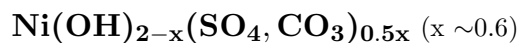


Paraotwayite



©2001-2005 Mineral Data Publishing, version 1

Crystal Data: Monoclinic. *Point Group:* n.d. Fibrous massive, parallel to sub-parallel, may be cross-vein fibrous, to 0.5 mm.

Physical Properties: *Tenacity:* Brittle. Hardness = n.d. VHN = 223(22) average (20 g load). D(meas.) = 3.30 D(calc.) = 3.52

Optical Properties: Semitransparent. *Color:* Emerald-green; green in transmitted light. *Streak:* White. *Luster:* Silky. *Optical Class:* Biaxial. *Pleochroism:* Weak; bluish green || length; yellowish green \perp length. *Orientation:* Extinction parallel; length-slow. $\alpha = 1.655$ $\beta = \text{n.d.}$ $\gamma = 1.705$ $2V(\text{meas.}) = \text{n.d.}$

Cell Data: *Space Group:* n.d. $a = 7.89(1)$ $b = 2.96(1)$ $c = 13.63(3)$ $\beta = 91.1(2)^\circ$ $Z = 6$

X-ray Powder Pattern: Otway prospect, Western Australia. 6.81 (10), 5.083 (8), 2.239 (8), 3.859 (5), 2.946 (4), 1.973 (3), 7.95 (2)

Chemistry:	(1)
	NiO 66.25
	MgO 0.24
	H ₂ O 17.42
	CO ₂ 4.67
	SO ₃ 11.80
	<hr/>
	Total 100.38

(1) Otway prospect, Western Australia; by electron microprobe, H₂O and CO₂ by CHN analyzer, (OH)¹⁻ calculated for charge balance; corresponds to (Ni_{0.99}Mg_{0.01})_{Σ=1.00}(OH)_{1.43}(SO₄)_{0.17}(CO₃)_{0.12}•0.37H₂O.

Occurrence: A very rare secondary mineral in veinlets in altered ore from a hydrothermal nickel deposit in a serpentinized peridotite.

Association: Millerite, polydymite, nickeloan chrysotile, dolomite, gaspéite.

Distribution: From the Otway prospect, near Spinnaway, Nullagine district, Western Australia.

Name: From the Greek for *near*, and for its similarity to *otwayite*.

Type Material: Western Australian Museum, Perth, M.71.1991; Museum Victoria, Melbourne, Australia, M36824; National Museum of Natural History, Washington, D.C., USA, 164243.

References: (1) Nickel, E.H. and J. Graham (1987) Paraotwayite, a new nickel hydroxide mineral from Western Australia. *Can. Mineral.*, 25, 409–411. (2) (1988) *Amer. Mineral.*, 73, 1496 (abs. ref. 1).