

Crystal Data: Orthorhombic, pseudohexagonal. *Point Group:* $2/m\ 2/m\ 2/m$. Euhedral crystals, tabular || {010} and elongated along [100], to 2 mm; in pseudohexagonal twins; as equidimensional grains. *Twinning:* Interpenetration triplets with {110} as twin plane.

Physical Properties: Hardness = 5–6 $D(\text{meas.}) = 2.76(7)$ $D(\text{calc.}) = 2.81$

Optical Properties: Transparent. *Color:* Colorless to creamy pinkish. *Luster:* Vitreous. *Optical Class:* Biaxial (–). *Orientation:* $X = b$; $Y = a$; $Z = c$. *Dispersion:* $r > v$, very strong. $\alpha = 1.596(1)$ $\beta = 1.597(1)$ $\gamma = 1.597(1)$ $2V(\text{meas.}) = 0^\circ\text{--}30^\circ$

Cell Data: *Space Group:* $Acam$. $a = 10.072(3)$ $b = 17.337(6)$ $c = 14.004(3)$ $Z = 8$

X-ray Powder Pattern: Island of Igdlutalik, Greenland.

4.352 (100), 3.209 (80), 3.501 (70), 3.090 (70), 4.087 (60), 3.192 (60), 2.875 (60)

Chemistry:

	(1)
SiO_2	70.75
TiO_2	0.55
ZrO_2	0.10
Al_2O_3	1.34
Fe_2O_3	12.13
MnO	0.03
MgO	0.10
CaO	0.00
Li_2O	2.78
Na_2O	11.98
K_2O	0.00
Total	99.76

(1) Island of Igdlutalik, Greenland; by electron microprobe, Li by flame photometry; corresponds to $\text{Na}_{3.96}\text{Li}_{1.91}(\text{Fe}_{1.56}^{3+}\text{Al}_{0.27}\text{Ti}_{0.07}\text{Mg}_{0.03}\text{Zr}_{0.01})_{\Sigma=1.94}\text{Si}_{12.05}\text{O}_{30}$.

Mineral Group: Milarite group.

Occurrence: A minor constituent of a peralkalic trachyte dike, in flow-banded aegirine-albite-rich layers.

Association: Albite, aegirine, quartz, riebeckite, micas, zircon, pectolite, apatite, calcite, titanian narsarsukite, zincian nordite, thorite, opaque oxides.

Distribution: On the Island of Igdlutalik, Julianehåb district, Greenland.

Name: To honor Dr. Charles Henry Emeleus, University of Durham, Durham, England.

Type Material: University of Copenhagen, Copenhagen, Denmark; Department of Geology, Edinburgh University, Edinburgh, Scotland; The Natural History Museum, London, England, 1987,118; National Museum of Natural History, Washington, D.C., USA, 146464.

References: (1) Upton, B.G.J., P.G. Hill, O. Johnsen, and O.V. Petersen (1978) Emeleusite: a new $\text{LiNaFe}^{\text{III}}$ silicate from south Greenland. *Mineral. Mag.*, 42, 31–34. (2) (1979) *Amer. Mineral.*, 64, 242 (abs. ref. 1). (3) Johnsen, O., K. Nielsen, and I. Sotofte (1978) The crystal structure of emeleusite, a novel example of sechser-doppelkette. *Zeits. Krist.*, 147, 297–306.