

Crystal Data: Hexagonal. *Point Group:* 3. As hexagonal prismatic crystals, to 2 mm, elongated along [0001], with {0001}, {10 $\bar{1}$ 0}, {11 $\bar{2}$ 0}, {10 $\bar{1}$ 1}, {11 $\bar{2}$ 1}; in rounded grains.

Physical Properties: Hardness = 4.5 VHN = 343 D(meas.) = 3.94 D(calc.) = 3.96

Optical Properties: Transparent. *Color:* Bright blue or bluish green; colorless in transmitted light. *Luster:* Vitreous.

Optical Class: Uniaxial (-). $\omega = 1.623(3)$ $\epsilon = 1.619(3)$

Cell Data: *Space Group:* P3. $a = 5.565(2)$ $c = 7.050(3)$ $Z = 1$

X-ray Powder Pattern: Mt. Karnasurt, Kola Peninsula, Russia.

2.842 (100), 2.763 (100), 1.982 (63), 3.97 (41), 1.607 (37b), 1.647 (30), 6.99 (26)

Chemistry:

	(1)
P ₂ O ₅	32.0
SiO ₂	0.11
La ₂ O ₃	2.3
Ce ₂ O ₃	0.43
Pr ₂ O ₃	0.05
Nd ₂ O ₃	0.02
MnO	0.58
CaO	0.63
SrO	21.6
BaO	28.7
Na ₂ O	13.9
K ₂ O	0.46
<u>Total</u>	<u>100.78</u>

(1) Mt. Karnasurt, Kola Peninsula, Russia; by electron microprobe, corresponding to Na_{1.00}(Sr_{0.47}Ba_{0.42}La_{0.03}Ca_{0.02}K_{0.02}Mn_{0.02}Ce_{0.01})_{Σ=0.99}P_{0.99}O₄.

Occurrence: In nepheline syenite pegmatite in a differentiated alkalic massif.

Association: Natrosilite, analcime.

Distribution: On Mts. Karnasurt and Alluaiv, Lovozero massif, and in the Vuonnemiok River valley, Khibiny massif, Kola Peninsula, Russia.

Name: To honor Ol'ga Anisimovna Vorob'eva (1902–1974), Institute of Mineralogy and Geochemistry of Rare Elements, Moscow, Russia, discoverer of the rare-metal deposits in the Lovozero massif.

Type Material: A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 80179.

References: (1) Khomyakov, A.P., Y.I. Semenov, N.G. Shumyatskaya, I.M. Timoshenkov, I.P. Laputina, and N.N. Smol'yaninova (1980) Ol'git Na(Sr, Ba)PO₄ – a new mineral. Zap. Vses. Mineral. Obshch., 109, 347–351 (in Russian). (2) (1981) Amer. Mineral., 66, 438 (abs. ref. 1). (3) Sokolova, E.V., Y.K. Yegorov-Tismenko, N.A. Yamnova, and M.A. Simonov (1984) The crystal structure of olgite Na(Sr_{0.52}Ba_{0.48})(Sr_{0.58}Na_{0.42})(Na_{0.81}Sr_{0.19})[PO_{3.40}][P_{0.76}O_{3.88}]. Kristallografiya (Sov. Phys. Crystal.), 29, 1079–1083 (in Russian).