

**Crystal Data:** Hexagonal. *Point Group:*  $\bar{3} 2/m$ . As acicular prismatic crystals, displaying  $\{10\bar{1} 0\}$  and  $\{0001\}$ , that occur in either finely or coarsely fibrous aggregates to 3 cm.

**Physical Properties:** *Cleavage:* Good on  $\{10\bar{1} 0\}$ . *Fracture:* Uneven to conchoidal.  
*Tenacity:* Brittle.  $D(\text{meas.}) = 2.59(1)$   $D(\text{calc.}) = 2.577$  *Hardness* = 6

**Optical Properties:** Translucent. *Color:* White to colorless. *Streak:* White.  
*Luster:* Vitreous to silky.  
*Optical Class:* Uniaxial (+).  $\omega = 1.517(1)$   $\epsilon = 1.521(1)$

**Cell Data:** *Space Group:*  $P\bar{3} m1$ .  $a = 14.3865(9)$   $c = 4.8733(4)$   $Z = 1$

**X-ray Powder Pattern:** Vesle Arøya island, Langesundsfjord district, Larvik, Vestfold, Norway. 3.161 (100), 3.386 (70), 2.466 (31), 4.710 (29), 4.153 (21), 2.217 (20), 2.398 (19)

<b>Chemistry:</b>	(1)
Na <sub>2</sub> O	13.38
K <sub>2</sub> O	3.13
Al <sub>2</sub> O <sub>3</sub>	11.08
SiO <sub>2</sub>	66.03
F	2.70
BeO	[3.65]
<u>-O=F</u>	<u>1.14</u>
Total	98.83

(1) Vesle Arøya island, Vestfold, Norway; average of 5 electron microprobe analyses supplemented by IR spectroscopy, BeO calculated from structure analysis; corresponds to  $\text{K}_{0.91}\text{Na}_{5.92}[\text{Be}_2(\text{Si}_{15.07}\text{Al}_{2.98})_{\Sigma=18.05}]\text{O}_{39}(\text{F}_{1.95}\text{O}_{0.05})$ .

**Mineral Group:** Leifite group.

**Occurrence:** A late-stage hydrothermal mineral in a dike of nepheline syenite pegmatite.

**Association:** Microcline, zircon, aegirine, polyolithionite, albite, eudialyte, catapleite, pyrochlore.

**Distribution:** From Vesle Arøya island, Langesundsfjord district, Larvik, Vestfold, Norway; also from Tugtup Agtakorfia, Ilimaussaq, South Greenland, and in the Sodovyi crosscut, Kukisvumchorr, Khibiny and at Alluaiv Mountain, Lovozero Complex, Kola Peninsula, Russia.

**Name:** Honors the Viking *Eirik* Raude (Eric the Red, born ~950, died ~1003), Norwegian emigrant, the discoverer of Greenland, and father of Leiv (Leif) Eirikson, for whom leifite was named.

**Type Material:** Department of Geology, Natural History Museum, University of Oslo, Norway (# 41773).

**References:** (1) Larsen, A.O., U. Kolitsch, R.A. Gault, and G. Giester (2010) Eirikite, a new mineral species of the leifite group from the Langesundsfjord district, Norway. *Eur. J. Mineral.*, 22, 875-880. (2) (2011) *Amer. Mineral.*, 96, 940-941 (abs. ref. 1).