

Crystal Data: Monoclinic. *Point Group:* $2/m$. As prismatic to fibrous crystals to 2 mm, elongated along [001] and tabular on {100} with dominant {100}, {010}, and {001}.

Physical Properties: *Cleavage:* Perfect on {100}. *Fracture:* Splintery. *Tenacity:* Brittle. Hardness = ~5 D(meas.) = 2.68(4) D(calc.) = 2.706

Optical Properties: Translucent. *Color:* Pale creamy to colorless. *Streak:* White. *Luster:* Vitreous. *Optical Class:* Biaxial(-). $\alpha = 1.665(2)$ $\beta = 1.712(2)$ $\gamma = 1.762(5)$ $2V(\text{meas.}) = 85(5)^\circ$ $2V(\text{calc.}) = 89.3^\circ$ *Dispersion:* Medium, $r < v$. *Orientation:* $Y = b$, $Z \wedge a = 8-12^\circ$.

Cell Data: *Space Group:* $C2/c$. $a = 27.48(1)$ $b = 8.669(4)$ $c = 5.246(2)$ $\beta = 90.782(8)^\circ$ $Z = 4$

X-ray Powder Pattern: Mt. Alluaiv, Lovozero alkaline massif, Kola Peninsula, Russia. 13.76 (100), 3.577 (80), 3.005 (70), 2.881(70), 6.296 (60), 2.710 (50), 4.642 (40)

Chemistry:	(1)
Li ₂ O	2.85
Na ₂ O	9.15
K ₂ O	0.08
CaO	0.05
Fe ₂ O ₃	0.21
Al ₂ O ₃	0.08
SiO ₂	46.87
TiO ₂	29.40
Nb ₂ O ₅	0.72
<u>H₂O</u>	<u>10.50</u>
Total	99.91

(1) Mt. Alluaiv, Lovozero alkaline massif, Kola Peninsula, Russia; ICP-MS and electron microprobe analyses supplemented by FTIR spectroscopy, H₂O by Penfield method; corresponds to $(\text{Na}_{1.51}\text{K}_{0.01}\text{Ca}_{0.01})_{\Sigma=1.53}\text{Li}_{0.98}[(\text{Ti}_{1.89}\text{Nb}_{0.03}\text{Fe}^{3+}_{0.01}\text{Al}_{0.01})_{\Sigma=1.94}\text{Si}_4\text{O}_{12.26}(\text{OH})_{1.74}]\cdot 2.12\text{H}_2\text{O}$.

Mineral Group: Lintisite-kukisvumite family.

Occurrence: A late-stage, hydrothermal mineral formed by alteration of murmanite, in altered ussingite pegmatites within a layered complex of malignites, foyaites, and foidolites with lenses of poikilitic nepheline syenites in peralkaline veins in a differentiated alkaline massif.

Association: Albite, analcime, catapleiite, chabazite-Ca, gmelinite-K, manganoneptunite, microcline, murmanite, ussingite (Mt. Alluaiv); chabazite-Ca, chkalovite, eudialyte, sodalite, manganoneptunite, punkaruavite, rhabdophane-(Ce), sphalerite, steenstrupine-(Ce) (Mt. Punkarua).

Distribution: From the "Severny" loparite quarry, Mt. Alluaiv and at Mt. Punkarua, Lovozero alkaline massif, Kola Peninsula, Russia.

Name: Honors Nikolai Aleksandrovich *Eliseev* (1897-1966), Russian geologist and petrologist, Professor at Leningrad State University, for his contributions to the geology and petrology of metamorphic and alkaline complexes.

Type Material: Mineralogical Museum, St. Petersburg State University and the Geological and Mineralogical Museum, Geological Institute of the Kola Science Centre, Russian Academy of Sciences, Apatity, Russia (6516).

References: (1) Yakovenchuk, V.N., G.Yu. Ivanyuk, S.V. Krivovichev, Y.A. Pakhomovsky, E.A. Selivanova, J.A. Korchak, Y.P. Men'shikov, S.V. Drogobuzhskaya, and O.A. Zalkind (2011) Eliseevite, $\text{Na}_{1.5}\text{Li}[\text{Ti}_2\text{Si}_4\text{O}_{12.5}(\text{OH})_{1.5}]\cdot 2\text{H}_2\text{O}$, a new microporous titanosilicate from the Lovozero alkaline massif (Kola Peninsula, Russia). *Amer. Mineral.*, 96, 1624-1629.