Inaglyite $\mathbf{PbCu_3(Ir, Pt)_8S_{16}}$

Crystal Data: Hexagonal. *Point Group:* 6, $6/m\ 2/m\ 2/m$, 622, or $\overline{6}m2$. Irregular grains, to 150 μm; as inclusions in isoferroplatinum, intergrown with erlichmanite and malanite, and rimming iridosmine and laurite.

Physical Properties: *Cleavage:* In two directions. *Tenacity:* Brittle. Hardness = n.d. VHN = 347–726, 575 average. D(meas.) = n.d. D(calc.) = n.d.

Optical Properties: Opaque. *Color:* Steel-gray. *Luster:* Metallic. *Anisotropism:* Weak. R_1–R_2: (400) — , (420) 41.6–42.8, (440) 41.0–42.3, (460) 40.8–42.0, (480) 40.4–41.8, (500) 40.2–41.6, (520) 40.1–41.6, (540) 40.1–41.6, (560) 40.1–41.8, (580) 40.2–42.2, (600) 40.4–42.4, (620) 40.5–42.6, (640) 40.6–42.7, (660) 40.9–42.8, (680) 41.1–43.1, (700) 41.4–43.2

Cell Data: *Space Group:* $P6_3$, $P6$, $P6/mmm$, $P622$, or $P\overline{6}2m$. a = 7.03(1) c = 16.44(1) Z = [1]

X-ray Powder Pattern: Inaglyi massif, Russia.
2.98 (10), 5.7 (9), 2.438 (8), 1.753 (7), 1.699 (5), 1.292 (5), 1.082 (5)

Chemistry:

	(1)
Ir	39.6
Pt	20.9
Rh	2.25
Pb	8.91
Fe	0.32
Cu	6.97
Ni	0.06
S	20.3
Total	99.31

(1) Inaglyi massif, Russia; by electron microprobe, corresponding to $Pb_{1.07}(Cu_{2.72}Fe_{0.14} Ni_{0.02})_{\Sigma=2.88}(Ir_{5.12}Pt_{2.66}Rh_{0.54})_{\Sigma=8.32}S_{15.72}$.

Occurrence: With other platinum group minerals in ultramafic intrusives.

Association: Isoferroplatinum, erlichmanite, malanite, iridosmine, laurite (Inaglyi massif, Russia).

Distribution: In Russia, from the Inaglyi massif, Aldan region, Sakha [TL], and the Aleksandrov Log platinum deposit, Mt. Solov'eva, Nizhni Tagil massif, Ural Mountains.

Name: For the occurrence in the Inaglyi massif, Russia.

Type Material: Mining Institute, St. Petersburg, Russia, 1499/1.

References: (1) Rudashevskiy, N.S., A.G. Mochalov, V.D. Begizov, Y.P. Men'shikov, and N.I. Shumskaya (1984) Inaglyite, $PbCu_3(Ir, Pt)_8S_{16}$, a new mineral. Zap. Vses. Mineral. Obshch., 113, 712–717 (in Russian). (2) (1986) Amer. Mineral., 71, 228 (abs. ref. 1).