

Crystal Data: Orthorhombic. *Point Group:* 222. As equant or rectangular lamellar crystals flattened on [010] to 0.3 mm; as aggregates to 0.7 mm.

Physical Properties: *Cleavage:* Good on {010}. *Fracture:* Stepped. *Tenacity:* Brittle. Hardness = ~4 D(meas.) = 2.69(2) D(calc.) = 2.698

Optical Properties: Transparent. *Color:* Colorless, white in aggregates. *Streak:* White.

Luster: Vitreous.

Optical Class: Biaxial (-). $\alpha = 1.650(4)$ $\beta = 1.678(5)$ $\gamma = 1.685(5)$ $2V(\text{meas.}) = 60(10)^\circ$ $2V(\text{calc.}) = 52^\circ$ *Orientation:* $Y = b$.

Cell Data: Space Group: $P2_12_12_1$. $a = 9.9166(4)$ $b = 12.9561(5)$ $c = 7.1374(3)$ $Z = 4$

X-ray Powder Pattern: Oleniy Ruchey mine, Mt. Suoluav, Kola Peninsula, Russia.

2.954 (100), 5.823 (95), 2.988 (84), 7.92 (70), 2.834 (69), 2.906 (68), 6.51 (47)

Chemistry:	(1)	(2)
Na ₂ O	0.48	
K ₂ O	24.37	25.30
CaO	0.13	
Fe ₂ O ₃	0.35	
SiO ₂	48.78	48.41
TiO ₂	20.30	21.45
ZrO ₂	0.89	
Nb ₂ O ₅	0.35	
H ₂ O	[4.85]	4.84
Total	100.50	100.00

(1) Oleniy Ruchey mine, Mt. Suoluav, Khibiny complex, Kola Peninsula, Russia; average of 4 electron microprobe analyses, H₂O calculated from structure analysis; corresponds to $(K_{1.92}Na_{0.06}Ca_{0.01})_{\Sigma=1.99}(Ti_{0.94}Zr_{0.03}Fe_{0.02}Nb_{0.01})_{\Sigma=1.00}S_{3.01}O_9 \cdot H_2O$. (2) $K_2TiSi_3O_9 \cdot H_2O$.

Occurrence: A late-stage hydrothermal mineral in K-rich peralkaline pegmatites related to rischorrites associated with apatite-nepheline rocks.

Association: Lomonosovite, aegirine, lamprophyllite, pectolite, shafranovskite, ershovite, lovozerite.

Distribution: At the Oleniy Ruchey (Reindeer Stream) mine, Mt. Suoluav and the Rasvumchorr mine, Mt. Rasvumchorr, Khibiny complex, Kola Peninsula, Russia.

Name: Honors Russian geologist Evgeniy Arsenievich Kamenev (1934-2017) for his contribution to the geological study and exploration of the Khibiny complex apatite deposits.

Type Material: A.E. Fersman Mineralogical Museum, Russian Academy of Sciences, Moscow, Russia (95903).

References: (1) Pekov, I.V., N.V. Zubkova, V.O. Yapaskurt, D.I. Belakovskiy, I.S. Lykova, S.N. Britvin, A.G. Turchkova, and D.Y. Pushcharovsky (2019) Kamenevite, $K_2TiSi_3O_9 \cdot H_2O$, a new mineral with microporous titanosilicate framework from the Khibiny alkaline complex, Kola peninsula, Russia. Eur. J. Mineral., 31(3), 557-564. (2) (2020) Amer. Mineral., 105(10), 1603 (abs. ref. 1).