Hexatestibiopanickelite $(Ni, Pd)(Te, Sb)$

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.
R_1–R_2: 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.
Total	100.1

(1) Locality "Y", China; by electron microprobe, corresponding to $(Ni_{0.69}Pd_{0.31})_{\Sigma=1.00}(Te_{0.50}Sb_{0.49}Bi_{0.01})_{\Sigma=1.00}$.

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.