

Crystal Data: Orthorhombic. *Point Group:* $2/m\ 2/m\ 2/m$. As pseudo-hexagonal prismatic crystals elongated along [010], to 0.5 mm; typically as radial or sheaf-like aggregates.

Physical Properties: *Cleavage:* One || [010]. *Hardness* = n.d. *D(meas.)* = n.d. *D(calc.)* = 2.39

Optical Properties: Transparent. *Color:* Colorless. *Streak:* White. *Luster:* Vitreous. *Optical Class:* Biaxial (+). *Orientation:* $Z = b$. *Dispersion:* Strong. $\alpha = 1.590(2)$
 $\beta = 1.596(2)$ $\gamma = 1.636(2)$ $2V(\text{meas.}) = 41(3)^\circ$ $2V(\text{calc.}) = 43^\circ$

Cell Data: *Space Group:* $Pnma$. $a = 9.763(1)$ $b = 5.635(1)$ $c = 9.558(1)$ $Z = 4$

X-ray Powder Pattern: Gambatesa mine, Italy.
4.33 (VS), 3.43 (VS), 6.83 (S), 2.704 (M), 2.666 (M), 2.414 (M), 1.726 (M)

Chemistry:

	(1)	(2)
SO ₂	33.51	33.89
MnO	37.83	37.52
H ₂ O	[28.66]	28.59
Total	[100.00]	100.00

(1) Gambatesa mine, Italy; by electron microprobe, averages of 13 analyses of 3 crystals, H₂O by difference; corresponds to $\text{Mn}_{1.01}(\text{SO}_3)_{0.99} \cdot 3.01\text{H}_2\text{O}$. (2) $\text{Mn}(\text{SO}_3) \cdot 3\text{H}_2\text{O}$.

Occurrence: Very rare, along fractures in metamorphosed manganeseiferous layers in radiolarian cherts in an ophiolite sequence.

Association: Tephroite, bementite, braunite, hausmannite, hematite.

Distribution: From the Gambatesa mine, near Reppia, Val Graveglia, Liguria, Italy.

Name: For Val Graveglia, Italy, within which the Gambatesa mine is located.

Type Material: Department of Earth Sciences, University of Genoa, Genoa, Italy.

References: (1) Basso, R., G. Lucchetti, and A. Palenzona (1991) Gravegliaite, $\text{MnSO}_3 \cdot 3\text{H}_2\text{O}$, a new mineral from Val Graveglia (Northern Apennines, Italy). *Zeits. Krist.*, 197, 97–106.
(2) (1992) *Amer. Mineral.*, 77, 672 (abs. ref. 1).