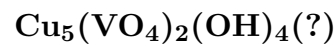


## Turanite



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**Crystal Data:** Orthorhombic (?). *Point Group:* n.d. As reniform crusts and radial fibrous spherical concretions.

**Physical Properties:** Hardness = 5 D(meas.) = n.d. D(calc.) = n.d.

**Optical Properties:** Semitransparent. *Color:* Olive-green.  
*Optical Class:* Biaxial (-). *Pleochroism:* X = Y = brown; Z = green. *Orientation:* Positive elongation. *Dispersion:*  $r > v$ , strong.  $\alpha = 2.00$   $\beta = 2.01$   $\gamma = 2.02$   $2V(\text{meas.}) = \text{Medium}$ .

**Cell Data:** *Space Group:* n.d. Z = n.d.

**X-ray Powder Pattern:** Locality unknown [Tyuya-Muyun Cave, Kyrgyzstan].  
4.76 (10), 7.25 (8), 2.56 (6), 2.70 (4), 2.47 (3), 2.29 (3), 2.11 (3)

**Chemistry:** (1) Composition stated to be  $\text{Cu}_5(\text{VO}_4)_2(\text{OH})_4$ .

**Occurrence:** A rare secondary mineral in vanadium-bearing mineral deposits in sandstone.

**Association:** Other vanadates, uranovanadates, malachite, calcite, barite.

**Distribution:** From the Tyuya-Muyun Cave, Fergana Valley, Alai Range, Kyrgyzstan.

**Name:** For the Turan region, Kyrgyzstan, where the mineral was first found.

**Type Material:** n.d.

**References:** (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 818. (2) Guillemin, C. (1956) Contribution a la minéralogie des arsénates, phosphates et vanadates de cuivre. II. phosphates et vanadates de cuivre. Bull. Soc. fr. Minéral., 79, 219–275, esp. 245–246 (in French).