

Jervisite**(Na, Ca, Fe²⁺)(Sc, Mg, Fe²⁺)Si₂O₆**

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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 ₂	50.42	54.59
TiO ₂	0.55	
Al ₂ O ₃	0.42	
Sc ₂ O ₃	18.48	31.33
FeO	8.59	
MnO	0.44	
MgO	2.80	
CaO	7.25	
Na ₂ O	5.55	14.08
Total	94.50	100.00

(1) Baveno, Italy; by electron microprobe, average of multiple analyses; corresponds to (Na_{0.43}Ca_{0.31}Fe_{0.14}²⁺Mn_{0.01})_{Σ=0.89}(Sc_{0.66}Mg_{0.17}Fe_{0.15}²⁺Al_{0.02}Ti_{0.02})_{Σ=1.02}Si₂O_{6.02}. (2) NaScSi₂O₆.

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 NaScSi₂O₆. *Acta Cryst.*, 29, 2615–2616.