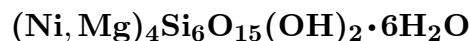


Falcondoite

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Crystal Data: Orthorhombic. *Point Group:* n.d. As slightly schistose, friable masses of minute fibrous particles, less than 10 μm in length.

Physical Properties: *Tenacity:* Friable. Hardness = 2–3 D(meas.) = 1.9(1)
D(calc.) = 2.54

Optical Properties: Transparent to translucent. *Color:* Whitish green.
Optical Class: Biaxial. $n = < 1.55$; birefringence ~ 0.01 – 0.02 . 2V(meas.) = n.d.

Cell Data: *Space Group:* n.d. $a = 13.5$ $b = 26.9$ $c = 5.24$ $Z = 4$

X-ray Powder Pattern: Near Bonao, Dominican Republic.
12.2 (100), 2.58 (35), 3.33 (30), 2.62 (30), 2.44 (30), 3.19 (25), 2.39 (20)

Chemistry:	(1)	(2)
SiO ₂	45.93	49.2
Al ₂ O ₃	0.39	
Cr ₂ O ₃	0.45	
FeO	1.99	< 0.03
NiO	26.7	23.6
MgO	8.46	9.26
LOI	15.0	[18.0]
Total	98.92	[100.0]

(1) Near Bonao, Dominican Republic; corresponds to $(\text{Ni}_{2.66}\text{Mg}_{1.55}\text{Fe}_{0.22}\text{Al}_{0.06}\text{Cr}_{0.04})_{\Sigma=4.53}\text{Si}_{5.71}\text{O}_{16} \cdot 6.22\text{H}_2\text{O}$. (2) Do.; average of five analyses by electron microprobe and other methods; loss on ignition by difference, taken as H₂O; corresponds to $(\text{Ni}_{2.32}\text{Mg}_{1.68})_{\Sigma=4.00}\text{Si}_6\text{O}_{16} \cdot 7.30\text{H}_2\text{O}$.

Occurrence: In garnierite veins which cut an extensive laterite, associated with a serpentinized harzburgite massif (near Bonao, Dominican Republic).

Association: Sepiolite, talc, quartz (near Bonao, Dominican Republic).

Distribution: From near Bonao, Dominican Republic. In the USA, from near Glamis, Imperial Co., California.

Name: For the familiar name “Falcondo” of the company operating the mine in the Dominican Republic where the mineral was first found.

Type Material: Royal Ontario Museum, Toronto, Canada, M34324.

References: (1) Springer, G. (1976) Falcondoite, nickel analogue of sepiolite. Can. Mineral., 14, 407–409.