

Crystal Data: Triclinic. *Point Group:* $\bar{1}$. Flattened and elongated crystals, to 0.1 mm, with ragged terminations.

Physical Properties: *Cleavage:* Perfect on {010}. *Tenacity:* Brittle. Hardness = n.d.
D(meas.) = n.d. D(calc.) = 5.66

Optical Properties: Semitransparent. *Color:* Colorless to white. *Luster:* Vitreous to silky.
Optical Class: [Biaxial.] $n = 1.96(5)$ $\alpha = \text{n.d.}$ $\beta = \text{n.d.}$ $\gamma = \text{n.d.}$ $2V(\text{meas.}) = \text{n.d.}$

Cell Data: *Space Group:* $P\bar{1}$. $a = 8.136(3)$ $b = 8.430(6)$ $c = 9.233(7)$ $\alpha = 62.58(7)^\circ$
 $\beta = 71.84(4)^\circ$ $\gamma = 75.13(4)^\circ$ $Z = 2$

X-ray Powder Pattern: Baccu Locci mine, Italy; intensities calculated from the crystal structure.

4.00 (100), 3.258 (75), 3.188 (75), 3.818 (55), 3.731 (44), 2.103 (40), 2.728 (38)

Chemistry:

	(1)	(2)
SO ₂	0.20	
SeO ₂	12.31	12.22
FeO	0.42	
CuO	0.39	
CdO	0.11	
ZnO	0.35	
PbO	74.18	73.71
Cl	14.35	15.61
H ₂ O	[2.34]	1.98
−O = Cl ₂	3.24	3.52
Total	[101.41]	100.00

(1) Baccu Locci mine, Italy; by electron microprobe, H₂O from crystal-structure analysis, confirmed by IR; corresponds to $\text{Pb}_3(\text{SeO}_3)[\text{Cl}_{3.68}(\text{OH})_{0.32}]_{\Sigma=4.00} \cdot \text{H}_2\text{O}$. (2) $\text{Pb}_3(\text{SeO}_3)\text{Cl}_4 \cdot \text{H}_2\text{O}$.

Occurrence: In the oxidized zone of a hydrothermal base-metal deposit, in a selenium-rich part.

Association: Chalcomenite, atacamite, pseudobolëite, chlorargyrite.

Distribution: From the Baccu Locci Pb–As mine, near Villaputzu, Sarrabus district, Sardinia, Italy.

Name: To honor Paolo Orlandi (1946–), Professor of Mineralogy, University of Pisa, Pisa, Italy, who has described a variety of new minerals from Italy.

Type Material: University of Milan, Milan, Italy.

References: (1) Campostrini, I., C.M. Gramaccioli, and F. Demartin (1999) Orlandiite, $\text{Pb}_3\text{Cl}_4(\text{SeO}_3) \cdot \text{H}_2\text{O}$, a new mineral species, and an associated lead-copper selenite chloride from the Baccu Locci mine, Sardinia, Italy. *Can. Mineral.*, 37, 1493–1498. (2) (2000) *Amer. Mineral.*, 85, 1563 (abs. ref. 1).