

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

Physical Properties: *Tenacity:* Brittle. Hardness = n.d. VHN = 297–283, average 281. D(meas.) = n.d. D(calc.) = 5.534 Yellowish green cathodoluminescence under the electron beam.

Optical Properties: Transparent. *Color:* Colorless. *Streak:* White. *Luster:* Vitreous to greasy.

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

Cell Data: *Space Group:* [P3₁21] (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:	(1)	(2)
P ₂ O ₅	22.92	23.35
Bi ₂ O ₃	76.34	76.65
H ₂ O	0.76	
Total	100.02	100.00

(1) Ximeng Co., China; by electron microprobe, corresponding to Bi_{1.01}P_{0.90}O₄. (2) BiPO₄.

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.

References: (1) Jiaxin Shi (1989) Ximengite – a new mineral. *Acta Mineralogica Sinica*, 9(1), 15–19 (in Chinese with English abs.). (2) (1991) *Amer. Mineral.*, 76, 1436 (abs. ref. 1). (3) Jiaxin Shi (1989) A new mineral – ximengite. *Chinese J. Geochem.*, 8(4), 385–391 (in English). (4) Mooney-Slater, R.C.L. (1962) Polymorphic forms of bismuth phosphate. *Zeits. Krist.*, 117, 371–385.