NEW MINERALS

Eakleite


Name: after Prof. Arthur S. Eakle, University of California. Pronounced ek-el-ite.

PHYSICAL AND OPTICAL PROPERTIES

Color: pale pink; luster: vitreous to silky. Form: compact, tough layers of fibers. H: about 6½. Sp. Gr. 2.685-2.705. The fibers give parallel extinction, and are elongated parallel to Z. Optically +, with a small axial angle. Refractive indices: \( \alpha = 1.583, \beta = 1.593, \gamma = 0.001. \)

CHEMICAL PROPERTIES

Composition: \( 5\text{CaO}.5\text{SiO}_2.\text{H}_2\text{O} \). It may be a calcium-pectolite. Analysis by Prof. Eakle gave: \( \text{SiO}_2, 50.43; \text{Fe}_2\text{O}_3, 0.98; \text{CaO}, 45.51; \text{MgO} \text{tr.}, \text{Na}_2\text{O} \text{and K}_2\text{O} \text{none}, \text{H}_2\text{O}, 3.25, \text{sum} 100.17. \)

Fuses at about 2.5 with slight boiling to a glassy, somewhat vesicular globule: easily soluble in acid with separation of flaky silica without gelatinization.

Found in the Museum of the University of California, labeled "Wollastonite, St. Ines, Calif."

S. G. G.

Gilpinite


ABSTRACTS OF MINERALOGICAL LITERATURE


NOTE ON GOYAZITE. Oliver C. Farrington. Am. J. Sci., [4], 43, (5), 420, 1917. Reply to Schaller (see Am. Min., 2, (5), 70, 1917). Dr. Farrington points out the difference in the \( \text{P}_2\text{O}_5 \) percentage of goyazite and hamlinite, and concludes that their identity has not yet been proved.

W. G. L.


A descriptive alphabetical list of six new mineral names which have appeared in the literature since the publication of the previous list (December, 1916). All have been noted in Am. Min.

S. G. G.


An examination of the Whitfield County iron of Hidden and the Dalton iron of Shepard showed the two to differ radically in their structure and etching peculiarities although there is a close chemical resemblance, and it is believed that they represent two distinct falls. The identity of the Dalton iron and the Cleveland iron, as suggested by Kunz, is also questioned, the Dalton iron lacking the Reichenbach figures, and differing further in chemical composition.

S. G. G.

THEORETICAL NUMBER OF ORTHO-AXIAL PLAGIOCLASES


The augite occurs in a nepheline-syenite; associated with brown bark-ekvikirite hornblende, biotite, nepheline, apatite, titanite, and ilmenite. Analysis by M. F. C. gave: SiO$_2$ 41.80; Al$_2$O$_3$ 9.30; Fe$_2$O$_3$ 5.44; FeO 3.30; MgO, 10.82; CaO, 22.89; H$_2$O —, 0.16; H$_2$O+ —, 1.10; TiO$_2$ 4.84; MnO, 0.10; sum 99.75; Sp. Gr. 3.39.

The augite is black, and fine-grained, containing abundant minute rod-like black inclusions, believed to be ilmenite, arranged in two distinct series, parallel to the vertical axis, and to the edge 001-010. The mineral exhibits striking optical properties and is compared with one from Rio de Janeiro, which it nearest approaches.


Leverrierite occurs in the veins of quartz and manganese oxides at Beidell, Saguache County, Colo., in cleavage plates up to several inches across. It has a very perfect basal cleavage. It becomes plastic when wet. Optically —; practically uniaxial, the optic axis emerging sensibly normal to the cleavage a = 1.558, b and γ = 1.602. A chemical analysis of the mineral by E. T. W. is given, and the loss of H$_2$O at different temperatures. This analysis and analyses of rectorite, leverrierite, batchelorite, kryptolite, and delanouite are compared, and show some variation in the water content and more especially in the SiO$_2$:Al$_2$O$_3$ ratio, which varies from 1.86 in batchelorite to 3.95 in delanouite. However, optical study of the six minerals indicates that they belong to a single group, probably related to the micas. Analyses of muscovite show almost as wide a range in the SiO$_2$:Al$_2$O$_3$ ratio. The formula of the leverrierite group may be written Al$_2$O$_3$:2±SiO$_2$:21±H$_2$O.


A study of the analyses of melilite and gehlenite with a discussion of their empirical and structural formulas.


The following 6 South African minerals have been observed to be radioactive: monazite, aeschynite, euxenite, fergusonite, carnotite with uranium ocher, and pitchblende. In none of the minerals analyzed were U and Th found together.

EXCHANGE NOTICES.

Edgar T. Wherry, U. S. National Museum, Washington, D. C. Wanted, specimens of the following native element minerals (small fragments will answer): seleniferous tellurium ("selenettellurite"); telluriferous sulfur ("tellursulfur"); monoclinic sulfur; selenium; monoclinic arsenic ("arsenolamprite"); amorphous sulfur; and amorphous selenium on lava.

Good study specimens of almost any minerals except the most excessively rare ones can be sent in exchange.