

## Dietrichite



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**Crystal Data:** Monoclinic. *Point Group:*  $2/m$ . Fibrous, in tufted aggregates; as incrustations and efflorescences.

**Physical Properties:** Hardness = 2 D(meas.) = n.d. D(calc.) = [1.85] Soluble in  $\text{H}_2\text{O}$ .

**Optical Properties:** Transparent. *Color:* Dirty white to brownish yellow; colorless in transmitted light. *Luster:* Silky.

*Optical Class:* Biaxial (+). *Orientation:*  $X = b$ ;  $Z \wedge c \simeq 29^\circ$ .  $\alpha = 1.475(3)$   $\beta = 1.480(3)$   
 $\gamma = 1.488(3)$   $2V(\text{meas.}) = \text{Large}$ .

**Cell Data:** *Space Group:*  $P2_1/c$ .  $a = 6.240$   $b = 24.434$   $c = 21.379$   $\beta = 100.1^\circ$   $Z = 4$

**X-ray Powder Pattern:** Baia Sprie, Romania. (ICDD 25-1173).  
4.33 (100), 4.84 (40), 4.99 (30), 4.15 (30), 4.20 (20), 6.09 (15), 4.64 (15)

### Chemistry:

	(1)
$\text{SO}_3$	35.94
$\text{Al}_2\text{O}_3$	10.92
FeO	3.11
MnO	1.74
ZnO	3.70
MgO	0.33
$\text{H}_2\text{O}$	44.38
Total	100.12

(1) Baia Sprie, Romania; corresponds to  $(\text{Zn}_{0.40}\text{Fe}_{0.38}\text{Mn}_{0.22})_{\Sigma=1.00}\text{Al}_{1.91}(\text{SO}_4)_{4.00} \cdot 21.95\text{H}_2\text{O}$ .

**Mineral Group:** Halotrichite group.

**Occurrence:** As post-mining efflorescences in abandoned mine workings.

**Distribution:** From Baia Sprie (Felsőbánya), Romania.

**Name:** To honor Dr. Gustav Heinrich Dietrich, Příbram, Czech Republic, who analyzed the first specimens.

**Type Material:** Royal Ontario Museum, Toronto, Canada, M7078.

**References:** (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 528–529.