Mr. Broadwell: - Bismuth from Kingsgate, N. S. Wales. Molybdenite from Deepwater, N. S. W. Arsenopyrite from Emmaville, N. S. W.

Mr. Maynard: - Calcite in fluorite from Weardale, Eng. Fluorite from Cornwall, Eng. Calcite from Weardale, Eng.

Mr. Ashby: - Amethyst with cavities after aragonite. Capped quartz from Schlaggenwald, Bohemia, with 4 cappings each about ¼ inch thick, the complete separation being between the second and third cap. Fossil copal from near Paramaribo, Dutch Guiana, South America, and containing the pupa of insects, similar to white ants. The interesting point being that the contents of the pupa cavity is still liquid in the fossil gum.

Meeting adjourned 9.35 P. M.

HERBERT P. WHITLOCK, Recording Secretary.

NEW MINERALS: NEW SPECIES


Parsonsite


NAME: Dedicated to Professor A. L. Parsons of Toronto.

CHEMICAL PROPERTIES: Formula, regarded as probably 2PbO. UO₂.P₂O₅. H₂O or Pb₂(UO₂)(PO₄)₂.H₂O. Theory, PbO 50.0, UO₂ 32.1, P₂O₅ 15.9, H₂O 2.0%. Analysis on small samples purified by washing gave: PbO 44.71, CuO 0.25, CaO 0.63, Al₂O₃ 1.23, UO₂ 29.67, P₂O₅ 15.08, TeO₅ 3.01, MoO₃ 0.43, CO₂ 1.19, H₂O 1.56, insul. 1.51%; summation given as 99.47, but actually 99.27%. The Cu is believed to come from admixed torbernite which likewise contains Te and Mo. [Other admixture appears to be present, and it is to be hoped that the formula can be confirmed on purer material.] In the closed tube yields H₂O and becomes yellowish. On charcoal fuses to a black globule. Readily soluble in acids, leaving a slight insoluble residue and giving reactions for Pb, U, and P.

CRYSTALLOGRAPHIC PROPERTIES: Monoclinic or triclinic. Crystals very minute; habit tabular; taking the dominant form as (010), the angles are (100):(001) = 81°; (100):(h01) = 47-48°; (001):(h01) = 28-29°(?).

OPTICAL PROPERTIES: Biaxial; n>1.99; birefringence weak; elongation +; extinction 12°.

PHYSICAL PROPERTIES: Color, pale brown, mostly due to inclusions; streak, pale brown with rose tinge; structure earthy, minutely crystalline to compact; luster greasy; density = 6.23; radioactive.

OCCURRENCE: Associated with torbernite at Kasolo, Katanga, Belgian Congo.

DISCUSSION: Acceptable as a new species, although the data are not as complete as might be desired.

E. T. W.

Weinschenkite


NAME: Given by Dr. Laubmann after the late petrographer of Munich, Professor Ernst Weinschenk.

Chemical properties: Formula $(Y,Er)(PO_4)(H_2O)_2$ with $Y:Er = 5:1$. Theory: $\text{R}_2\text{O}_8$ 54.1, $\text{P}_2\text{O}_5$ 30.5, $\text{H}_2\text{O}$ 15.4, sum 100.0%. Analysis gave: $\text{R}_2\text{O}_8$ 52.47, $\text{P}_2\text{O}_5$ 30.20, $\text{Fe}_2\text{O}_3$ 0.24, insol. 0.38, loss on ign. 16.42, sum 99.71%. Mean atomic weight of rare earths (R) = 102; methods of analysis are described in detail; small amounts of other rare earths are present.

In the closed tube yields water, but no fluorine. Infusible; heated with cobalt solution becomes dark. Readily soluble in dilute acids, but not in alkalis.

Physical properties: Color white; form, matted globular masses, also radiated needles. Closely resembling wavellite, but found by Laubmann to be optically distinct (no data given).

Occurrence: As a coating on limonite iron ores in the Amberg-Auerbach mine, Bavaria. An associated mineral containing much less rare earths is called by Dr. Laubmann “pseudo-wavellite.”

Remarks: Evidently a new species, although the incomplete description is to be regretted.

E. T. W.

Class: Phosphates, Etc. Division: $R''\cdot R'''\cdot P\cdot H_2O = 4:4:6:27$ (?).

Vauxite


Class: Phosphates, Etc. Division: $R''\cdot R'''\cdot P\cdot H_2O = 1:2:2:11$ (?).

Paravauxite

S. G. Gordon: loc. cit.

E. T. W.

Abstracts: Crystallography


The following minerals were examined: (I) Clinzoisite, wine-yellow crystals from the Schwarzenstein Alp, Zillerthal, Tyrol; (II) Olive-green epidote from Pfarrerb, Zöptau, Moravia; (III) Pistachio-green epidote from the Knappenwand, Sulzbachtal, Salzburg; (IV) Deep-green pistazite from Rauhbeereinstein, Zöptau. The results were:

<table>
<thead>
<tr>
<th>Iron-epidote molecule</th>
<th>$\alpha$</th>
<th>$\beta$</th>
<th>$\gamma$</th>
<th>2V (over $\alpha$)</th>
<th>$a:cx$</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>0%</td>
<td>1.7136</td>
<td>1.7172</td>
<td>1.7188</td>
<td>113°47' +12°17'</td>
</tr>
<tr>
<td>II.</td>
<td>22</td>
<td>1.7217</td>
<td>1.7422</td>
<td>1.7500</td>
<td>80 15  - 2 05</td>
</tr>
<tr>
<td>III.</td>
<td>34</td>
<td>1.7262</td>
<td>1.7569</td>
<td>1.7737</td>
<td>73 06  - 4 28</td>
</tr>
<tr>
<td>IV.</td>
<td>37</td>
<td>1.7291</td>
<td>1.7634</td>
<td>1.7796</td>
<td>68 53  - 4 53</td>
</tr>
</tbody>
</table>

These and others from the literature are tabulated to show the variation of optical properties (Na light) with the amount of the iron-epidote molecule.

E. F. H.


Four types of crystals are described. On the colorless transparent crystals 35 forms are noted. Striations, etch figures, and several third order rhombohedrons show the symmetry. For crystals with $\text{FeCO}_3 = 0.09-0.13\%$, the indices were: $\omega_\rho 1.6733$, $\omega_\text{Na} 1.6799$, $\omega_\nu 1.7030$, $\epsilon_\rho 1.4984$, $\epsilon_\text{Na} 1.5013$, $\epsilon_\nu 1.5110$. Sp. gr. 2.882.