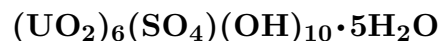


Meta-uranopilite



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Crystal Data: Orthorhombic (?). *Point Group:* n.d. Needlelike to lathlike crystals.

Physical Properties: Hardness = n.d. $D(\text{meas.}) = \text{n.d.}$ $D(\text{calc.}) = \text{n.d.}$ Radioactive; fluoresces yellowish green under UV.

Optical Properties: Semitransparent. *Color:* Grayish yellow with a brownish tint.
Optical Class: Biaxial (-). *Orientation:* $X = b$; $Y = c$; $Z = a$. $\alpha = 1.72$ $\beta = 1.76$ $\gamma = 1.76$
 $2V(\text{meas.}) = \text{n.d.}$

Cell Data: *Space Group:* n.d. $Z = \text{n.d.}$

X-ray Powder Pattern: n.d.

Chemistry:	(1)	(2)
SO ₃	4.17	4.05
UO ₃	82.40	86.83
Fe ₂ O ₃	2.03	
H ₂ O	9.40	9.12
Total	98.00	100.00

(1) Jáchymov, Czech Republic; Fe₂O₃ probably "limonite". (2) (UO₂)₆(SO₄)(OH)₁₀•5H₂O.

Occurrence: On a museum specimen from a uranium-bearing hydrothermal ore deposit [may = jáchymovite].

Association: Uranopilite.

Distribution: From Jáchymov (Joachimsthal), Czech Republic.

Name: From the Greek *meta*, for a lower hydrate, and its relation to *uranopilite*.

Type Material: National Museum, Prague, Czech Republic, listed but cannot be located.

References: (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 582–583. (2) Frondel, C. (1952) Studies of uranium minerals (X): uranopilite. *Amer. Mineral.*, 37, 950–959. (3) Ondruš, P., F. Veselovský, J. Hloušek, R. Skála, I. Vavřín, J. Frýda, J. Čejka, and A. Gabašová (1997) Secondary minerals of the Jáchymov (Joachimsthal) ore district. *J. Czech Geol. Soc.*, 42(4), 3–76, esp. 35–36.