Ferruccite
NaBF₄

Crystal Data:  Orthorhombic.  Point Group: 2/m2/m2/m.  As minute tabular crystals.

Physical Properties:  Cleavage: {100}, {010}, and {001}.  Hardness = ~3
D(meas.) = 2.496  D(calc.) = 2.5075 (synthetic).  Soluble in H₂O, bitter and acid taste.

Optical Properties:  Translucent.  Color: Colorless to white; colorless in transmitted light.
Optical Class:  Biaxial (+) (synthetic).  Orientation: X = c; Y = b; Z = a.  α = 1.301
β = 1.3012  γ = 1.3068  2V(meas.) = 11°25′

Z = 4

3.39 (100), 3.41 (85), 2.31 (40), 2.84 (25), 3.82 (20), 2.14 (20), 2.03 (20)

Chemistry:  Analyses of relatively pure material are not available.

Occurrence:  As a fumarolic sublimate.

Association:  Sassolite, fluorborates, and fluorosilicates.

Distribution:  From Vesuvius, Campania, and on Vulcano, Aeolian Islands, Italy. At volcanoes
on the Kamchatka Peninsula, Russia.

Name:  Honors Professor Ferruccio Zambonini (1880–1932), Italian mineralogist, student of
fumarolic minerals.

Type Material:  University of Florence, Florence, Italy, 1974/l; National School of Mines, Paris,

References:  (1) Palache, C., H. Berman, and C. Frondel (1951) Dana’s system of mineralogy,
Cryst., 24, 1703–1704.