

Shuiskite

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Crystal Data: Monoclinic. *Point Group:* 2/m. As radiating aggregates of fibrous prismatic crystals, to 1 cm.**Physical Properties:** *Cleavage:* {001}, perfect. *Hardness* = 6 *D*(meas.) = 3.24
D(calc.) = [3.35]**Optical Properties:** Semitransparent. *Color:* Dark brown, with a violet tint. *Streak:* Light greenish brown. *Luster:* Vitreous.*Optical Class:* Biaxial (-). *Pleochroism:* Strong; X = blue-violet; Y = yellowish green; Z = dark violet. *Dispersion:* $r < v$, strong. $\alpha = 1.725\text{--}1.733$ $\beta = 1.762\text{--}1.772$ $\gamma = 1.769\text{--}1.775$
 $2V(\text{meas.}) = 40^\circ\text{--}50^\circ$ **Cell Data:** *Space Group:* A2/m. $a = 8.897$ $b = 5.843$ $c = 19.41$ $\beta = 98^\circ$ $Z = 4$ **X-ray Powder Pattern:** Saranovskii mine, Russia.

1.593 (10), 2.90 (9), 1.487 (8), 2.73 (7), 2.64 (5), 2.52 (5b), 2.46 (5)

Chemistry:

	(1)
SiO ₂	31.42
TiO ₂	0.65
Al ₂ O ₃	12.75
Fe ₂ O ₃	1.65
Cr ₂ O ₃	19.34
FeO	0.00
MnO	trace
MgO	5.07
CaO	21.00
Na ₂ O	0.19
K ₂ O	0.22
H ₂ O ⁺	7.03
H ₂ O ⁻	0.50
Total	99.82

(1) Saranovskii mine, Russia; corresponding to $(\text{Ca}_{1.91}\text{K}_{0.03}\text{Na}_{0.02})_{\Sigma=1.96}$
 $(\text{Mg}_{0.64}\text{Al}_{0.25}\text{Fe}_{0.10})_{\Sigma=0.99}(\text{Cr}_{1.30}\text{Al}_{0.69}\text{Ti}_{0.04})_{\Sigma=2.03}(\text{Si}_{2.67}\text{Al}_{0.30})_{\Sigma=2.97}\text{O}_{11}(\text{OH})_{2.00} \cdot 0.99\text{H}_2\text{O}$.**Mineral Group:** Pumpellyite group.**Occurrence:** On the walls of fractures in chromitite.**Association:** Uvarovite, chlorite, titanite.**Distribution:** From the Biserskoye deposit and Saranovskii chromium mine, five km north of the Laki railway station, Gorozavod district, Northern Ural Mountains, Russia.**Name:** For Vadim Prokof'evich Shuiskii (1936–), petrologist of the Ural Scientific Center, Yekaterinburg (Sverdlovsk), Russia.**Type Material:** Ural Geological Museum, Mining Institute, Yekaterinburg (Sverdlovsk); Mining Institute, St. Petersburg, 1227/1; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 81684.**References:** (1) Ivanov, O.K., V.A. Arkhangel'skaya, L.O. Miroshnikova, and T.A. Shilova (1981) Shuiskite, the chromium analog of pumpellyite, from the Bisersk deposit, Urals. *Zap. Vses. Mineral. Obshch.*, 110, 508–512 (in Russian). (2) (1982) *Amer. Mineral.*, 67, 860 (abs. ref. 1).

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