

Crystal Data: Tetragonal. *Point Group:* n.d. Intergrown with other platinum group minerals, as unrounded or slightly rounded, nodular grains up to 4.5 mm, but monominerallic areas do not exceed 0.15 mm.

Physical Properties: *Tenacity:* Ductile. Hardness = n.d. VHN = 381–592, 481 average (50 g load). D(meas.) = n.d. D(calc.) = n.d.

Optical Properties: Opaque. *Color:* Silvery white; in polished section, rosy cream. *Luster:* Metallic. *Anisotropism:* Weak.

R₁–R₂: (400) —, (420) 56.5, (440) 56.4, (460) 56.8, (480) 57.4, (500) 58.2, (520) 58.7, (540) 59.0, (560) 59.3, (580) 59.7, (600) 60.2, (620) 60.5, (640) 60.9, (660) 61.4, (680) 62.0, (700) 62.8

Cell Data: *Space Group:* n.d. *a* = 3.871(4) *c* = 3.635(5) *Z* = 1

X-ray Powder Pattern: Northern Pekul'nei River, Russia. 2.192 (10), 1.935 (5), 1.324 (4), 1.699 (3), 1.157 (3b), 1.092 (2b), 3.66 (1b)

Chemistry:	(1)	(2)
Pt	76.7	77.30
Ir	0.47	
Os		
Ru		
Rh		
Fe	10.7	11.07
Ni	11.0	11.63
Cu	0.34	
Total	99.21	100.00

(1) Northern Pekul'nei River, Russia; by electron microprobe, average of six analyses; corresponds to (Pt_{2.02}Ir_{0.01})_{Σ=2.03}Fe_{0.98}(Ni_{0.96}Cu_{0.03})_{Σ=0.99}. (2) Pt₂FeNi.

Polymorphism & Series: Forms a series with tulameenite.

Occurrence: In the heavy fraction of Quaternary alluvial deposits associated with ultramafics from an ophiolite belt (Northern Pekul'nei River, Russia);

Association: Isoferroplatinum, tetraferroplatinum, rutheniridosmine, laurite, irarsite, cooperite, sperrylite, hollingworthite, cherepanovite, chromite, olivine (Northern Pekul'nei River, Russia).

Distribution: From the placer of the Northern Pekul'nei River, Pekul'nei Range, eastern Chukot Peninsula, Russia [TL]. In the Naran massif, western Mongolia. At Goodnews Bay, Alaska, USA.

Name: For iron, FERRum, NICKEL, and PLATINUM in the composition.

Type Material: Mining Institute, St. Petersburg, Russia, 1306/1.

References: (1) Rudashevskiy, N.S., A.G. Mochalov, Y.P. Men'shikov, and N.I. Shumskaya (1983) Ferronickelplatinum, Pt₂FeNi, a new mineral species. Zap. Vses. Mineral. Obshch., 112, 487–494 (in Russian). (2) (1984) Amer. Mineral., 69, 1190–1191 (abs. ref. 1). (3) Pekov, I.V. (1998) Minerals first discovered on the territory of the former Soviet Union. Ocean Pictures, Moscow, 84–85.