Crystal Data: Hexagonal. Point Group: 32. Granular, to 0.1 mm, in veinlets and earthy aggregates.


Optical Class: Uniaxial (+). \( \omega > 1.77 \) \( \epsilon > 1.77 \)

Cell Data: Space Group: \([P3_121]\) (by analogy to synthetic material). \(a = 6.986(2)\) \(c = 6.475(3)\) \(Z = 3\)

X-ray Powder Pattern: Ximeng Co., China.
3.024 (100), 4.420 (91), 3.493 (88), 6.052 (73), 2.854 (65), 1.7474 (48), 2.157 (47)

Chemistry:

\[
\begin{array}{llll}
\text{P}_2\text{O}_5 & 22.92 & 23.35 \\
\text{Bi}_2\text{O}_3 & 76.34 & 76.65 \\
\text{H}_2\text{O} & 0.76 & \\
\hline
\text{Total} & 100.02 & 100.00 \\
\end{array}
\]

(1) Ximeng Co., China; by electron microprobe, corresponding to \(\text{Bi}_{1.01}\text{P}_{0.96}\text{O}_4\). (2) \(\text{BiPO}_4\).

Occurrence: An alteration product of bismuthinite in a tin deposit.

Association: Bismuthinite, waylandite, monazite, cassiterite, tourmaline.

Distribution: From an undefined locality in Ximeng Co., about 420 km southwest of Kunming, Yunnan Province, China.

Name: For Ximeng Co., China, in which it was first noted to occur.

Type Material: Bureau of Geology and Mineral Resources, Kunming, China.