

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).