Andorite $PbAgSb_3S_6$

Crystal Data: Orthorhombic. *Point Group:* $2/m\ 2/m\ 2/m$. Crystals stout prismatic, to 3 cm; also thick and thin tabular on {100}, striated ‖ [001]; massive. *Twinning:* Reported on {110}.

Physical Properties: *Fracture:* Smooth conchoidal. *Tenacity:* Brittle. Hardness = 3–3.5 VHN = n.d. D(meas.) = 5.35 D(calc.) = [5.40]

Optical Properties: Opaque. *Color:* Dark steel-gray, may tarnish yellow or iridescent; in polished section, white. *Streak:* Black. *Luster:* Metallic.
R_1–R_2: (400) 38.8–41.8, (420) 38.6–42.0, (440) 38.4–42.2, (460) 37.9–42.2, (480) 37.5–42.1, (500) 37.1–41.9, (520) 36.7–41.5, (540) 36.4–41.2, (560) 36.1–40.8, (580) 35.8–40.4, (600) 35.5–39.9, (620) 35.3–39.5, (640) 35.0–39.1, (660) 34.7–38.6, (680) 34.3–38.1, (700) 33.9–37.6

Cell Data: *Space Group: Pmma.* $a = 13.01$ $b = 19.19$ $c = 4.27$ Z = [4]

X-ray Powder Pattern: Takla Lake, Canada.
3.30 (100), 2.90 (80), 3.45 (40), 2.76 (40), 3.74 (30), 2.06 (30), 1.888 (30)

Chemistry:

	(1)	(2)	(3)
Pb	24.10	22.25	23.75
Ag	10.94	10.90	12.36
Cu	0.68	0.96	
Zn		0.31	
Fe	0.30	0.75	
Sb	41.31	40.75	41.87
S	22.06	24.26	22.02
Total	99.39	100.18	100.00

(1) Oruro, Bolivia. (2) Baia Sprie, Romania. (3) $PbAgSb_3S_6$.

Occurrence: In low-temperature polymetallic hydrothermal veins.

Association: Stibnite, sphalerite, barite, fluorite, siderite, quartz (Baia Sprie, Romania); cassiterite, arsenopyrite, stannite, zinkenite, tetrahedrite, pyrite, alunite, quartz (Itos mine, Bolivia); pyrargyrite, stephanite, sphalerite, rhodochrosite, quartz (Morey, Nevada, USA).

Distribution: In Romania, from Baia Sprie (Felsőbánya) [TL]. In the Czech Republic, at Třebsko, near Příbram. In the Zlata Bana deposit, Slanske vrchy Mountains, Slovakia. From the Les Farges mine, near Ussel, Corrèze; and at Bournac, Montagne Noire, Finistère, France. In the USA, at the Keyser and Morey mines, Morey district, Nye Co., Nevada; in the Thompson mine, Darwin district, Inyo Co., California; and at Bear basin, King Co., Washington. From near Takla Lake, British Columbia, and near Nansen Creek, Yukon Territory, Canada. In Bolivia, in the Itos and San José mines, Oruro; at the Tatasi mine, and Cerro Rico, Potosí. In Australia, from the Meerschaum mine, north of Omeo, Victoria.

Name: For Andor von Semsey (1833–1923), Hungarian nobleman, who was also an amateur mineralogist.

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