

Crystal Data: Tetragonal. *Point Group:* $\bar{4}2m$. As anhedral inclusions, to 30 μm , in galena. *Twinning:* Polysynthetic lamellar twinning with stairsteplike offsets.

Physical Properties: Hardness = ~ 3 VHN = 176–193, 183 average (100 g load) (synthetic). D(meas.) = n.d. D(calc.) = 4.93

Optical Properties: Opaque. *Color:* In reflected light, brownish gray with red internal reflections

Optical Class: Biaxial. *Pleochroism:* Weak; brown to brown-gray. *Anisotropism:* Strong; brick-red with orange tint, to bluish gray purplish.

R_1 – R_2 : (400) 30, (420) 29, (440) 28, (460) 27, (480) 26, (500) 25.2, (520) 24.8, (540) 24.6, (560) 24.3, (580) 24.2, (600) 24.3, (620) 24.3, (640) 24.6, (660) 25.8, (680) 25.2, (700) 24.7

Cell Data: *Space Group:* $I\bar{4}2d$. $a = 5.880(2)$ $c = 11.21(1)$ $Z = 4$

X-ray Powder Pattern: Montgros mine, France (showing preferred orientation). 1.768 (vs), 2.072 (s), 1.702 (s), 2.024 (m), 1.471 (m), 1.403 (m), 1.346 (m)

Chemistry:	(1)	(2)	(3)
Ag	37.68	37.48	37.61
Cu	0.04	0.52	
Zn		1.31	
Fe	0.02	0.18	
Se	0.01		
In	40.22	39.19	40.03
S	22.42	21.49	22.36
Total	100.39	100.17	100.00

(1) Montgros mine, France; by electron microprobe, average of eight analyses on two grains; corresponds to $\text{Ag}_{0.99}\text{In}_{1.00}\text{S}_{2.00}$. (2) Toyoha mine, Japan; by electron microprobe, corresponds to $\text{Ag}_{1.00}\text{Zn}_{0.06}\text{Cu}_{0.02}\text{Fe}_{0.01}\text{In}_{0.98}\text{S}_{1.93}$. (3) AgInS_2 .

Mineral Group: Chalcopyrite group.

Occurrence: In a dump sample from a vein-type hydrothermal ore deposit (Montgros mine, France); in a vein-type hydrothermal ore deposit (Toyoha mine, Japan).

Association: Galena, sphalerite, barite, ankerite, quartz (Montgros mine, France); sphalerite, hcartite, pyrargyrite (Toyoha mine, Japan).

Distribution: From the Montgros Pb–Zn mine, near La Boriette, about 10 km southwest of Langeac, Haute-Loire, France [TL]. At the Toyoha Pb–Zn–Ag mine, 40 km southwest of Sapporo, Hokkaido, Japan.

Name: In honor of Claude P. Laforêt (1936–), French metallographer, Bureau de Recherches Géologiques et Minières, Orléans, France, who first observed the species.

Type Material: Geological Museum, Lausanne, Switzerland, MGL 58600; B.R.G.M., Orléans; Natural History Museum, Paris, France.

References: (1) Meisser, N., P. Thelin, P.-J. Chiappero, and C. Maurel (1999) Laforêtite, AgInS_2 , a new mineral of the chalcopyrite group from the Montgros mine, Haute-Loire, France. *Eur. J. Mineral.*, 11, 891–897. (2) (2000) *Amer. Mineral.*, 85, 875 (abs. ref. 1).