

**Crystal Data:** Hexagonal. *Point Group:*  $\bar{3} 2/m$ . As anhedral to subhedral microporous grains to 100  $\mu\text{m}$ .

**Physical Properties:** *Cleavage:* None. *Fracture:* Conchoidal. Hardness = 5-6 D(meas.) = ~2.89 D(calc.) = 2.95

**Optical Properties:** Transparent. *Color:* Colorless. *Streak:* White. *Luster:* Vitreous. *Optical Class:* Uniaxial (-).  $\omega = 1.563(3)$   $\epsilon = 1.555(3)$

**Cell Data:** *Space Group:*  $R\bar{3}m$ .  $a = 10.345(2)$   $c = 13.103(2)$   $Z = 3$

**X-ray Powder Pattern:** n.d.

<b>Chemistry:</b>	(1)
SiO <sub>2</sub>	52.4
Na <sub>2</sub> O	27.4
ZrO <sub>2</sub>	11.9
Y <sub>2</sub> O <sub>3</sub>	2.12
SnO <sub>2</sub>	0.91
FeO	1.35
MnO	1.70
CaO	1.34
UO <sub>2</sub>	0.59
TiO <sub>2</sub>	0.17
<u>K<sub>2</sub>O</u>	<u>0.04</u>
Total	99.92

(1) Kvanefjeld prospect, Ilímaussaq alkaline complex, Southern Greenland; by electron microprobe, average of 6 analyses, O/OH adjusted for charge balance; corresponding to Na<sub>6.08</sub>Ca<sub>0.16</sub>Mn<sub>0.17</sub>Fe<sub>0.13</sub>Zr<sub>0.67</sub>Y<sub>0.13</sub>Sn<sub>0.04</sub>U<sub>0.02</sub>Ti<sub>0.01</sub>Si<sub>6</sub>O<sub>16.35</sub>(OH)<sub>1.65</sub>.

**Mineral Group:** Lovozerite group.

**Occurrence:** In lujavrite layers of nepheline syenite in a layered alkaline igneous intrusion. Possibly formed as an alteration product of steenstrupine-(Ce).

**Association:** Albite, microcline, arfvedsonite, monazite, vitusite-(Ce), aegirine, analcime, naujakasite, steenstrupine-(Ce).

**Distribution:** From the Kvanefjeld prospect, 8 km east of Narsak, Ilímaussaq alkaline complex, Southern Greenland.

**Name:** Honors Roger *Townend* (b. 1938), a consulting mineralogist, Perth, Western Australia, for his contributions to mineralogy, particularly related to the Ilímaussaq deposit, Southern Greenland.

**Type Material:** Museum Victoria, Melbourne, Victoria, Australia (M51188).

**References:** (1) Grey, I.E., C.M. Macrae, W.G. Mumme, and A. Pring (2010) Townendite, Na<sub>8</sub>ZrSi<sub>6</sub>O<sub>18</sub>, a new uranium-bearing lovozerite group mineral from the Ilímaussaq alkaline complex, Southern Greenland. *Amer. Mineral.*, 95, 646-650.