

Crystal Data: Orthorhombic or monoclinic. *Point Group:* n.d. In platy aggregates, or massive, to 20 cm.

Physical Properties: *Cleavage:* Perfect in one direction, parallel to the plates. *Fracture:* Uneven. *Tenacity:* Brittle. *Hardness* = 2–3 *D(meas.)* = 2.32–2.40 *D(calc.)* = n.d.

Optical Properties: Opaque, translucent in thin section. *Color:* White, light yellow to brownish yellow; black when manganese-rich. *Luster:* Vitreous to oily, pearly on cleavage surfaces.

Optical Class: Biaxial (–). *Pleochroism:* Distinct; *X* = brown to dark brown; *Y* = light brown to yellow-brown; *Z* = light brown. *Orientation:* *X* = *a*; *Y* = *b*; *Z* = *c*. $\alpha = 1.740$
 $\beta = \sim 1.772\text{--}1.778$ $\gamma = 1.775\text{--}1.780$ $2V(\text{meas.}) = 21^\circ\text{--}25^\circ$

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

X-ray Powder Pattern: Kola Peninsula, Russia; after heating at 900 °C.
1.690 (10), 3.21 (8), 2.48 (6), 1.361 (5), 2.90 (3), 2.18 (3), 1.633 (2)

Chemistry:	(1)	(2)		(1)	(2)
(Nb, Ta) ₂ O ₅	7.16	7.51	MgO	0.00	0.14
SiO ₂	3.96	2.80	CaO	6.72	6.40
TiO ₂	48.76	48.19	Na ₂ O	0.55	0.23
ZrO ₂	6.64	6.56	K ₂ O	trace	0.20
Al ₂ O ₃	0.46	0.24	H ₂ O ⁺	8.35	7.20
Fe ₂ O ₃	n.d.	1.85	H ₂ O [–]	17.21	18.50
MnO	0.00	0.04	Total	99.81	99.86

(1–2) Kola Peninsula, Russia.

Occurrence: Included in aegirine and microcline, in nepheline syenite pegmatite in an alkaline massif, in part probably as a replacement of murmanite.

Association: Aegirine, microcline, nepheline, zeolites, eudialyte, lorenzenite, lamprophyllite, titanium oxides.

Distribution: From [Mt. Karnasurt,] Lovozero massif, Kola Peninsula, Russia.

Name: For Dmitry Stepanovich Belyankin (1876–1953), prominent Russian mineralogist and petrographer.

Type Material: n.d.

References: (1) Gerasimovskii, V.I. and M.E. Kazakova (1950) Belyankinite – a new mineral. Doklady Acad. Nauk SSSR, 71, 925–927 (in Russian). (2) (1952) Amer. Mineral., 37, 882 (abs. ref. 1). (3) E.I. Semenov (1957) Oxides and hydroxides of titanium and niobium in the Lovozero alkaline massif. Inst. mineral., geokhim., and crystallokhim. redkikh elementov, Trudy, 1, 41–59 (in Russian). (4) (1958) Amer. Mineral., 43, 1220–1221 (abs. ref. 3). (5) Vlasov, K.A., M.V. Kuz'menko, and E.M. Es'kova (1966) The Lovozero alkali massif. Akad. Nauk SSSR, 390–392 (in English).