

## NEW MINERAL NAMES

### Torniellite

E. DITTLER AND F. KERNBAUER: Die Kaolinlager-stätte von Torniella (Mittelitalien). *Zeits. Prakt. Geol.*, **45**, 117-120 (1937) 4 figs.

NAME: From the locality, Torniella, Italy.

CHEMICAL PROPERTIES: A hydrous silicate of alumina. Analysis:  $\text{SiO}_2$  33.45,  $\text{TiO}_2$  tr.,  $\text{Al}_2\text{O}_3$  30.46,  $\text{Fe}_2\text{O}_3$  0.27,  $\text{MgO}$  0.02,  $\text{CaO}$  0.01,  $\text{Na}_2\text{O}$  0.03,  $\text{K}_2\text{O}$  0.04,  $\text{H}_2\text{O}$  (over conc.  $\text{H}_2\text{SO}_4$ ) 18.43,  $\text{H}_2\text{O}$  (-) 1.37,  $\text{H}_2\text{O}$  (+) 15.68,  $\text{P}_2\text{O}_5$  0.48; sum 100.24. Decomposed slowly by concentrated  $\text{HCl}$  with separation of silica.

PHYSICAL AND OPTICAL PROPERTIES: Amorphous (Debye-Scherrer diagrams show only an amorphous halo). Color, pale yellow. Soapy feel, very porous, sticks to tongue. Hd. = 2. G. = 2.432. Isotropic,  $n$  between 1.535-1.536.

OCCURRENCE: Found at Torniella, 56 km. south of Siena, as a hydrothermal alteration of a quartz trachyte dike, as a network of veins in ordinary kaolin used in ceramic and rubber manufacture.

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### Yttrocolumbite

Charles Lepierre: Yttrocolumbite de Mocambique. *Mem. Acad. Cien. Lisboa*, Class Ciencias **1**, 369-375 (1937).

NAME: In allusion to its composition.

CHEMICAL PROPERTIES: A columbate-tantalate of yttrium, etc.  $(\text{Fe}, \text{Mn}, \text{UO}_2)_2(\text{Cb}, \text{Ta})_2\text{O}_7 - \text{Y}_4(\text{Cb}, \text{Ta})_6\text{O}_{21}$ . Analysis: Ing. loss 1.33,  $\text{Cb}_2\text{O}_5$  31.21,  $\text{Ta}_2\text{O}_5$  21.50, Y group 14.06, Ce group 2.01,  $\text{ThO}_2$  2.65,  $\text{SiO}_2$  1.78,  $\text{TiO}_2$  1.20,  $\text{ZrO}_2$  0.25,  $\text{Al}_2\text{O}_3$  1.62,  $\text{CaO}$  1.87,  $\text{MgO}$  0.66,  $\text{Fe}_2\text{O}_3$  10.52,  $\text{MnO}$  5.08,  $\text{UO}_2$  3.10,  $\text{As}_2\text{O}_5$  0.10,  $\text{SnO}_2$  0.66,  $\text{Na}_2\text{O}$ ,  $\text{K}_2\text{O}$ ,  $\text{WO}_3$ ,  $\text{P}_2\text{O}_5$  lacking; Sum 99.60%.

PHYSICAL PROPERTIES: Color, black; luster, brilliant. G. = 5.49, Hd. = 6.

REMARKS: Stated to be similar to ampangabite (from which it differs considerably, but is very close to yttrotantalite. *Abs.*) Also called yttro-columbo-tantalite.

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### Kolskite

Hydrofosterite

Karachaite

Adigeite

Deveilite

Iskildite

N. E. Efremov: Classification of the minerals of the serpentine group. *Compt. Rend. (Doklady) Acad. Sci. U.R.S.S.*, **22**, No. 7, 432-435 (1939).

NAME: From the region where it was discovered, Kola.

CHEMICAL PROPERTIES: A hydrous silicate of magnesium,  $5\text{MgO} \cdot 4\text{SiO}_2 \cdot 4\text{H}_2\text{O}$ . Analysis:  $\text{SiO}_2$  43.78,  $\text{Al}_2\text{O}_3$  0.56,  $\text{Fe}_2\text{O}_3$  1.17,  $\text{FeO}$  none,  $\text{CaO}$  0.41,  $\text{MnO}$  trace,  $\text{MgO}$  37.01,  $\text{NiO}$  0.11,  $\text{CO}_2$  0.56,  $\text{H}_2\text{O}$  (+) 13.04,  $\text{H}_2\text{O}$  (-) 3.02; Sum 99.66.

PHYSICAL AND OPTICAL PROPERTIES: Color white, sometimes with pale yellow tint. G. = 2.401. Hd. = 2-3. Fibrous to compact.

Biaxial, positive,  $\beta = 1.542$ . Birefringence low. Parallel extinction.

OCCURRENCE: Found as veins in the olivinites near Saig Lake, Kola.

DISCUSSION: The serpentine group is considered to consist of a series, made up of stoichiometric combinations of two end-members, hydrofosterite  $2\text{MgO} \cdot \text{SiO}_2 \cdot n\text{H}_2\text{O}$  and kero-lite  $\text{MgO} \cdot \text{SiO}_2 \cdot n\text{H}_2\text{O}$ . Serpentine has a theoretical formula  $3\text{MgO} \cdot 2\text{SiO}_2 \cdot 2\text{H}_2\text{O}$ . Some of these intermediate members have been named as follows:

Adigeite, Mt. Tkhach, North Caucasus,  $5\text{MgO} \cdot 3\text{SiO}_2 \cdot 2 \cdot 5 - 4\text{H}_2\text{O}$ ; Deveilite,  $4\text{MgO} \cdot 3\text{SiO}_2 \cdot 3\text{H}_2\text{O}$ ; Paradeveilite,  $4\text{MgO} \cdot 3\text{SiO}_2 \cdot 3\text{H}_2\text{O}$ ; Ishkildite, Ishkildino, Urals,  $5.25\text{MgO} \cdot 4\text{SiO}_2 \cdot 3.5\text{H}_2\text{O}$ ; Kolskite, Kola Peninsula,  $5\text{MgO} \cdot 4\text{SiO}_2 \cdot 4\text{H}_2\text{O}$ ; Karachaita,\* Shaman-Beklegen,  $\text{MgO} \cdot \text{SiO}_2 \cdot \text{H}_2\text{O}$ .

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\* Abst. *Am. Mineral.*, **23**, 666-7 (1938).

### Manganphlogopite

TOYOHUMI YOSIMURA: Studies on the minerals from the manganese deposits of the Kaso Mine, Japan. *Jour. Faculty Science, Hokkaido Imperial University*, Series IV, Nos. 3-4, Geol. and Mineral., 313-453 (1939), 19 plates, 13 text figs.

A phlogopite, rich in manganese (MnO 18.24%) occurring in irregular foliated crystals.  $2E=0^\circ$ .  $\alpha=1.552$ .  $G.=3.21$ .

W.F.F.