which yielded: Insoluble 0.31, Fe_2O_3 29.98, SO_3 39.68, H_2O 30.45, sum 100.42 per cent. The water was determined by mixing the sample with anhydrous $PbCrO_4$ and igniting the mixture in a combustion furnace, catching the water in a weighed $CaCl_2$ tube. The formula indicated is $Fe_2O_3.5SO_3.18H_2O$.

The microscopic examination and the chemical analysis show that the mineral is undoubtedly copiapite. Such a transformation from melanterite to copiapite is worthy of note, especially as it took place in the dry atmosphere of a mineral cabinet, while the mineral specimen was enclosed in cardboard.

Because of these rather unexpected results, it was thought worth while to examine a coal reported to contain sulfur. It was found on examination that the label was in fact wrong, and the "sulfur" proved to be *copiapite*. It is more than likely that many if not all of the reported occurrences of elementary sulfur in coal and in slack piles are due to the presence of this mineral. The color is strikingly similar to sulfur, and the mineral has somewhat the appearance of the sulfur found in some of the hot springs of Yellowstone Park.

PROCEEDINGS OF SOCIETIES

THE PHILADELPHIA MINERALOGICAL SOCIETY

WAGNER FREE INSTITUTE OF SCIENCE, MAY 9, 1918

A stated meeting of the Philadelphia Mineralogical Society was held on the above date with the president, Dr. Leffmann, in the chair. Twelve members and two visitors were present.

Mr. John G. Rothermel addressed the society on the Geology and Mineralogy of the Petrified Forest of Arizona, illustrated with lantern slides and specimens. Dr. Leffmann exhibited some radiographs.

Mr. Gordon reported the following trips.

(1) Devil's Pool, Wissahickon Creek. About 200 feet north of the pool is an exposure of a meta-pyroxenite dike (a mixture of talc and amphibole) which has metamorphosed the Wissahickon "gneiss" (mica schist) immediately adjoining with the development of cyanite and staurolite. The cyanite is obtainable in indifferent specimens. The staurolite is found in abundance, weathered out of the schist, on top of the hill, in crystals, sometimes twinned, up to two inches in length.

(2) Deshong's quarry, Leiperville, Delaware County. Large microcline crystals were obtained and one large yellowish green beryl, 14 inches long and 1½ inches thick, somewhat altered on the surface and opaque, but clear and exhibiting a good aquamarine color where broken across.

(3) Gottschall's mine, 1 mile northwest of Capella Hill, Alsace township, Berks County. Nickeliferous pyrrhotite and augite are abundant.

(4) Valentine Hartmann's mine on Antietam Creek, 1 mile west of Spies Church, Alsace township, Berks county. Only inferior specimens are now obtainable at this famous old molybdenite locality.

(5) Ocher pit, 3½ miles southwest of Pricetown, Alsace Township, Berks County. Fine limonite, stalactitic and mammillary, obtainable in geodes up to two feet long.

(6) Udreé's mine, an old limonite bank, 1 mile south of Pricetown, Ruscombmanor Township, Berks County; this is surrounded by extensive, but practically barren dumps. Specimens of psilomelane and turgite were found.

(7) Quarries at Trap Rock, 2 miles south of Birdsboro, Berks County. Calcite in brilliant, but small, yellow rhombohedral crystals; groups of small clear stilbite crystals, laumontite and prehnite.

(8) Small abandoned trap quarry ½ mile south of St. Peters Station, W. & N. R. R., Knauertown, Chester county. The Triassic diabase here overlies a quartzite, and small veins of andradite and specular hematite occur in the latter near the contact.

(9) Hopewell mines, Steel's mine on Steel's Hill, and St. Mary's mines at Warwick, Warwick township, Chester county, formerly well-known localities. These mines have not been worked for years, and nothing of interest is obtainable.

(10) French Creek mines. The upper mine, formerly known as the Elizabeth mine, is now in active operation, but little of interest was obtained. However, there is a possibility of it becoming a good locality again. The Keim mine, or lower mine, lies 200 feet southwest of the upper mine, and there is hope also of this mine being reopened. A fine calcite crystal was secured—a combination of the forms m $(10\bar{1}0)$, v $(21\bar{3}1)$ and e $(01\bar{1}2)$ (striated), the unit prism, scalenohedron and rhombohedron respectively. This crystal is from a group of colorless crystals, the largest measuring 2 inches long by ½ inch thick, obtained at the Keim mine when it was being worked.

(11) Jones mine, ¾mile east of Joanna, Berks County. This long abandoned magnetite mine is now an immense reservoir of water surrounded by extensive dumps. Malachite, azurite, and fine crystals of pyrite, chalcopyrite, magnetite (dodecahedral) and aragonite were obtained.

Mr. Trudell reported the society's trip to Brinton's quarry, where jefferisite (one crystal 9 inches long), clinochlore, magnesite, deweylite and asbestus were found.

Mr. Gordon exhibited a fine andradite crystal from Cornwall, Lebanon County. The crystal is brown olive, measuring one inch in diameter. The form is a trapezohedron (tetragonal trisoctahedron), n (211), striated parallel to the shorter diameter or the edges of minute dodecahedral faces; the striations are probably due to an oscillation between these two forms. The crystal is studded with occasional minute pyrite and smaller andradite crystals.

SAMUEL G. GORDON, *Secretary.*

THE NEW YORK MINERALOGICAL CLUB.

The final regular meeting of the New York Mineralogical Club for the season of 1917–1918 was held on Wednesday, May 8th, 1918, in the Audi-

torium of the Museum of the Brooklyn Institute of Arts and Sciences, Eastern Parkway and Washington Ave., Borough of Brooklyn, New York City. The President, Dr. George Frederick Kunz, was in the Chair.

The announced program presented was "an exhibit by the Secretary of 150 lantern slide photographs of various mineral localities of New York City and vicinity, past and present, and some of the minerals they have produced." These photographs were chiefly made by or for the speaker from time to time since 1867, but included a few of special interest contributed by others.

The views of localities illustrated, some the gradual working out of veins, and others groups of Club members on various excursions. The exhibit included many selected to show the comparative results afforded by various photographic methods, and many kinds of plates, such as the old time collodion wet plate, the Monroe, Carbutt, Cramer, Stanley, and Seed plain dry plates (some hand colored), the Seed G.B.P.R, color plates, and the Jougla and Dufay Autochrome or natural color plates. Cabinet specimens shown in the views were mounted on blocks with attached labels, each of standard size and the specimens shown in the photomicrographs were mounted in standard Rakestraws. The illustrations were thus designed to be of interest from diverse points of view.

Upon conclusion of the lecture a vote of thanks was tendered to the speaker, and after a brief "conversazione" the meeting adjourned.

WALLACE GOOLD LEVISON, *Secretary.*

NEW MINERALS

COLERAINITE

Eugene Poitevin and R. P. D. Graham: Contributions to the mineralogy of Black Lake Area, Quebec. *Canada Dept. Mines, Museum Bull.* **27**, 66–73, 1918.

NAME: from the locality, Coleraine township, Quebec.

PHYSICAL PROPERTIES

Color: colorless to white, faint pink and pale brown. Luster: vitreous, dull or pearly. Form: thin hexagonal plates or flakes (1 mm. in diameter), often aggregated into rosettes or spheres; also fine granular and compact. Sp. Gr. = 2.51. H. = 2.5 − 3.

OPTICAL PROPERTIES

Under the microscope the crystal flakes are isotropic; uniaxial, the optic axis emerging normal to the flakes; birefringence + and weak, with mean refractive index about 1.56.

CHEMICAL PROPERTIES

Composition: $H_5Mg_2AlSiO_8$, a hydrated magnesium aluminium silicate, near newtonite. An analysis of crystals by M. F. Conner gave: SiO_2 24.40, Al_2O_3 22.77; Fe_2O_3 0.45, MgO 32.70, CaO 0.10, $(Na,K)_2O$ 0.30, MnO 0.09, H_2O 19.63, sum 100.44 per cent.

B. B. whitens, disintegrates, finally fusing to a white glass which moistened and heated with cobalt nitrate becomes blue. In the closed tube whitens and decrepitates. Decomposed with difficulty by HCl with the separation of flocculent silica.