

Hexatestibiopanickelite

(Ni, Pd)(Te, Sb)

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Crystal Data: Hexagonal. *Point Group:* $6/m\ 2/m\ 2/m$ (probable). Massive.

Physical Properties: Hardness = 2.0–2.2 VHN = 75–108 (2 g load). D(meas.) = n.d.
D(calc.) = 8.904

Optical Properties: Opaque. *Color:* Pale yellow to yellowish white.
R₁–R₂: n.d.

Cell Data: *Space Group:* $P6_3/mmc$ (probable) $a = 3.983(3)$ $c = 5.339(3)$ $Z = 2$

X-ray Powder Pattern: Locality “Y”, China.
2.890 (10), 2.109 (8), 1.990 (7), 1.108 (6), 1.580 (5), 1.635 (4), 1.452 (3)

Chemistry:

	(1)
Ni	20.
Pd	16.
Sb	31.
Bi	0.1
Te	33.
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Total	100.1

(1) Locality “Y”, China; by electron microprobe, corresponding to $(\text{Ni}_{0.69}\text{Pd}_{0.31})_{\Sigma=1.00}$
 $(\text{Te}_{0.50}\text{Sb}_{0.49}\text{Bi}_{0.01})_{\Sigma=1.00}$.

Mineral Group: Nickeline group.

Occurrence: In ore concentrates from Cu–Ni sulfide deposits.

Association: Testibiopalladite.

Distribution: In southwestern China, at locality “Y” – a code name.

Name: Presumably named for the crystal system and composition.

Type Material: n.d.

References: (1) Platinum Metal Mineral Research Group, Microprobe Analysis Laboratory, X-Ray Powder Photograph Laboratory, and Mineral Dressing Laboratory, Kweiyang Institute of Geochemistry, Academia Sinica (1974) Tellurostibnide of palladium and nickel and other new minerals and varieties of platinum metals. *Geochimica*, 3, 169–181 (in Chinese with English abs.). (2) (1976) *Amer. Mineral.*, 61, 182 (abs. ref. 1). (3) Bayliss, P. (1990) Revised unit-cell dimensions, space group, and chemical formula of some metallic minerals. *Can. Mineral.*, 28, 751–755.