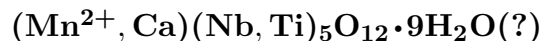


Gerasimovskite

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Crystal Data: Amorphous. *Point Group:* n.d. In platy masses and scales, to 1.5 cm.**Physical Properties:** *Cleavage:* One direction, perfect, micaceous. *Hardness* = 2
D(meas.) = 2.52–2.58 D(calc.) = n.d.**Optical Properties:** Semitransparent. *Color:* Cinnamon-brown to light gray, gray, or silvery gray; in transmitted light, colorless. *Luster:* Pearly.*Optical Class:* Biaxial (-). *Orientation:* Extinction parallel; elongation positive. $\alpha = \sim 1.74$
 $\beta = \sim 1.81$ $\gamma = \sim 1.81$ $2V(\text{meas.}) = 18^\circ$ **Cell Data:** *Space Group:* n.d. $Z = \text{n.d.}$ **X-ray Powder Pattern:** Lovozero massif, Russia; after heating at 900 °C.

1.89 (10), 3.70 (8), 3.18 (6), 2.10 (4), 1.64 (2)

Chemistry:

	(1)	(2)	(3)
Nb ₂ O ₅	43.91	43.32	40.60
Ta ₂ O ₅	0.38	0.02	0.0
SiO ₂	1.83	3.58	
TiO ₂	24.37	21.00	23.39
Al ₂ O ₃		2.54	
Fe ₂ O ₃	trace	2.46	1.08
MnO	7.85	2.09	
MgO		0.65	0.80
CaO	1.37	1.59	0.58
Na ₂ O		0.15	
K ₂ O		0.15	
H ₂ O ⁺	3.95	10.20	9.87
H ₂ O ⁻	16.55	11.20	9.51
P ₂ O ₅		0.90	
Total	[100.21]	99.85	

(1) Mt. Punkaruaiiv, Russia; original total given as 100.11%; corresponds to $(\text{Mn}_{0.84}\text{Ca}_{0.18})_{\Sigma=1.02}(\text{Nb}_{2.50}\text{Ti}_{2.50})_{\Sigma=5.00}\text{O}_{12.27} \cdot 9.09\text{H}_2\text{O}$. (2) Mt. Karnasurt, Russia. (3) Ilímaussaq intrusion, Greenland; partial analysis.**Polymorphism & Series:** Forms a series with manganbelyankinite.**Occurrence:** As a secondary mineral formed by the late-stage hydrothermal alteration of Nb–Ti minerals (possibly epistolite) within ussingite-bearing pegmatites, associated with alkaline intrusions.**Association:** Ussingite, epistolite, steenstrupine, neptunite (Lovozero massif, Russia); albite, analcime, aegirine, natrolite, tetranatrolite, chkalovite, lithian mica, epistolite, niobophyllite, monazite, rhabdophane, tugtupite, nenadkevichite, beryllite (Ilímaussaq intrusion, Greenland).**Distribution:** Found on Mts. Punkaruaiiv, Karnasurt, Nepkhe, and Alluaiv, in the Lovozero massif, Kola Peninsula, Russia. In Greenland, occurs at Nákâlâq, in the Ilímaussaq intrusion.**Name:** Honors Vasily Ivanovich Gerasimovskii (1911–1979), Russian mineralogist and geochemist, discoverer of many new minerals from the Lovozero massif.**Type Material:** Vernadsky Geological Museum, Moscow, 46315; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 62290.

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