

of a definite value of $\gamma - \alpha$ for analcite conflicts with the description of its optical character as isotropic.

The book as a whole can be highly recommended to give a beginner a good idea of practical mineralogy.

E. T. W.

PROCEEDINGS OF SOCIETIES

THE NEW YORK MINERALOGICAL CLUB

The second regular assembly of the Club for 1917 occurred on February 14 in its usual meeting room in the American Museum of Natural History in New York, PRESIDENT J. G. MANCHESTER presiding and thirty-nine persons present.

The announced paper presented by Mr. Otto F. Pfordte, C.E., was entitled "Notes on a visit to the Mines at Cobalt, Thetford, and Sudbury, Canada."

It was very comprehensive, including reviews of the history, geology, mineralogy and industrial development of the above mentioned districts and some adjacent localities which respectively produce—silver and cobalt, gold, nickel (as pentlandite in pyrrhotite), asbestos and graphite,—and was illustrated by blackboard sketches, maps, specimens and a full series of lantern slides.

It was stated that silver had been known to occur near Cobalt since about 1879, as small nuggets were brought in by Indians from time to time, but its great deposits were first revealed by the cutting thru of a railroad in 1903.

Among the minerals described was a white earthy mixture of the arsenates of cobalt and nickel in such proportion that their red and green complementary colors exactly neutralized each other.¹

Early and recent views of the mining camps and towns showing their rapid and extensive development concluded Mr. Pfordte's interesting paper.

WALLACE GOULD LEVISON, *Secretary*.

THE PHILADELPHIA MINERALOGICAL SOCIETY

Wagner Free Institute of Science, February 8, 1917

PRESIDENT TRUDELL in the chair. Twelve members and fifteen visitors present.

Mr. R. J. Hagey presented a paper on "The Petrographical Microscope." The optical principles involved were thoroly treated, and illustrated with instructive diagrams. Numerous slides were exhibited by an ingenious projection apparatus designed by Mr. Hagey. Particularly good were the interference figures thus shown, and the attendant optical phenomena. The lecture

¹A property possessed also by other pairs of elements in the same group and utilized, as in glass making, for decolorizing their solutions.

was especially interesting because of the many new methods and principles introduced.

SUNDAY, APRIL 22. Meet at 69th Street Terminal at 8.45 A. M. for trip to General Trimble's Mine and Chester Springs.

SUNDAY, MAY 6. Meet at 69th Street Terminal at 8.45 A. M. for trip to Moro Phillips Mine, Blue Hill and Sycamore Mills, Delaware Co.

SAMUEL G. GORDON, *Secretary*.

SOCIÉTÉ IMPÉRIALE RUSSE DE MINÉRALOGIE

On January 20 (7, Russian Calendar), 1917, the Imperial Russian Society of Mineralogy celebrated the one hundredth anniversary of its existence, and its history was discussed at the regular annual meeting held on that date. The officers of the society are:

President, S. A. I. Madame la Princesse Eugénie d'Oldenbourg.

Director, A. P. Karpinsky, member of the Imperial Academy of Sciences.

Secretary, A. P. Guérassimov, mining engineer.

NEW MINERALS

Griffithite, A MEMBER OF THE CHLORITE GROUP

ESPER S. LARSEN AND GEORGE STEIGER, of the U. S. Geological Survey: *Mineralogic notes. J. Wash. Acad. Sci.*, 7, (1), 11-12, 1917.

NAME: From locality, Griffith Park, Los Angeles, California.

PHYSICAL PROPERTIES

Color: dark green. Luster: vitreous. H. about 1. Sp. Gr. 2.309. Fusibility 4, with intumescence and formation of black magnetic slag.

CRYSTALLOGRAPHIC AND OPTICAL PROPERTIES

Crystal system presumably monoclinic like other chlorites. Habit, basal plates and shreds. Cleavage, basal perfect. Optically-. Biaxial with 2V varying from 0-40°. X normal to cleavage. Birefringence strong. Pleochroism and indices varying somewhat, as follows: $\alpha = 1.485 \pm 0.01$, pale yellowish; $\beta = 1.569 \pm 0.005$, olive green; $\gamma = 1.572 \pm 0.005$, brownish green.

CHEMICAL PROPERTIES

Gelatinizes with HCl. Homogeneous material gave on analysis (by S): SiO₂ 39.64, Al₂O₃ 9.05, Fe₂O₃ 7.32, FeO 7.83, MgO 15.80, CaO 2.93, Na₂O 0.71, K₂O none, H₂O -12.31, H₂O +4.90, TiO₂ none, sum 100.49. The formula derived is 4(Mg, Fe, Ca) O. (Al, Fe)₂O₃. 5SiO₂. 7H₂O, or perhaps H₄R₄'R'''₂ Si₅O₁₉. 5H₂O.

OCCURRENCE AND PARAGENESIS

Fills amygdaloidal cavities in a basalt collected by R. T. Hill at Cahuenga Pass in Griffith Park. The amygdules are up to an inch in largest dimension and comprise a considerable part of the rock; they are pure griffithite. To be classed as a mineral of metamorphosed calcic igneous rocks.

E. T. W.