

Crystal Data: Cubic. *Point Group:* $4/m\bar{3}2/m$. As small inclusions in isoferroplatinum grains, up to 300 μm .

Physical Properties: *Tenacity:* Very brittle. *Hardness* = n.d. *VHN* = 498 (50 g load). *D*(meas.) = n.d. *D*(calc.) = [5.88]

Optical Properties: Opaque. *Color:* Iron-black; gray in reflected light. *Luster:* Metallic.
R: (400) —, (420) —, (440) —, (460) 35.6, (480) 35.8, (500) 36.4, (520) 36.6, (540) 36.7, (560) 36.8, (580) 36.9, (600) 37.0, (620) 37.0, (640) 37.0, (660) 36.9, (680) 36.8, (700) 36.7

Cell Data: *Space Group:* $Fd\bar{3}m$. $a = 9.88$ $Z = 8$

X-ray Powder Pattern: Far Eastern Region, Russia.
3.00 (100), 1.758 (100), 1.009 (90), 1.904 (80), 2.480 (70), 1.286 (50), 1.102 (50)

Chemistry:	(1)	(2)
Cu	7.55	15.98
Fe	5.31	
Rh	39.6	51.76
Ir	10.3	
Pt	6.8	
S	29.8	32.26
Total	99.36	100.00

(1) Far Eastern Region, Russia; by electron microprobe, corresponding to $(\text{Cu}_{0.51}\text{Fe}_{0.41})_{\Sigma=0.92}(\text{Rh}_{1.66}\text{Ir}_{0.23}\text{Pt}_{0.15})_{\Sigma=2.04}\text{S}_{4.00}$. (2) CuRh₂S₄.

Polymorphism & Series: Forms a series with cuproiridsite.

Mineral Group: Linnaeite group.

Occurrence: In alluvial placers.

Association: Isoferroplatinum, cuproiridsite, malanite, osmium, iridosmine, laurite, erlichmanite, cooperite, sperrylite, chalcopyrite, bornite (Chad massif, Russia).

Distribution: In Russia, from the Gusevogorskii massif, Ural Mountains [TL], and in the Far Eastern Region, from the Chad massif, Khabarovsk Territory, on Mt. Filipp, Kamchatka, and in the Baimka placers, Chukota. At Chromwerk, Kraubath massif, Styria, Austria.

Name: For copper, CUPRum, RHODium, and Sulfur in the chemical composition.

Type Material: Mining Institute, St. Petersburg, Russia, 1685/1.

References: (1) Rudashevskii, N.S., Y.P. Men'shikov, A.G. Mochalov, N.V. Trubkin, N.I. Shumskaya, and V.V. Zhdanov (1985) Cuprorhodsite CuRh₂S₄ and cuproiridsite CuIr₂S₄ – new natural thiospinels of platinum elements. *Zap. Vses. Mineral. Obshch.*, 114, 187–195 (in Russian). (2) (1986) *Amer. Mineral.*, 71, 1277 (abs. ref. 1).