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Crystal Data: Hexagonal. *Point Group:* $\overline{3}$ (probable). Tiny hexagonal or trigonal flakes, may be striated at 60°, flattened on {0001}; in lamellar or foliated masses, forming nodules, crusts, and coatings.

Physical Properties: Cleavage: $\{0001\}$, perfect. Hardness = ~ 2 D(meas.) = 2.14 D(calc.) = 2.21

Optical Properties: Transparent. *Color:* Flesh-pink to yellowish or brownish white; colorless to pink in transmitted light. *Streak:* White. *Luster:* Pearly. *Optical Class:* Uniaxial (–). *Pleochroism:* O = yellowish red; E = colorless. $\omega = 1.533-1.540$ $\epsilon = 1.505-1.515$

Cell Data: Space Group: n.d. a = 5.47 c = 15.97 Z = 1

X-ray Powder Pattern: Torre di Santa Maria, Italy. (ICDD 14-365). 7.93 (100), 3.96 (90), 2.00 (70), 2.35 (60), 2.63 (50), 1.56 (40), 1.53 (40)

Chemistry:		(1)	(2)	(3)
	Fe_2O_3	13.20	14.65	14.39
	MnO	1.80	1.98	
	MgO	42.79	40.36	43.59
	H_2O	33.77	33.50	34.09
	CO_2	7.78	8.04	7.93
	insol.	1.03	1.15	
	Total	100.37	99.68	100.00

(1) Torre di Santa Maria, Italy. (2) Viu, Italy. (3) $Mg_6Fe(CO_3)(OH)_{13} \cdot 4H_2O$.

Occurrence: A hydrothermal alteration product in serpentinite, lining cracks with other magnesium-rich species.

Association: Chrysotile, artinite, hydromagnesite, pyroaurite, magnesite, brucite, aragonite.

Distribution: In Italy, from Torre di Santa Maria, near Ciappanico, Val Malenco, and Monte Motta, Val Lanterna, Lombardy; on Monte Ramazzo, Borzoli, Liguria; at Viu, Val di Lanzo, Piedmont; and elsewhere. From Bou-Offrouh, Morocco. At Swinna Ness, Unst, Shetland Islands, Scotland. From Sannidal, Norway. In Canada, near Bancroft, Ontario, and near Notre-Dame-du-Laus, Quebec. In the Iron Hill carbonatite, Powderhorn-Cebolla district, Gunnison Co., Colorado, USA. From Higashi Kurodaguchi, Inasa, Shizuoka Prefecture; Naradani, Kiyomimura, Gifu Prefecture; Irazuyama, Ehime Prefecture; Sasaguri, Fukuoka Prefecture; Mashiki, Kumamoto Prefecture; and elsewhere in Japan.

Name: For Luigi Vincenzo Brugnatelli (1859–1928), Professor of Mineralogy, University of Pavia, Pavia, Italy.

Type Material: Municipal Museum of Natural History, Milan, Italy.

References: (1) Palache, C., H. Berman, and C. Frondel (1944) Dana's system of mineralogy, (7th edition), v. I, 660–661.