

**Crystal Data:** Monoclinic. *Point Group:* *m*. As rough, corrugated lamellar crystals to 1 mm, with {010} dominant, and as stellate radial aggregates to 2 mm.

**Physical Properties:** *Cleavage:* Perfect {010}. *Fracture:* Uneven. *Tenacity:* Sectile. Hardness = 1 D(meas.) = n.d. D(calc.) = 4.46

**Optical Properties:** Transparent to translucent. *Color:* Canary-yellow. *Streak:* Yellow. *Luster:* Vitreous; pearly on cleavage surfaces. Green fluorescence in UV. *Optical Class:* Biaxial (-).  $\alpha = 1.597(2)$   $\beta = 1.770(5)$   $\gamma = 1.775(5)$   $2V(\text{meas.}) = 20^\circ$  *Dispersion:* Strong;  $r < v$ . *Orientation:*  $X = b$ ;  $Z$  parallel to the elongation. *Pleochroism:*  $Y = Z = \text{yellow}$ ;  $X = \text{light greenish yellow}$ . *Absorption:*  $Y = Z > X$ .

**Cell Data:** *Space Group:* *P11m*.  $a = 6.9806(9)$   $b = 7.646(1)$   $c = 17.249(2)$   $\beta = 90.039(4)^\circ$   $Z = 2$

**X-ray Powder Pattern:** Repete mine, San Juan County, Utah, USA. 7.67 (100), 3.107 (77), 2.874 (53), 8.63 (43), 3.85 (40), 7.02 (33), 3.176 (33)

Chemistry:	(1)	(2)
Na <sub>2</sub> O	2.04	2.56
K <sub>2</sub> O	0.69	
CaO	0.23	
UO <sub>3</sub>	72.19	70.91
SeO <sub>2</sub>	18.12	18.34
H <sub>2</sub> O	7.64	8.19
Total	100.91	100.00

(1) Repete mine, San Juan County, Utah, USA; average of 3 electron microprobe analyses, H<sub>2</sub>O by Penfield method; corresponding to Na<sub>0.81</sub>K<sub>0.18</sub>Ca<sub>0.05</sub>(H<sub>3</sub>O)<sub>0.73</sub>(UO<sub>2</sub>)<sub>3.09</sub>(SeO<sub>3</sub>)<sub>2</sub>O<sub>2</sub>·4.1H<sub>2</sub>O.

(2) Na(H<sub>3</sub>O)(UO<sub>2</sub>)<sub>3</sub>(SeO<sub>3</sub>)<sub>2</sub>O<sub>2</sub>·4H<sub>2</sub>O.

**Occurrence:** A secondary mineral in an oxidized 'roll-front' U deposit in sandstone.

**Association:** Montmorillonite, quartz, haynesite, wölsendorfite, andersonite, uranophane, gypsum, calcite.

**Distribution:** Repete mine, near Blanding, San Juan County, Utah, USA.

**Name:** Honors Russian mineralogist Larisa Nikolaevna Belova (1923-1998) for her studies of U minerals.

**Type Material:** Geoscientific Collections, Freiberg University of Mining and Technology, Freiberg, Germany; 80251.

**References:** (1) Chukanov, N.V., D.Yu. Pushcharovsky, M. Pasero, S. Merlino, A.V. Barinova, S. Möckel, I.V. Pekov, A.E. Zadov, and V.T. Dubinchuk (2004) Larisaite, Na(H<sub>3</sub>O)(UO<sub>2</sub>)<sub>3</sub>(SeO<sub>3</sub>)<sub>2</sub>O<sub>2</sub>·4H<sub>2</sub>O, a new uranyl selenite mineral from Repete mine, San Juan County, Utah, U.S.A. *Eur. J. Mineral.*, 16, 367-374. (2) (2005) *Amer. Mineral.*, 90, 519-520 (abs. ref. 1).