Crystal Data: Monoclinic, pseudo-orthorhombic. Point Group: 2/m or 2. Lathlike aggregates of several not quite parallel individuals, to a maximum length of 1 mm; granular, massive. Twinning: Repeated.

Physical Properties: Cleavage: Poor. Hardness = n.d. VHN = 131–152 (100 g load), 171 (100 g load). D(meas.) = 6.7, corrected for admixed quartz. D(calc.) = [6.83]


Cell Data: Space Group: P 2₁/m or P 2₁. a = 12.72  b = 4.02  c = 58.07  β = 102.5° Z = [4]

X-ray Powder Pattern: Nordmark, Sweden. 3.47 (10), 2.89 (8), 2.80 (7), 2.18 (4), 3.70 (2), 2.86 (2), 3.23 (1)

Chemistry: (1) (2) (3) (1) (2) (3) (1) (2) (3)
Pb 21.6 20.8 20.9 Bi 49.2 47.5 49.5
Ag 4.9 6.8 7.4 S [17.2] [17.2] 17.0
Cu 7.1 7.8 5.3 Total [100.0] [100.1] 100.1

(1) Ivigtut, Greenland; by electron microprobe, sulfur by difference, recalculated to be near 100%; corresponds to Pb₂.₈₅(Cu₃.₄₀Ag₁.₃₅)Σ=4.₇₅Bi₇.₃₀S₁₆.₂₀. (2) Do.; corresponds to Pb₂.₉₉(Cu₃.₆₀Ag₁.₈₀)Σ=5.₄₅Bi₆.₆₅S₁₅.₆₅. (3) Owen Lake, Canada; by electron microprobe, average of several grains; corresponds to Pb₃.₀₉(Cu₂.₅₅Ag₂.₁₀)Σ=4.₅₅Bi₇.₂₅S₁₆.₂₅.

Occurrence: In quartz veins with other sulfides and sulfosalts, and in siderite-rich cryolite (Ivigtut, Greenland).

Association: Emplectite, aikinite, cuprobismutite, cupropavonite (Colorado, USA); galena, chalcopryte, sphalerite, quartz (Nordmark, Sweden); galena, cosalite, ourayite, matildite, aikinite (Ivigtut, Greenland); aikinite, matildite, benjaminite, quartz, barite (Tary Ekan deposit, Kazakhstan).

Distribution: In the USA, in Colorado, from the Missouri mine, Park Co. [TL], the Mike mine, Silverton district, San Juan Co., and Cinnamon Gulch, Northeast Montezuma district, Clear Creek Co.; at the Outlaw mine, Round Mountain, Manhattan, Nye Co., Nevada. From near Owen Lake, south of Houston, British Columbia, Canada. In the Ivigtut cryolite deposit, southwestern Greenland. At Nordmark, Värmland, Sweden. From the Catarama mine, Baia Borşa district, Baia Mare (Nagybánya), Romania. In the Svishti Plaz gold deposit, central Balkan Mountains, Bulgaria. From two km west of Lairg, Scotland. In the Adrasman, Kaptar-Hana, and Tary Ekan deposits, eastern Karamazar, Tadjikistan. From the Kochbulak gold deposit, Chatkal-Kuramin Mountains, eastern Uzbekistan. At the Funiushan copper skarn deposit, near Nanjing, Jiangsu Province, China. Several additional localities are known.

Name: In honor of Professor Leonard Gascoigne Berry (1914–1982), Canadian mineralogist, Queen’s University, Kingston, Ontario, Canada, who obtained the first X-ray powder pattern of the mineral.

Type Material: University of Copenhagen, Copenhagen, Denmark; National Museum of Natural History, Washington, D.C., USA, 92902.


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