

Crystal Data: Monoclinic. *Point Group:* 2/m. As distorted lamellae, to 1 mm, flattened along {001}; as fibers to 0.5 mm and as fibrous aggregates to 2 cm. Rarely as pinacoidal crystals to 0.4 mm.

Physical Properties: *Cleavage:* Perfect on {001}. *Fracture:* n.d. *Tenacity:* Lamellae pliable. Hardness = 2.5-3 D(meas.) = n.d. D(calc.) = 2.244

Optical Properties: Transparent. *Color:* Colorless. *Streak:* White. *Luster:* Vitreous; aggregates, pearly to silky.

Optical Class: Biaxial (-). $\alpha = 1.500(3)$ $\beta = 1.509(2)$ $\gamma = 1.515(2)$ $2V(\text{meas.}) = 60(20)^\circ$ $2V(\text{calc.}) = 78^\circ$ *Orientation:* $X = c$. *Dispersion:* Medium, $r < v$.

Cell Data: *Space Group:* $P2_1/c$. $a = 6.4897(4)$ $b = 6.9969(5)$ $c = 26.714(2)$ $\beta = 94.597(8)^\circ$ $Z = 4$

X-ray Powder Pattern: Mt. Rasvumchorr, Khibiny massif, Kola Peninsula, Russia. 13.33 (100), 6.67 (76), 2.945 (62), 3.068 (57), 6.47 (55), 3.469 (45), 3.042 (45)

Chemistry:	(1)
Na ₂ O	0.68
K ₂ O	11.03
CaO	13.70
SiO ₂	59.86
H ₂ O	[14.73]
Total	100.00

(1) Mt. Rasvumchorr, Khibiny massif, Kola Peninsula, Russia; average of 7 electron microprobe analyses, H₂O by difference, OH/H₂O calculated for charge balance; corresponding to $(\text{K}_{0.96}\text{Na}_{0.09})_{\Sigma=1.05}\text{Ca}_{1.00}\text{Si}_{4.07}\text{O}_{9.932}(\text{OH})_{0.68} \cdot 3\text{H}_2\text{O}$.

Occurrence: A late-stage hydrothermal mineral along fractures in a high-potassium peralkaline pegmatite in urtite rocks near the contact with nepheline-apatite rock.

Association: Cryptophyllite.

Distribution: At the Central mine, Mt. Rasvumchorr, Khibiny massif, Kola Peninsula, Russia.

Name: Honors geologist, Valeriy Georgievich Shlykov (1941-2007), Moscow State University, Russia.

Type Material: A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia (3753/1).

References: (1) Pekov, I.V., N.V. Zubkova, Ya.E. Filinchuk, N.V. Chukanov, A.E. Zadov, D.Yu. Pushcharovsky, and E.R. Gobechiya (2010) Shlykovite KCa[Si₄O₉(OH)]·3H₂O and Cryptophyllite K₂Ca[Si₄O₁₀]·5H₂O - new mineral species from the Khibiny alkaline pluton, Kola Peninsula, Russia. *Zap. Ross. Mineral. Obshch.*, 139(1), 37-50 (in Russian with English abstract); and *Geology of Ore Deposits*, 52, 767-777. (2) Zubkova, N.V., Ya.E. Filinchuk, I.V. Pekov, D.Yu. Pushcharovsky, and E.R. Gobechiya (2010) Crystal structures of shlykovite and cryptophyllite: comparative crystal chemistry of phyllosilicate minerals of the mountainite family. *Eur. J. Mineral.*, 22, 547-555. (3) (2012) *Amer. Mineral.*, 97, 1526-1527 (abs. refs. 1 and 2).