

**Crystal Data:** Monoclinic. *Point Group:* 2/*m*. Prismatic crystals, showing {110}, with blunt to steep terminations, to 35 cm, striated lengthwise, can be bent or twisted. In sprays of acicular crystals, fibrous, in radial concretions. *Twinning:* Simple and lamellar twinning common on {100}.

**Physical Properties:** *Cleavage:* Good on {110}, (110) ∧ (1 $\bar{1}$ 0) ~87°; parting on {100}. *Fracture:* Uneven. *Tenacity:* Brittle. Hardness = 6 D(meas.) = 3.50–3.60 D(calc.) = 3.576

**Optical Properties:** Translucent to opaque. *Color:* Dark green to greenish black, reddish brown, black; bright green to yellow-green in thin section. *Streak:* Pale yellowish gray.

*Luster:* Vitreous to slightly resinous.

*Optical Class:* Biaxial (-); varieties rich in Ca, Mg, Fe<sup>2+</sup> are (+). *Pleochroism:* X = emerald-green, deep green; Y = grass-green, deep green, yellow; Z = brownish green, green, yellowish brown, yellow. *Orientation:* Y = b; X ∧ c = -10° to 12°; Z ∧ a = 6°–28°. *Dispersion:* r > v, moderate to strong. *Absorption:* X > Y > Z. α = 1.722–1.776 β = 1.780–1.820 γ = 1.795–1.836 2V(meas.) = 60°–70°

**Cell Data:** *Space Group:* C2/c (synthetic). a = 9.658 b = 8.795 c = 5.294 β = 107.42° Z = 4

**X-ray Powder Pattern:** Narssârssuk, Greenland.

2.900 (100), 6.369 (90), 4.416 (80), 2.983 (70), 2.4701 (60), 1.7293 (60), 1.3975 (60)

**Chemistry:**

	(1)		(1)
SiO <sub>2</sub>	51.35	CaO	1.25
TiO <sub>2</sub>	1.10	Na <sub>2</sub> O	12.66
Al <sub>2</sub> O <sub>3</sub>	2.15	K <sub>2</sub> O	0.15
Fe <sub>2</sub> O <sub>3</sub>	28.66	H <sub>2</sub> O <sup>+</sup>	0.12
FeO	2.24	H <sub>2</sub> O <sup>-</sup>	0.17
MgO	0.10	Total	99.95

(1) Itapirapurã, São Paulo, Brazil; corresponds to (Na<sub>0.94</sub>Ca<sub>0.02</sub>K<sub>0.01</sub>)<sub>Σ=0.97</sub>(Fe<sub>0.83</sub><sup>3+</sup>Fe<sub>0.07</sub><sup>2+</sup>Al<sub>0.07</sub>Ti<sub>0.03</sub>Mg<sub>0.01</sub>)<sub>Σ=1.01</sub>(Si<sub>1.98</sub>Al<sub>0.02</sub>)<sub>Σ=2.00</sub>O<sub>6</sub>.

**Mineral Group:** Pyroxene group.

**Occurrence:** Common in alkalic igneous rocks, carbonatites, and pegmatites. From regionally metamorphosed schists, gneisses, and iron formations; in blueschist facies rocks, and from sodium metasomatism in granulites. An authigenic mineral in some shales and marls.

**Association:** Potassic feldspar, nepheline, riebeckite, arfvedsonite, aenigmatite, astrophyllite, catapleiite, eudialyte, sérandite, apophyllite.

**Distribution:** Some localities for good crystals are: in Norway, at Rundemyr, near Kongsberg; from Skaadøe, near Brevik; on Låven and other islands, Langesundsfjord; and at Drammen and Arendal. In the Alnö complex, Sweden. At Huesca, Huesca Province, Spain. From the Lovozero and Khibiny massifs, Kola Peninsula, Russia. At Narssârssuk, Greenland. From Oldonyo Dili, Tanzania. Large crystals from Mt. Malosa, Zomba district, Malawi. In the USA, from Pitcairn, Russell, and LaSalle, St. Lawrence Co., and at Natural Bridge, Jefferson Co., New York; at Magnet Cove, Hot Spring Co., and from Granite Mountain, near Little Rock, Pulaski Co., Arkansas; in the Bear Paw Mountains, Hill Co., Montana. Large crystals from Mont Saint-Hilaire, Quebec, Canada.

**Name:** From *Ægir*, the Scandinavian sea-god, as first described from Norway.

**References:** (1) Dana, E.S. (1892) Dana's system of mineralogy, (6th edition), 364–366.

(2) Deer, W.A., R.A. Howie, and J. Zussman (1978) Rock-forming minerals, (2nd edition),

v. 2A, single-chain silicates, 482–519. (3) Frondel, C. and C. Klein (1965) Ureyite [kosmochlor], NaCrSi<sub>2</sub>O<sub>6</sub>; a new meteoritic pyroxene. Science, 149, 742–744.

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