

Crystal Data: Monoclinic. *Point Group:* 2/m. Crystals tabular on {010}, to 0.1 mm, displaying {010}, {101}, {100}, {001}, {011}, {110}.

Physical Properties: *Cleavage:* n.d. *Fracture:* n.d. *Tenacity:* n.d. *Hardness* = n.d. D(meas.) = n.d. D(calc.) = 5.932

Optical Properties: Transparent. *Color:* Pale yellow. *Streak:* n.d. *Luster:* n.d. *Optical Class:* n.d. *n* = 2.0(1)

Cell Data: *Space Group:* P2₁/c. *a* = 8.9477(6) *b* = 7.9218(7) *c* = 12.4955(5) β = 90.092(4)° *Z* = 4

X-ray Powder Pattern: La Fossa crater, Vulcano, Aeolian Islands, Italy. 3.696 (100), 3.971 (83), 2.109 (45), 2.569 (42), 1.848 (41), 2.851 (38), 2.236 (25)

Chemistry:	(1)	(2)
Tl	23.78	25.67
K	0.01	
Pb	51.78	52.06
Cl	21.40	22.27
Br	1.34	
F	0.17	
Total	98.48	100.00

(1) La Fossa crater, Vulcano, Aeolian Islands, Italy; average of 8 EDS electron microprobe analyses, corresponding to Tl_{0.94}Pb_{2.01}(Cl_{4.85}Br_{0.14}F_{0.07}) Σ =5.06. (2) TlPb₂Cl₅.

Occurrence: On fragments of altered pyroclastic breccia in a high temperature (400° C) fumarole, most likely formed as a sublimate.

Association: Bismuthinite, cotunnite, chalcocolloite, pseudocotunnite.

Distribution: La Fossa crater, Vulcano, Aeolian Islands, Italy.

Name: For *Hephaistos*, the Greek god of fire, whose workshops were believed to be located at Vulcano.

Type Material: Reference Collection, Dipartimento di Chimica Strutturale e Stereochimica Inorganica, Università degli Studi, Milan, Italy, 2006-2.

References: (1) Campostrini, I., F. Demartin, C.M. Grammacioli, and P. Orlandi (2008) Hephaistosite, TlPb₂Cl₅, a new thallium mineral species from La Fossa crater, Vulcano, Aeolian Islands, Italy. *Can. Mineral.*, 46, 701–708. (2) (2009) *Amer. Mineral.*, 94, 399-400 (abs. ref. 1).