

Crystal Data: Tetragonal. *Point Group:* $\bar{4}2m$. Massive, granular; reniform; as crusts of tiny crystals. *Twinning:* Polysynthetic, very commonly seen in polished section.

Physical Properties: *Cleavage:* {101}, good; {100}, distinct. *Fracture:* Uneven, conchoidal. *Tenacity:* Brittle. Hardness = 3.5 VHN = n.d. D(meas.) = 4.635 D(calc.) = 4.66

Optical Properties: Opaque. *Color:* Deep pinkish brown; in polished section, pale brownish pink. *Streak:* Black. *Luster:* Dull metallic. *Pleochroism:* Weak, pale orange, pink-violet. *Anisotropism:* Strong, greenish yellow and purplish red.

R₁–R₂: (400) 24.4–30.0, (420) 24.2–25.5, (440) 24.0–25.0, (460) 23.8–24.1, (480) 23.1–23.4, (500) 22.7–23.1, (520) 22.9–23.6, (540) 23.8–25.0, (560) 24.3–26.0, (580) 24.5–26.5, (600) 24.8–27.0, (620) 25.4–27.5, (640) 26.0–28.1, (660) 26.8–28.6, (680) 27.3–29.0, (700) 27.5–29.4

Cell Data: *Space Group:* $I\bar{4}2m$. *a* = 5.38 *c* = 10.76 *Z* = 2

X-ray Powder Pattern: Synthetic.

3.108 (100), 1.9020 (65), 1.6233 (35), 1.0989 (25), 2.692 (20), 1.9041 (16), 1.6209 (16)

Chemistry:	(1)	(2)	(3)
Cu	43.94	42.98	43.27
Fe	0.48	0.26	
Sb	13.19	24.36	27.63
As	9.08	3.31	
Bi	1.79		
S	30.86	28.97	29.10
rem.	0.17		
Total	99.51	99.88	100.00

(1) Goldfield, Nevada, USA. (2) Sierra Famatina, Argentina. (3) Cu₃SbS₄.

Polymorphism & Series: Forms a series with luzonite.

Mineral Group: Stannite group.

Occurrence: In copper deposits formed at low to medium temperatures.

Association: Pyrite, enargite, tetrahedrite–tennantite, chalcopyrite, covellite, sphalerite, bismuthinite, silver, gold, marcasite, quartz, barite.

Distribution: From the Sierra de Famatina, La Rioja Province, Argentina [TL]. In the USA, at Goldfield, Esmeralda Co., Nevada; and in Arizona, from Tombstone and the Campbell mine, Bisbee, Cochise Co.; from the Magma mine, Superior, Pinal Co. Also at Butte, Silver Bow Co., Montana; Red Mountain, Ouray Co., Colorado; and Darwin, Inyo Co., California. In Mexico, at Cananea, Sonora. From Cerro de Pasco and Morococha, Peru. Well-crystallized in the Chinkuashi mine, Keelung, Taiwan. At Isk Amellal, Morocco. In minor amounts from many other localities.

Name: For the locality, Sierra de Famatina, Argentina.

References: (1) Palache, C., H. Berman, and C. Frondel (1944) Dana's system of mineralogy, (7th edition), v. I, 387–388. (2) Gaines, R. (1957) Luzonite, famatinitite, and some related minerals. *Amer. Mineral.*, 42, 766–777. (3) Sugaki, A., A. Kitakaze, and Y. Shimizu (1982) Phase relations in the Cu₃AsS₄–Cu₃SbS₄ join. *Sci. Rep. Tohoku Univ.*, 3rd series, 15(2), 257–271. (4) Ramdohr, P. (1969) *The ore minerals and their intergrowths*, (3rd edition), 578–582.