

**Crystal Data:** Hexagonal. *Point Group:*  $\bar{3} 2/m$  or  $\bar{3}$ . As thin tablets, in aggregates, to 2 mm across.

**Physical Properties:** *Cleavage:* Perfect, on {001}. *Hardness* = ~2. *VHN* = 71–91, 82 average,  $\perp$  to cleavage; 90–112, 100 average,  $\parallel$  to cleavage (10 g load). *D(meas.)* = n.d. *D(calc.)* = 8.096

**Optical Properties:** Opaque. *Color:* Silvery gray; in reflected light, white with yellowish tint. *Streak:* Gray. *Luster:* Metallic. *Optical Class:* Uniaxial. *Pleochroism:* Weak in pale bluish brown tints. *Anisotropism:* Distinct. *Birefractance:* Negligible.

*R:* (400) 51.3, (420) 50.7, (440) 49.6, (460) 48.7, (480) 48.6, (500) 48.5, (520) 47.8, (540) 47.5, (560) 48.2, (580) 47.0, (600) 46.5, (620) 46.5, (640) 46.1, (660) 46.5, (680) 46.2, (700) 46.7

**Cell Data:** *Space Group:*  $P\bar{3}1m$  or  $P\bar{3}$ . *a* = 4.191(2) *c* = 39.60(3) *Z* = 3

**X-ray Powder Pattern:** Nevskoye deposit, Russia. 3.04 (10), 2.096 (8), 1.298 (7), 1.806 (6), 1.233 (6), 3.42 (5), 1.725 (5)

Chemistry:	(1)
Ag	0.13
Pb	42.58
Sb	0.08
Bi	42.02
Se	10.60
S	5.80
Total	101.21

(1) Nevskoye deposit, Russia; by electron microprobe, average of 23 analyses; corresponds to  $(\text{Pb}_{1.99}\text{Ag}_{0.01})_{\Sigma=2.00}(\text{Bi}_{1.95}\text{Sb}_{0.01})_{\Sigma=1.96}(\text{S}_{1.75}\text{Se}_{1.30})_{\Sigma=3.05}$ .

**Occurrence:** In a hydrothermal deposit in sediments, near their contact with a granite intrusion.

**Association:** Arsenopyrite, stannite, tetrahedrite, wittite, laitakarite, selenian cosalite, cassiterite, wolframite.

**Distribution:** From the Nevskoye W–Sn deposit, 25 km northwest of Omsukchan, Magadan region, Russia.

**Name:** To honor Petr Vasil'evich Babkin (1929–1977), Russian geologist, Northeast Geological Administration of Mingeo, Magadan, Russia, who first studied the Nevskoye deposit.

**Type Material:** A.E. Fersman Mineralogical Museum, Academy of Sciences, Moscow, Russia, p806/1.

**References:** (1) Bryzgalov, I.A., E.M. Spiridonov, I.V. Petrova, and M.S. Sakharova (1996) Babkinite  $\text{Pb}_2\text{Bi}_2(\text{S}, \text{Se})_3$  – a new mineral. *Doklady Acad. Nauk SSSR*, 346, 656–659 (in Russian). (2) (1996) *Amer. Mineral.*, 81, 1513–1518 (abs. ref. 1).