

**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 <sub>2</sub>	31.42
TiO <sub>2</sub>	0.65
Al <sub>2</sub> O <sub>3</sub>	12.75
Fe <sub>2</sub> O <sub>3</sub>	1.65
Cr <sub>2</sub> O <sub>3</sub>	19.34
FeO	0.00
MnO	trace
MgO	5.07
CaO	21.00
Na <sub>2</sub> O	0.19
K <sub>2</sub> O	0.22
H <sub>2</sub> O <sup>+</sup>	7.03
H <sub>2</sub> O <sup>-</sup>	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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