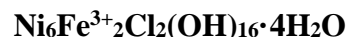


**Droninoite****Crystal Data:** Hexagonal. *Point Group:*  $\bar{3} 2/m, 3m$ , or  $32.$  As grains <1  $\mu\text{m}$ ; earthy aggregates.**Physical Properties:** *Cleavage:* None observed. *Fracture:* n.d. *Tenacity:* n.d.  
Hardness = 1-1.5 D(meas.) = n.d. D(calc.) = 2.857**Optical Properties:** Earthy. *Color:* Dark green to brown, dark gray-green. *Streak:* n.d.  
*Luster:* n.d.  
*Optical Class:*  $n(\text{average}) = 1.72(1)$  Nonpleochroic.**Cell Data:** *Space Group:*  $R\bar{3} m, R3m$ , or  $R32.$   $a = 6.206(2)$   $c = 46.184(18)$   $Z = 6$ **X-ray Powder Pattern:** Dronino iron meteorite.  
7.76 (100), 3.88 (40), 2.64 (25), 1.965 (15), 1.546 (10), 1.536 (10), 1.337 (10b)

<b>Chemistry:</b>	(1)
NiO	36.45
FeO	12.15
Fe <sub>2</sub> O <sub>3</sub>	17.55
H <sub>2</sub> O	[23.78]
Cl	13.01
<u>-O = Cl<sub>2</sub></u>	<u>2.94</u>
Total	100.00

(1) Dronino iron meteorite; average electron microprobe analysis supplemented by IR spectroscopy, H<sub>2</sub>O by difference; corresponds to Ni<sub>2.16</sub>Cl<sub>1.62</sub>(OH)<sub>7.10</sub>·2.28H<sub>2</sub>O.**Mineral Group:** Hydrotalcite supergroup, hydrotalcite group.**Occurrence:** In a fragment of a weathered iron meteorite.**Association:** Taenite, violarite, troilite, chromite, goethite, lepidocrocite, nickelbischofite, amorphous Fe<sup>3+</sup> hydroxides.**Distribution:** From the Dronino iron meteorite.**Name:** For the village of *Dronion*, Russia near which the sample was collected.**Type Material:** A.E. Fersman Mineralogical Museum, RAS, Moscow, Russia (3676/1).**References:** (1) Chukanov, N.V., I.V. Pekov, L.A. Levitskaya, and A.E. Zadov (2009) Droninoite, Ni<sub>3</sub>Fe<sup>3+</sup>Cl(OH)<sub>8</sub>·2H<sub>2</sub>O, a new hydrotalcite-group mineral species from the weathered Dronino meteorite. *Geology of Ore Deposits*, 51, 767-773.