Pekovite $SrB_2Si_2O_8$

Crystal Data: Orthorhombic. *Point Group:* 2/*m* 2/*m* 2/*m*. As equant grains to 0.2 mm.

Physical Properties: *Cleavage:* None. *Fracture:* Uneven. *Tenacity:* Brittle. Hardness = 6.5-7 VHN = 953 (100 g load). D(meas.) = 3.35(2) D(calc.) = 3.36

Optical Properties: Transparent to translucent. *Color:* White to colorless. *Streak:* White. *Luster:* Vitreous, slightly greasy.
Optical Class: Biaxial (-). α = 1.597(2) β(calc) = 1.627(2) γ = 1.632(2) 2V(meas) = 43(3)° 2V(calc) = n.d. *Dispersion:* Moderate, $v > r$. *Pleochroism*: None.

Cell Data: *Space Group: Pnma*. a = 8.155(2) b = 7.919(1) c = 8.921(1) Z = 4

X-ray Powder Pattern: Dara-i-Pioz glacier, Alai mountain range, Tien Shan, northern Tajikistan. 3.62 (100), 3.51 (90), 2.786 (90), 3.31 (80), 1.982 (70B), 5.94 (60), 3.01 (60)

Chemistry:

	(1)
CaO	0.38
SrO	34.15
B_2O_3	23.39
SiO_2	41.56
Total	99.48

(1) Dara-i-Pioz glacier, Alai mountain range, Tien Shan, northern Tajikistan; electron microprobe analysis, corresponding to $(Sr_{0.97}Ca_{0.02})_{\Sigma=0.99}B_{1.97}Si_{2.02}O_8$.

Occurrence: Within a block of quartz in the moraine of the Dara-i-Pioz glacier, Alai mountain range, Tien Shan, northern Tajikistan. The Dara-i-Pioz massif at the head of the glacier contains B-rich alkaline rocks and pegmatites.

Association: In quartz, intergrown with pectolite, highly strontian fluorite, and aegirine.

Distribution: Dara-i-Pioz glacier, Alai mountain range, Tien Shan, northern Tajikistan.

Name: Honors Russian mineralogist Igor Viktorovich Pekov (b. 1967), an expert on the mineralogy of alkaline rocks.

Type Material: A.E. Fersman Mineralogical Museum, Moscow, Russia.

References: (1) Pautov, L.A., A.A. Agakhanov, E. Sokolova, and F.C. Hawthorne (2004) Maleevite, $BaB_2Si_2O_8$, and pekovite, $SrB_2Si_2O_8$, new mineral species from the Dara-i-Pioz alkaline massif, northern Tajikistan: description and crystal structure. Can. Mineral., 42, 107–119. (2) (2005) Amer. Mineral., 90, 272-273 (abs. ref. 1).