

**Crystal Data:** Hexagonal. *Point Group:* 622, 6/*m*, or 6. Anhedral grains, to 0.2 mm, and intergrown with other species. *Twinning:* Very fine, mosaiclike, observed under reflected light and in single-crystal studies.

**Physical Properties:** *Tenacity:* Brittle. Hardness = ~5 VHN = 517 average (40, 50, 65 g loads). D(meas.) = n.d. D(calc.) = 10.35

**Optical Properties:** Opaque. *Color:* In reflected light, pink with slight grayish tint. *Anisotropism:* Weak; pale gray to brownish gray.

R<sub>1</sub>–R<sub>2</sub>: (400) 45.3–47.1, (420) 46.2–48.2, (440) 46.7–49.0, (460) 47.8–49.8, (480) 48.9–50.7, (500) 49.8–51.8, (520) 50.2–52.4, (540) 51.0–53.0, (560) 51.6–53.8, (580) 52.6–54.8, (600) 53.9–56.0, (620) 55.0–57.1, (640) 56.2–58.3, (660) 56.9–59.0, (680) 57.2–59.4, (700) 57.4–59.7

**Cell Data:** *Space Group:* P6<sub>3</sub>22, P6<sub>3</sub>/*m*, or P6<sub>3</sub>. *a* = 8.406(4) *c* = 6.740(4) *Z* = 4

**X-ray Powder Pattern:** Lukkulaivaara intrusion, Russia. 2.626 (10), 2.477 (10), 2.429 (8), 2.283 (7), 1.978 (7), 1.818 (7), 1.781 (7)

Chemistry:	(1)	(2)	(3)
Pd	48.48	49.30	48.27
Ni	17.22	17.38	17.75
Co		0.12	
As	33.71	33.16	33.98
Total	99.41	99.96	100.00

(1) Lukkulaivaara intrusion, Russia; by electron microprobe, average of 20 analyses; corresponds to Pd<sub>3.04</sub>Ni<sub>1.96</sub>As<sub>3.00</sub>. (2) Chiney intrusion, Russia; by electron microprobe, average of 12 analyses; corresponds to Pd<sub>3.08</sub>(Ni<sub>1.97</sub>Co<sub>0.01</sub>)<sub>Σ=1.98</sub>As<sub>2.94</sub>. (3) Pd<sub>3</sub>Ni<sub>2</sub>As<sub>3</sub>.

**Occurrence:** In a mineralized pod in altered gabbronorite (Lukkulaivaara intrusion, Russia); in heavy-mineral concentrates from quartz-feldspar sandstones in contact with base-metal sulfides (Chiney intrusion, Russia).

**Association:** Chalcopyrite, pentlandite, merenskyite, sobolevskite, kotulskite, michenerite, hollingworthite, hessite (Lukkulaivaara intrusion, Russia); cobaltite, paolovite, isomertieite, maucherite, sperrylite, chalcopyrite (Chiney intrusion, Russia).

**Distribution:** In Russia, from the Vostok deposit, Lukkulaivaara layered intrusion, Karelia [TL]; at the Chiney layered intrusion, western Aldan shield, Siberia [TL]; in the Oktyabr mine, Talnakh area, Noril'sk region, western Siberia.

**Name:** To honor Dr. Yurii Pavlovich Men'shikov (1934– ), Geological Institute, Kola Science Center, Russian Academy of Sciences, Apatity, Russia, for his extensive work on descriptions of new minerals.

**Type Material:** A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia.

**References:** (1) Barkov, A.Y., R.F. Martin, Y.A. Pakhomovsky, N.D. Tolstykh, and A.P. Krivenko (2002) Menshikovite, Pd<sub>3</sub>Ni<sub>2</sub>As<sub>3</sub>, a new platinum-group mineral species from two layered complexes, Russia. *Can. Mineral.*, 40, 679–692. (2) (??) *Amer. Mineral.*, ??, ?? (abs. ref. 1).