Hunchunite Au_2Pb

Crystal Data: Cubic. *Point Group:* $4/m\ \overline{3}\ 2/m$. Anhedral grains, in aggregates to 0.5 mm.

Physical Properties: Hardness = n.d. VHN = 128–149, 140 average (5 g load).
D(meas.) = n.d. D(calc.) = 15.99

Optical Properties: Opaque. *Color:* Silver-gray; silver-gray in reflected light, tarnishing to dull gray. *Luster:* Metallic.
Optical Class: Isotropic.
R: (480) 58.4, (546) 59.5, (589) 60.0, (656) 60.0

Cell Data: *Space Group:* $Fd3m$ (by analogy to synthetic Au_2Pb). $a = 7.933$ $Z = 8$

X-ray Powder Pattern: Hunchun River, China.
2.391 (100), 2.810 (30), 1.196 (26), 2.301 (24), 1.526 (23), 4.595 (21), 1.402 (19)

Chemistry:

	(1)	(2)
Au	64.78	65.53
Ag	2.18	34.47
Pb	32.91	
Total	99.87	100.00

(1) Hunchun River, China; by electron microprobe, average of seven analyses; corresponding to $(Au_{1.94}Ag_{0.12})_{\Sigma=2.06}Pb_{0.94}$. (2) Au_2Pb.

Occurrence: In gold concentrates from placers.

Association: Gold, lead, anyuiite, pyrite, pyrrhotite, magnetite, ilmenite.

Distribution: From the Sandogou placers, along the Hunchun River, Jilin Province, China [TL].

Name: For its occurrence along the Hunchun River, China.

Type Material: National Geological Museum, Beijing, China.

References: (1) Wu Shangquan, Yang Yi, and Song Qun (1992) A new gold mineral – hunchunite. Acta. Mineral. Sinica,12(4), 319–322 (in Chinese with English abs.). (2) (1994) Amer. Mineral., 79, 1210 (abs. ref. 1). (3) Perlitz, ?? (1934) ??title?? Strukture Bereicht, 3, 612??str??