND OPTICAL PROPERTIES: Color, iron black. Lustre, brilliant on the perfect cleavage. Thin cleavage flakes are pliable but not elastic. Somewhat sectile. Streak black.  $H=2.5$ . Very thin edges show a deep blood red color. Sp. Gr. 5.602.

OCCURRENCE: Found in the Animas Mine of the Compagnie Aramayo de Mines en Bolivie at Chocaya, province Sud-Chichas, Dept. of Potosi, Bolivia. Associated with massive tetrahedrite and pyrite.