

Crystal Data: Monoclinic. *Point Group:* 2/m. Crystals are bladed to blocky, to 2 mm, elongated on [100], flattened on {010}, and display {010}, {100} and {001}. As dense, radiating aggregates to 3 mm.

Physical Properties: *Cleavage:* Perfect on {010}. *Fracture:* Hackly to splintery. *Tenacity:* Brittle. Hardness = ~ 4 D(meas.) = n.d. D(calc.) = 2.40(1)

Optical Properties: Transparent to translucent. *Color:* Tan to white to colorless (zoned). *Streak:* White. *Luster:* Satiny to silky to sub-vitreous. *Optical Class:* Biaxial (+). $\alpha = 1.567(1)$ $\beta = 1.591(1)$ $\gamma = 1.618(1)$ 2V(meas.) = 87(1)° 2V(calc.) = 88(1)° *Orientation:* Y ^ c = 15° (in β obtuse); X = b; Z = a.

Cell Data: *Space Group:* C2/m. $a = 10.1839(5)$ $b = 15.8244(6)$ $c = 9.1327(7)$ $\beta = 104.463(2)^\circ$ Z = 2

X-ray Powder Pattern: Poudrette quarry, Mont Saint-Hilaire, Quebec, Canada. 7.913 (100), 8.835 (85), 3.514 (80), 6.849 (70), 3.426 (55), 4.336 (45), 5.526 (40)

Chemistry:	(1)	(2)
Na ₂ O	2.37	6.06
K ₂ O	2.88	
CaO	6.00	5.48
TiO ₂	14.44	15.62
ZrO ₂	1.11	
Nb ₂ O ₅	0.78	
SiO ₂	59.27	58.75
H ₂ O	[14.10]	14.09
Total	100.95	100.00

(1) Poudrette quarry, Mont Saint-Hilaire, Quebec, Canada; average of 21 electron microprobe analyses supplemented by FTIR and Raman spectroscopy, H₂O calculated; corresponding to (Na_{0.78}K_{0.62}□_{0.51}Ca_{0.09}) $\Sigma=2.00$ Ca(Ti_{1.85}Zr_{0.09}Nb_{0.06}) $\Sigma=2.00$ Si_{10.09}O₂₆·8H₂O.
(2) Na₂CaTi₂Si₁₀O₂₆·8H₂O

Mineral Group: Lemoynite group.

Occurrence: In metasomatically altered marble xenoliths in a breccia zone associated with an alkaline intrusive complex.

Association: Calcite, quartz, haineaultite, labuntsovite-Mn, lemoynite, chabazite, gmelinite-Na.

Distribution: From the Poudrette quarry (level 4), Mont Saint-Hilaire, La-Vallée-du-Richelieu RCM, Montérégie, Quebec, Canada.

Name: Honors Donald D. Hogarth (b. 1929), Professor Emeritus, Department of Earth Sciences, University of Ottawa, in recognition of his contributions to the mineralogy and geology of the Grenville Province in Quebec and Ontario, and to the nomenclature of the pyrochlore group.

Type Material: Canadian Museum of Nature, Ottawa, Ontario, Canada (CMNMC 86086).

References: (1) McDonald, A.M., P. Tarassoff, and G.Y. Chao (2015) Hogarthite, (Na,K)₂CaTi₂Si₁₀O₂₆·8H₂O, a new member of the lemoynite group from Mont Saint-Hilaire, Quebec: Characterization, crystal structure determination, and origin. *Can. Mineral.*, 53(1), 13-30.
(2) (2016) *Amer. Mineral.*, 101, 2358-2359 (abs. ref. 1).