Steropesite Tl_3BiCl_6

Crystal Data: Monoclinic. *Point Group*: *m*. As tabular on {100} or stout multifaceted crystals to 0.20 mm.

Physical Properties: *Cleavage*: None. *Tenacity*: n.d. *Fracture*: n.d. Hardness = n.d. D(meas.) = n.d. D(calc.) = 5.737 Nonfluorescent.

Optical Properties: [Transparent.] *Color*: Lemon-yellow. *Streak*: White. *Luster*: Vitreous to adamantine.
Optical Class: *n*(calc.) = 1.97(2)

Cell Data: *Space Group*: *Cc*. a = 26.686(5) b = 15.127(3) c = 13.014(3) β = 108.11(2)° Z = 16

X-ray Powder Pattern: La Fossa crater, Vulcano, Aeolian Islands, Sicily, Italy.
3.773 (100), 2.113 (93), 3.846 (40), 2.710 (35), 3.884 (30), 2.745 (30), 4.241 (29)

Chemistry:

	(1)	(2)
Tl	54.57	59.25
Bi	23.40	20.19
Cl	17.42	20.56
Br	4.13	
Na	0.02	
K	0.01	.
Total	99.55	100.00

(1) La Fossa crater, Vulcano, Aeolian Islands, Sicily, Italy; average electron microprobe analysis; corresponds to $(Tl_{2.89}Na_{0.01})_{\Sigma=2.90}Bi_{1.21}(Cl_{5.32}Br_{0.56})_{\Sigma=5.88}$. (2) Tl_3BiCl_6.

Occurrence: A sublimate at an active high-temperature volcanic fumarole (~450 °C).

Association: Bismuthinite, lafossaite.

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

Name: After *Steropes*, one of the three Cyclops and a son of Uranus. These mythological half-gods were helpers of Hephaistos (Hephaestus), the ancient Greek god of fire, whose workshops were alleged to be located at Vulcano.

Type Material: Dipartimento di Chimica Strutturale e Stereochimica Inorganica, University of Milan, Italy (2008-2).

References: (1) Demartin, F., C.M. Gramaccioli, and I. Campostrini (2009) Steropesite, Tl_3BiCl_6, a new thallium bismuth chloride from La Fossa crater, Vulcano, Aeolian Islands, Italy. Can. Mineral., 47, 373-380.