

**Crystal Data:** Triclinic. *Point Group:*  $\bar{1}$ . As elongate grains, to 8 mm, in sheaf-like masses to 3 cm.

**Physical Properties:** *Cleavage:* None. *Fracture:* Conchoidal. *Tenacity:* Brittle.  
Hardness = 5      D(meas.) = 3.74      D(calc.) = 3.80      Fluoresces pale pink in SW UV.

**Optical Properties:** Transparent to translucent. *Color:* Pale pink. *Streak:* White. *Luster:* Vitreous.  
*Optical Class:* Biaxial (+).  $\alpha = 1.624$   $\beta = 1.628$   $\gamma = 1.637$   $2V(\text{meas.}) = 69^\circ$   $2V(\text{calc.}) = 68^\circ$   
*Pleochroism:* None. *Dispersion:* Weak,  $r < v$ .

**Cell Data:** *Space Group:*  $I\bar{1}$ .  $a = 11.181(4)$   $b = 10.850(7)$   $c = 10.252(4)$   $\alpha = 90.64(6)^\circ$   
 $\beta = 90.05(4)^\circ$   $\gamma = 89.97(7)^\circ$   $Z = 2$

**X-ray Powder Pattern:** Darii-Pioz glacier, Alayskiy Range, Garm region, northern Tajikistan.  
3.77 (100), 2.90 (90), 2.93 (80), 3.24 (75), 7.80 (70), 3.73 (70), 2.74 (65)

Chemistry:	(1)		(1)
Na <sub>2</sub> O	0.46	Nd <sub>2</sub> O <sub>3</sub>	0.32
K <sub>2</sub> O	0.87	Sm <sub>2</sub> O <sub>3</sub>	0.36
CaO	3.12	Gd <sub>2</sub> O <sub>3</sub>	0.64
MnO	0.05	Dy <sub>2</sub> O <sub>3</sub>	0.70
FeO	0.01	Ho <sub>2</sub> O <sub>3</sub>	0.14
BaO	38.18	Er <sub>2</sub> O <sub>3</sub>	0.36
PbO	1.95	Yb <sub>2</sub> O <sub>3</sub>	0.20
B <sub>2</sub> O <sub>3</sub>	8.68	SiO <sub>2</sub>	34.98
Al <sub>2</sub> O <sub>3</sub>	0.04	F	1.40
Y <sub>2</sub> O <sub>3</sub>	7.93	Cl	0.01
La <sub>2</sub> O <sub>3</sub>	0.01	<u>-O = (F + Cl)</u>	<u>0.59</u>
Ce <sub>2</sub> O <sub>3</sub>	0.09	Total	99.94
Pr <sub>2</sub> O <sub>3</sub>	0.03		

(1) Darii-Pioz glacier, Alayskiy Range, Garm region, northern Tajikistan; average electron microprobe analysis, REE titrimetrically, B colorimetrically, Be by atomic absorption spectroscopy; corresponding to (Ba<sub>3.55</sub>K<sub>0.26</sub>Pb<sub>0.12</sub>Na<sub>0.07</sub>) $\Sigma=4.00$ (Y<sub>1.00</sub>Ca<sub>0.79</sub>Na<sub>0.14</sub>Gd<sub>0.05</sub>Dy<sub>0.05</sub>Nd<sub>0.03</sub>Sm<sub>0.03</sub>Er<sub>0.03</sub>Ce<sub>0.01</sub>Ho<sub>0.01</sub>Yb<sub>0.01</sub>) $\Sigma=2.15$ (Si<sub>7.99</sub>Al<sub>0.01</sub>) $\Sigma=8.00$ (B<sub>3.55</sub>Si<sub>0.30</sub>) $\Sigma=3.85$ O<sub>27.95</sub>F<sub>1.05</sub>.

**Mineral Group:** Hyalotekite group.

**Occurrence:** In a boulder of peralkaline pegmatite in the moraine of a glacier.

**Association:** Quartz, reedmergnerite, leucosphenite, polyolithionite, pectolite, pyrochlore, turkestanite, aegirine.

**Distribution:** From the Darii-Pioz glacier, Alayskiy Range, Garm region, northern Tajikistan.

**Name:** Honors Russian P'yotr Leonidovich *Kapitsa* (1894-1984), well-known solid-state physicist.

**Type Material:** A.E. Fersman Mineralogical Museum, Moscow, Russia (89495, 89502, 90423).

**References:** (1) Pautov, L.A., P.V. Khvorov, E.V. Sokolova, G. Ferraris, G. Ivaldi, and L.F. Bazhenova (2000) Kapitsaite-(Y) (Ba,K)<sub>4</sub>(Y,Ca)<sub>2</sub>Si<sub>8</sub>(B,Si)<sub>4</sub>O<sub>28</sub>F - A new mineral. *Zapiski Vseross. Mineral. Obshch.*, 129(6), 42-49 (in Russian, English abs.). (2) (2001) *Amer. Mineral.* 86, 1535 (abs. ref. 1) and 87, 768 (Erratum). (3) Mandarino, J.A. (2001) New minerals. *Can. Mineral.*, 39, 1483 (abs. ref. 1).