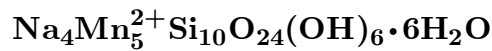


Zakharovite



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Crystal Data: Hexagonal. *Point Group:* $3m$. As platy aggregates in small nestlike deposits, to 1 cm.

Physical Properties: *Cleavage:* {0001}, perfect. *Fracture:* Conchoidal. Hardness = ~ 2
D(meas.) = 2.58–2.64 D(calc.) = [2.67] Strongly electromagnetic.

Optical Properties: Translucent to opaque. *Color:* Yellowish to bright yellow, orange, greenish yellow. *Luster:* Pearly, vitreous to dull waxy.

Optical Class: Uniaxial (-). $\omega = 1.565(2)$ $\epsilon = 1.535(2)$

Cell Data: *Space Group:* $P31m$ or $P3m1$. $a = 14.58$ $c = 37.71$ $Z = 9$

X-ray Powder Pattern: Kola Peninsula, Russia.

12.57 (100), 3.160 (40), 3.427 (15), 3.064 (15), 2.820 (15), 2.631 (15), 3.986 (10)

Chemistry:

	(1)
SiO ₂	48.74
Fe ₂ O ₃	2.70
MnO	25.63
MgO	0.05
CaO	2.11
SrO	0.09
Na ₂ O	7.95
K ₂ O	0.41
H ₂ O	12.25
Total	99.93

(1) Kola Peninsula, Russia; corresponds to $(\text{Na}_{3.16}\text{Ca}_{0.46}\text{K}_{0.11}\text{Sr}_{0.01})_{\Sigma=3.74}$
 $(\text{Mn}_{4.45}^{2+}\text{Fe}_{0.42}^{3+}\text{Mg}_{0.02})_{\Sigma=4.89}\text{Si}_{10}\text{O}_{24}[(\text{OH})_{5.60}\text{O}_{0.40}]_{\Sigma=6.00} \cdot 5.59\text{H}_2\text{O}$.

Occurrence: In ussingite veinlets cutting foyaite in differentiated alkalic massifs (Kola Peninsula, Russia).

Association: Ussingite (Kola Peninsula, Russia); terskite, lovozerite, ussingite, natrolite, microcline, yofortierite, analcime, natrolite, polyolithionite (Mont Saint-Hilaire, Canada); eudialyte, varennesite, catapleite, labuntsovite (Saint-Amable, Canada).

Distribution: At Mt. Karnasurt, Lovozero massif, and on Mts. Yukspor and Koashva, Khibiny massif, Kola Peninsula, Russia. From the Saint-Amable sill, near Varennes, and at Mont Saint-Hilaire, Quebec, Canada.

Name: For Professor Evgeii Evgen'evich Zakharov (1902–1980), Director of the Moscow Geological Exploration Institute, Moscow, Russia.

Type Material: Geology Museum, Kola Branch, Academy of Sciences, Apatity, 5713/6; Mining Institute, St. Petersburg, 1199; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 81688; The Natural History Museum, London, England, 1994,38.

References: (1) Khomyakov, A.P., M.E. Kazakova, Z.V. Vrublevskaya, B.B. Zvyagin, and G.O. Piloyan (1982) Zakharovite, $\text{Na}_4\text{Mn}_5^{2+}\text{Si}_{10}\text{O}_{24}(\text{OH})_6 \cdot 6\text{H}_2\text{O}$, a new hydrous silicate of sodium and manganese. *Zap. Vses. Mineral. Obshch.*, 111, 491–495 (in Russian). (2) (1983) *Amer. Mineral.*, 68, 1040 (abs. ref. 1). (3) (1983) *Mineral. Abs.*, 34, 477 (abs. ref. 1). (4) Horváth, L., E. Pfenninger-Horváth, R.A. Gault, and P. Tarassoff (1998) Mineralogy of the Saint-Amable Sill, Varennes and Saint-Amable, Québec. *Mineral. Record*, 29, 83–118, esp. 112–113.

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