

Crystal Data: Orthorhombic. *Point Group:* n.d. As rounded grains, to 3 mm, and as veinlets; in zoned aggregates with other species. *Twinning:* Most grains show polysynthetic twinning.

Physical Properties: Hardness = n.d. VHN = 480(25) (50 g load). D(meas.) = n.d. D(calc.) = n.d.

Optical Properties: Opaque. *Color:* Bronze-gray; pale gray with a rose tint in reflected light. *Luster:* Metallic. *Pleochroism:* Distinct; from pale gray with a rose tint to a creamy tint. *Anisotropism:* Colors from dark gray with a blue tint to yellowish gray.
R₁–R₂: (400) 33.0–37.1, (430) 37.8–41.2, (460) 39.6–42.3, (490) 42.3–45.2, (520) 44.0–47.8, (550) 45.5–49.6, (580) 47.4–51.6, (610) 49.7–54.0, (640) 51.4–56.5, (670) 53.0–59.2, (700) 54.0–61.9

Cell Data: *Space Group:* n.d. $a = 16.11(2)$ or $12.57(2)$ $b = 11.27(1)$ or $13.40(2)$
 $c = 8.64(1)$ or $17.09(2)$ $Z = \text{n.d.}$

X-ray Powder Pattern: Majak mine, Russia.
2.155 (100), 2.29 (55), 2.365 (40), 1.44 (40)

Chemistry:	(1)	(2)
Pd	46.9	46.02
Cu	10.3	11.85
Pt	15.4	14.44
Sn	23.8	24.77
Pb	0.0	1.01
Sb	2.5	1.86
Total	98.9	99.95

(1) Majak mine, Russia; by electron microprobe, corresponds to $(\text{Pd}_{1.95}\text{Cu}_{0.72}\text{Pt}_{0.35})_{\Sigma=3.02}$
 $(\text{Sn}_{0.89}\text{Sb}_{0.09})_{\Sigma=0.98}$. (2) Oktyabr mine, Russia; by electron microprobe, corresponding to
 $(\text{Pd}_{1.88}\text{Cu}_{0.81}\text{Pt}_{0.32})_{\Sigma=3.01}$ $(\text{Sn}_{0.90}\text{Sb}_{0.07}\text{Pb}_{0.02})_{\Sigma=0.99}$.

Occurrence: As grains and veinlets near the contact between sulfide and rock-forming minerals in gabbro-diabase; in massive sulfide ores.

Association: Au–Ag alloys, polarite, sperrylite, froodite, sobolevskite, atokite, rustenburgite, tatyanaite, mooihokite, talnakhite, chalcopyrite, pentlandite, cubanite, pyrrhotite, galena, sphalerite (Talnakh area, Russia).

Distribution: In Russia, from the Majak [TL] and Oktyabr mines, Talnakh area, Noril'sk region, Taimyr Peninsula, western Siberia. In the Loolekop carbonatite, Phalaborwa, Transvaal, South Africa.

Name: For the type locality on the Taimyr Peninsula, Russia.

Type Material: Mineralogical Museum of the Moscow Geological Prospecting Institute; A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, 81390.

References: (1) Begizov, V.D., E.N. Zav'yalov, and E.G. Palov (1982) New data on taimyrite, (Pd, Cu, Pt)₃Sn from copper–nickel ores of the Talnakh deposit. Zap. Vses. Mineral. Obshch., 111, 78–83 (in Russian). (2) (1983) Amer. Mineral., 68, 1252 (abs. ref. 1). (3) Barkov, A.Y., R.F. Martin, G. Poirier, and Y.N. Takovlev (2000) The taimyrite–tatyanaite series and zoning in intermetallic compounds of Pt, Pd, Cu, and Sn from Noril'sk, Siberia, Russia. Can. Mineral., 38, 599–609. (4) Pekov, I.V. (1998) Minerals first discovered on the territory of the former Soviet Union. Ocean Pictures, Moscow, 201.

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