

Ohmilite **$\text{Sr}_3(\text{Ti}, \text{Fe}^{3+})(\text{Si}_2\text{O}_6)_2(\text{O}, \text{OH}) \cdot 2-3\text{H}_2\text{O}$**

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Crystal Data: Monoclinic. *Point Group:* $2/m$. Fibrous crystals, to 10 μm , elongated along [010]; as aggregates, to 0.2 mm, rarely spherulitic.

Physical Properties: *Cleavage:* Perfect on {010}. *Hardness* = 3.5 *D*(meas.) = 3.38
D(calc.) = [3.47]

Optical Properties: Semitransparent. *Color:* Light pink to pinkish brown. *Streak:* White. *Optical Class:* Biaxial. *Pleochroism:* Weak; nearly colorless to light pink. *Orientation:* $Y = a$; $Z = b$. $\alpha = 1.649(3)$ $\beta = \text{n.d.}$ $\gamma = 1.715(3)$ $2V(\text{meas.}) = \text{n.d.}$

Cell Data: *Space Group:* $P2_1/m$. $a = 10.979(6)$ $b = 7.799(5)$ $c = 7.818(4)$
 $\beta = 100.90(3)^\circ$ $Z = 2$

X-ray Powder Pattern: Ohmi, Japan.

4.62 (100), 3.83 (90), 2.600 (90), 3.264 (85), 3.037 (80), 5.39 (77), 10.83 (70)

Chemistry:

	(1)
SiO ₂	34.79
TiO ₂	10.27
Al ₂ O ₃	0.00
Fe ₂ O ₃	0.20
MgO	0.00
CaO	0.00
SrO	47.37
Na ₂ O	0.00
K ₂ O	0.00
H ₂ O	6.68
Total	99.31

(1) Ohmi, Japan; corresponds to $\text{Sr}_{3.16}(\text{Ti}_{0.98}\text{Fe}_{0.02}^{3+})_{\Sigma=1.00}\text{Si}_{4.00}\text{O}_{12}[\text{O}, (\text{OH})] \cdot 2.21\text{H}_2\text{O}$.

Occurrence: In an amphibolite-quartz-albite dike cutting serpentinite.

Association: Magnesio-riebeckite, quartz, albite, phlogopite, benitoite, bario-orthojoaquinite, leucosphenite.

Distribution: From Ohmi, Niigata Prefecture, Japan.

Name: For the locality at Ohmi, Japan.

Type Material: n.d.

References: (1) Komatsu, M., K. Chihara, and T. Mizota (1973) A new strontium-titanium hydrous silicate mineral from Ohmi, Niigata Prefecture, central Japan. *Mineral. J. (Japan)*, 7, 298–301. (2) Mizota, T., M. Komatsu, and K. Chihara (1983) A refinement of the crystal structure of ohmilite, $\text{Sr}_3(\text{Ti}, \text{Fe}^{3+})(\text{O}, \text{OH})(\text{Si}_2\text{O}_6)_2 \cdot 2-3\text{H}_2\text{O}$. *Amer. Mineral.*, 68, 811–817.