

**Jervisite****(Na, Ca, Fe<sup>2+</sup>)(Sc, Mg, Fe<sup>2+</sup>)Si<sub>2</sub>O<sub>6</sub>**

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**Crystal Data:** Monoclinic. *Point Group:* 2/m. As sprays of elongated platy crystals, < 1 mm.

**Physical Properties:** *Cleavage:* Perfect on {110}. *Hardness* = n.d. *D(meas.)* = n.d. *D(calc.)* = [3.31]

**Optical Properties:** *Semitransparent.* *Color:* Light green. *Luster:* Vitreous. *Optical Class:* Biaxial.  $\alpha = 1.663$   $\beta = \text{n.d.}$   $\gamma = 1.684$   $2V(\text{meas.}) = \text{n.d.}$

**Cell Data:** *Space Group:* C2/c.  $a = 9.853(11)$   $b = 9.042(10)$   $c = 5.312(7)$   
 $\beta = 106^\circ 37(7)'$   $Z = 4$

**X-ray Powder Pattern:** Baveno, Italy.

3.038 (s), 2.979 (m), 2.543 (m), 1.647 (m), 6.51 (w), 4.51 (w), 3.389 (w)

**Chemistry:**

	(1)	(2)
SiO <sub>2</sub>	50.42	54.59
TiO <sub>2</sub>	0.55	
Al <sub>2</sub> O <sub>3</sub>	0.42	
Sc <sub>2</sub> O <sub>3</sub>	18.48	31.33
FeO	8.59	
MnO	0.44	
MgO	2.80	
CaO	7.25	
Na <sub>2</sub> O	5.55	14.08
<b>Total</b>	<b>94.50</b>	<b>100.00</b>

(1) Baveno, Italy; by electron microprobe, average of multiple analyses; corresponds to (Na<sub>0.43</sub>Ca<sub>0.31</sub>Fe<sub>0.14</sub><sup>2+</sup>Mn<sub>0.01</sub>)<sub>Σ=0.89</sub>(Sc<sub>0.66</sub>Mg<sub>0.17</sub>Fe<sub>0.15</sub><sup>2+</sup>Al<sub>0.02</sub>Ti<sub>0.02</sub>)<sub>Σ=1.02</sub>Si<sub>2</sub>O<sub>6.02</sub>. (2) NaScSi<sub>2</sub>O<sub>6</sub>.

**Mineral Group:** Pyroxene group.

**Occurrence:** In miarolitic cavities in granite.

**Association:** Cascandite, quartz, orthoclase, albite.

**Distribution:** In the Diverio quarry, Mt. Mottarone, near Baveno, Piedmont, Italy.

**Name:** Honors William P. Jervis, Curator of the Museo Industriale Italiano di Torino, Torino, Italy.

**Type Material:** Municipal Museum of Natural History, Milan, Italy, 23270.

**References:** (1) Mellini, M., S. Merlino, P. Orlandi, and R. Rinaldi (1982) Cascandite and jervisite, two new scandium silicates from Baveno, Italy. *Amer. Mineral.*, 67, 599–603. (2) Hawthorne, F.C. and H.D. Grundy (1973) Refinement of the crystal structure of NaScSi<sub>2</sub>O<sub>6</sub>. *Acta Cryst.*, 29, 2615–2616.