

Crystal Data: Hexagonal. *Point Group:* 6/m 2/m 2/m. Hexagonal prisms, to 2 cm, commonly barrel-like and in subparallel aggregation.

Physical Properties: Hardness = 6.5–7 VHN = 851–897 D(meas.) = 2.77–2.85 D(calc.) = n.d. Electromagnetic.

Optical Properties: Semitransparent. *Color:* Light to dark sky-blue. *Optical Class:* Uniaxial (-). *Pleochroism:* O = pale greenish yellow; E = intense sky-blue. $\omega = 1.622\text{--}1.637$ $\epsilon = 1.602\text{--}1.622$

Cell Data: *Space Group:* P6/mcc. $a = 9.521(5)$ $c = 9.165(5)$ $Z = 2$

X-ray Powder Pattern: Synthetic Be₃(Sc_{1.75}Fe_{0.25}³⁺)_{Σ=2.00}Si₆O₁₈. 3.306 (100), 8.27 (89), 2.960 (75), 4.006 (48), 4.578 (24), 2.577 (17), 1.761 (15)

Chemistry:	(1)	(2)	(1)	(2)
SiO ₂	58.80	58.00	MgO	0.82
Al ₂ O ₃	0.25	0.80	Li ₂ O	0.00
Fe ₂ O ₃	2.21	5.70	Na ₂ O	2.82
Sc ₂ O ₃	14.44	14.50	K ₂ O	0.22
FeO	3.68		Rb ₂ O	0.037
MnO	1.58	1.43	Cs ₂ O	0.31
BeO	12.90	14.50	H ₂ O ⁺	2.60
			Total	100.67
				101.28

(1) Central Kazakhstan; corresponds to Be_{3.06}(Sc_{1.26}Fe_{0.31}²⁺Fe_{0.17}³⁺Mn_{0.13}Mg_{0.12}Al_{0.03})_{Σ=2.02}(Si_{5.93}Be_{0.07})_{Σ=6.00}O₁₈•0.87H₂O, with (Na_{0.55}K_{0.03}Cs_{0.01})_{Σ=0.59} in the channels. (2) Heftetjern, Norway; by electron microprobe, average of three analyses; total Fe as Fe₂O₃, Be and Li by AA on bulk sample; corresponds to Be_{3.1}(Sc_{1.24}Fe_{0.42}Mn_{0.12}Al_{0.10}Mg_{0.02})_{Σ=1.90}(Na_{0.30}Cs_{0.12}Li_{0.05}Rb_{0.02}K_{0.01})_{Σ=0.50}(Si_{5.7}Be_{0.3})_{Σ=6.00}O₁₈•0.36H₂O.

Occurrence: In miarolitic cavities in granite (Baveno, Italy); in alpine veins (Switzerland); in granite pegmatite (Heftetjern, Norway).

Association: Quartz, orthoclase, muscovite, laumontite, albite (Baveno, Italy); quartz, hematite, calcite, chlorite, albite, fluorite (Switzerland); beryl, bavenite (Heftetjern, Norway).

Distribution: From Baveno, Piedmont, Italy. In Switzerland, at Val Strem and elsewhere in Graubünden; on the Witenalp; at Wiler, Reusstal; and on Stollen Oberaar, Grimsel Pass. Near Heiligenblut, Carinthia, Austria. Large crystals from Heftetjern, Tørdal, Norway. At an undisclosed locality in central Kazakhstan. On Mts. Antero and White, Chaffee Co., Colorado, USA.

Name: To honor Alessandro E. Bazzi, discoverer of the material from Baveno, Italy.

Type Material: Municipal Museum of Natural History, Milan; University of Milan, Milan, Italy; The Natural History Museum, London, England, 1925,534; Natural History Museum, Paris, France, 115.132.

References: (1) Artini, E. (1915) Due minerali di Baveno contenenti terre rare: weibyeite e bazzite. Atti Rend. Accad. Lincei, 24, 313–319 (in Italian). (2) (1921) Mineral. Abs., 1, 204 (abs. ref. 1). (3) Bergerhoff, G. (1955) Über die Kristallstruktur des Bazzit und ihre Beziehungen zu der des Beryll. Tschermaks Mineral. Petrog. Mitt., 35, 410–421 (in German with English abs.). (4) Peyronel, G. (1956) The crystal structure of Baveno bazzite. Acta Cryst., 9, 181–186. (5) Chistyakova, M.B., V.A. Moleva, and Z.P. Razmanova (1966) Bazzite found for the first time in the USSR. Doklady Acad. Nauk SSSR, 169, 1421–1424 (in Russian). (6) (1967) Amer. Mineral., 52, 563–564 (abs. ref. 5). (7) Frondel, C. and J. Ito (1968) Synthesis of the scandium analogue of beryl. Amer. Mineral., 53, 943–953. (8) Juve, G. and S. Bergstøl (1990) Caesian bazzite in granite pegmatite in Tørdal, Telemark, Norway. Mineral. Petrol., 43, 131–136.

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