

Crystal Data: Hexagonal. *Point Group:* 622. Rod-like crystals to 3 μm form divergent radial aggregates.

Physical Properties: *Cleavage:* n.d. *Fracture:* n.d. *Tenacity:* n.d. Hardness = n.d.
D(meas.) = n.d. D(calc.) = 4.54

Optical Properties: Translucent. *Color:* Yellowish white to yellowish brown. *Streak:* Yellowish white. *Luster:* Silky to dull.
Optical Class: n.d.

Cell Data: *Space Group:* P6₂22. *a* = 6.959(2) *c* = 6.384(2) *Z* = 3

X-ray Powder Pattern: Higashimatsuura basalt, Hinodematsu, Genkai-cho, Saga Prefecture, Japan. 2.821 (100), 3.013 (77), 6.026 (76), 4.385 (47), 3.480 (44), 2.127 (28), 1.854 (26)

Chemistry:	(1)	(2)
CaO	2.03	
Σ REE	[61.47]	
Y ₂ O ₃	15.25	55.92
La ₂ O ₃	20.76	
Ce ₂ O ₃	1.10	
Pr ₂ O ₃	5.28	
Nd ₂ O ₃	14.73	
Sm ₂ O ₃	0.33	
Gd ₂ O ₃	4.02	
P ₂ O ₅	27.98	35.16
H ₂ O	[8.52]	8.92
Total	100.00	100.00

(1) Higashimatsuura basalt, Japan; average of 9 electron microprobe analyses, H₂O calculated by difference; corresponding to (Y_{0.33}La_{0.31}Nd_{0.21}Pr_{0.08}Gd_{0.05}Ce_{0.02}Sm_{0.00})_{Σ=1.01}Ca_{0.09}P_{0.96}O₄·1.15 H₂O.
(2) YPO₄·H₂O.

Mineral Group: Rhabdophane group.

Occurrence: Forms druses on alkaline olivine basalt.

Association: Plagioclase, forsterite, augite, enstatite, magnetite, ilmenite.

Distribution: From the Higashimatsuura alkaline olivine basalt, Hinodematsu, Genkai-cho, Saga Prefecture, Japan.

Name: As the *Y*-dominant analog of *rhabdophane*-(Ce).

Type Material: Kitakyushu Museum of Natural History and Human History, Kitakyushu, Japan (KMNHM000002).

References: (1) Takai, Y. and S. Uehara (2012) Rhabdophane-(Y), YPO₄·H₂O, a new mineral in alkali olivine basalt from Hinodematsu, Genkai-cho, Saga Prefecture. *Journal of Mineralogical and Petrological Sciences*, 107(2), 110-113. (2) (2014) *Amer. Mineral.*, 99, 2442 (abs. ref. 1).