$Leadamalgam \\ HgPb_2$

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Crystal Data: Tetragonal. Point Group: $4/m \ 2/m \ 2/m$. Known only as a single grain of maximum dimension $50 \ \mu m$.

Physical Properties: Hardness = 1.6 VHN = 12 (100 g load). D(meas.) = n.d. D(calc.) = 11.96

Optical Properties: Opaque. *Color:* Silver-white; yellowish white in reflected light. *Luster:* Strong metallic. *Pleochroism:* Weak, bluish gray to pale bluish gray. R_1-R_2 : n.d.

Cell Data: Space Group: I4/mmm. a = 3.545(16) c = 4.525(20) Z = n.d.

X-ray Powder Pattern: Shiaonanshan, China.

1.49 (vs), 1.40 (vs), 2.49 (m), 2.25 (m), 1.78 (m), 1.68 (m), 2.78 (w)

Chemistry:

	(1)	(2)	(3)
$_{\mathrm{Hg}}$	33.03	31.48	32.62
Pb	66.96	68.42	67.38
Total	99.99	99.90	100.00

(1–2) Shiaonanshan, China; by electron microprobe. (3) HgPb₂.

Occurrence: In heavy concentrates of crushed ores from a platinum-bearing Cu–Ni sulfide deposit.

Association: Gersdorffite, pyrite, chalcopyrite, violarite, millerite, galena, stibnite, argentian gold, niggliite, sperrylite, iridosmine, platinum, merenskyite, kotulskite, chromite, ilmenite, magnetite.

Distribution: From Shiaonanshan, Inner Mongolia, China [TL].

Name: For the composition, by analogy to mercury–silver amalgam.

Type Material: n.d.

References: (1) Chen Keqiao, Yang Huifang, Ma Letian, and Peng Zhizhong (1981) The discovery of two new minerals— γ —goldamalgam and leadamalgam. Dizhi Pinglun [Geological Review (Peking)], 27, 107–115 (in Chinese with English abs.). (2) (1985) Amer. Mineral., 70, 215–216 (abs. ref. 1).