$\mathrm{Brizziite}$ $\mathrm{NaSbO_3}$

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Crystal Data: Hexagonal. *Point Group:* 3. Platy hexagonal crystals, to 0.2 mm, flattened on {0001}, in dense aggregates and incrustations. *Twinning:* On {0001}, polysynthetic, common.

Physical Properties: Cleavage: Perfect on $\{0001\}$. Tenacity: Flexible. Hardness = n.d. VHN = 41-70, 57 average (15 g load). D(meas.) = 4.8(2) D(calc.) = 4.95

Optical Properties: Transparent. Color: Colorless, light pink or yellow in aggregates.

Streak: White. Luster: Pearly.

Optical Class: Uniaxial (-). $\omega = [1.84]$ $\epsilon = 1.631$

Cell Data: Space Group: $R\overline{3}$. a = 5.301(1) c = 15.932(4) Z = 6

X-ray Powder Pattern: Cetine mine, Italy.

1.874(100), 2.365(69), 1.471(69), 2.650(67), 5.30(53), 3.00(50), 1.185(47)

Chemistry:

$$\begin{array}{cccc} & (1) & (2) \\ \mathrm{Sb_2O_5} & 83.28 & 83.92 \\ \mathrm{Na_2O} & 15.98 & 16.08 \\ \hline \mathrm{Total} & 99.26 & 100.00 \\ \end{array}$$

- (1) Cetine mine, Italy; by electron microprobe, average of 40 analyses on three grains.
- (2) $NaSbO_3$.

Occurrence: A weathering product of stibnite in an antimony deposit in highly silicified limestone.

Association: Stibiconite, mopungite, cetineite, sénarmontite.

Distribution: In the Cetine mine, 20 km southwest of Siena, Tuscany, Italy.

Name: Honors Dr. Giancarlo Brizzi (1936–1992), mineral collector who discovered the first specimens.

Type Material: University of Florence, Florence, Italy, 2037/RI.

References: (1) Olmi, F. and C. Sabelli (1994) Brizziite, NaSbO₃, a new mineral from the Cetine mine (Tuscany, Italy): description and crystal structure. Eur. J. Mineral., 6, 667–672. (2) (1995) Amer. Mineral., 80, 630 (abs. ref. 1).