

Cascandite**Ca(Sc, Fe²⁺)Si₃O₈(OH)**

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Crystal Data: Triclinic. *Point Group:* 1. As plates, to 0.2 mm, elongated along [100] and flattened || {001}; forms observed are {001}, {100}, {120}, and {5 $\bar{3}$ 0}.

Physical Properties: *Cleavage:* Good on {100} and {001}. *Hardness* = n.d.
D(meas.) = n.d. D(calc.) = [3.03]

Optical Properties: Transparent. *Color:* Pale pink. *Luster:* Vitreous.
Optical Class: Biaxial. $\alpha = 1.663$ on (001). $\beta = \text{n.d.}$ $\gamma = 1.684$ on (001). $2V(\text{meas.}) = \text{n.d.}$

Cell Data: *Space Group:* *P*1. $a = 9.791(8)$ $b = 10.420(9)$ $c = 7.076(6)$ $\alpha = 98.91(8)^\circ$
 $\beta = 102.63(8)^\circ$ $\gamma = 84.17(8)^\circ$ $Z = 2$

X-ray Powder Pattern: Baveno, Italy.

2.821 (s), 3.62 (m), 3.10 (m), 2.968 (m), 1.429 (m), 7.22 (w), 6.75 (w)

Chemistry:

	(1)
SiO ₂	51.83
TiO ₂	0.08
Al ₂ O ₃	0.11
Sc ₂ O ₃	14.74
FeO	4.50
MnO	2.32
MgO	0.20
CaO	16.83
Na ₂ O	0.06
H ₂ O	[2.59]
Total	[93.26]

(1) Baveno, Italy; by electron microprobe, H₂O calculated from stoichiometry.

Occurrence: In miarolitic cavities in granite.

Association: Quartz, orthoclase, albite, jervisite.

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

Name: For CALcium and SCANDium in the composition.

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) Mellini, M. and S. Merlino (1982) The crystal structure of cascandite, CaScSi₃O₈(OH). *Amer. Mineral.*, 67, 604–609.