

**Crystal Data:** Hexagonal. *Point Group:*  $\bar{3} 2/m$ . Forms a fine grained powder.

**Physical Properties:** *Cleavage:* n.d. *Fracture:* n.d. *Tenacity:* n.d. *Hardness:* = n.d.  
D(meas.) = n.d. D(calc.) = 3.184

**Optical Properties:** Translucent. *Color:* White to grayish yellow. *Streak:* n.d.  
*Luster:* n.d.  
*Optical Class:* Uniaxial (+).  $\omega = 1.3765$   $\varepsilon = 1.3770$  [Synthetic AlF<sub>3</sub>]

**Cell Data:** *Space Group:*  $R\bar{3}c$ .  $a = 4.9817(4)$   $c = 12.387(1)$   $Z = 6$

**X-ray Powder Pattern:** Eldfell volcano, Heimaey Island, Vestmannaeyjar archipelago, Iceland.  
3.54 (100), 1.771 (20), 1.59 (15), 2.131 (13), 1.574 (10), 2.06 (8), 1.61(8)

Chemistry:	(1)	(2)
Al	31.70	32.13
F	58.41	67.87
O	9.22	
Total	99.33	100.00

(1) Eldfell volcano, Heimaey Island, Iceland; average of 5 electron microprobe analyses; corresponding to Al(F<sub>2.62</sub>(OH)<sub>0.49</sub>)<sub>Σ=3.11</sub>. (2) AlF<sub>3</sub>.

**Occurrence:** As sublimate encrustations deposited at 90 °C close to the surface of fumarole vents.

**Association:** Anhydrite, bassanite, gypsum, jarosite, anatase, hematite, opal, ralstonite, jacobssonite, meniaylovite.

**Distribution:** From the Eldfell volcano, Heimaey Island, Vestmannaeyjar archipelago, Iceland; also reported from Mount Erebus, Antarctica.

**Name:** Honors Niels Oskarsson (b. 1944), a prominent Icelandic volcanologist, in recognition of his work on Icelandic fumaroles.

**Type Material:** Icelandic Institute of Natural History, Gardabaer, Iceland (NI 24489), and the mineral collection, Natural History Museum of Denmark, Copenhagen (# 2012.112, 2012.113, 2012.114).

**References:** (1) Jacobsen, M.J., T. Balić-Žunić, D. Mitolo, A. Katerinopoulou, A. Garavelli, and S.P. Jacobsson (2014) Oskarssonite, AlF<sub>3</sub>, a new fumarolic mineral from Eldfell volcano, Heimaey, Iceland. *Mineral. Mag.*, 78(1), 215-222. (2) (2014) *Amer. Mineral.*, 99, 1809-1810 (abs. ref. 1).