

**Crystal Data:** Triclinic. *Point Group:*  $\bar{1}$ . As roundish plates, to 3 mm, dominated by {001}; as densely packed, randomly oriented aggregates.

**Physical Properties:** *Cleavage:* Perfect on {001}. *Fracture:* Splintery. *Tenacity:* Brittle, inelastic. Hardness = ~ 3 D(meas.) = 2.50(1) D(calc.) = 2.51

**Optical Properties:** Transparent. *Color:* Colorless. *Streak:* White. *Luster:* Pearly. Medium to strong, violet-blue fluorescence in MW UV; weak under SW; none under LW. *Optical Class:* Biaxial (-).  $\alpha = 1.522(1)$   $\beta = 1.528(1)$   $\gamma = 1.529(1)$   $2V(\text{meas.}) = 48(1)^\circ$   $2V(\text{calc.}) = 44(1)^\circ$  *Orientation:*  $X \approx c$ .

**Cell Data:** *Space Group:*  $P\bar{1}$ .  $a = 9.589(2)$   $b = 9.613(2)$   $c = 12.115(2)$   $\alpha = 96.62(2)^\circ$   $\beta = 92.95(2)^\circ$   $\gamma = 119.81(2)^\circ$   $Z = 2$

**X-ray Powder Pattern:** Poudrette Quarry, Mont Saint-Hilaire, Quebec, Canada. 2.888 (100), 11.987 (90), 5.968 (85), 2.967 (50), 3.972 (40), 2.981 (35), 4.142 (30)

<b>Chemistry:</b>	(1)
Na <sub>2</sub> O	11.28
K <sub>2</sub> O	0.70
CaO	15.00
SiO <sub>2</sub>	66.36
F	1.28
Cl	0.18
H <sub>2</sub> O	4.27
-O = F+Cl	0.58
Total	98.49

(1) Poudrette quarry, Mont Saint-Hilaire, Quebec, Canada; average of 18 electron microprobe analyses, IR and structure analysis confirms OH and H<sub>2</sub>O, H<sub>2</sub>O calculated, corresponding to  $(\text{Na}_{5.33}\text{Ca}_{0.91}\text{K}_{0.22})_{\Sigma=6.46}\text{Ca}_3\text{Si}_{16.16}\text{O}_{38}(\text{F}_{0.99}\text{OH}_{0.94}\text{Cl}_{0.07})_{\Sigma=2}\cdot 3\text{H}_2\text{O}$ .

**Mineral Group:** Reyerite-gyrolite group.

**Occurrence:** A late-stage low-temperature hydrothermal mineral.

**Association:** Microcline, clinoamphibole, narsarsukite.

**Distribution:** Poudrette quarry, Mont Saint-Hilaire, Quebec, Canada.

**Name:** Honors Professor Andre E. Lalonde, Department of Earth Sciences, University of Ottawa, Canada, for work on mica minerals and alkaline intrusions.

**Type Material:** Canadian Museum of Nature, Aylmer, Quebec, Canada (catalog no. CMNMC 83720).

**References:** (1) McDonald, A.M. and G.Y. Chao (2009) Lalondeite, a new hydrated Na–Ca fluorosilicate species from Mont Saint-Hilaire, Quebec: description and crystal structure. *Can. Mineral.*, 47, 181–191. (2) (2009) *Amer. Mineral.*, 94, 1497–1498 (abs. ref. 1).