

Crystal Data: Isometric. *Point Group:* $4/m\bar{3}2/m$. As powdery coatings.

Physical Properties: *Cleavage:* n.d. *Fracture:* n.d. *Tenacity:* n.d. *Hardness =* n.d.
D(meas.) = n.d. *D(calc.) =* 6.5
 Non-fluorescent in SW UV and LW UV.

Optical Properties: Translucent. *Color:* Yellow. *Streak:* n.d. *Luster:* [Earthy].
Optical Class: n.d.; probably isotropic. *n(calc) ≈* 1.9

Cell Data: Space Group: $Fm\bar{3}m$. *a =* 5.6282(5) *Z =* 4

X-ray Powder Pattern: Bastnäs deposit, Sweden.

3.25 (100), 1.991 (61), 1.6969 (46), 2.815 (31), 1.292 (15), 1.1486 (12), 1.6246 (9)

Chemistry:	(1)
La ₂ O ₃	39.29
Ce ₂ O ₃	39.00
Pr ₂ O ₃	4.06
Nd ₂ O ₃	7.60
Sm ₂ O ₃	0.28
Gd ₂ O ₃	0.27
Y ₂ O ₃	0.08
SiO ₂	0.38
CaO	0.02
F	11.70
-O = F	4.93
Total	97.75

(1) Bastnäs deposit, Sweden; electron microprobe and EDS analyses, IR spectroscopy confirms absence of OH⁻ and CO₃²⁻; corresponding to
 (La_{0.431}Ce_{0.425}Nd_{0.082}Pr_{0.044}Si_{0.011}Sm_{0.003}Gd_{0.003}Y_{0.001}Ca_{0.001})_{Σ=1.001}F_{1.10}O_{0.95}.

Occurrence: Formed by alteration of primary bastnäsite-(La), most likely by a decarbonation reaction.

Association: Ferriallanite-(Ce), bastnäsite-(La), quartz.

Distribution: At the Bastnäs deposit, Skinnskatteberg District, Västmanland County, Sweden.

Name: Honors Professor Ulf Hålenius (b.1951), head of the Department of Mineralogy, Swedish Museum of Natural History, for his contributions to mineral sciences.

Type Material: Swedish Museum of Natural History, Stockholm, Sweden; (no. 20030025).

References: (1) Holstam, D., J., Grins, and P.Nysten (2004) Håleniusite-(La) from the Bastnäs deposit, Västmanland, Sweden: A new REE oxy-fluoride mineral species. *Can. Mineral.* 42(4), 1097-1103. (2) (2005) *Amer. Mineral.*, 90, 769 (abs. ref. 1).