

Crystal Data: Hexagonal. *Point Group:* n.d. As distinct hexagonal prisms and minute elongated anhedral grains with rectangular outlines, rarely as sinuous grains, to 1.5 mm.

Physical Properties: *Cleavage:* {0001}, perfect. *Tenacity:* Brittle. *Hardness* = n.d. VHN = 470(30) (50 g load). D(meas.) = n.d. D(calc.) = 10.27

Optical Properties: Opaque. *Color:* Steel-gray; grayish white with slight rose tint in reflected light. *Luster:* Metallic. *Pleochroism:* Distinct in oil. *Anisotropism:* Slight, dark gray to brownish gray. *Birefractance:* Barely perceptible in air, distinct in oil.

R₁–R₂: (400) —, (420) 46.0–49.2, (440) 47.1–50.1, (460) 48.1–51.1, (480) 49.7–51.9, (500) 50.8–52.8, (520) 52.1–53.5, (540) 53.2–54.5, (560) 54.2–55.4, (580) 55.1–56.4, (600) 56.3–57.4, (620) 57.2–58.3, (640) 58.5–59.3, (660) 59.3–60.1, (680) 59.9–60.6, (700) 60.0–61.0

Cell Data: *Space Group:* n.d. *a* = 7.50 *c* = 10.34 *Z* = [3]

X-ray Powder Pattern: Majak mine, Russia.

2.22 (10), 2.50 (4), 1.986 (4), 1.784 (3), 1.187 (3), 2.46 (2), 2.20 (2)

Chemistry:

	(1)
Pd	65.1
Pt	4.7
Au	1.0
Cu	0.1
Pb	4.6
Sn	13.2
As	7.2
Sb	3.0
Bi	1.0
Total	99.9

(1) Majak mine, Russia; by electron microprobe, average of four analyses; corresponds to (Pd_{4.75}Pt_{0.19}Pb_{0.17}Au_{0.04}Cu_{0.01})_{Σ=5.16}(Sn_{0.86}As_{0.75}Sb_{0.19}Bi_{0.04})_{Σ=1.84}.

Occurrence: Intergrown with other minerals in massive ores of cubanite, chalcopyrite and talnakhite.

Association: Pentlandite, rustenburgite–atokite, Pt–Fe alloy, polarite, sperrylite, majakite, Au–Ag–Cu alloys.

Distribution: From the Majak mine, Talnakh area, Noril'sk region, western Siberia, Russia [TL].

Name: For the principal elements, PALLadium, ARsenic and tin, STANnum.

Type Material: Geological Exploration Institute, Moscow; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 81391.

References: (1) Begizov, V.D., E.M. Zav'yalov, and E.G. Pavlov (1981) Palarstanide, Pd₈(Sn, As)₃, a new mineral. Zap. Vses. Mineral. Obshch., 110, 487–492 (in Russian). (2) (1982) Amer. Mineral., 67, 858–859 (abs. ref. 1). (3) Evstigneeva, T.L. and A.D. Genkin (1986) The Pd, Sn, Sb, and As minerals; their relationships and crystal chemistry. In: Proceedings 13th General Meeting IMA, Varna, Sept. 19–25, 1982, Sifia, 165–174. Sofia Publ. House, Bulgarian Acad. Sci. (in Russian). (4) (1989) Amer. Mineral., 74, 1219–1220 (abs. ref. 3).