

**Crystal Data:** Isometric. *Point Group:*  $\bar{4}3m$ . As well-formed tristetrahedral crystals to 0.2 mm.

**Physical Properties:** *Cleavage:* None. *Tenacity:* Brittle. *Fracture:* n.d. *Hardness* = n.d.  
D(meas.) = n.d. D(calc.) = 2.610

**Optical Properties:** Transparent. *Color:* Colorless. *Streak:* White. *Luster:* Vitreous.  
*Optical Class:* Isotropic.  $n = 1.50(1)$

**Cell Data:** *Space Group:*  $I\bar{4}3d$ .  $a = 15.9291(9)$   $Z = 4$

**X-ray Powder Pattern:** Calculated pattern.

2.816 (100), 3.396 (95), 3.124 (45), 2.584 (38), 3.982 (35), 4.257 (30), 2.519 (25)

<b>Chemistry:</b>	(1)
Na <sub>2</sub> O	39.37
MnO	3.46
MgO	0.13
SO <sub>3</sub>	49.99
Cl	6.36
<u>-O=Cl</u>	<u>1.14</u>
Total	97.87

(1) Mt. Vesuvius, Naples, Italy; average of 6 electron microprobe analyses; corresponding to Na<sub>20.61</sub>(Mn<sup>2+</sup><sub>0.79</sub>Mg<sub>0.05</sub>)<sub>Σ=0.84</sub>S<sub>10.13</sub>O<sub>40.09</sub>Cl<sub>2.91</sub>.

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

**Occurrence:** As encrustations on pyroclastic breccia in volcanic fumaroles.

**Association:** Halite, apthitalite.

**Distribution:** From Mt. Vesuvius, Naples, Italy.

**Name:** As the manganese (Mn)-dominant analog of d'ansite.

**Type Material:** Mineral collections of the Vesuvius Observatory, Naples, Italy (OV128).

**References:** (1) Demartin, F., I. Campostrini, C. Castellano, C.M. Gramaccioli, and M. Russo (2012) D'ansite-(Mn), Na<sub>21</sub>Mn<sup>2+</sup>(SO<sub>4</sub>)<sub>10</sub>Cl<sub>3</sub> and d'ansite-(Fe), Na<sub>21</sub>Fe<sup>2+</sup>(SO<sub>4</sub>)<sub>10</sub>Cl<sub>3</sub>, two new minerals from volcanic fumaroles. *Mineral. Mag.*, 76(7), 2773-2783. (2) (2014) *Amer. Mineral.*, 99, 2438-2439 (abs. ref. 1).