

Jaskólskiite**Pb_{2+x}Cu_x(Sb, Bi)_{2-x}S₅ (x = 0.15–0.2)**

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Crystal Data: Orthorhombic. *Point Group:* 2/m 2/m 2/m. As needlelike crystals with poor terminations, less than 1 mm long, isolated or in irregular aggregates.

Physical Properties: Hardness = 4 VHN = 165–179 (100 g load). D(meas.) = n.d.
D(calc.) = 6.47–6.59

Optical Properties: Opaque. *Color:* Lead-gray; gray in polished section. *Streak:* Dark gray. *Luster:* Metallic. *Pleochroism:* Moderate, in yellow tints. *Anisotropism:* Strong, without distinct colors.

R₁–R₂: (400) 38.4–44.9, (420) 38.4–44.6, (440) 38.1–44.1, (460) 37.8–43.6, (480) 37.4–43.1, (500) 37.0–42.6, (520) 36.7–42.3, (540) 36.5–42.0, (560) 36.3–41.7, (580) 36.1–41.5, (600) 36.0–41.3, (620) 35.8–41.0, (640) 35.5–40.7, (660) 35.2–40.2, (680) 34.8–39.8, (700) 34.4–39.3

Cell Data: *Space Group:* Pbnm. a = 11.312–11.331 b = 19.829–19.871 c = 4.088–4.100
Z = 4

X-ray Powder Pattern: Vena mines, Sweden.

3.710 (100), 2.970 (80), 3.333 (60), 2.761 (60), 3.595 (50), 2.751 (50), 2.050 (50)

Chemistry:

	(1)	(2)
Pb	50.74	48.5
Cu	1.31	0.8
Sb	15.74	14.6
Bi	14.35	17.4
S	17.52	17.6
Total	99.65	98.9

(1) Vena mines, Sweden; by electron microprobe, average of 16 analyses, corresponding to Pb_{2.22}Cu_{0.19}(Sb_{1.17}Bi_{0.62})_{Σ=1.79}S_{5.00}. (2) Izok Lake, Canada; by electron microprobe, corresponding to Pb_{2.13}Cu_{0.11}(Sb_{1.09}Bi_{0.76})_{Σ=1.85}S_{5.00}.

Occurrence: In aggregates of sulfosalts and sulfides in polymetallic hydrothermal veins.

Association: Galena, pyrrhotite, chalcopyrite, arsenopyrite, cobaltite, pyrite, sphalerite, bismuth, antimony, cubanite, freibergite, izoklakeite, gudmundite, gersdorffite, meneghinite.

Distribution: From the Vena mines, near Askersund, Örebro, Sweden [TL]. At the Zlata Bana deposit, Slanske vrchy Mountains, Slovakia. From the Apollo mine, near Raubach, Siegerland, Germany. In the Srednegolgotaiskoe gold deposit, eastern Transbaikalia, Siberia, Russia. From Izok Lake, Northwest Territories, Canada.

Name: To honor Professor Stanislaw Jaskólski (1896–1981), Polish mineralogist, Akademia Górniczo-Hutnicza, Kraków, Poland.

Type Material: Wrocław University, Wrocław, Poland, II-6801; Institute of Earth Sciences, Free University of Amsterdam, Amsterdam, The Netherlands, 150-J-2; National Museum of Natural History, Washington, D.C., USA, 162203, 162481.

References: (1) Zakrzewski, M.A. (1984) Jaskólskiite, a new Pb–Cu–Sb sulfosalts from the Vena deposit, Sweden. *Can. Mineral.*, 22, 481–485. (2) Makovicky, E. and W.G. Mumme (1984) The crystal structure of izoklakeite, dadsonite and jaskólskiite. *Acta Cryst.*, A40, supplement, C-246. (3) (1985) *Amer. Mineral.*, 70, 872 (abs. refs. 1 and 2). (4) Harris, D.C., A.C. Roberts, and A.J. Criddle (1984) Jaskólskiite from Izok Lake, Northwest Territories. *Can. Mineral.*, 22, 486–491. (5) Makovicky, E. and R. Nørrestam (1985) The crystal structure of jaskólskiite, Cu_xPb_{2+x}(Sb, Bi)_{2-x}S₅ (x=0.2), a member of the meneghinite homologous series. *Zeits. Krist.*, 171, 179–194.

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