

Earlandite

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Crystal Data: Monoclinic (synthetic). *Point Group:* n.d. As warty fine-grained nodules, to ~1.5 mm.

Physical Properties: Hardness = n.d. D(meas.) = 1.80–1.95 D(calc.) = 1.96

Optical Properties: Semitransparent. *Color:* White to pale yellow.

Optical Class: Biaxial (+). $\alpha = 1.515$ $\beta = 1.530$ $\gamma = 1.580$ $2V(\text{meas.}) = 60^\circ$

Cell Data: *Space Group:* n.d. $a = 30.94$ $b = 5.93$ $c = 10.56$ $\beta = 93^\circ 44'$ $Z = 4$

X-ray Powder Pattern: Synthetic. (ICDD 28-2003).

15.5 (100), 7.7 (50), 5.2 (35), 3.09 (6), 8.5 (4), 6.4 (4), 4.74 (4)

Chemistry:

	(1)	(2)
CaO	28.63	29.49
H	3.48	3.18
C	24.01	25.26
O	[43.88]	42.07
Total	100.00	100.00

(1) Weddell Sea, Antarctica; identity of natural and synthetic material proved by X-ray diffraction. (2) Ca₃(C₆H₅O₇)₂•4H₂O.

Occurrence: In unconsolidated ocean floor sediment at 2580 m depth.

Association: Quartz.

Distribution: From the Weddell Sea, near Antarctica.

Name: Honors Arthur Earland (1866–1958), English oceanographer.

Type Material: The Natural History Museum, London, England, 1936,978–1936,979; Harvard University, Cambridge, Massachusetts, 134573; National Museum of Natural History, Washington, D.C., USA, 105859, 162618.

References: (1) Palache, C., H. Berman, and C. Frondel (1951) Dana's system of mineralogy, (7th edition), v. II, 1105–1106. (2) Pogainis, E.M. and E.H. Shaw (1957) The unit cell dimensions of tricalcium citrate tetrahydrate. Proc. South Dakota Acad. Sci., 36, 56–59.