

Crystal Data: Monoclinic. *Point Group:* $2/m$. Very slender prismatic crystals, to 1.0 mm, elongated along [010]. *Twinning:* On {001}, universal.

Physical Properties: *Cleavage:* Perfect on {001}, near micaceous. Hardness = n.d. D(meas.) = n.d. D(calc.) = 7.02

Optical Properties: n.d. *Color:* Gray-black.; creamy white in reflected light.

Luster: Metallic.

Optical Class: Biaxial. *Anisotropism:* Distinct; bluish gray to yellowish gray.

Birefractance: Low.

R_1-R_2 : (400) 33.9–36.1, (420) 34.4–36.6, (440) 35.1–37.2, (460) 35.6–37.7, (480) 35.9–38.0, (500) 35.9–38.0, (520) 35.5–37.6, (540) 35.4–37.5, (560) 35.3–37.4, (580) 35.2–37.3, (600) 34.7–36.8, (620) 34.2–36.2, (640) 33.9–35.9, (660) 33.8–35.7, (680) 33.8–35.6, (700) 33.9–35.

Cell Data: *Space Group:* $C2/m$. $a = 14.185(5)$ $b = 4.071(7)$ $c = 13.995(5)$
 $\beta = 118.22(3)^\circ$ $Z = 4$

X-ray Powder Pattern: Levigliani mine, Italy.

3.05 (s), 2.914 (ms), 2.865 (ms), 3.86 (m), 3.55 (m), 2.644 (m), 1.913 (m)

Chemistry:

	(1)	(2)
Hg	25.4	26.86
Bi	57.6	55.97
S	17.4	17.17
Total	100.4	100.00

(1) Levigliani mine, Italy; by electron microprobe, average of 12 analyses; corresponds to Hg_{0.94}Bi_{2.04}S_{4.00}. (2) HgBi₂S₄.

Mineral Group: Benjaminitite group.

Occurrence: Very rare, in quartz-carbonate veins in a mercury deposit, probably formed during retrograde metamorphism.

Association: Cinnabar, mercurian sphalerite, mercury, pyrite.

Distribution: From the Levigliani mercury mine, near Levigliani, Tuscany, Italy [TL].

Name: For the GRUppo MIneralogico e Paleontological LUCchese, a group of amateur mineralogists, including Luigi Pierotti, Ugo Quilici, and Moeno Romani, who provided the specimens for study.

Type Material: Museum of Natural History, University of Pisa, Pisa, Italy.

References: (1) Orlandi, P. and A. Dini (1998) Grumiplucite, a new mercury – bismuth sulfosalt species from the Levigliani mine, Apuan Alps, Tuscany, Italy. *Can. Mineral.*, 36, 1321–1326. (2) (????) *Amer. Mineral.*, ??, ?? (abs. ref. 1). (3) Mumme, W.G. and J.A. Watts (1980) HgBi₂S₄: crystal structure and relationship with the pavonite homologous series. *Acta Cryst.*, 36, 1300–1304.