

Crystal Data: Triclinic. *Point Group:* $\bar{1}$ or 1. As pseudo-hexagonal grains up to 5 mm.
Twinning: Twins parallel or complex, with the composition plane parallel to the twin axis.

Physical Properties: *Fracture:* Conchoidal. Hardness = 5 D(meas.) = 2.76
D(calc.) = 2.754

Optical Properties: Semitransparent. *Color:* Colorless. *Luster:* Vitreous.
Optical Class: Biaxial (+). $\alpha = 1.623(2)$ $\beta = \text{n.d.}$ $\gamma = 1.668(2)$ $2V(\text{meas.}) = \text{n.d.}$

Cell Data: *Space Group:* $P\bar{1}$ or $P1$. $a = 7.26\text{--}7.272$ $b = 7.480\text{--}7.51$ $c = 6.910\text{--}6.92$
 $\alpha = 105.55^\circ\text{--}105.6^\circ$ $\beta = 112.82^\circ\text{--}112.9^\circ$ $\gamma = 99.4^\circ\text{--}99.42^\circ$ $Z = [1]$

X-ray Powder Pattern: Murun massif, Russia.

3.51 (100), 3.002 (100), 2.615 (90), 2.789 (70), 5.88 (50), 4.09 (50), 3.34 (50)

Chemistry:	(1)	(2)	(3)
SiO ₂	67.47	66.70	67.44
TiO ₂	15.07	14.48	14.94
ZrO ₂		0.09	
FeO	trace	0.15	
MgO	trace		
Na ₂ O	trace	0.02	
K ₂ O	17.40	17.67	17.62
Total	99.94	99.11	100.00

(1) Murun massif, Russia; by electron microprobe, average of four analyses; corresponds to K_{1.98}Ti_{1.01}Si_{6.01}O_{15.03}. (2) Smoky Butte, Montana, USA; by electron microprobe.

(3) K₂TiSi₆O₁₅.

Occurrence: In contact metamorphic rocks in an alkalic massif (Murun massif, Russia); of magmatic origin, lining vugs in lamproites (Smoky Butte, Montana, USA).

Association: Aegirine, pectolite, titanite, quartz, potassic feldspar, calcite (Murun massif, Russia); phlogopite, diopside, leucite, analcime, olivine, pseudobrookite, potassian richterite, Ca-Sr carbonates, priderite, barite (Smoky Butte, Montana, USA).

Distribution: From near the Davan Stream, in the Murun massif, southwest of Olekminsk, Yakutia, Russia. At Smoky Butte, Garfield Co., Montana, USA.

Name: For the Davan Stream, in the Murun massif, Russia.

Type Material: Geological Museum, Yakutsk Scientific Center, Academy of Sciences, Yakutsk, mk-124; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 82768.

References: (1) Lazebnik, K.A., Y.D. Lazebnik, and V.J. Mokhotko (1984) Davanite, K₂TiSi₆O₁₅, a new alkali titanosilicate. Zap. Vses. Mineral. Obshch., 113, 95–97 (in Russian). (2) (1985) Amer. Mineral., 70, 214–215 (abs. ref. 1). (3) Wagner, C. and D. Velde (1986) Davanite, K₂TiSi₆O₁₅, in the Smoky Butte (Montana) lamproites. Amer. Mineral., 71, 1473–1475. (4) Raade, G. (1987) Davanite, K₂TiSi₆O₁₅, in the Smoky Butte (Montana) lamproites: discussion of X-ray powder data. Amer. Mineral., 72, 1014–1015.