

**Crystal Data:** Hexagonal. *Point Group:* 6/m 2/m 2/m. As incrustations of minute highly distorted crystals; commonly massive and granular.

**Physical Properties:** *Fracture:* Subconchoidal. Hardness = 4 VHN = 245–302 (100 g load). D(meas.) = 8.38 D(calc.) = 8.72

**Optical Properties:** Opaque. *Color:* Steel-gray to silver-white, tarnishes dull on exposure; in polished section, bright cream-white. *Luster:* Bright metallic. *Anisotropism:* Weak.

R<sub>1</sub>–R<sub>2</sub>: (400) 51.5–49.3, (420) 52.3–50.5, (440) 52.8–52.4, (460) 53.4–54.6, (480) 54.2–56.4, (500) 55.7–58.4, (520) 57.5–60.5, (540) 58.9–62.3, (560) 60.0–63.8, (580) 60.8–64.8, (600) 61.1–65.5, (620) 61.6–66.1, (640) 61.9–66.5, (660) 62.3–66.7, (680) 62.8–66.9, (700) 63.4–67.1

**Cell Data:** *Space Group:* P6<sub>3</sub>/mmc. a = 2.600 c = 4.228 Z = 2

**X-ray Powder Pattern:** Mohawk mine, Michigan, USA.

1.989 (100), 2.11 (40), 2.25 (20), 1.299 (20), 1.194 (20), 1.110 (20), 0.837 (20)

**Chemistry:**

	(1)	(2)	(3)
Cu	83.11	83.53	83.58
Ag	trace		
As	16.44	16.55	16.42
Total	99.55	100.08	100.00

(1) Rancagua, Chile. (2) Champion mine, Michigan, USA. (3) Cu<sub>6</sub>As.

**Occurrence:** Uncommon in hydrothermal deposits, intimately associated with other copper arsenides.

**Association:** Copper (typically arsenian), silver, domeykite, koutekite.

**Distribution:** In Chile, from the Algodones silver mine, near Coquimbo [TL], and the Cerro de las Seguas, Rancagua, O'Higgins Province. At Corocoro, Bolivia. In the Kokito II mine, Neuquén Province, Argentina. In the USA, in Michigan, from Keweenaw Co., at the Mohawk, Pewabic, Seneca, Ahmeek, and Champion mines, and at Painesdale, Houghton Co., also from Baraga Co.; in Colorado, from the Cashin mine, Montrose Co. At Långban, Värmland, Sweden. In France, from the Roua copper mines, about 50 km north of Nice, Alpes-Maritimes. At Tsumeb, Namibia. In the Talmessi mine, 35 km west of Anarak, Iran.

**Name:** For the Algodones mine, Chile.

**References:** (1) Palache, C., H. Berman, and C. Frondel (1944) Dana's system of mineralogy, (7th edition), v. I, 171. (2) Williams, S.A. (1963) Crystals of rammelsbergite and algodonite. Amer. Mineral., 48, 421–422. (3) Berry, L.G. and R.M. Thompson (1962) X-ray powder data for the ore minerals. Geol. Soc. Amer. Mem. 85, 14. (4) Ramdohr, P. (1969) The ore minerals and their intergrowths, (3rd edition), 393–398. (5) Criddle, A.J. and C.J. Stanley, Eds. (1993) Quantitative data file for ore minerals, 3rd ed. Chapman & Hall, London, 8.