

Crystal Data: Orthorhombic. *Point Group:* 2/m 2/m 2/m. As radially fibrous, smooth, spherical aggregates to 1 mm; concentrically zoned chemically with kozoite-(Nd).

Physical Properties: *Cleavage:* n.d. *Fracture:* n.d. *Tenacity:* n.d. *Hardness =* n.d. *D(meas.) =* n.d. *D(calc.) =* 4.16 Readily soluble with effervescence in dilute HCl.

Optical Properties: Transparent. *Color:* Extremely pale purple to white. *Streak:* White. *Luster:* Vitreous. *Optical Class:* n.d. *n(calc.) =* 1.730

Cell Data: *Space Group:* Pmcn. *a =* 4.986(4) *b =* 8.513(6) *c =* 7.227(10) *Z =* 4

X-ray Powder Pattern: Mitsukoshi, Hizen-cho, Saga Prefecture, Japan. 4.31 (100), 3.69 (72), 2.93 (57), 2.33 (50), 2.06 (48), 1.994 (35), 5.54 (32)

Chemistry:	(1)	(2)
La ₂ O ₃	35.55	75.45
Pr ₂ O ₃	4.68	
Nd ₂ O ₃	17.60	
Sm ₂ O ₃	1.15	
Gd ₂ O ₃	1.49	
Dy ₂ O ₃	0.09	
Er ₂ O ₃	0.04	
Y ₂ O ₃	3.88	
CaO	6.30	
SrO	1.36	
CO ₂	[23.17]	20.38
H ₂ O	[5.8]	4.71
Total	101.19	100.00

(1) Mitsukoshi, Hizen-cho, Saga Prefecture, Japan; average of 4 electron microprobe analyses supplemented by FTIR spectroscopy, H₂O and CO₂ calculated; corresponding to (La_{0.83}Nd_{0.40}Y_{0.13}Pr_{0.11}Sm_{0.03}Gd_{0.03})_{Σ=1.53}(Ca_{0.43}Sr_{0.05})_{Σ=0.48}(CO₃)₂(OH)_{1.52}·0.48H₂O. (2) La(CO₃)(OH).

Mineral Group: Ancykite group.

Occurrence: In cavities in an alkali olivine basalt lava flow.

Association: Kozoite-(Nd), lanthanite-(Nd), kimuraite-(Y), lokkaite-(Y), calcite, aragonite, opal (variety hyalite).

Distribution: From Mitsukoshi, Hizen-cho, Saga Prefecture, Japan.

Name: A suffix indicates the La-dominant analogue of *kozoite*-(Nd), which honors Professor Kozo Nagashima (1925-1985).

Type Material: National Science Museum, Tokyo, Japan (NSM-M28310).

References: (1) Miyawaki, R., S. Matsubara, K. Yokoyama, S. Iwano, K. Hamasaki, and I. Yukinori (2003) Kozoite-(La), La(CO₃)(OH), a new mineral from Mitsukoshi, Hizen-cho, Saga Prefecture, Japan. *J. Mineral. Petrol. Sci.*, 98, 137-141. (2) (2004) *Amer. Mineral.*, 89(5-6), 894-895 (abs. ref. 1).