

**Crystal Data:** Monoclinic. *Point Group:*  $2/m$ . Tabular on {001}, commonly producing flat rhombohedra, also as laths elongated along [010], to 0.5 cm; rarely pyramidal. Reniform and hemispherical radial aggregates. *Twinning:* On {001} producing pseudo-orthorhombic twins.

**Physical Properties:** *Cleavage:* Distinct on {001}. *Fracture:* Subconchoidal. *Tenacity:* Brittle. Hardness = 2–3 VHN = 71–93 (25 g load). D(meas.) = 5.54(14) D(calc.) = 5.53

**Optical Properties:** Translucent. *Color:* Dark cochineal-red to dull orange to clove-brown; lemon-yellow in transmitted light. *Streak:* Orange-yellow. *Luster:* Adamantine. *Optical Class:* Biaxial (-). *Orientation:*  $X \simeq c$ ;  $Y \simeq a$ ;  $Z = b$ . *Dispersion:*  $r < v$ , very strong.  $n = \sim 3$   $2V(\text{meas.}) = 34^\circ$

$R_1$ – $R_2$ : (400) 33.7–37.1, (420) 32.2–36.1, (440) 30.7–35.1, (460) 29.1–33.7, (480) 27.6–32.1, (500) 26.1–30.1, (520) 24.8–28.5, (540) 23.7–27.3, (560) 22.7–26.3, (580) 22.0–25.5, (600) 21.5–24.8, (620) 21.3–24.4, (640) 21.0–24.1, (660) 20.8–23.8, (680) 20.6–23.6, (700) 20.4–23.5

**Cell Data:** *Space Group:*  $C2/c$ .  $a = 12.00(1)$   $b = 6.26(1)$   $c = 17.08(1)$   $\beta = 110.0^\circ$   
Z = 8

**X-ray Powder Pattern:** Jáchymov, Czech Republic.  
3.00 (100), 2.82 (60), 3.14 (30), 2.13 (30), 5.5 (20), 4.02 (20), 3.38 (20)

Chemistry:	(1)	(2)
Ag	65.15	65.42
As	14.63	15.14
S	19.07	19.44
Total	98.85	100.00

(1) Freiberg, Germany. (2) Ag<sub>3</sub>AsS<sub>3</sub>.

**Polymorphism & Series:** Dimorphous with proustite.

**Occurrence:** Typically associated with other silver sulfosalts in hydrothermal veins.

**Association:** Proustite, pyrargyrite, acanthite, arsenic, calcite.

**Distribution:** In small amounts at numerous localities. From Jáchymov (Joachimsthal), Příbram, and Třebosko, Czech Republic. In Saxony, Germany, at Freiberg, Annaberg, Marienberg, Johanngeorgenstadt, and Schneeberg; at St. Andreasberg, in the Harz Mountains. From Baia Sprie (Felsőbánya), Romania. At Sainte-Marie-aux-Mines, Haut-Rhin, France. From Chañarcillo, south of Copiapó, Atacama, Chile. In several mines at Cobalt, Ontario, Canada. At the General Petite mine, Atlanta district, Elmore Co., Idaho, and from about 13 km north of Niarada, in the Flathead mine, Flathead Co., Montana, USA. From the Batopilas district, Chihuahua, Mexico.

**Name:** From the Greek for *yellow* and *powder* in allusion to its color.

**References:** (1) Palache, C., H. Berman, and C. Frondel (1944) Dana's system of mineralogy, (7th edition), v. I, 371–372. (2) Peacock, M.A. (1950) Studies of mineral sulfo-salts: XV. Xanthoconite and pyrostilpnite. Mineral. Mag., 29, 346–358. (3) Engel, P. and W. Nowacki (1968) Die Kristallstruktur von Xanthokon, Ag<sub>3</sub>AsS<sub>3</sub>. Acta Cryst., 24, 77–81 (in German).