

**Crystal Data:** Orthorhombic. *Point Group:* 2/m 2/m 2/m or *mm*2. As irregular inclusions to 100 μm in Pt-Fe and Ru-Os-Ir alloys.

**Physical Properties:** *Cleavage:* n.d. *Tenacity:* n.d. *Fracture:* n.d. *Hardness =* n.d. VHN = 493-585, 515 average (25 g load). *D(meas.) =* n.d. *D(calc.) =* 11.32

**Optical Properties:** Opaque. *Color:* Brownish with a pale green tinge in reflected light. *Streak:* n.d. *Luster:* Metallic.

*Optical Class:* *Anisotropism:* Moderate to distinct, dark brown to greenish gray.

*Pleochroism:* Weak in air to distinct in oil, brownish to greenish.

R<sub>1</sub>-R<sub>2</sub>: (470) 38.2-32.9, (546) 39.8-35.7, (589) 40.4-36.4, (650) 40.5-36.6

**Cell Data:** *Space Group:* *Pnma* or *Pn*2<sub>1</sub>*a*. *a =* 5.866(5) *b =* 3.893(2) *c =* 7.302(4) *Z =* 4

**X-ray Powder Pattern:** Srebrnica River, near Veluce, central Serbia.

2.237 (100), 2.067 (80), 2.426 (70), 1.935 (60), 1.860 (50), 2.348 (40), 1.828 (30)

Chemistry:	(1)	(2)
Rh	60.81	38.53
Pd	12.65	34.67
Pt	0.49	1.90
Ir		0.48
Fe		0.10
Cu	0.08	
As	26.04	23.42
Sb	0.09	1.55
Te		0.50
Total	100.16	101.15

(1) Srebrnica River, near Veluce, central Serbia; average electron microprobe analysis; corresponding to (Rh<sub>1.67</sub>Pd<sub>0.34</sub>)<sub>Σ=2.01</sub>As<sub>0.99</sub>. (2) Do.; corresponding to (Rh<sub>1.07</sub>Pd<sub>0.94</sub>Pt<sub>0.03</sub>)<sub>Σ=2.04</sub>(As<sub>0.91</sub>Sb<sub>0.04</sub>Te<sub>0.01</sub>)<sub>Σ=0.96</sub>.

**Occurrence:** In fluvial placers in a river draining a chromitite-bearing ophiolite (TL). Also, eluvial.

**Association:** Pt-Fe alloys, Ru-Os-Ir alloys, hollingworthite, irarsite, sperrylite.

**Distribution:** From the Srebrnica River, near Veluce, central Serbia (TL). From the Pustaya River placer, Kamchatka Peninsula, eastern Russia and Simonovsky Brook, tributary of the Malaya Krokholevka River, Salair Range, Eastern Siberia, Russia. From the Onverwacht pipe, eastern Bushveld Complex, South Africa (eluvial).

**Name:** For the composition, *rhodium arsenide*.

**Type Material:** Mineralogical Museum, University of Hamburg, Germany.

**References:** (1) Tarkian, M., S. Krstic, K.-H. Klaska, and W. Ließmann (1997) Rhodarsenide, (Rh,Pd)<sub>2</sub>As, a new mineral. *Eur. J. Mineral.*, 9, 1321-1325. (2) (1998) *Amer. Mineral.*, 83, 909 (abs. ref. 1).