

NEW MINERALS

HOEGBOMITE

Axel Gavelin: Ueber Högbo mit, ein neues gesteinsbildendes Mineral aus dem Ruoutevare-Gebiet in Lappland. (On hoegbomite, a new rock-making mineral from the Ruoutevare region, Lapland.) *Bull. Geol. Inst. Univ. Upsala*, 15, 289-316, 1916.

NAME: After Professor A. G. Högbo m, on the occasion of his 60th birthday. [In transliterating Swedish or German names abstractor prefers to use "oe" instead of ö; thus goethite rather than göthite, hoegbomite rather than högbo mite, etc.]

CRYSTALLOGRAPHIC PROPERTIES

System: trigonal rhombohedral; axial ratio $a : c = 1 : 1.56$; forms: base, c , and two rhombohedrons, $10\bar{1}1$ and $20\bar{2}1$.

PHYSICAL PROPERTIES

Color: black; luster: metallic adamantine; cleavage: not well marked, but apparently both basal and rhombohedral; fracture: conchoidal; brittle; weakly magnetic; H. = 6.5; sp. gr. = about 3.81.

OPTICAL PROPERTIES

In thin section brown with pleochroism ϵ bright yellow brown, ω dark but still yellowish brown; absorption $\omega > \epsilon$; class uniaxial; sign negative; refractive indices ω 1.853, ϵ 1.803, $\omega - \epsilon$ 0.050, all \pm 0.003.

CHEMICAL PROPERTIES

Practically insoluble in acids, but on decomposition by fusion with sodium carbonate gave Dr. R. Mauzelius:

SiO₂ 0.73, TiO₂ 7.66, Al₂O₃ 56.08, Fe₂O₃ 20.91, Cr₂O₃ 0.22, V₂O₅ trace, MnO 0.18, MgO 14.17, CaO, BeO, none, sum 99.95 per cent.

This corresponds, after deduction of ilmenite and spinel present as impurities, to the formula RO.2R₂O₃, with some TiO₂ replacing the R₂O₃, the mineral composition being (in isomorphous mixture): Al₂O₃ 28.86, Fe₂O₃ 17.41, MgAl₂O₄ 45.02, MgTiO₃ 8.06, MgCr₂O₄ 0.37, MnTiO₃ 0.30 per cent. It is thus evidently a member of the corundum-hematite group, with relationships to loangbanite and pleonaste.

OCCURRENCE

Occurs as a rock-making mineral in iron ores, associated with magnetite, ilmenite, pleonaste, corundum, etc. (Analyses and descriptions of these minerals and of several rocks are given in the paper.)

E. T. W.

SOBRALITE

John Palmgren: Die Eulysite von Södermanland. (The eulysite [rock] from Södermanland.) *Bull. Geol. Inst. Univ. Upsala*, 14, 109-228, 1917.

NAME: After Professor J. M. Sobral, who worked out its optical properties.

CRYSTALLOGRAPHIC PROPERTIES

System triclinic; a member of the triclinic pyroxene group.

PHYSICAL PROPERTIES

Color: brown; cleavage: parallel to two prisms and less distinct to a pinacoid in the same zone; in other respects typical of pyroxene group; sp. gr. 3.50.

OPTICAL PROPERTIES

Class: biaxial; sign: positive; axial plane approximately normal to one cleavage direction; angles between axes of elasticity and crystallographic axes: $c : c = 48.0^\circ$ $b : c = 55.1^\circ$ and $a : c = 62.2^\circ$. In thin section colorless without noticeable pleochroism.

CHEMICAL PROPERTIES

Analysis by Dr. Mauzelius: SiO_2 47.92, Al_2O_3 0.16, Fe_2O_3 0.46, FeO 13.78, MnO 27.96, MgO 3.58, CaO 6.20, H_2O 0.28, sum 100.34 per cent. The ratios of this are $\text{SiO}_2 : \text{MnO} : \text{FeO} : \text{MgO} : \text{CaO} = 8 : 4 : 2 : 1 : 1$. It is related to iron-rhodonite and pyroxmangite, but is believed to be distinct from either.

OCCURRENCE

As a constituent of eulysite rock at several places in Södermanland, Sweden. Associated with manganfayalite (see below), diopside, anthophyllite, hornblende, grünerite, feldspars and garnets, analyses of which are given in the paper.

E. T. W.

MANGANFAYALITE

John Palmgren, *paper above cited*.

This name is proposed for a variety of fayalite containing 5 to 30 per cent of MnO occurring in the eulysite rock referred to in preceding abstract. [In the opinion of the abstractor it is highly questionable whether a name should be given to such a variety; all the needs of the case would seem to be fulfilled by the use of the less objectionable term manganiferous fayalite.] E. T. W.

ABSTRACTS OF MINERALOGIC LITERATURE

PLATINUM. GEORGE F. KUNZ. *Min. Ind.* 26, 533-555, 1918. A summary of the platinum situation during the participation of the United States in the war, especially in 1917. Data are given as to the occurrence of platinum in the United States and other countries, and an account by Mr. F. W. Draper of his experiences in bringing a large quantity of the metal from Russia to this country quoted.

E. T. W.

THE OCCURRENCE, CHEMISTRY, METALLURGY, AND USES OF TUNGSTEN. J. J. RUNNER and M. L. HARTMAN. *S. Dak. School Mines Bull.*, 12, 264 pp., 1918.

Includes an elaborate summary of the mineralogy of tungsten with detailed descriptions of occurrences in the Black Hills of S. Dakota, which will be of interest to mineralogists visiting the region. There is also a complete bibliography of tungsten, including many mineralogical articles. E. T. W.