NEW MINERAL NAMES

Schoderite, Metaschoderite


The mineral occurs as yellowish-orange microcrystalline coatings associated with wavellite and vashegyite along fractures in phosphatic chert near Eureka, Nevada. It is in microscopic monoclinic, bladed tabular crystals, elongated parallel to (001). Unit cell dimensions a 11.4, b 15.8, c 9.2 Å, β 79°. The strongest X-ray lines are 2.79-10, 9.6-10, 11.1-5, 15.8 Å-4. It is biaxial, positive, α 1.542, β 1.548, γ 1.566, 2V (calcd.) 60°, γ = b. Formula 2Al₆O₃·P₂O₅·V₂O₅·16 H₂O.

At room temperature in a dry atmosphere, the mineral dehydrates to metaschoderite, 2Al₆O₃·V₂O₅·P₂O₅·12H₂O. This rehydrates to schoderite on contact with water. Meta-
schoderite has the same a, c, and β as schoderite, but b shrinks to 14.9 Å. Biaxial, posi-
tive (given as negative), α 1.598, β 1.604, γ 1.626, 2V 73° (calcd.), Z = b. The strongest
X-ray line are 7.5-10, 14.9-6, 11.1-5, 3.02 Å-3.

The name is for William P. Schoder, research chemist, Union Carbide Nuclear Co.

DISCUSSION.—Presumably to be classed with the aluminum vanadates steigerite and al'vanite.

Michael Fleischer

Unnamed Pt and Pd minerals


Platinum minerals of the Noril'sk deposits were studied optically and analyzed by
means of an electron probe. The following minerals appear to be new:

Mineral No. 5.—Analysis gave Pd~70, Pb~30, Ag~1%, corresponding approx-
imately to Pd₄Pb. Occurs in chalcopyrite and cubanite as elongated crystals and fills inter-
stices in sperrylite. Brownish tint. Reflecting power 65%. Weakly anisotropic. Relief
less than that of platinum and sperrylite, greater than that of cubanite. Blackened by
aqua regia, not etched by conc. HCl or HNO₃.

Mineral No. 8.—Analysis gave Pd₅S₈, S~40, approximating PdS₂. X-ray diagram
(not given) stated to be similar to that of braggite (Pt, Pd, Ni)S. Reflecting power low,
44–45%. Weakly anisotropic, hardness medium, scratched by steel, microhardness 32
kg/sq.mm. Relief greater than that of chalcopyrite or millerite. Not etched by aqua regia
or concentrated acids.

Mineral No. 6.—Analysis gave Pt~36, As~28, Ru~3%; it is not known what ele-
ment is missing, perhaps osmium which could not be determined. In small (0.02–0.05 mm.)
isometric crystals. Grayish-white, low reflecting power. Hardness and relief highest of all
Pt minerals. Perhaps an osmian sperrylite?

Data are also given for two alloys of Pt (Minerals No. 1 and 3) containing Pt 82–86.5,
Sn~8, Ir~5, Pd~2, Fe 0.5%, and Pt 75–76.4, Fe~10, Ir~6–8, Ni~3–4, Cu and Ag<1%;
sperrylite (Mineral No. 4) containing Pt 60–63, As 40, Sn 2–4, Rh~1%, stibiopalladinite
(Mineral No. 7) containing Pd~73, Sb 25%, and a mineral, perhaps near stannopal-
ladinite (Mineral No. 2) containing Pd 28, Pt~50, Sn~30, Ir~2.5%.

M. F.
Niobozirconolite

Two new analyses are given of zirconolite (ABₒO₇, nearly CaZrTi₂O₇, see Am. Mineral. 42, 581 (1957). One of these, from apatite-magnetite rocks of the Vuorijarvi massif, Kola Peninsula, is called niobozirconolite. Analysis by A. V. B. gave TiO₂ 18.19, Nb₂O₅ 24.84, Ta₂O₅ 2.00, Fe₂O₃ 1.11, ZrO₂ 25.00, U₂O₅ 0.40, ThO₂ 2.90, Ce₂O₅ 4.00, CaO 11.00, FeO 6.00, MnO 0.38, Na₂O 1.40, H₂O 2.48, F 0.60, sum 100.30 – (O + F) 0.25 = 100.05%. This corresponds to (Ca, Zr, Fe⁺²)₂ (Ti, Nb, Zr)₂O₇ with Ca:Zr about 1:1 and Ti:Nb:6:5. G. 4.51. Unit cell of cubic phase (presumably after heating MgF₂): a = 5.93 Å. This may be intermediate between zirconolite and pyrochlore, Ca Na Nb₂ (O, F)₇, but further study is required.

Discussion.—Unnecessary name for niobian zirconolite.

Lazarevicite

The mineral occurs as microscopic grains in copper ore from the Tilva Mika deposit, Bor, eastern Serbia. It is associated with enargite, luzonite, covellite, and pyrite. An electron-microprobe analysis gave Cu 52.5, As 12.5, Fe 1.9%. This with spectrochemical analysis leads to the formula Cu₉ (As₅.₃₅Cu₆.₂₂Fe₀.₃₃V₀.)₄S₄, ideally Cu₉As₄S₄. Cubic, space group P4₃m, a = 5.28 ± 0.01 (not stated whether α or kX), Z = 1, G. calcld. 4.39.

The name is for M. Lazarevic, pioneer investigator of the geology and ore deposits of Bor, 1908–1913.

Discussion.—The name arsenosulvanite (see Am. Mineral., 40, 368–369 (1955)) was given to Cu₃(As, V)₅S₄ with As:V = 2:1. I would have preferred to see this name extended to the As end number, so that the series could be described in terms of two names only.

Paulite, Ellweilerite

The U deposit occurs in weathered porphyry. Minerals identified include pitchblende, coffinite (?), zeunerite, boltwoodite, curite, and two new minerals. Paulite forms very thin tablets, light yellow, transparent, strongly fluorescent under U.V. It is partly intergrown with zeunerite. Microchemical tests were obtained for Al, U, and As; it is suggested that it is the As-analogue of sabugalite, HAl(UO₄)₆(PO₄)·16H₂O. Ellweilerite occurs with zeunerite and partly intergrown with it. In thin tabular crystals and flaky aggregates, light yellow to nearly water-clear. Fluoresces very strongly in short- and long-wave U.V. Microchemical tests showed Na, U, and As. The d-values (not given) are stated to agree well with those of Mrose (Am. Mineral., 38, 1159–1168 (1953) on synthetic Na analogue of uranospinite.

The names are for Hans Paul, Gewerkschaft Brunhilde, and for the locality.

Discussion.—The name sodium uranospinite has already been given to ellweilerite (Am. Mineral., 43, 383–384 (1958)); the author considers the new name to be justified because the previously described material contained some calcium. I do not agree. The name paulite has been used for hypersthene (Dana's System, 6th Ed., p. 348) and is also
easily confused with pallite (see Am. Mineral., 45, 256-257 (1960)). But above these considerations, names should not be given to minerals with such inadequate descriptions.

M. F.

**Baotite (= Pao-t’ou-Kuang)**


A preliminary note on this mineral was abstracted in *Am. Mineral.*, 45, 754 (1960). In the Russian paper, the name is transliterated baotite. The formula is given as Ba$_4$(Ti, Nb)$_4$ClO$_8$(Si$_2$O$_5$).

M. F.

**Garronite**


The information given is, “The list includes a probable new zeolite, related to phillipsite, for which the name ‘garronite’ is tentatively suggested.”

Discussion.—Names should not be given without descriptions; the mineral should have been referred to as a possibly new zeolite, without a name.

M. F.

**Loughlinite**


**Papagoite**


**Paratellurite**


**Paulingite**


**Ranquilite**


**Reedmergnerite**


**Weeksite**


**NEW DATA**

**Teineite**


Teineite has been considered to be Cu$_4$(SO$_4$)$_3$(TeO$_4$)$_6$·26H$_2$O or perhaps Cu[(Te,
NETV MINERAL NAMES

S)O4l.2HrO (Dana's System, 7th Ed., 2, 635-636). Weissenberg study of type material shows it to have space group P 212121; the unit cell has a 6.63, b 9.61, c 7.43 Å. These are so close to the data for chalcomenite, CuSeO3·2H2O, that it is probable that teineite is a tellurite, and not a tellurate.

The sp. gr. calculated for CuTeO3·2H2O is 4.08, for CuTeO3·2H2O is 3.85, determined 3.80. (But if the S shown in the analysis is included, the calculated sp. gr. is far too low; a new analysis is needed. M.F.)

M. F.

Eskebornite


The formula of eskebornite has been given as FeSe and Fe3CuSe4. Two analyses of synthetic preparations with ao 5.53–5.55 Å. (for natural material ao 5.53 Å.) gave Cu0.45Fe0.6Se and Cu0.34Fe0.65Se, and an x-ray fluorescence analysis of another synthetic preparation gave Cu6.55Fe6.55Se. The general formula may be (Cu, Fe)1.5Se. X-ray powder data are given.

M. F.

Koutekite


A preliminary note was abstracted in Am. Mineral., 43, 794 (1958). New data given: luster metallic, streak black. Hardness 4–4½. X-ray powder data are given for the mineral; they are identical with those for synthetic Cu2As and are clearly different from those of β-domoykite. The pattern is indexed on a hexagonal cell with a 11.51, c 14.54 Å. The strongest lines are 2.078 (10)(42), 2.024 (10)(126), 1.994 (10)(050), 1.147 (9)(085), 1.324 (8)(170), 1.197 (8)(266,272), 1.178 (8)(084), 2.446 (7)(041), 1.374 (7)(261)(443), 3.33 (6)(030), 1.785 (6)(333). A perfect cleavage in one direction was noted in a synthetic preparation. Koutekite is replaced by an unknown copper arsenide and by lőllingite.

M. F.

DISCREDITED MINERALS

Gajite (= Calcite + Brucite)


Gajite, described in 1911 (Dana's System, 7th Ed., vol. II, p. 264), was found by optical and x-ray study to be a mixture of calcite and brucite.

M. F.

Deltaitte (= Crandallite + Hydroxylapatite)


X-ray study of deltapate (Dana's System, 7th Ed., p. 837) indicates it to be a mixture.

M. F.

Delatorreite (= Todorokite)


Lesserite (= Inderite)

Pilinite (= Bavenite)

Woodfordite (= Ettringite)