Crystal Data: Cubic. *Point Group*: $4/m \bar{3} 2/m$. As a ~25 μ m grain.

Physical Properties: *Cleavage*: n.d. *Tenacity*: Brittle. *Fracture*: n.d. Hardness = n.d. D(calc.) = 10.83

Optical Properties: Opaque. *Color*: Light gray in reflected light. *Streak*: n.d. *Luster*: Metallic. *Optical Class*: Isotropic. Non-pleochroic. Non-bireflectant. R: (470) 45.9, (546) 46.4, (589) 46.7, (650) 46.9

Cell Data: Space Group: $Fd\bar{3}m$. a = 11.6682(8) Z = 16

X-Ray Diffraction Pattern: Miass Placer Zone, near Miass, Chelyabinsk oblast, Russia. 4.13 (100), 6.7 (75), 2.380 (50), 2.064 (40), 3.52 (30), 2.679 (20), 1.556 (20)

Chemistry:		(1)	(2)
	Cu	13.93	19.09
	Ni	8.60	
	Fe	0.10	
	Ir	28.07	28.87
	Rh	7.91	15.46
	Ru	1.96	
	Sb	39.28	36.58
	Total	99.85	100.00

(1) Miass Placer Zone, near Miass, Chelyabinsk oblast, southern Urals, Russia; average electron microprobe analysis; corresponds to $(Cu_{1.41}Ni_{0.58}Fe_{0.01})_{\Sigma=2.00}(Rh_{0.49}Ni_{0.36}Ru_{0.12})_{\Sigma=0.97}Ir_{0.95}Sb_{2.08}$. (2) $Cu_2RhIrSb_2$.

Occurrence: In a fluvial Au-PGE placer deposit. Formed originally by reaction of the associated alloy phases with a fluid phase enriched in Sb, As, and S circulating in a cooling ophiolitic rock.

Association: Os-Ir-Ru alloys, i.e., the minerals osmium, ruthenium, and iridium; Pt-Fe alloys; platinum-group element (PGE) minerals, i.e., laurite, irarsite (Sb-rich), tolovkite (Rh-rich), kashinite, anduoite, and ferronickelplatinum; heazlewoodite; pentlandite (PGE-bearing); digenite.

Distribution: At the Miass Placer Zone, near Miass, Chelyabinsk oblast, southern Urals, Russia.

Name: Honors Dr. Michael Edward *Fleet* (1938-2017), Professor of mineralogy, Department of Earth Sciences, Western University, London, Ontario, Canada. Dr. Fleet had a wide range of mineralogical interests that included the study of platinum group minerals, thermodynamics, apatite minerals, sulfides, and the structure of silicate melts.

Type Material: State Museum of Geology of Central Siberia, Krasnoyarsk, Russia (1/41/11002).

References: (1) Barkov, A.Y., L. Bindi, N. Tamura, R.F. Martin, C. Ma, B. Winkler, G.I. Shvedov, and W. Morgenroth (2021) Fleetite, Cu₂RhIrSb₂, a new species of platinum-group mineral from the Miass placer zone, Southern Urals, Russia. Can. Mineral., 59, 423-430. (2) (2022) Amer. Mineral., 107, 779 (abs. ref. 1).