Arsenolamprite As

Crystal Data: Orthorhombic. *Point Group:* $2/m\ 2/m\ 2/m$ (synthetic). As needles, to 8 mm, foliated, radial aggregates of plates, and massive.

Physical Properties: *Cleavage:* Perfect, in one direction. Hardness = 2 VHN = n.d. D(meas.) = 5.3–5.5 D(calc.) = 5.577

Optical Properties: Opaque. *Color:* Gray-white, altering to a dull black coating. *Streak:* Black. *Luster:* Metallic, brilliant. *Anisotropism:* Weak.
R_1–R_2: (400) —, (420) 42.8–56.8, (440) 43.6–55.4, (460) 44.3–54.0, (480) 44.7–52.8, (500) 44.8–51.6, (520) 44.6–50.5, (540) 44.0–49.6, (560) 43.1–48.7, (580) 42.7–48.0, (600) 42.6–47.4, (620) 42.7–46.8, (640) 43.0–46.3, (660) 43.4–45.8, (680) 43.8–45.5, (700) 44.4–45.0

Cell Data: *Space Group: Bmab* (synthetic). $a = 3.63$ $b = 4.45$ $c = 10.96$ $Z = 8$

X-ray Powder Pattern: Alacrán mine, Chile.
5.76 (10), 2.72 (10), 2.745 (8), 1.875 (7), 1.730 (7), 3.48 (6), 2.230 (5)

Chemistry: Nearly pure As, with up to 3% Bi.

Polymorphism & Series: Dimorphous with arsenic.

Occurrence: As plates and veinlets in carbonate rocks (Černý Důl mine, Czech Republic); in calcite veins (Mackenheim, Germany).

Association: Arsenic, bismuth, silver, sternbergite, emplectite, safflorite, löllingite, pyrite, galena, orpiment, realgar, calcite.

Distribution: In Germany, from the Palmbaum mine, Marienberg, Saxony [TL]; from Schweisweiler, Rhineland-Palatinate; at Mackenheim, Odenwald, and Wittichen, Black Forest. From the Černý Důl mine, Krkonoše (Giant Mountains), and Jáchymov (Joachimsthal), Czech Republic. At Sainte-Marie-aux-Mines, Haut-Rhin, France. In Switzerland, at the Lengenbach quarry, Binntal, Valais. From the Alacrán Ag–As–Sb mine, Pampa Larga district, Copiapó, Chile. In the Goldstrike mine, Lynn district, Eureka Co., Nevada, USA.

Name: From its composition and the Greek for *brilliant*, in allusion to its reflectance.

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