

Crystal Data: Hexagonal. *Point Group:* n.d. Granular to tabular grains, to 10 μm , in irregular spherical aggregates; intergrown with mercurian silver and silicates.

Physical Properties: *Tenacity:* Malleable. Hardness = ~ 2.5 VHN = 44–75
D(meas.) = 12.5 D(calc.) = [12.6]

Optical Properties: Opaque. *Color:* Milky white in reflected light; tarnishes black.
Streak: Black. *Luster:* Metallic. *Pleochroism:* Pinkish to milky white. *Anisotropism:* Very weak.

R₁–R₂: (546) 64.2–70.5, (589) 64.9–74.0

Cell Data: *Space Group:* n.d. $a = 6.61$ $c = 10.98$ $Z = 6$

X-ray Powder Pattern: Hebei Province, China.

1.495 (100), 1.204 (90), 2.830 (70), 1.134 (70), 2.000 (60), 1.105 (60), 1.010 (6)

Chemistry:

	(1)	(2)
Ag	62.4	61.73
Fe	0.0	
Co	0.05	
Ni	0.0	
Cu	0.01	
Hg	37.9	38.27
Te	0.10	
Total	100.46	100.00

(1) Hebei Province, China; by electron microprobe, average of five analyses, ranging from Ag_{3.08}Hg_{0.92} to Ag_{2.96}Hg_{1.04}. (2) Ag₃Hg.

Occurrence: In a placer containing gold and other elements.

Association: Gold, lead, zinc, mercurian silver, silicates.

Distribution: From a poorly specified locality in the Luan River, Hebei Province, China [TL].

Name: For the Luan [Luan He in Mandarin Chinese] River, China, in which it is found.

Type Material: The National Geological Museum, Chinese Academy of Geological Sciences, Beijing, China.

References: (1) Shao Dianxin, Zhou Jianxiong, Zhang Jianhong, and Bao Daxi (1984) Luanheite – a new mineral. *Acta Mineral. Sinica*, 4, 97–101 (in Chinese with English abs.).
(2) (1988) *Amer. Mineral.*, 73, 192–193 (abs. ref. 1).