

Crystal Data: Hexagonal. *Point Group:* $\bar{6}m2$. As zones, to 20 μm , in the outer portions of bastnäsite-(Ce) crystals.

Physical Properties: *Cleavage:* Indistinct on $\{10\bar{1}0\}$. *Fracture:* Uneven. *Tenacity:* Brittle. *Hardness* = 4-4.5 D(meas.) = n.d. D(calc.) = 5.23

Optical Properties: Translucent. *Color:* Pale purplish pink to colorless. *Streak:* White [by analogy to bastnäsite-(Ce)]. *Luster:* Vitreous, greasy or pearly. *Optical Class:* n.d. *n*(calc.) = 1.76

Cell Data: *Space Group:* $P\bar{6}2c$. *a* = 7.0792(13) *c* = 9.721(2) *Z* = 6

X-ray Powder Pattern: Stetind pegmatite, Tysfjord, Nordland, Norway. 2.86 (100), 4.86 (71), 3.54 (70), 2.00 (48), 2.04 (31), 1.883 (29), 2.43 (22)

Chemistry:	(1)
Y ₂ O ₃	0.19
La ₂ O ₃	18.64
Ce ₂ O ₃	18.64
Pr ₂ O ₃	6.41
Nd ₂ O ₃	26.86
Sm ₂ O ₃	2.95
Gd ₂ O ₃	1.30
Dy ₂ O ₃	0.07
F	8.98
CO ₂	[19.92]
<u>-O=F</u>	<u>3.78</u>
Total	100.18

(1) Stetind pegmatite, Tysfjord, Nordland, Norway; average of 6 electron microprobe analyses, CO₂ calculated from stoichiometry; corresponding to (Nd_{0.353}La_{0.253}Ce_{0.251}Pr_{0.086}Sm_{0.037}Gd_{0.016}Y_{0.004}Dy_{0.001}) $\Sigma=1.001$ CO_{2.978}F_{1.044}.

Mineral Group: Bastnäsite group.

Occurrence: Forms zones in the outer parts of bastnäsite-(Ce) crystals in lenticular bodies of Y-rich fluorite in quartz-microcline NYF (niobium–yttrium–fluorine) pegmatite in granitic orthogneiss.

Association: Bastnäsite-(Ce), stetindite, atelisite-(Y), calcioancylite-(Nd), kozoite-(Nd), vyuntspakhkite-(Y).

Distribution: From the Stetind pegmatite, Tysfjord, Nordland, Norway.

Name: For a member of the *bastnäsite* group with *neodymium* as the dominant rare earth element.

Type Material: National Museum of Nature and Science, Tokyo, Japan (NSM-MF15494).

References: (1) Miyawaki, R., K. Yokoyama, and T.A. Husdal (2013) Bastnäsite-(Nd), a new Nd-dominant member of the bastnäsite group from the Stetind pegmatite, Tysfjord, Nordland, Norway. *Eur. J. Mineral.*, 25, 187-191. (2) (2015) *Amer. Mineral.*, 100, 1319-1320 (abs. ref. 1).