

# Minguzzite



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**Crystal Data:** Monoclinic. *Point Group:*  $2/m$ . Crystals, to 0.1 mm, showing  $\{010\}$ ,  $\{11\bar{1}\}$ ,  $\{111\}$ ,  $\{110\}$ .

**Physical Properties:** *Cleavage:* Perfect on  $\{010\}$ . *Hardness* = n.d.  $D(\text{meas.}) = 2.080$   
 $D(\text{calc.}) = 2.156$  Soluble in  $\text{H}_2\text{O}$ .

**Optical Properties:** Semitransparent. *Color:* Green to yellow-green. *Luster:* Vitreous.  
*Optical Class:* Biaxial (-). *Pleochroism:*  $X = \text{yellow-green}$ ;  $Z = \text{intense emerald-green}$ .  
 $\alpha = 1.498$   $\beta = 1.554$   $\gamma = 1.594$   $2V(\text{meas.}) = \text{n.d.}$   $2V(\text{calc.}) = 78^\circ$

**Cell Data:** *Space Group:*  $P2_1/c$  (synthetic).  $a = 7.66(2)$   $b = 19.87(1)$   $c = 10.27(2)$   
 $\beta = 105^\circ 6'$   $Z = 4$

**X-ray Powder Pattern:** Synthetic.

6.9 (100), 3.61 (65), 2.18 (65), 2.67 (60), 10.2 (55), 4.96 (55), 3.16 (45)

**Chemistry:**

	(1)	(2)
$\text{C}_2\text{O}_3$	42.13	43.98
$\text{Al}_2\text{O}_3$	0.10	
$\text{Fe}_2\text{O}_3$	16.05	16.26
FeO	2.28	
MgO	0.10	
CaO	0.03	
$\text{K}_2\text{O}$	26.00	28.76
$\text{H}_2\text{O}^+$	11.35	
$\text{H}_2\text{O}^-$	1.60	
$\text{H}_2\text{O}$		11.00
insol.	0.10	
Total	99.74	100.00

(1) Capo Calamita, Elba, Italy; average of five partial analyses. (2)  $\text{K}_3\text{Fe}(\text{C}_2\text{O}_4)_3 \cdot 3\text{H}_2\text{O}$ .

**Occurrence:** Rare, in an oxidized gossan formed in a calcareous dolomite.

**Association:** Humboldtine, "limonite".

**Distribution:** From Capo Calamita, Elba, Italy.

**Name:** To honor Professor Carlo Minguzzi (1910–1953), Italian mineralogist, University of Pavia, Pavia, Italy.

**Type Material:** University of Florence, Florence, Italy, 1971/I.

**References:** (1) Garavelli, C.L. (1955) Un nuovo minerale tra i prodotti secondari del giacimento di Capo Calamita (Isola d'Elba). *Atti Rend. Accad. Lincei*, 18, 392–402 (in Italian). (2) (1956) *Amer. Mineral.*, 41, 370 (abs. ref. 1). (3) Herpin, P. (1958) Structure cristalline des trioxalates complexes de potassium. *Bull. Minéral.*, 81, 245–256 (in French).