

Crystal Data: Tetragonal. *Point Group:* $4/m\ 2/m\ 2/m$. Crystals are pseudo-octahedral {011}, to 7 mm; may be intergrown with schiavinatoite.

Physical Properties: *Cleavage:* On {110} and {010}, distinct. *Fracture:* Subconchoidal. Hardness = 7–7.5 D(meas.) = 7.86(5) D(calc.) = 7.91

Optical Properties: Translucent. *Color:* Grayish pink. *Streak:* White. *Luster:* Adamantine. *Optical Class:* Uniaxial (+), high birefringence. $\omega = > 2.00$ $\epsilon = > 2.00$

Cell Data: *Space Group:* $I4_1/amd$. $a = 6.206(5)$ $c = 5.472(5)$ $Z = 4$

X-ray Powder Pattern: Manjaka, Madagascar; very close to schiavinatoite. 4.10 (100), 3.10 (71), 2.327 (71), 2.478 (50), 1.600 (50), 1.939 (35)

Chemistry:	(1)	(2)
B ₂ O ₃	[15.77]	16.44
Nb ₂ O ₅	21.73	31.38
Ta ₂ O ₅	63.95	52.18
Total	[101.45]	100.00

(1) Antsongombato, Madagascar; by electron microprobe, B₂O₃ calculated from stoichiometry; corresponds to (Ta_{0.64}Nb_{0.36})_{Σ=1.00}BO₄. The original X-ray fluorescence analysis of type material from Manjaka, Madagascar is stated to have shown Ta:Nb:Zr = 18:1:0.4. (2) (Ta, Nb)BO₄ with Ta:Nb = 1:1.

Occurrence: Very rare, in granite pegmatites.

Association: Elbaite, pollucite, manganoan apatite, lepidolite, quartz, albite (Manjaka, Madagascar); schiavinatoite, rhodizite, elbaite–liddicoatite, quartz, feldspar (Antsongombato, Madagascar).

Distribution: From Manjaka and Antsongombato, south of Betafo, Madagascar. In the Animikie Red Ace pegmatite, near Pine River, Florence Co., Wisconsin, USA.

Name: To honor Jean Béhier (1903–1965), French mineralogist, Geological Survey of Madagascar, who discovered the mineral.

Type Material: National Museum of Natural History, Washington, D.C., USA, 139602.

References: (1) Mrose, M.E. and H.J. Rose (1962) Behierite (Ta, Nb)BO₄, a new mineral from Manjaka, Madagascar. Geol. Soc. Amer., Annual Meeting Abs. with Prog., 235 (abs.). (2) (1962) Amer. Mineral., 47, 414 (abs. ref. 1). (3) Demartin, F., V. Diella, C.M. Gramaccioli, and F. Pezzotta (2001) Schiavinatoite, (Nb, Tb)BO₄, the Nb analogue of behierite. Eur. J. Mineral., 13, 159–165.