

Crystal Data: Triclinic. *Point Group:* $\bar{1}$. As acicular crystals, elongated along [001] to 55 μ m; in radiating to loose, randomly-oriented aggregates. Crystals display {100}, {010}, and {001}.

Physical Properties: *Cleavage:* n.d. *Tenacity:* n.d. *Fracture:* n.d. *Hardness:* = n.d.
D(meas.) = n.d. D(calc.) = 2.79

Optical Properties: Transparent. *Color:* Colorless to pale green. *Streak:* White.
Luster: Vitreous.

Optical Class: Biaxial. $n_{\min} = 1.616(2)$ $n_{\max} = 1.636(2)$ *Pleochroism:* None. Positive elongation.

Cell Data: Space Group: $P\bar{1}$. $a = 6.894(1)$ $b = 7.632(2)$ $c = 11.017(2)$ $\alpha = 108.39(3)^\circ$
 $\beta = 99.03(3)^\circ$ $\gamma = 103.05(3)^\circ$ $Z = 2$

X-ray Powder Pattern: Poudrette quarry, La Vallée-du-Richelieu, Montérégie, Québec, Canada.
10.113 (100), 2.808 (50), 6.911 (16), 3.026 (15), 3.593 (13), 2.675 (12), 2.463 (12)

Chemistry:	(1)	(2)
Na ₂ O	7.34	7.24
CaO	0.29	
MnO	27.29	28.16
FeO	0.83	
SiO ₂	44.17	46.30
SO ₃	0.67	
B ₂ O ₃	[5.45]	5.69
H ₂ O	[12.16]	12.62
Total	98.20	100.00

(1) Poudrette quarry, La Vallée-du-Richelieu, Montérégie, Québec, Canada; average of 6 electron microprobe analyses supplemented by FTIR and Raman spectroscopy, H₂O and B₂O₃ calculated for charge balance; corresponds to Na_{1.04}(Mn_{1.69} \square _{0.24}Fe_{0.05}Ca_{0.02}) $\Sigma=2.00$ (Si_{2.96}S_{0.04}) $\Sigma=3.00$ (B_{0.70}Si_{0.30}) $\Sigma=1.00$ O₉(OH)₂ \cdot 2H₂O. (2) Na(Mn, \square)₂[Si₃(B,Si)O₉(OH)₂] \cdot 2H₂O.

Occurrence: A late-stage mineral likely formed under alkaline conditions in vugs in altered sodalite syenite.

Association: Aegirine, nepheline, sodalite, eudialyte-group minerals, analcime, natron, pyrrhotite, catapleiite, steedeite.

Distribution: From the Poudrette quarry, La Vallée-du-Richelieu, Montérégie (formerly Rouville County), Québec, Canada.

Name: Honors Dr. Gert Nolze (b. 1960), a crystallographer at the Federal Institute for Materials Research and Testing (BAM), Berlin, Germany, notably for his part in the development of the extensively used program Powdercell.

Type Material: Canadian Museum of Nature, Gatineau, Québec, Canada (CMNMC 86851).

References: (1) Haring, M.M.M. and A.M. McDonald (2017) Nolzeite, Na(Mn, \square)₂[Si₃(B,Si)O₉(OH)₂] \cdot 2H₂O, a new pyroxenoid mineral from Mont Saint-Hilaire, Québec, Canada. *Mineral. Mag.*, 81(1), 183-197. (2) (2017) *Amer. Mineral.*, 102, 1147 (abs. ref. 1).