

Aside from certain minor criticisms which might be mentioned such as: certain ambiguous expressions; improper designation of crystallographic forms and their orientation; and the antiquated treatment recommended for snake bites, the book contains many helpful suggestions to prospectors and should command a wide sale.

A. J. EARDLEY

PROCEEDINGS OF SOCIETIES

PHILADELPHIA MINERALOGICAL SOCIETY

Academy of Natural Sciences of Philadelphia, June 4, 1931

A stated meeting of the Philadelphia Mineralogical Society was held on the above date, Mr. Toothaker presiding. Mr. Strock announced his resignation as secretary of the society.

Mr. Morrell G. Biernbaum addressed the Society on *The Crystal Identification of Minerals*. The speaker limited his discussion to those points which are useful as a means of identification in the field. Introductory to his presentation Mr. Biernbaum gave an elementary description of the various crystal systems and common forms. It is frequently necessary to utilize certain peculiarities of crystal habit common to some minerals, in order to distinguish them from closely related species. Among these peculiarities may be mentioned, striations, etch figures, internal fracture, and cleavage.

Mr. Fleming Jr. exhibited excellent specimens of white stilbite, golden calcite and heulandite from the old Workhouse quarry at Moores Station, New Jersey. Mr. Hoadley described a visit to the dumps at Tilly Foster.

Dr. Newcomet exhibited some experimental results involving radiation. An exposure of X-ray films to powdered gas mantles, and to some radioactive minerals, showed that the radiation from the mantles is mostly superficial and has little penetrating power, whereas the radiation from radioactive minerals is chiefly "deep" radiation and has a high penetrating power. Mr. Vanartsdalen reported small vesuvianite crystals from a recent cut at New Hope, Pennsylvania.

Mr. Trudell announced the prize winners of the Northeast High School Mineralogical Exhibit, held May 20.

Sixty-four persons including forty-nine members were present.

LESTER W. STROCK, *Secretary*

NEW MINERAL NAMES

Nagatelite

SATOYASU IIMORI, JUN YOSHIMURA AND SHIN HATA: A new radioactive mineral found in Japan. *Scientific Papers Inst. Phys. Chem. Research, Tôkyô*, **15**, No. 285, 83-88, 1931.

NAME: From the locality, Nagatejima, a small headland on the Noto Peninsula.

CHEMICAL PROPERTIES: A phospho-silicate of aluminum, rare earths, calcium and iron; $4RO \cdot 3R_2O_3 \cdot 6(SiO_2, P_2O_5) \cdot 2H_2O$. Analysis: SiO_2 25.2, TiO_2 0.57, P_2O_5 6.48, Al_2O_3 14.3, Fe_2O_3 2.40, Ce_2O_3 14.58, La_2O_3 , etc. 7.84, Y_2O_3 , etc. 4.51, ThO_2 0.88.

FeO 7.89, MnO 1.12, CaO 10.4, MgO 1.04, H₂O— 0.22, H₂O+ 2.35. Sum 99.97. Soluble in hydrochloric acid with separation of silica.

CRYSTALLOGRAPHICAL PROPERTIES: System not given but presumably monoclinic. Forms: $a(100)$, $c(001)$, $r(\bar{1}01)$, and $l(\bar{2}01)$. $a \wedge c = 64^\circ$.

PHYSICAL AND OPTICAL PROPERTIES: Color black. Streak pale brown. Luster resinous. Brittle. Fracture uneven. Hd = 5.5. G = 3.91.

Biaxial. Axial plane parallel to b . $Bx_a \wedge c = 32^\circ$. $\alpha = 1.750$, $\beta = 1.760$, $\gamma = 1.765$. Pleochroism: X brownish yellow, Y (greatest absorption) reddish brown, Z pale yellow.

OCCURRENCE: Found in narrow pegmatite dikes in gneissic granite and diorite lying on the shore of Shibagaki, especially at Nagatejima, near the village of Kamimada, Hakui County, Ishikawa Prefecture, as crystals 6–7 mm. long and 2–3 mm. across, or in tabular masses up to 15 mm. across.

A member of the epidote group related to allanite.

W. F. FOSHAG

Sérandite

À. LACROIX: Les pegmatites de la synénite sodalitique de l'île Rouma (Archipel de Los, Guinée française). Description d'un nouveau minéral (sérandite) qu'elles renferment. (The pegmatites of soda syenite of the island of Rouma (Los Archipelego, French Guinea). Description of a new mineral (sérandite) contained in them. *Compt. Rend., Acad. Sci. Paris*, 192, no. 4, p. 187–194, 1931.

NAME: In honor of M. Sérand, who assisted in its collection.

CHEMICAL PROPERTIES: A hydrous silicate of manganese, calcium, sodium and potassium; 7.5 (Mn, Ca) O. 1. 5 (Na, K)₂O. 10SiO₂ · H₂O [(Mn, Ca, Na₂, K₂, H₂) O. SiO₂]. Analysis (by M. Raoult) SiO₂ 48.72, Al₂O₃ 0.29, Fe₂O₃ 0.03, FeO 1.33, MnO 28.99, MgO 0.06, CaO 10.42, Na₂O 7.38, K₂O 0.26, H₂O+ 2.67, H₂O— 0.11; total 100.46.

CRYSTALLOGRAPHICAL PROPERTIES: Monoclinic. Crystals elongated parallel to the orthopinacoid zone. Two cleavages in the orthopinacoid zone. The angle $\phi(ca) = 85^\circ 30'$.

PHYSICAL AND OPTICAL PROPERTIES: Color rose red.

Biaxial positive. $2V = 35^\circ 30'$. Plane of the optic axes is normal to the plane of symmetry. Extinction of X with the edge of (100), about 57° in the acute angle. $\alpha = 1.660$, β about 1.664, $\gamma = 1.688$. Birefringence 0.035.

OCCURRENCE: Found in nepheline syenite as a filling between feldspar laths, with sodalite, nephelite, astrophyllite, arfvedsonite, eucolite, leucophane, fluorite, sphalerite, molybdenite and aegyrte and later analcite, mesotype and villaumite

W. F. F.