Tundrite-(Nd) $Na_3(Nd, La)_4(Ti, Nb)_2(SiO_4)_2(CO_3)_3O_4(OH) \cdot 2H_2O$

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Crystal Data: [Triclinic] [by analogy to tundrite-(Ce)]. Point Group: [1.] As spherulitic masses up to 5 mm.

Physical Properties: Hardness = n.d. D(meas.) = 4.02 D(calc.) = n.d.

Optical Properties: Semitransparent. Color: [Brownish to greenish yellow.] Optical Class: Biaxial (+). $\alpha = 1.731$ $\beta = > 1.80$ $\gamma = \text{n.d.}$ 2V(meas.) = n.d.

Cell Data: Space Group: n.d. Z = n.d.

X-ray Powder Pattern: n.d.

Chemistry:

	(1)
SiO_2	10.98
$\overline{\text{TiO}_{2}}$	11.21
RE_2O_3	48.78
Fe_2O_3	1.00
Nb_2O_5	6.09
CaO	0.97
Na_2O	[7.08]
$\mathrm{H_2O^+}$	13.65
${\rm H_2O^-}$	0.24
Total	[100.00]

(1) Ilímaussaq intrusion, Greenland; Na₂O by difference, CO₂ presumably driven off with $\rm H_2O^+$; relative proportions of RE = La 24%, Ce 7.5%, Pr 12%, Nd 45%, Sm 6.6%, Eu 0.1%, Gd 4%, Tb 0.3%, Dy 0.5%.

Occurrence: In pegmatite veins associated with layered nepheline syenite.

Association: Microcline, arfvedsonite.

Distribution: In the Ilímaussaq intrusion, at Kringlerne, Kangerdluarssuk Plateau, southern Greenland.

Name: For its relation to tundrite (Ce), and its neodymium content.

Type Material: n.d.

References: (1) Semenov, E.I., M.E. Kazakova, and R.A. Aleksandrova (1967) The Lovozero minerals – nenadkevichite, gerasimovskite, and tundrite – from Ilímaussaq, South Greenland. Medd. Grønland, 181(5), 1–11. (2) (1968) Amer. Mineral., 53, 1780 (abs. ref. 1).