

Crystal Data: Isometric. *Point Group:* $\bar{4}3m$. As equant crystals dominated by {211}, {110} and {310} to 0.2 mm.

Physical Properties: *Cleavage:* None. *Tenacity:* Brittle. *Fracture:* n.d. *Hardness:* = n.d.
D(meas.) = 2.62(1) D(calc.) = 2.644

Optical Properties: Transparent. *Color:* Colorless to white. *Streak:* White. *Luster:* Vitreous.
Optical Class: Isotropic. $n = 1.51(1)$

Cell Data: *Space Group:* $\bar{I}43d$. $a = 15.882(3)$ $Z = 4$

X-ray Powder Pattern: La Fossa crater, Vulcano, Aeolian Islands, Italy.
2.807 (100), 2.570 (37), 1.714 (29), 3.384 (27), 3.113 (26), 2.161 (15), 2.018 (15)

Chemistry:	(1)
Na ₂ O	39.12
FeO	4.18
MgO	0.12
SO ₃	49.91
Cl	6.81
<u>-O=Cl</u>	<u>1.54</u>
Total	98.60

(1) La Fossa crater, Vulcano, Italy; average of 8 electron microprobe analyses; corresponding to Na_{20.42}(Fe²⁺_{0.94}Mg_{0.05})_{Σ=0.99}S_{10.08}O_{39.89}Cl_{3.11}.

Polymorphism & Series: Forms a series with delrioite; dimorphous with rossite.

Occurrence: As encrustations on pyroclastic breccia in volcanic fumaroles; also reported as a secondary mineral (Slovenia).

Association: Sassolite, adranosite (Italy); metasideronatriite-2M (Slovenia).

Distribution: From La Fossa crater, Vulcano, Aeolian Islands, Italy; also from Mežica, Republic of Slovenia.

Name: As the iron (Fe)-dominant analog of d'ansite.

Type Material: Department of Chemistry, University of Milan, Italy (# 2011-02).

References: (1) Demartin, F., I. Campostrini, C. Castellano, C.M. Gramaccioli, and M. Russo (2012) D'ansite-(Mn), Na₂₁Mn²⁺(SO₄)₁₀Cl₃ and d'ansite-(Fe), Na₂₁Fe²⁺(SO₄)₁₀Cl₃, two new minerals from volcanic fumaroles. *Mineral. Mag.*, 76(7), 2773-2783. (2) (2014) *Amer. Mineral.*, 99, 2438-2439 (abs. ref. 1).