Crystal Data: Monoclinic. *Point Group*: 2. As rectangular tabular crystals flattened on {001} and modified by {100} and {101}, to 2 cm; in subparallel growths and fanlike aggregates. *Twinning*: Lamellar twinning || {100} and {010} observed optically.

Physical Properties: *Cleavage*: Perfect on {001}; distinct on {010}. *Tenacity*: Thin plates are flexible. Hardness = 2-2.5 D(meas.) = 3.94 D(calc.) = 3.78 Radioactive. Fluorescent green under SW and LW UV.

Optical Properties: Transparent to translucent. *Color*: Yellow, yellow-green. *Luster*: Waxy, pearly on {001}.
Optical Class: Biaxial (-). α = 1.610 β = 1.621-1.623 γ = 1.622-1.623 2V(meas.) = 0°-45°
Pleochroism: *X* = colorless; *Y* = *Z* = pale canary yellow. *Orientation*: *X* = *c*. *Dispersion*: *r* > *v*.

Cell Data: *Space Group*: $P2_1$. *a* = 6.965(3) *b* = 6.964(2) *c* = 17.65(1) β = 90° Z = 2

X-ray Powder Pattern: Streuberg, Bergen, Germany. (ICDD 36-407).
8.82 (100), 4.410 (55), 3.723 (50), 2.708 (20), 2.205 (18), 1.4621 (18), 5.46 (15)

Chemistry:	(1)	(2)		(1)	(2)
UO_3	56.86	58.65	BaO	14.57	15.72
P_2O_5	15.06	14.55	H_2O	13.99	11.08
			Total	100.48	100.00

(1) The Falkenstein, Germany. (2) $Ba(UO_2)_2(PO_4)_2{\cdot}6H_2O$.

Mineral Group: Meta-autunite group.

Occurrence: Typically, a secondary mineral in the oxidized zone of some uranium deposits; may be primary in low-temperature veins.

Association: Autunite, torbernite.

Distribution: In Germany, from Bergen, near the Falkenstein, Vogtland, and from Schwarzenberg and Aue, Saxony; at Wölsendorf, Bavaria; and from Menzenschwand, Black Forest. A uranium ore at Cayrou, Entraygues, Aveyron, France. At the Bota-Burum uraninite-sulfide deposit, Kazakhstan. From Vinaninkarena, near Antsirabe, Madagascar. At the Mounana mine, Franceville, Gabon. In the USA, in the Honeycomb Hills, Juab Co., Utah; the Wind River Basin, Fremont Co., Wyoming; and from Annie Creek, Lawrence Co., South Dakota; found near Cameron, Coconino Co., Arizona.

Name: The prefix *meta* indicates the dehydration product of *uranocircite*, named for its content of *uranium*, and from the Greek for *falcon*, for its occurrence at the Falkenstein, Germany.

Type Material: State Museum for Mineralogy and Geology, Dresden; Mining Academy, Freiberg, Germany.

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