

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:* $Y = b$; $Z \wedge c \simeq 16^\circ$. $\alpha = 1.634\text{--}1.635$ $\beta = 1.646$ $\gamma = 1.642\text{--}1.648$ $2V(\text{meas.}) = 26(2)^\circ$ $2V(\text{calc.}) = 38^\circ$

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, aflowillite, 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).