

Crystal Data: Orthorhombic. *Point Group:* $mm2$. As crusts of lath-like crystals elongated along [001] and flattened on (010) to 0.1 mm, showing (100), (010) and (001).

Physical Properties: *Cleavage:* Good on (010) and (001). *Tenacity:* Brittle. *Fracture:* Irregular. Hardness = ~2 D(meas.) = n.d. D(calc.) = 4.91 Nonfluorescent. Soluble in dilute HCl.

Optical Properties: Transparent. *Color:* Yellow. *Streak:* Yellowish. *Luster:* Vitreous. *Optical Class:* Biaxial (-). $\alpha = 1.725(3)$ $\beta = 1.742(3)$ $\gamma = 1.745(3)$ $2V(\text{calc.}) = 46^\circ$
Orientation: $X = b$, $Y = a$, $Z = c$.

Cell Data: *Space Group:* $P2_1mn$. $a = 17.36(2)$ $b = 16.96(2)$ $c = 7.02(1)$ $Z = 4$

X-Ray Diffraction Pattern: Menzenschwand, Baden-Württemberg, Germany.
8.56 (10), 12.21 (8), 6.07 (8), 4.25 (8), 5.42 (7), 3.33 (7), 3.11 (6)

Chemistry:	(1)
BaO	1.69
CaO	0.54
UO ₃	78.18
As ₂ O ₅	8.46
P ₂ O ₅	3.52
<u>H₂O</u>	<u>[7.61]</u>
Total	100.00

(1) Menzenschwand, Baden-Württemberg, Germany; average electron microprobe analysis, H₂O by difference; corresponds to Ba_{0.17}Ca_{0.15}U_{4.18}As_{1.12}P_{0.75}H_{12.91}O₂₄.

Occurrence: A secondary mineral in a uranium deposit.

Association: Vanmeersschelte, schoepite, pyrite, quartz.

Distribution: From Menzenschwand, southern Black Forest, Baden-Württemberg, Germany.

Name: Prefix, *arseno*, indicates the arsenate analogue of *vanmeersscheite*.

Type Material: State Museum of Natural History, Stuttgart, Germany.

References: (1) Walenta, K. and T. Theye (2007) Arsenovanmeersscheite, ein neues Uranmineral von der Uranlagerstätte Menzenschwand im südlichen Schwarzwald. *Aufschluss*, 58, 159-164.