

## Metauranospinite



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**Crystal Data:** Tetragonal. *Point Group:* n.d. As small tabular crystals with square to rectangular outline.

**Physical Properties:** *Cleavage:* Perfect on {001}. *Hardness* = 2–3. *D*(meas.) = n.d. *D*(calc.) = 3.65 *Radioactive.*

**Optical Properties:** *Translucent.* *Color:* Yellow. *Luster:* Pearly on {010}.  
*Optical Class:* Biaxial (-). *Pleochroism:* Weak; *X* = colorless; *Z* = pale yellow.  $\alpha$  = n.d.  
 $\beta$  = n.d.  $\gamma$  = 1.618 *2V*(meas.) = n.d.

**Cell Data:** *Space Group:* n.d. *a* = 7.14 *c* = 17.00 *Z* = 2

**X-ray Powder Pattern:** Clara mine, Germany.  
8.65 (10), 3.57 (10), 3.31 (9), 5.53 (8), 3.00 (5), 5.08 (4), 4.36 (4b)

**Chemistry:** (1) Identity established by microchemical analysis yielding only Ca, U, As, and coincidence with the X-ray pattern of synthetic material.

**Mineral Group:** Meta-autunite group.

**Occurrence:** A secondary mineral of the oxide zone in a hydrothermal polymetallic barite–fluorite deposit.

**Association:** n.d.

**Distribution:** From the Clara mine, near Oberwolfach, Black Forest, Germany.

**Name:** The prefix *meta* indicates the dehydration product of *uranospinite*.

**Type Material:** n.d.

**References:** (1) Walenta, K. (1958) Die sekundären Uranmineralien des Schwarzwaldes. Jahresheft geol. Landesamt Baden-Württemberg, 3, 17–51, esp. 30–31 (in German). (2) (1960) Amer. Mineral., 45, 254 (abs. ref. 1). (3) Mrose, M.E. (1953) Studies of uranium minerals (XIII): synthetic uranospinites [metauranospinite]. Amer. Mineral., 38, 1159–1168. (4) Walenta, K (1965) Beiträge zur Kenntnis seltener Arsenatmineralien unter besonderer Berücksichtigung von Vorkommen des Schwarzwaldes. 2. Folge. Tschermarks Mineral. Petrog. Mitt., 9, 252–282, esp. 253–262 (in German).