

Crystal Data: Monoclinic. *Point Group:* 2/m. As elongated and striated acicular crystals to 2 mm bundled parallel to [010].

Physical Properties: *Cleavage:* Perfect || [010] on (20 $\bar{1}$). *Tenacity:* Brittle, elastic thin fibers. *Fracture:* Uneven. Hardness = ~2 VHN = 69-101, 85 average (20 g load). D(calc.) = 6.00

Optical Properties: Opaque. *Color:* Black, light gray with weak yellow tint in reflected light, rare dark red internal reflections. *Streak:* Dark gray with a very weak reddish tint. *Luster:* Metallic. *Optical Class:* Anisotropism: Distinct, grayish brown to dark brown. *Bireflectance:* Weak. R: (470) 33.1, (546) 30.0, (589) 28.8, (650) 26.5

Cell Data: *Space Group:* C2/m. $a = 48.32(1)$ $b = 4.117(1)$ $c = 24.056(5)$ $\beta = 118.84(3)^\circ$ $Z = 2$

X-Ray Diffraction Pattern: Buca della Vena mine, near Pietrasanta, Apuan Alps, Italy. 2.994 (100), 3.418 (88), 3.480 (64), 2.056 (52), 2.922 (41), 1.764 (41), 4.02 (33)

| Chemistry: | (1) | (2) |
|------------|-------|--------|
| Cu | 0.18 | 0.03 |
| Hg | 7.90 | 7.83 |
| Cd | | 0.02 |
| Fe | | 0.06 |
| Zn | | 0.02 |
| Pb | 42.41 | 43.13 |
| Sn | | 0.03 |
| Sb | 29.71 | 29.15 |
| Bi | | 0.12 |
| S | 19.47 | 19.71 |
| Cl | 0.06 | 0.05 |
| Total | 99.73 | 100.15 |

(1) Buca della Vena mine, near Pietrasanta, Apuan Alps, Italy; average electron microprobe analysis; corresponds to Cu_{0.21}Hg_{2.98}Pb_{15.46}Sb_{18.44}S_{45.87}Cl_{0.13}. (2) Zenderling, Slovak Republic; average electron microprobe analysis; corresponding to Hg_{2.93}(Pb_{15.63}Fe_{0.08}Cu_{0.04}Cd_{0.02}Zn_{0.02}Sn_{0.02}) $\Sigma=15.81$ (Sb_{17.97}Bi_{0.04}) $\Sigma=18.01$ (S_{46.14}Cl_{0.11}) $\Sigma=46.25$.

Occurrence: In a hydrothermal assemblage, within small calcite veinlets crosscutting dolomitic lenses interstratified in a Ba-Fe deposit (Buca Della Vena).

Association: Zinkenite, scainiite, chalcostibite, cinnabar or bournonite, boulangerite (Zenderling).

Distribution: From the Buca della Vena mine, near Pietrasanta, Apuan Alps, Italy [TL]. At Zenderling, near Gelnica, Spišsko-Gemerské Rudohorie Mts., Slovak Republic.

Name: Honors mineral collector Angelo Marrucci (1956-2003), for his contributions to the mineralogy of Tuscany.

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

References: (1) Orlandi, P., Y. Moelo, I. Campostrini, and A. Meerschaut (2007) Leadantimony sulfosalts from Tuscany (Italy). IX. Marrucciite, Hg₃Pb₁₆Sb₁₈S₄₆, a new sulfosalts from Buca della Vena mine, Apuan Alps: Definition and crystal structure. *Eur. J. Mineral.*, 19, 267-279. (2) (2008) *Amer. Mineral.*, 93, 253 (abs. ref. 1). (3) Laufek F., J. Sejkora, K. Fejfarová, M. Dušek, and D. Ozdín (2007) The mineral marrucciite: monoclinic Hg₃Pb₁₆Sb₁₈S₄₆. *Acta Crystal.*, E63, i190-i190. (4) Sejkora J., D. Ozdín, F. Laufek, J. Plášil, and J. Litochleb (2011) Marrucciite, a rare Hg-sulfosalts from the Gelnica ore deposit (Slovak Republic), and its comparison with the type occurrence at Buca della Vena mine (Italy). *J. Geosci.*, 56, 399-408.