

Crystal Data: Triclinic. *Point Group:* 1. As rounded grains, to 1.8 mm.

Physical Properties: *Tenacity:* Malleable. Hardness = n.d. VHN = 379–449 (100 g load). D(meas.) = 10.40 D(calc.) = 11.028

Optical Properties: Opaque. *Color:* White, with yellowish creamy tint, in polished section. *Luster:* Metallic. *Anisotropism:* Strong, red and golden brown to blue-gray in air, khaki-brown to blue-gray and bright steel-gray in oil.

R₁–R₂: (400) 43.9–44.5, (420) 44.7–45.8, (440) 45.7–46.5, (460) 46.8–47.8, (480) 48.1–49.4, (500) 49.4–50.8, (520) 50.8–52.4, (540) 52.1–53.9, (560) 53.2–55.1, (580) 54.4–56.4, (600) 55.4–57.3, (620) 56.4–58.1, (640) 57.0–58.8, (660) 57.7–59.2, (680) 58.2–59.8, (700) 58.8–60.0

Cell Data: *Space Group:* P1. *a* = 7.43 *b* = 13.95 *c* = 7.35 $\alpha = 92^\circ 53'$ $\beta = 119^\circ 30'$ $\gamma = 87^\circ 51'$ *Z* = 6

X-ray Powder Pattern: Itabira, Brazil.

2.13 (100), 2.34 (60), 1.41 (40), 1.24 (30), 1.21 (30), 2.28 (20), 2.19 (20)

Chemistry:

	(1)
Pd	77.56
Cu	0.02
As	17.08
Sb	5.15
Total	99.81

(1) Itabira, Brazil; by electron microprobe, average of 13 grains; corresponds to Pd_{8.10}(As_{2.53}Sb_{0.47}) $\Sigma=3.00$.

Occurrence: In gold concentrates.

Association: Hematite, palladian gold, atheneite, stillwaterite, palladseite, isomertieite, quartz (Itabira district, Brazil); gpold, palladium, palladesite (Cauê mine, Brazil); stillwaterite, braggite, vysotaskite, sperrylite, hollingworthite (Siikakama intrusion, Finland).

Distribution: In Brazil, from Minas Gerais, in the Itabira district [TL], and at the Caue iron mine. In the Stillwater complex, Montana, USA. From the Merensky Reef, Bushveldt complex, Transvaal, South Africa. In the Siikakämä and Konttijarvi intrusions, northern Finland.

Name: For the composition.

Type Material: The Natural History Museum, London, England, 1934,72, 1977,258; Royal Ontario Museum, Toronto, Canada, M34726; National Museum of Natural History, Washington, D.C., USA, 142504.

References: (1) Clark, A.M., A.J. Criddle, and E.E. Fejer (1974) Palladium arsenide–antimonides from Itabira, Minas Gerais, Brazil. *Mineral. Mag.*, 39, 528–543. (2) (1974) *Amer. Mineral.*, 59, 1332 (abs. ref. 1). (3) Cabri, L.J., A.M. Clark, and T.T. Chen (1977) Arsenopalladinite from Itabira, Brazil and from the Stillwater Complex, Montana. *Can. Mineral.*, 15, 70–73. (4) Criddle, A.J. and C.J. Stanley, Eds. (1993) Quantitative data file for ore minerals, 3rd ed. Chapman & Hall, London, 22.