

Crystal Data: Hexagonal. *Point Group:* $6/m\ 2/m\ 2/m$. As smooth flattened grains, up to 0.2 mm.

Physical Properties: *Tenacity:* Malleable. Hardness = n.d. VHN = 68.5–73.5 (10 g load). D(meas.) = 8.65 (synthetic). D(calc.) = [8.65] Diamagnetic.

Optical Properties: Opaque. *Color:* Pale gray; tin-white with a bluish tint in reflected light. *Luster:* Metallic.

R_1 – R_2 : n.d.

Cell Data: *Space Group:* $P6_3/mmc$. $a = 2.979$ $c = 5.617$ $Z = 2$

X-ray Powder Pattern: Synthetic.

2.345 (100), 2.809 (65), 2.580 (32), 1.901 (32), 1.516 (26), 1.490 (19), 1.316 (17)

Chemistry:

	(1)	(2)
Cd	99 – 100	95.70 – 96.73
Cr		0.23
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Total		

(1) Ust'-Khann'ya intrusive, Russia; by electron microprobe. (2) Verkhoyan'ya, Russia.

Occurrence: In the heavy, non-magnetic fraction of a mechanical concentrate from a gabbro intrusive (Ust'-Khann'ya intrusive, Russia); a product of post-magmatic activity in mineralized aleurolites, sandstones, dolostones, and mudstones (Verkhoyan'ya, Russia).

Association: Moissanite, Fe, Cu, Pb, Sn, Zn, Cu–Zn alloy, Sn–Sb alloy, sulfides, garnet, spinel, kyanite, corundum, rutile (Ust'-Khannin intrusive, Russia); monteponite, otavite, titanite, ilmenite, chalcopyrite, bornite, chalcocite, pyrite, galena (Verkhoyan'ya, Russia).

Distribution: In Russia, from the Ust'-Khann'ya intrusive, lower Khann'ya River, Vilyui River basin, eastern Siberian platform [TL]; and in southern Verkhoyan'ya. In the Burobaiskii massif, eastern Kazakhstan. At the Goldstrike mine, Lynn district, Eureka Co., Nevada, USA.

Name: From the Greek for *calamine*, as the element occurs in slags resulting from smelting smithsonite (formerly calamine) ore.

Type Material: n.d.

References: (1) Oleinikov, B.V., A.V. Okrugin, and N.V. Leskova (1979) Native cadmium in traps of the Siberian Platform. *Doklady Acad. Nauk SSSR*, 248, 1426–1428 (in Russian). (2) (1980) *Amer. Mineral.*, 65, 1065 (abs. ref. 1). (3) Novgorodova, M.I., D.A. Zhivtsov, A.I. Gorshkov, N.V. Trubkin, and A.I. Tsepin (1982) Native cadmium from southern Verkhoyan'ya. *Zap. Vses. Mineral. Obshch.*, 111, 304–315 (in Russian). (4) (1982) *Chem. Abs.*, 97, 112586 (abs. ref. 3). (5) Hull, A.W. and W.P. Davy (1931) Cadmium, Cd. *Strukturbericht 1913–1928*, 1, 42 (in German). (6) (1954) *NBS Circ.* 539, 3, 10.