

Crystal Data: Monoclinic, probable. *Point Group:* n.d. As irregular grains and in fine-grained aggregates.

Physical Properties: Hardness = 5.5–6 D(meas.) = 4.40 D(calc.) = n.d.

Optical Properties: Semitransparent. *Color:* Pale yellowish, pale brown, pale black. *Optical Class:* Biaxial (-). *Orientation:* $X \wedge c' = 10^\circ\text{--}15^\circ$. *Dispersion:* $r < v$, strong. $\alpha = 2.10\text{--}2.13$ $\beta = 2.19\text{--}2.21$ $\gamma = 2.21\text{--}2.24$ $2V(\text{meas.}) = 10^\circ\text{--}30^\circ$

Cell Data: *Space Group:* n.d. Z = n.d.

X-ray Powder Pattern: Kola Peninsula, Russia.
2.97 (10), 3.06 (9), 1.60 (8), 1.72 (6), 1.89 (5), 3.79 (4), 1.59 (4)

Chemistry:	(1)	(2)	(1)	(2)
Nb ₂ O ₅	74.06	81.09	Fe ₂ O ₃	1.35
Ta ₂ O ₅	0.83		MnO	0.05
SiO ₂	0.97		MgO	0.35
TiO ₂	5.56		CaO	2.80
ThO ₂	0.56		Na ₂ O	9.08 18.91
Al ₂ O ₃	0.20		F	0.00
RE ₂ O ₃	3.25		H ₂ O	0.67
			Total	99.73 100.00

(1) Kola Peninsula, Russia. (2) NaNbO₃.

Polymorphism & Series: Dimorphous with isolueshite and lueshite.

Occurrence: Replacing perovskite and pyrochlore in dolomite carbonatites.

Association: Dolomite, apatite, phlogopite, perovskite, pyrochlore.

Distribution: From the Lesnaya Varaka massif, Kola Peninsula, Russia. In the Sallanlatvi massif, northern Karelia, Russia. At Gem Park, about six km east of Hillside, Fremont Co., Colorado, USA.

Name: For sodium, NATRium, and NIOBium in the composition.

Type Material: Mineralogical Museum, St. Petersburg University, St. Petersburg, Russia, 17401.

References: (1) Bulakh, A.G., A.A. Kukharenko, Y.N. Knipovich, V.V. Kondrat'eva, K.A. Baklanova, and E.N. Baranova (1960) Some new minerals in carbonatites of the Kola Peninsula. *Mat. Vses. Nauk Geol. Inst.* 1960, 114–116. (2) (1962) *Amer. Mineral.*, 47, 1483 (abs. ref. 1).