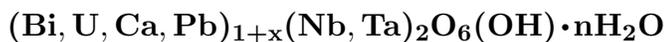


## Bismutopyrochlore



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**Crystal Data:** Cubic. *Point Group:*  $4/m \bar{3} 2/m$ . Always anhedral, forming earthy crusts.

**Physical Properties:** Hardness = 4–5 D(meas.) = n.d. D(calc.) = 7.38

**Optical Properties:** Transparent to opaque. *Color:* Yellow to yellow-brown, rarely greenish; brownish in transmitted light.

*Optical Class:* Isotropic.  $n = 2.09(1)$

**Cell Data:** *Space Group:*  $Fd\bar{3}m$ .  $a = 10.38$   $Z = 8$

**X-ray Powder Pattern:** Neubulach, Germany.

3.01 (10), 2.60 (7), 1.833 (7), 1.565 (7), 1.190 (5), 1.162 (5), 1.498 (4)

**Chemistry:**

	(1)
Fe <sub>2</sub> O <sub>3</sub>	6.9
Bi <sub>2</sub> O <sub>3</sub>	49.2
Sb <sub>2</sub> O <sub>3</sub>	43.9
<hr/>	
Total	100.0

(1) Clara mine, Germany; by electron microprobe, corresponds to  $\text{Bi}_{1.31}^{3+}\text{Sb}_{1.69}^{5+}\text{Fe}_{0.54}^{3+}\text{O}_7$ .

**Mineral Group:** Stibiconite group.

**Occurrence:** A secondary mineral formed as an alteration product of bismuthian tetrahedrite–tennantite.

**Association:** Tetrahedrite–tennantite, chalcopyrite, beyerite, atelestite, preisingerite, bismutite, malachite, azurite, olivenite.

**Distribution:** From the Clara mine, near Oberwolfach, at Neubulach, and at Niederohlsbach, Black Forest, Germany. In the Lodi #4 mine, Spring Creek district, Plumas Co., California, USA.

**Name:** For a *bismuth*-containing member of the *stibiconite* group.

**Type Material:** n.d.

**References:** (1) Walenta, K. (1983) Bismutostibiconit, ein neues Mineral der Stibiconitgruppe aus dem Schwarzwald. *Chem. Erde*, 42, 77–81 (in German with English abs.). (2) (1984) *Amer. Mineral.*, 69, 1190 (abs. ref. 1).