

**Crystal Data:** Cubic. *Point Group:* 23. Euhedral crystals to 20 μm display {100}, {110}, and {111}.

**Physical Properties:** *Cleavage:* n.d. *Fracture:* n.d. *Tenacity:* n.d. *Hardness:* = n.d. *D(calc.):* = 2.974

**Optical Properties:** Transparent. *Color:* Colorless to pale yellow. *Streak:* n.d. *Luster:* n.d. *Optical Class:* n.d. *n(calc.):* = 1.357

**Cell Data:** Space Group: *I*2<sub>1</sub>3. *a* = 10.264(1) *Z* = 4

**X-ray Powder Pattern:** Hekla volcano, Iceland.  
2.95 (100), 2.009 (98), 1.811 (84), 2.184 (78), 4.18 (76), 1.871 (75), 3.23 (68)

Chemistry:	(1)	(2)
Na		9.46
Ca		24.73
Al		11.10
F		54.71
Total		100.00

(1) SEM-EDS analyses, no weight percentage data presented; corresponds to Na<sub>2.01</sub>Ca<sub>2.82</sub>Al<sub>2.17</sub>F<sub>14.02</sub> (Eldfell) and (Na<sub>1.47</sub>K<sub>0.09</sub>)<sub>Σ=1.56</sub>Ca<sub>3.25</sub>Al<sub>2.19</sub>F<sub>14.33</sub> (Vesuvius). (2) Na<sub>2</sub>Ca<sub>3</sub>Al<sub>2</sub>F<sub>14</sub>.

**Occurrence:** In fumarolic sublimates.

**Association:** Ralstonite, hieratite, knasibfite, matteuccite, avogadrite, mallardite (Vesuvius); jakobssonite, anhydrite, leonardsenite, ralstonite, jarosite, meniaylovite (Eldfell); ralstonite, hematite, jacobssonite, leonardsenite, heklaite, mallardite, opal, fluorite (Hekla).

**Distribution:** From Eldfell and Hekla volcanoes and fumaroles at Fimmvörduhals, Iceland and from Vesuvius volcano, Italy.

**Name:** Honors French author Jules Verne (1828-1905), for his promotion of science. His *Voyage au center de la Terre* (1864), describes a journey through Earth's underground started through Snæfell crater in Iceland and finished by ejecting the travelers with eruption of Stromboli in Italy.

**Type Material:** Icelandic Institute of Natural History, Garðabær, Iceland (NI 15509 and NI 12256) and the Department of Earth and Geo-Environmental Sciences, University of Bari, Italy.

**References:** (1) Balić-Žunić, T., A. Garavelli, D. Pinto, and D. Mitolo (2018) Verneite, Na<sub>2</sub>Ca<sub>3</sub>Al<sub>2</sub>F<sub>14</sub>, a new aluminum fluoride mineral from Icelandic and Vesuvius Fumaroles. *Minerals*, 8(12), 553. (2) (2020) *Amer. Mineral.*, 105(8), 1284 (abs. ref. 1).