

Crystal Data: Monoclinic. *Point Group:* $2/m$. Crystals are well-formed, elongated along [010], to 2 mm. *Twinning:* Complex penetration twinning, the composition plane of which includes [010]; they display characteristic rhombic cross sections showing crossed “bow tie” twins under crossed nicols.

Physical Properties: *Cleavage:* Perfect on {100}; poor on {010} and {001}. Hardness = n.d. D(meas.) = n.d. D(calc.) = 2.94

Optical Properties: Translucent. *Color:* [White]; colorless in thin section. *Optical Class:* Biaxial (-). *Orientation:* $Y = b$; $Z \wedge c \simeq 16^\circ$. $\alpha = 1.634$ – 1.635 $\beta = 1.646$ $\gamma = 1.642$ – 1.648 $2V(\text{meas.}) = 26(2)^\circ$ $2V(\text{calc.}) = 38^\circ$

Cell Data: *Space Group:* $P2_1/m$. $a = 6.807$ $b = 15.459$ $c = 6.811$ $\beta = 97.76^\circ$ $Z = 4$

X-ray Powder Pattern: Killala Bay, Ireland.
2.824 (100), 3.03 (80), 2.724 (60), 2.275 (45), 2.224 (45), 1.413 (40), 1.688 (35)

Chemistry:	(1)	(2)
SiO ₂	39.8	39.22
CaO	57.0	54.90
H ₂ O	[3.2]	5.88
Total	[100.0]	100.00

(1) Killala Bay, Ireland; by electron microprobe, H₂O by difference, MgO, FeO, and Al₂O₃ each < 0.1%. (2) Ca₃Si₂O₇•H₂O.

Occurrence: A secondary mineral in cavities and veins in hydrothermally altered and thermally metamorphosed limestones.

Association: Calcite, afwillite, spurrite, wollastonite (Killala Bay, Ireland); larnite, magnetite, perovskite, spinel, spurrite (Carneal, Ireland).

Distribution: From near Inishcrone, along the east shore of Killala Bay, Co. Sligo, and at Carneal, Co. Antrim, Ireland. In Turkey, from the Güneyce-İkizdere region, Trabzon Province.

Name: For the locality at Killala Bay, Ireland.

Type Material: Ulster Museum, Belfast, Ireland; The Natural History Museum, London, England, 1973,484; National Museum of Natural History, Washington, D.C., USA, 128672.

References: (1) Nawaz, R. (1974) Killalaite, a new mineral from Co. Sligo, Ireland. Mineral. Mag., 39, 544–548. (2) (1974) Amer. Mineral., 59, 1331 (abs. ref. 1). (3) Nawaz, R. (1977) A second occurrence of killalaite. Mineral. Mag., 41, 546–548. (4) Taylor, H.F.W. (1977) The crystal structure of killalaite. Mineral. Mag., 41, 363–369. (5) Sarp, H., J. Deferne, and E. Sarman (1982) Second occurrence of killalaite in a skarn from the Güneyce-Ikizdere region (eastern Pontids, Turkey). Arch. Sci., 35(3), 275–278. (6) (1983) Chem. Abs., 98, 188 (abs. ref. 5).