

**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  $\mu\text{m}$ , 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 <sub>2</sub>	34.79
TiO <sub>2</sub>	10.27
Al <sub>2</sub> O <sub>3</sub>	0.00
Fe <sub>2</sub> O <sub>3</sub>	0.20
MgO	0.00
CaO	0.00
SrO	47.37
Na <sub>2</sub> O	0.00
K <sub>2</sub> O	0.00
H <sub>2</sub> 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.