Stoppaniite $Fe^{3+}_2Be_3Si_6O_{18}\cdot H_2O$

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 (-). $\varepsilon = 1.619(3)$ $\omega = 1.625(3)$
Pleochroism: Weak, colorless to very light blue.

Cell Data: *Space Group*: *P*6/*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_2O_3	1.80
Fe_2O_3	18.36
Sc_2O_3	0.08
TiO_2	0.11
MgO	2.21
MnO	0.41
SnO_2	0.03
Na_2O	2.47
K_2O	0.08
Cs_2O	0.19
BeO	14.59
H_2O	[2.98]
Total	102.44

(1) Capranica, Vico volcanic complex, Latium, Italy; average electron microprobe analysis, H_2O calculated; corresponding to $(Fe^{3+}_{2.70}Mg_{0.64}Al_{0.42}Mn_{0.06}Ti_{0.02}Sc_{0.02})_{\Sigma=3.86}Be_{6.00}(Si_{11.60}Be_{0.88})_{\Sigma=12.48}O_{36}{*}2H_2O(Na_{0.94}Cs_{0.02}K_{0.02})_{\Sigma=0.98}$.

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, $(Fe,Al,Mg)_4(Be_6Si_{12}O_{36})*(H_2O)_2(Na,\square)$ 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).