

Crystal Data: Orthorhombic. *Point Group:* *mm2*. As irregular crystals; compact massive.

Physical Properties: *Cleavage:* Perfect on {110}; another unspecified cleavage was observed. *Fracture:* Steplike. Hardness = 4–5 D(meas.) = 2.21 D(calc.) = 2.26 Weak bluish white fluorescence in UV.

Optical Properties: Transparent to slightly turbid in crystals. *Color:* White in aggregates. *Streak:* White. *Luster:* Vitreous, silky to dull in aggregates.

Optical Class: Biaxial (+). *Orientation:* $X = a$; $Y = c$; $Z = b$. *Dispersion:* $r > v$, weak. $\alpha = 1.494(2)$ $\beta = 1.507(2)$ $\gamma = 1.523(2)$ $2V(\text{meas.}) = 85(2)^\circ$ $2V(\text{calc.}) = 84.9^\circ$

Cell Data: *Space Group:* *Fdd2*. $a = 15.979$ $b = 18.25$ $c = 7.169$ $Z = 16$

X-ray Powder Pattern: Mt. Alluaiv, Russia.

3.505 (100), 3.006 (100), 6.20 (50), 6.05 (50), 4.46 (50), 3.087 (50), 3.346 (25)

Chemistry:

	(1)	(2)
SiO ₂	68.17	67.44
Na ₂ O	17.20	17.39
H ₂ O	14.65	15.17
Total	100.02	100.00

(1) Mt. Alluaiv, Russia; corresponds to Na_{0.98}H_{1.02}Si₂O₅•0.93H₂O. (2) NaHSi₂O₅•H₂O.

Occurrence: In veins cutting alkalic feldspathoid-bearing pegmatites in a differentiated alkalic massif.

Association: Ussingite, makatite, kazakovite, tisinalite, nordite, sodalite, nepheline, potassic feldspar, arfvedsonite, aegirine, eudialyte, loparite.

Distribution: On Mt. Alluaiv, Lovozero massif, Kola Peninsula, Russia.

Name: From an old Russian name for the Spitsbergen Archipelago.

Type Material: Geology Museum, Kola Branch, Academy of Sciences, Apatity, 5924; Mineralogical Museum, St. Petersburg, 17070; Mining Institute, St. Petersburg, 2065/1–2; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 87576.

References: (1) Khomyakov, A.P., M.F. Korobitsyn, T.A. Kurova, and G.E. Cherepivskaya (1987) Grumantite NaHSi₂O₅•H₂O – a new mineral. *Zap. Vses. Mineral. Obshch.*, 116, 244–248 (in Russian). (2) (1988) *Amer. Mineral.*, 73, 440 (abs. ref. 1). (3) Pushcharovsky [Pushcharovskii], D.Y., T.N. Nadezhina, N.A. Yamnova, and R.L. Rastsvetaieva [Rastsvetaeva] (1988) New types of tetrahedral radicals in mineral structures: Be(OH)₂ and grumantite. *Zeits. Krist.*, 185, 612.