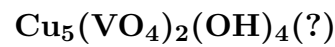


Turanite



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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. $\alpha = 2.00$ $\beta = 2.01$ $\gamma = 2.02$ $2V(\text{meas.}) =$ 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 arséniates, phosphates et vanadates de cuivre. II. phosphates et vanadates de cuivre. Bull. Soc. fr. Minéral., 79, 219–275, esp. 245–246 (in French).