Cadmium  

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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.


Cell Data: Space Group: P6₃/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:

<table>
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<tr>
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<th>(2)</th>
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<tbody>
<tr>
<td>Cd</td>
<td>99 – 100</td>
<td>95.70 – 96.73</td>
</tr>
<tr>
<td>Cr</td>
<td></td>
<td>0.23</td>
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<tr>
<td>Total</td>
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(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.