Kozoite-(Nd)  

**Nd(CO$_3$)(OH)**

Crystal Data: Orthorhombic. *Point Group*: 2/m 2/m 2/m. As tabular aggregates or rhombic dipyramidal crystals to 10 μm.


\[ \alpha = 1.698(2) \quad \gamma = 1.780(5) \]

Cell Data: *Space Group*: Pmcn.  

\[ a = 4.9829(1) \quad b = 8.5188(2) \quad c = 7.2570(2) \quad Z = 4 \]


4.29 (100), 2.93 (89), 2.33 (78), 2.06 (78), 1.994 (75), 3.69 (72), 2.640 (59)

Chemistry:  

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<th>Formula</th>
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<th>(2)</th>
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(1) Niikoba, Hizen-cho, Higashi Matsuura-gun, Saga Prefecture, Japan; average electron microprobe and CHN analyses supplemented by FTIR spectroscopy; corresponding to (Nd$_{0.85}$La$_{0.61}$Pr$_{0.18}$Sm$_{0.14}$Gd$_{0.08}$Eu$_{0.05}$Ca$_{0.04}$Y$_{0.03}$Ce$_{0.01}$Dy$_{0.01}$)$_2$Ca$_2$C$_{2.24}$H$_{2.82}$O$_{8.88}$.  

(2) Nd(CO$_3$)(OH).

Polymorphism & Series: Dimorphous with hydroxylbastnäsite-(Nd).

Mineral Group: Ancylite group.

Occurrence: By post-magmatic hydrothermal activity in cavities and fissures in alkali olivine basalt.

Association: Kozoite-(Nd), lanthanite- (Nd), lanthanite- (La), kimuraite-(Y).

Distribution: From Niikoba, Hizen-cho, Higashi Matsuura-gun, Saga Prefecture, Japan.

Name: Honors Kozo Nagashima (1925-1985), a Japanese chemist, for his contributions to the mineralogy, chemistry, and crystallography of rare earth minerals.

Type Material: National Science Museum, Tokyo, Japan (NSM-M27940).

References:  