

Crystal Data: Triclinic. *Point Group:* $\bar{1}$. As thin platy grains, to 3 mm, in rims on baratovite or complexly intergrown with baratovite and fluorite.

Physical Properties: *Cleavage:* n.d. *Fracture:* n.d. *Tenacity:* Brittle.
Hardness = 4-4.5 VHN = 445 (250 g load). D(meas.) = 2.83(2) D(calc.) = 2.819

Optical Properties: Transparent. *Color:* Colorless. *Streak:* n.d. *Luster:* Vitreous.
Fluoresces bright white in SW UV.
Optical Class: Biaxial (+). $\alpha = 1.651(2)$ $\beta = 1.655(2)$ $\gamma = 1.657(2)$ $2V(\text{meas.}) = -72(2)^\circ$
 $2V(\text{calc.}) = -70.4^\circ$ *Dispersion:* $r < v$, medium.

Cell Data: *Space Group:* $P\bar{1}$. $a = 9.8156(9)$ $b = 9.8249(9)$ $c = 17.3087(16)$ $\alpha = 99.209(2)^\circ$
 $\beta = 94.670(2)^\circ$ $\gamma = 119.839(1)^\circ$ $Z = 1$

X-ray Powder Pattern: Dara-i-Pioz glacier, Alai ridge, Tien-Shan Mountains, Tajikistan.
3.35 (100), 3.06 (90), 4.25 (60), 2.885 (55), 3.14 (20), 1.868 (17), 2.870 (10), 5.60 (9)

Chemistry:	(1)
SiO ₂	60.65
TiO ₂	13.44
Nb ₂ O ₅	0.11
CaO	14.52
K ₂ O	3.93
Na ₂ O	1.99
SrO	0.72
Rb ₂ O	0.13
F	1.30
Li ₂ O	3.76
<u>-O=F₂</u>	<u>0.55</u>
Total	100.24

(1) Dara-i-Pioz glacier, Tien-Shan Mountains, Tajikistan; average of 20 electron microprobe and ICP-OES analyses, corresponding to $(\text{K}_{1.97}\text{Ba}_{0.04}\text{Rb}_{0.03})_{\Sigma=2.05}\text{Li}_{6.00}(\text{Na}_{0.86}\square_{0.14})_{\Sigma=1.00}$
 $(\text{Ca}_{6.16}\text{Na}_{0.67}\text{Sr}_{0.17})_{\Sigma=7.00}(\text{Ti}_{4.00}\text{Nb}_{0.02})_{\Sigma=4.02}\text{Si}_{24.01}\text{O}_{66}(\text{F}_{1.63}\text{O}_{0.37})_{\Sigma=2}$.

Occurrence: In a quartz-pectolite boulder in the moraine of a glacier eroding an alkaline massif.

Association: Baratovite, fluorite, quartz, pectolite, aegirine, luorite, polyolithionite, neptunite, hyalotekite, sokolovaite, senkevichite, Ti-rich mica.

Distribution: In moraine of the Dara-i-Pioz glacier, Alai ridge, Tien-Shan Mountains, Tajikistan.

Name: Honors Faiziev Abdulkhak Radzhabovitch (b 1938), professor and member-correspondent of the Academy of Sciences, Republic of Tajikistan.

Type Material: A.E. Fersman Mineralogical Museum, Russian Academy of Science, Moscow.

References: (1) Agakhanov, A.A., L.A. Pautov, Y.A. Uvarova, E.V. Sokolova, F.C. Hawthorne, V.Y. Karpenko and F.G. Gafurov (2007) Faizievite, $\text{K}_2\text{Na}(\text{Ca}_6\text{Na})\text{Ti}_4\text{Li}_6\text{Si}_{24}\text{O}_{66}\text{F}_2$ – A new mineral species. *New Data on Minerals*, 42, 5-10. (2) Uvarova, Y.A., E. Sokolova, F.C. Hawthorne, A.A. Agakhanov, and L.A. Pautov (2008) The crystal chemistry of faizievite, $\text{K}_2\text{Li}_6\text{Na}(\text{Ca}_6\text{Na})\text{Ti}_4[\text{Si}_6\text{O}_{18}]_2[\text{Si}_{12}\text{O}_{30}]\text{F}_2$, a novel structure based on intercalated blocks of the baratovite and berezanskite structures. *Can. Mineral.*, 46, 163–171. (3) (2008) *Amer. Mineral.*, 93, 1942 (abs. ref. 2).