A stated meeting of the Philadelphia Mineralogical Society was held on the above date with the president, Mr. Vaux, in the chair. Seventeen members and three visitors were present.

Mr. Charles W. Hoadley addressed the Society on "Mineral Collecting in New Jersey." A hypothetical auto trip starting from Philadelphia and including the principal localities was described, with data regarding the minerals, their association, and mode of occurrence. Of chief interest were the Bergen Hill localities, Paterson, Franklin, and Moore Station. The talk was illustrated with numerous maps, photographs, lantern slides, and specimens.

Mr. Trudell described a visit with Mr. Gordon to view Col. Roebling's collection. He described a large section of a topaz crystal measuring over three decimeters across, and two beautifully twinned chrysoberyls from Brazil, lately acquired by the Colonel.

Samuel G. Gordon, Secretary.

NEW MINERALS: NEW SPECIES

CLASS: HALIDES. SUB-CLASS: HYDROXYHALIDES. DIVISION.

Chloroxiphite.


NAME: From the Greek chloros, green, and xiphos, a blade or straight sword, may be pronounced either chloro-ziphite or chloroxi-phite, the latter suggesting the composition (an oxychloride).

CHEMICAL PROPERTIES: Formula, 2PbO.Pb(OH)2.CuCl2 or CuPb2Cl3(OH)2O2. Theory Pb 75.6, Cu 7.7, Cl 8.6, O 5.9, H2O 2.2, sum 100.0%. Analyses by E.D.M. gave Pb 75.34, 74.10, Cu 8.71, 8.37, Cl 7.19, 8.97, O 6.38, 5.79, H2O 2.56, 2.52, sums 100.18, 99.75%. Methods of analysis are given. No H2O is lost at 110°, but all escapes below 250°. On soln. in HNO3 the Cu dissolves first, then the Pb slowly. The constituents were weighed as AgCl, PbSO4, and CuO.

Qualitatively gives the usual reactions for the constituents. In closed tube decrepitates, gives off PbCl2 fumes, and melts to brown liquid which becomes green and glassy on cooling.

CRYSTALLOGRAPHIC PROPERTIES: System, monoclinic, with angle β near 63°; elongated on axis b. Habit thin blades up to 3X1 cm. X 1 mm. Cleavage perfect on c, less so on a. Resembles epidote in crystallography and color.

OPTICAL PROPERTIES: Refractive indices and birefringence both high. Biaxial, negative, with axial angle in oil 80°; plane of optic axes perpendicular to plane of symmetry and acute bisectrix near axis c. Flakes lying on c show tilted figures in convergent light; and in ordinary polarized light striking pleochroism, bright emerald green lengthwise and yellowish brown crosswise.

PHYSICAL PROPERTIES: Color, dull olive to pistachio green; luster, resinous to adamantine; streak, characteristic pale greenish yellow. Brittle and friable; H. = 2½. D.16/4 = 6.763.
Occurrence: Piercing crystals of mendipite from Higher Pitts, Mendip Hills.
Discussion: A well defined species. E. T. W.

Class: Halides. Sub-class: Hydroxyhalides. Division: \[ R'\cdot Cl\cdot (OH) = 3:2:4. \]

Diaboleite.

L. J. Spencer and E. D. Mountain, op. cit.; this mineral, pp. 78-80.
Name: Lacking sufficient material for a more complete investigation, which
might throw light on the boleite problem, is named from the Greek \( dia \), apart, and
the name boleite. Pronunciation presumably diabole-'ite.

Chemical properties: Formula, \( 2Pb(OH)_2\cdot CuCl_2 \) or \( CuPb_2Cl_4(OH)_4 \).
Theory Pb 67.2, Cu 10.3, Cl 11.5, O 5.2, H\(_2\)O 5.8, sum 100.0%.
Analysis by E. D. M. (on 0.12 g.) gave Pb 66.93, Cu 10.31, Cl 10.89, O 5.29, H\(_2\)O 6.14, sum 99.56%.
Analyzed like the preceding mineral. Qualitatively resembles the latter, but does
not decrepitate.

Crystallographic properties: System, tetragonal; \( c : 0.95 \); angle 001:101 =
43°. Habit, tabular with the forms c (001), a (100), e (101), and o (307); crystals
poor, barely 1 mm. across. Cleavage perfect on c.

Optical properties: Refractive index by prism method 1.98. Uniaxial, —.
Marked dichroism with \( \omega \) deep blue, \( \epsilon \), very pale blue.

Physical properties: Color, bright sky blue; luster, brilliant; streak, pale
blue. Brittle; H = 2\( \frac{1}{2} \). D.18/4 = 6.412.

Occurrence: Intimately admixed with chloroxiphite.
Discussion: Distinctness seems probable, but relationship to the boleite group
is obscure.

E. T. W.

REDEFINITIONS OF SPECIES

Class: Halides. Sub-class: Oxyhalides. Division: \( R''\cdot Cl\cdot O = 3:2:2. \)

Mendipite.

Glocker, 1839; new data furnished by Spencer and Mountain, op. cit.,
pp. 70-75.
Chemical properties: Accepted formula firmly established by new analysis
on pure material (E. D. M.): Pb 85.87, Cl 9.35, O 4.53, sum 99.75%.
Crystallographic properties: New measurement of axial ratio \( a:b \) gave
0.8002:1; cleavage angle 77°20'.

Physical properties: New detn. of D gave (16/4) 7.240.

E. T. W.

Class: Oxides. Sub-class: Double Oxides. Division: \( R''\cdot R''' = 1:2. \)

Crednerite.

Rammelsberg, 1848; redescribed by Spencer and Mountain, op. cit., pp.
86-88.
Chemical properties: Previous analyses have been imperfect, and the usually
accepted formula is erroneous. Correct formula, \( CuMn_2O_4 \) or \( CuO.Mn_2O_3 \); theory
CuO 33.5, MnO 59.8, O 6.7, sum 100.0%.
Analysis on material from which part
of the carbonate impurities had been removed by dilute HNO₃ (by E. D. M.) gave: CuO 36.57, MnO 54.40, O 6.22, H₂O+CO₂ 1.88, PbO 0.88, sum 99.95%; after removing 6.10% malachite and 1.0% cerussite, this gives: CuO 34.68, MnO 58.62, O 6.70, sum 100.00%.

Physical properties: Corrected D (16/4) = 5.03.

Occurrence: Present in considerable amount on the outside of nodules of lead ore from Higher Pitts.

E. T. W.


Trevorite.


Chemical properties: Formula, NiO·Fe₂O₃ or NiFe₂O₄; theory, NiO 31.9, Fe₂O₃ 68.1, sum 100.0%. Analysis by E. W. Todd on material found by E. Thomson to be mineralogically uniform, and partially purified from associated nickeliferous talc or serpentine, gave: NiO 29.71, FeO 1.96, MgO 0.24, Fe₂O₃ 66.24, SiO₂ 1.40, H₂O 0.36, sum 99.91%. On deducting impurities the agreement with the theory is excellent.

Physical properties: Color black with greenish hue; luster metallic; streak black. Very strongly magnetic. H. = 5; sp. gr. = 5.165.

Discussion: The original review of this mineral in this journal (8, 37, 1923) was based on an incomplete description, including an imperfect analysis. On the principle that new species can not be accepted until reasonably dependable data concerning their homogeneity are available, it was classed as doubtful. The present paper furnishing adequate evidence as to the distinctness of the mineral, it may now be raised to species rank, and placed in the spinel group. E. T. W.


Hydrocerussite.

Nordenskiöld, 1877; new data furnished by Spencer and Mountain, op. cit., pp. 80-85.

Chemical properties: Accepted formula now definitely based on analysis of natural material (E. D. M.): PbO 86.52, 86.43, CO₂ 11.21, 11.32, H₂O 2.33, 2.00, Cl₂ 0.27, 0.32, sums (less O=Cl₂) 100.17, 100.00%. The Cl appears to be isomorphous with (OH). The H₂O goes off only above 200⁰, completely at 250⁰.

Physical properties: New detn. of D gave (25/4) = 6.80.

Occurrence: Fairly common in the Mendip Hills, although not previously recorded from there. E. T. W.