

Crystal Data: Monoclinic. *Point Group:* 2/m. Crystals elongated || [001], acicular and fibrous, to 10 cm; striated || [001]; rarely in rings and spheres. As feltlike masses; massive, columnar, also radial and plumose. *Twinning:* On {100}; lamellae very commonly observed in polished section.

Physical Properties: *Cleavage:* Good on {001}; reported on {010} and {120}. *Tenacity:* Brittle. Hardness = 2.5 VHN = 66–86 (100 g load). D(meas.) = 5.63 D(calc.) = 5.76

Optical Properties: Opaque. *Color:* Gray-black, may tarnish iridescent; in polished section, gray-black. *Luster:* Metallic. *Pleochroism:* Distinct. *Anisotropism:* Strong. R₁–R₂: (400) 38.4–45.1, (420) 38.1–44.9, (440) 37.7–44.8, (460) 37.6–45.0, (480) 37.4–45.1, (500) 37.3–45.0, (520) 37.0–44.7, (540) 36.6–44.3, (560) 36.1–43.8, (580) 35.7–43.2, (600) 35.3–42.6, (620) 34.8–41.9, (640) 34.2–41.0, (660) 33.6–40.1, (680) 33.0–39.2, (700) 32.5–38.5

Cell Data: *Space Group:* P2₁/a. a = 15.57 b = 18.98 c = 4.03 β = 91°48′ Z = 2

X-ray Powder Pattern: Itos mine, Oruro, Bolivia. 3.44 (100), 2.84 (90), 2.75 (80), 3.18 (50), 3.09 (50), 2.06 (50), 3.87 (40)

| Chemistry: | (1) | (2) | (3) |
|------------|-------|-------|--------|
| Pb | 40.14 | 42.2 | 40.15 |
| Fe | 2.64 | 2.5 | 2.71 |
| Cu | 0.18 | | |
| Sb | 34.25 | 35.3 | 35.39 |
| S | 22.34 | 20.5 | 21.75 |
| Total | 99.55 | 100.5 | 100.00 |

(1) Cornwall, England; average of three analyses. (2) Tresungers mine, St. Endellion, England; by electron microprobe. (3) Pb₄FeSb₆S₁₄.

Polymorphism & Series: Dimorphous with parajamesonite; forms a series with benavidesite.

Occurrence: Typically a late-stage hydrothermal mineral in Pb–Ag–Zn veins formed at low to medium temperatures.

Association: Other lead sulfosalts, pyrite, sphalerite, galena, tetrahedrite, stibnite, quartz, siderite, calcite, dolomite, rhodochrosite.

Distribution: From numerous localities, but only a few have provided rich material. From Cornwall, England, around St. Endellion [TL] and St. Kew. In Germany, at Freiberg, Saxony; and near Magdesprung, Selke Valley, and Clausthal, Harz Mountains. From Příbram, Czech Republic. At Aranyidka, Baia Sprie (Felsőbánya), and Herja (Kisbánya), Baia Mare (Nagybánya) district, Romania. From Trepča, Serbia. At Sala, Västmanland, Sweden. From Machacamarcá, Poopó, and Huanuni, Oruro, Bolivia. In Mexico, from the Noche Buena mine, near Mazapil; the Santa Rita mine, Nieves; and in relatively thick crystals from the Noria mine, near Sombrerete, Zacatecas. In the USA, in Idaho, at Slate Creek, Shoshone Co. From the Dachang district, Guangxi Autonomous Region, China.

Name: In honor of Robert Jameson (1774–1854), Scottish mineralogist, Edinburgh, Scotland, who first described the mineral.

References: (1) Palache, C., H. Berman, and C. Frondel (1944) Dana's system of mineralogy, (7th edition), v. I, 451–455. (2) Niizeki, N. and M.J. Buerger (1957) The crystal structure of jamesonite, FePb₄Sb₆S₁₄. Zeits. Krist., 109, 161–183. (3) L.L.Y. Chang, X. Li, and C. Zheng (1987) The jamesonite – benavidesite series. Can. Mineral., 25, 667–672. (4) Berry, L.G. and R.M. Thompson (1962) X-ray powder data for the ore minerals. Geol. Soc. Amer. Mem. 85, 150. (5) Criddle, A.J. and C.J. Stanley, Eds. (1993) Quantitative data file for ore minerals, 3rd ed. Chapman & Hall, London, 267.

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