

Crystal Data: Tetragonal. *Point Group:* $4/m$. As indistinct crystals, to 50 μm , in powdery aggregates.

Physical Properties: Hardness = 2.5 D(meas.) = n.d. D(calc.) = 7.64

Optical Properties: Semitransparent. *Color:* White to pale yellowish. *Luster:* Earthy. *Optical Class:* Uniaxial (+). $n = 2.20(5)$

Cell Data: *Space Group:* $I4_1/a$ (synthetic). $a = 5.085(5)$ $c = 11.69(2)$ $Z = 4$

X-ray Powder Pattern: Moldava fluorite mine, Czech Republic. 3.066 (100), 1.933 (55), 1.551 (17), 2.546 (12), 4.660 (11), 1.797 (11), 1.581 (10)

Chemistry:	(1)	(2)
P ₂ O ₅	0.02	
As ₂ O ₅	33.02	33.03
Bi ₂ O ₃	66.96	66.97
Total	100.00	100.00

(1) Moldava fluorite mine, Czech Republic; average of six analyses. (2) Bi(AsO₄).

Polymorphism & Series: Dimorphous with rooseveltite.

Occurrence: A rare secondary mineral in vugs in an oxidized fluorite–barite–quartz vein.

Association: Bayldonite, malachite, mimetite, fluorite, quartz.

Distribution: In the Moldava fluorite mine, about 20 km northwest of Teplice, Krušné hory Mountains, Czech Republic.

Name: As the *tetragonal* dimorph of *rooseveltite*.

Type Material: Národní Museum, Prague, Czech Republic, P1N 84 563.

References: (1) Sejkora, J. and T. Řídkošil (1994) Tetrarooseveltite, β -Bi(AsO₄), a new mineral species from Moldava deposit, the Krušné hory Mts., northwestern Bohemia, Czech Republic. Neues Jahrb. Mineral., Monatsh., 179–184. (2) (1994) Amer. Mineral., 79, 1210–1211 (abs. ref. 1). (3) Mooney, R.C.L. (1948) Crystal structure of tetragonal bismuth arsenate. Acta Cryst., 1, 163–165.