

**Crystal Data:** Orthorhombic (?). *Point Group:* n.d. Acicular crystals, to 0.5 mm, radiating, fibrous, powdery, in thin crusts and imbedded in gypsum.

**Physical Properties:** *Cleavage:* One, || elongation. *Hardness* = n.d. *D(meas.)* = 4.2 *D(calc.)* = n.d. Radioactive.

**Optical Properties:** Translucent, nearly opaque. *Color:* Brown to reddish brown; gray with brownish tint in reflected light, with bright red internal reflections.

*Optical Class:* Biaxial. *Pleochroism:* Slight; *X = Y* = pale reddish brown; *Z* = reddish brown. *Orientation:* *Y* ∧ elongation = 38°; positive elongation.  $\alpha = > 1.789$   $\beta = > 1.789$   $\gamma = > 1.789$  *2V(meas.)* = n.d.

**Cell Data:** *Space Group:* n.d. *a* = 3.36(6) *b* = 11.08(3) *c* = 6.42(5) *Z* = n.d.

**X-ray Powder Pattern:** Kyzylsai deposit, Kazakhstan. 3.193 (10), 11.04 (9), 3.370 (9), 3.064 (9), 5.530 (8), 3.702 (8), 2.775 (6)

Chemistry:	(1)	(2)
SO <sub>3</sub>	41.51	
MoO <sub>3</sub>	5.50	51.60
UO <sub>3</sub>	0.00	
SiO <sub>2</sub>	0.60	
UO <sub>2</sub>	4.16	48.40
Fe <sub>2</sub> O <sub>3</sub>	0.17	
CaO	27.89	
H <sub>2</sub> O	19.72	
Total	99.55	100.00

(1) Kyzylsai deposit, Kazakhstan; deducting SO<sub>3</sub>, CaO, H<sub>2</sub>O as gypsum and 20% of MoO<sub>3</sub> as due to molybdenite, the remainder corresponds to U<sub>1.00</sub>(MoO<sub>4</sub>)<sub>2.00</sub>. (2) U(MoO<sub>4</sub>)<sub>2</sub>.

**Occurrence:** A rare secondary mineral formed in the oxidized zone of a U–Mo deposit.

**Association:** Uraninite, gypsum, iriginite, calcurmolite, mourite, autunite, phosphuranylite, wulfenite, powellite, molybdenite, barite.

**Distribution:** From the Kyzylsai Mo–U deposit, Chu-Ili Mountains, southwestern Balkhash region, Kazakhstan.

**Name:** To honor Georgii Yakovlevich Sedov (1877–1914), Russian Arctic explorer.

**Type Material:** Mining Institute, St. Petersburg, 1000/1; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 67300, 72032.

**References:** (1) Skvortsova, K.V. and G.A. Sidorenko (1965) Sedovite – a new supergene mineral of uranium and molybdenum. *Zap. Vses. Mineral. Obshch.*, 94, 548–554 (in Russian).

(2) (1966) *Amer. Mineral.*, 51, 530 (abs. ref. 1).