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Crystal Data: Amorphous. Point Group: n.d. Massive.

Physical Properties: Hardness = [2-3] (by analogy to belyankinite). D(meas.) = 2.54 D(calc.) = n.d.

Optical Properties: Semitransparent. *Color:* Brownish black. *Luster:* Resinous. *Optical Class:* Biaxial (–). *Pleochroism:* Noted. $\alpha = n.d.$ $\beta = n.d.$ $\gamma = n.d.$ $2V(meas.) = 29^{\circ}$

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

X-ray Powder Pattern: Lovozero massif, Russia; after heating at 900 °C. 1.692 (4), 2.48 (3), 3.21 (2), 2.89 (2), 2.17 (1), 1.880 (1)

Chemistry:		(1)	(2)
	Nb_2O_5	7.42	7.86
	SiO_2	1.51	3.34
	TiO_2	44.30	44.32
	ZrO_2		3.06
	MnO_2	14.03	6.45
	Al_2O_3		0.60
	$\overline{\text{Fe}_2O_3}$	3.77	4.12
	MgO		1.10
	CaO	5.77	6.00
	K_2O		0.90
	H_2O^+	22.36	9.09
	H_2O^-		13.61
	P_2O_5		0.23
	Total	99.16	100.68
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(1) Lovozero massif, Russia; corresponds to (Mn, Ca)_{1.9}(Ti, Nb)₅O₁₂•9H₂O. (2) Do.

Polymorphism & Series: Forms two series, with belyankinite, and with gerasimovskite.

Occurrence: In pegmatite.

Association: n.d.

Distribution: On Mts. Kedykverpakhk and Punkaruaiv, Lovozero massif, Kola Peninsula, Russia.

Name: For its MANGANese content, and relation to belyankinite.

Type Material: A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, vis6437.

References: (1) E.I. Semenov (1957) Oxides and hydroxides of titanium and niobium in the Lovozero alkalic massif. Inst. mineral., geokhim., and crystallokhim. redkikh elementov, Trudy, 1, 41–59 (in Russian). (2) (1958) Amer. Mineral., 43, 1220–1221 (abs. ref. 1). (3) Vlasov, K.A., M.V. Kuz'menko, and E.M. Es'kova (1966) The Lovozero alkali massif. Akad. Nauk SSSR, 390–392 (in English).