

Crystal Data: Triclinic. *Point Group:* $\bar{1}$. As platy crystals to 500 μm .

Physical Properties: *Cleavage:* Perfect on {001}. *Fracture:* Splintery. *Tenacity:* Brittle. Hardness = 3 D(meas.) = n.d. D(calc.) = 2.509

Optical Properties: Transparent. *Color:* Pinkish yellow. *Streak:* White. *Luster:* Vitreous. *Optical Class:* Biaxial (-). $\alpha = 1.669$ $\beta = 1.701$ $\gamma = 1.720$ $2V(\text{meas.}) = 73.6(5)^\circ$ $2V(\text{calc.}) = 74.0^\circ$

Cell Data: *Space Group:* $P\bar{1}$. $a = 5.387(1)$ $b = 7.091(1)$ $c = 15.473(3)$ $\alpha = 96.580(4)^\circ$ $\beta = 93.948(4)^\circ$ $\gamma = 89.818(3)^\circ$ $Z = 1$

X-ray Powder Pattern: Kirovskii mine, Khibiny alkaline massif, Kola Peninsula, Russia. 15.161 (100), 2.810 (19), 3.069 (12), 2.938 (10), 2.680 (9), 1.771 (9), 2.618 (8)

Chemistry:	(1)
Nb ₂ O ₅	6.96
ZrO ₂	0.12
TiO ₂	26.38
SiO ₂	27.08
FeO	0.83
MnO	2.95
MgO	0.76
BaO	3.20
SrO	5.21
CaO	4.41
K ₂ O	0.79
Na ₂ O	6.75
H ₂ O	[13.81]
F	0.70
-O = F ₂	0.29
Total	99.66

(1) Kirovskii mine, Khibiny alkaline massif, Kola Peninsula, Russia; average of 4 electron microprobe analyses, H₂O calculated and confirmed by FTIR; corresponding to $(\text{Na}_{1.93}\text{Mn}_{0.04}\text{Ca}_{0.03})_{\Sigma=2.00}(\text{Ca}_{0.67}\text{Sr}_{0.45}\text{Ba}_{0.19}\text{K}_{0.15})_{\Sigma=1.46}(\text{Ti}_{2.93}\text{Nb}_{0.46}\text{Mn}_{0.33}\text{Mg}_{0.17}\text{Fe}^{2+}_{0.10}\text{Zr}_{0.01})_{\Sigma=4.00}\text{Si}_{4.00}\text{O}_{24.67}\text{H}_{13.60}\text{F}_{0.33}$.

Occurrence: Formed in a pegmatite as a result of hydrothermal activity.

Association: Natrolite, nechelyustovite, kazanskyite, barytolamprophyllite, hydroxylapatite, belovite-(La), belovite-(Ce), gaidonnayite, nenadkevichite, epididymite, apophyllite-(KF), sphalerite.

Distribution: At the Kirovskii mine (+252 m level), Mount Kukisvumchorr, Khibiny alkaline massif, Kola Peninsula, Russia.

Name: For the Kola Peninsula (*Kolsky Poluostrov* in Russian).

Type Material: A.E. Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia (4383/1).

References: (1) Cámara, F., E. Sokolova, Y. Abdu, F.C. Hawthorne, and A.P. Khomyakov (2013) Kolskyite, $(\text{Ca}\square)\text{Na}_2\text{Ti}_4(\text{Si}_2\text{O}_7)_2\text{O}_4(\text{H}_2\text{O})_7$, a group-IV Ti-disilicate mineral from the Khibiny Alkaline Massif, Kola Peninsula, Russia: Description and crystal structure. *Can. Mineral.*, 51(6), 921-936. (2) (2015) *Amer. Mineral.*, 100, 1651 (abs. ref. 1).