

Stoppaniite



Crystal Data: Hexagonal. *Point Group:* 6/m 2/m 2/m. As hexagonal prismatic crystals to 0.5 mm.

Physical Properties: *Cleavage:* Parting on {001}. *Tenacity:* Brittle. *Fracture:* n.d. Hardness = n.d. D(meas.) = 2.79(3) D(calc.) = 2.817

Optical Properties: Transparent. *Color:* Light blue. *Streak:* White. *Luster:* Vitreous.

Optical Class: Uniaxial (-). $\epsilon = 1.619(3)$ $\omega = 1.625(3)$

Pleochroism: Weak, colorless to very light blue.

Cell Data: *Space Group:* P6/mcc. $a = 9.397(1)$ $c = 9.202(2)$ Z = 1

X-ray Powder Pattern: Capranica, Vico volcanic complex, Latium, Italy.
3.278 (vs), 8.12 (s), 2.903 (s), 4.00 (m), 2.553 (mw), 1.752 (mw), 4.60 (w)

Chemistry:	(1)
SiO ₂	59.13
Al ₂ O ₃	1.80
Fe ₂ O ₃	18.36
Sc ₂ O ₃	0.08
TiO ₂	0.11
MgO	2.21
MnO	0.41
SnO ₂	0.03
Na ₂ O	2.47
K ₂ O	0.08
Cs ₂ O	0.19
BeO	14.59
H ₂ O	[2.98]
Total	102.44

(1) Capranica, Vico volcanic complex, Latium, Italy; average electron microprobe analysis,
H₂O calculated; corresponding to
(Fe³⁺_{2.70}Mg_{0.64}Al_{0.42}Mn_{0.06}Ti_{0.02}Sc_{0.02})_{Σ=3.86}Be_{6.00}(Si_{11.60}Be_{0.88})_{Σ=12.48}O₃₆*2H₂O(Na_{0.94}Cs_{0.02}K_{0.02})_{Σ=0.98}.

Mineral Group: Beryl group.

Occurrence: In miarolitic cavities in syenitic volcanic ejecta.

Association: Biotite, quartz, sanidine, hematite, danburite, helvite, hellandite, allanite-(Ce).

Distribution: From Capranica, Vico volcanic complex, Latium, Italy.

Name: Honors Dr. Francesco Saverio Stoppani (b. 1947), an amateur mineral collector active in the volcanic regions of Latium.

Type Material: Museum of Mineralogy, University of Rome, Italy (MMUR-29900/1) and Natural History Museum, Paris, France (198.14).

References: (1) Della Ventura, G., P. Rossi, G.C. Parodi, A. Mottana, M. Raudsepp, and M. Prencipe (2000) Stoppaniite, (Fe,Al,Mg)₄(Be₆Si₁₂O₃₆)₄*(H₂O)₂(Na,□) a new mineral of the beryl group from Latium (Italy). Eur. J. Mineral., 12, 121-127. (2) (2000) Amer. Mineral., 85, 1845 (abs. ref. 1). (3) Ferraris, G., M. Prencipe, and P. Rossi (1998) Stoppaniite, a new member of the beryl group: crystal structure and crystal-chemical implications. Eur. J. Mineral., 10, 491-496. (4) (1999) Amer. Mineral., 84, 1687 (abs. ref. 3).