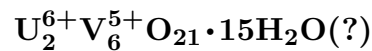


Uvanite

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Crystal Data: Orthorhombic (probable). *Point Group:* n.d. As minutely crystalline coatings and massive, to 1 cm thick.

Physical Properties: *Cleavage:* Two directions, pinacoidal. *Hardness* = n.d.
D(meas.) = n.d. D(calc.) = n.d.

Optical Properties: Semitransparent. *Color:* Brownish yellow; pale brown in transmitted light.

Optical Class: Biaxial (+). *Pleochroism:* X = light brown; Y = dark brown; Z = greenish yellow. $\alpha = 1.817$ $\beta = 1.879$ $\gamma = 2.057$ $2V(\text{meas.}) = 52^\circ$

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

X-ray Powder Pattern: Temple Rock, Utah, USA.

2.94 (10), 1.71 (9), 2.24 (8), 1.484 (7), 5.9 (6), 4.6 (4), 1.637 (4)

Chemistry:	(1)	(2)
UO ₃	39.60	41.22
P ₂ O ₅	0.06	
As ₂ O ₅	0.05	
V ₂ O ₅	37.70	39.31
MgO	0.04	
CaO	1.73	
K ₂ O	0.30	
H ₂ O	18.28	19.47
insol.	1.24	
Total	99.00	100.00

(1) Temple Rock, Utah, USA. (2) U₂V₆O₂₁•15H₂O.

Occurrence: In a Colorado Plateau-type uranium deposit in asphaltic sandstone.

Association: Carnotite, rauvite, hewettite, metatorbernite, gypsum, "hyalite".

Distribution: From Temple Rock, about 70 km southwest of Green River, San Rafael district, Emery Co., Utah, USA.

Name: For Uranium and VANadium in the composition.

Type Material: Harvard University, Cambridge, Massachusetts, 62753; National Museum of Natural History, Washington, D.C., USA, 87512, R5708.

References: (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 1056. (2) Frondel, C. (1958) Systematic mineralogy of uranium and thorium. U.S. Geol. Sur. Bull. 1064, 261–263. (3) Weiss, A. and K.J. Hilke (1965) Uvanit, ein Uranylvanadat mit Schichtstruktur und innerkristallinem Quellungsvermögen. Anorg. Chem., 7(7), 347 (in German).