

Crystal Data: Triclinic. *Point Group:* $\bar{1}$. As blocky, striated prismatic crystals, to 1 cm.
Twining: Polysynthetic lamellar common.

Physical Properties: *Cleavage:* n.d. *Fracture:* Irregular. *Tenacity:* Brittle. Hardness = 3-3.5
VHN = 170-195, 182 average (15 g load). D(meas.) = n.d. D(calc.) = 6.56

Optical Properties: Opaque. *Color:* Black, white in reflected light. *Streak:* Black.
Luster: Metallic.

Optical Class: n.d. *Anisotropism:* Gray to bluish gray.

R₁-R₂: (470) 31.6-40.1, (546) 30.9-39.6, (589) 30.4-38.5, (650) 30.0-37.6

Cell Data: Space Group: $P\bar{1}$. $a = 8.9248(9)$ $b = 29.414(3)$ $c = 8.5301(8)$ $\alpha = 98.336(5)^\circ$
 $\beta = 118.175(5)^\circ$ $\gamma = 90.856(5)^\circ$ $Z = 2$

X-ray Powder Pattern: Pollone mine, near Valdicastello Carducci, Pietrasanta, Tuscany, Italy.
2.233 (vs), 2.125 (s), 1.848 (s), 1.775 (s), 3.568 (ms), 3.202 (ms), 3.016 (ms)

Chemistry:	(1)	(2)
Pb	64.05	64.02
Bi	4.24	5.38
Sb	9.10	9.40
As	4.51	3.86
S	17.24	17.34
Total	99.14	100.00

(1) Pollone mine, near Valdicastello Carducci, Pietrasanta, Tuscany, Italy; average of 10 electron microprobe analyses; corresponds to Pb_{11.98}(Sb_{2.90}As_{2.33}Bi_{0.79})_{Σ=6.02}S_{20.80}. (2) Pb₁₂Sb₃As₂BiS₂₁.

Polymorphism & Series: Jordanite homologous series. $N = 3.5$

Occurrence: In quartz extension veins in a baryte+pyrite±(Pb-Zn-Ag) ore deposit within a metavolcanic-metasedimentary rock sequence, that was metamorphosed to greenschist facies.

Association: Sb-rich tennantite, quartz.

Distribution: From the Stanzone tunnel, Pollone mine, near Valdicastello Carducci, Pietrasanta, Apuan Alps, Tuscany, Italy.

Name: Honors mineral collector Marco Baldi (b. 1944), for his contribution to the knowledge of the mineralogy of the pyrite±baryte±iron oxide ore deposits in the southern Apuan Alps.

Type Material: Mineral Collection, Natural History Museum, University of Pisa, Italy (19709).

References: (1) Biagioni, C., M. Pasero, Y. Moëlo, F. Zaccarini, and W.H. Paar (2018) Lead-antimony sulfosalts from Tuscany (Italy). XXII. Marcobaldiite, ~Pb₁₂(Sb₃As₂Bi)_{Σ6}S₂₁, a new member of the jordanite homologous series from the Pollone mine, Valdicastello Carducci. Eur. J. Mineral. 30(3), 581-592. (2) (2019) Amer. Mineral., 104(5), 781 (abs. ref 1).