

Poudretteite

$\text{KNa}_2\text{B}_3\text{Si}_{12}\text{O}_{30}$

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Crystal Data: Hexagonal. *Point Group:* $6/m\ 2/m\ 2/m$. As roughly equant, barrel-shaped prismatic crystals, deeply etched, to 5 mm.

Physical Properties: *Fracture:* Splintery to conchoidal. *Tenacity:* Brittle. Hardness = ~ 5
D(meas.) = 2.51(1) D(calc.) = 2.53

Optical Properties: Transparent. *Color:* Colorless to very pale pink. *Streak:* White.
Luster: Vitreous.
Optical Class: Uniaxial (+). $\omega = 1.516(1)$ $\epsilon = 1.532(1)$

Cell Data: *Space Group:* $P6/mcc$. $a = 10.239(1)$ $c = 13.484(3)$ $Z = 2$

X-ray Powder Pattern: Mont Saint-Hilaire, Canada.
5.13 (100), 3.253 (100), 2.815 (60), 2.686 (50), 2.956 (40), 1.818 (40), 6.74 (30)

| | |
|-------------------|------------------------------------|
| Chemistry: | (1) |
| | SiO ₂ 77.7 |
| | B ₂ O ₃ 11.4 |
| | BeO 0.0 |
| | Li ₂ O 0.0 |
| | Na ₂ O 6.2 |
| | K ₂ O 5.2 |
| | <hr/> |
| | Total 100.5 |

(1) Mont Saint-Hilaire, Canada; by electron microprobe; corresponds to $\text{K}_{1.00}(\text{Na}_{1.87}\text{K}_{0.04})_{\Sigma=1.91}\text{B}_{3.05}\text{Si}_{12.14}\text{O}_{30}$.

Mineral Group: Milarite group.

Occurrence: In marble xenoliths within nepheline syenite breccias in an intrusive alkalic gabbro-syenite complex.

Association: Pectolite, apophyllite, aegirine.

Distribution: From Mont Saint-Hilaire, Quebec, Canada.

Name: Honors the Poudrette family, operators of the quarry where type material was discovered.

Type Material: Canadian Museum of Nature, Ottawa, Canada, 51743 and 51791; National Museum of Natural History, Washington, D.C., USA, 163776.

References: (1) Grice, J.D., T.S. Ercit, J. Van Velthuisen, and P.J. Dunn (1987) Poudretteite, $\text{KNa}_2\text{B}_3\text{Si}_{12}\text{O}_{30}$, a new member of the osumilite group from Mont Saint-Hilaire, Quebec, and its crystal structure. *Can. Mineral.*, 25, 763–766. (2) (1988) *Amer. Mineral.*, 73, 1497 (abs. ref. 1).