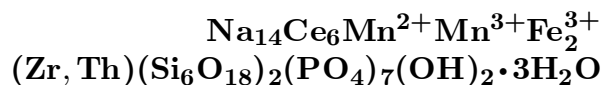


Steenstrupine-(Ce)



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Crystal Data: Hexagonal; commonly metamict. *Point Group:* $\bar{3} 2/m$. Rhombohedral crystals, rounded and rough, to 10 cm; massive.

Physical Properties: *Fracture:* Conchoidal. *Hardness* = 4–5 *D*(meas.) = 3.38–3.47. *D*(calc.) = [3.63] *Radioactive.*

Optical Properties: Opaque. *Color:* Brownish red to black. *Streak:* Brownish, nearly white. *Luster:* Dull.

Optical Class: Uniaxial (-). *Pleochroism:* Weak, in brown and yellow tints. $\omega = 1.665\text{--}1.667$
 $\epsilon = 1.662\text{--}1.663$

Cell Data: *Space Group:* $R\bar{3}m$. $a = 10.460(4)$ $c = 45.479(15)$ $Z = 3$

X-ray Powder Pattern: Ilímaussaq intrusion, Greenland.

3.27 (10), 2.60 (9), 3.17 (8), 2.74 (8), 15.14 (6), 3.04 (5), 2.88 (5)

Chemistry:	(1)	(2)		(1)	(2)
SiO ₂	26.72	22.95	MnO	6.60	2.26
ZrO ₂		3.92	MgO	0.31	
ThO ₂	2.13		CaO	2.33	
Y ₂ O ₃	0.36		Na ₂ O	11.23	13.81
(Ce, La) ₂ O ₃	29.60	31.36	H ₂ O	3.45	2.29
Fe ₂ O ₃	2.67	5.08	P ₂ O ₅	8.19	15.82
Mn ₂ O ₃		2.51	F	1.24	
Nb ₂ O ₅	4.37		-O = F ₂	0.52	
			<hr/>		
			Total	98.68	100.00

(1) Julianehåb, Greenland. (2) Na₁₄Ce₆Mn²⁺Mn³⁺Fe₂³⁺Zr(Si₆O₁₈)₂(PO₄)₇(OH)₂•3H₂O.

Occurrence: In ultra-agpaitic pegmatites of nepheline-sodalite syenites and syenites.

Association: Lepidolite, aegirine, murmanite, ussingite, natrolite, nordite, nepheline, sodalite.

Distribution: From the Kangerdluarssuk Plateau and elsewhere in the Ilímaussaq intrusion, southern Greenland. In the Lovozero massif, Kola Peninsula, Russia. At Mont Saint-Hilaire, Quebec, Canada.

Name: For Knud Johannes Vogeliuss Steenstrup (1842–1913), Danish geologist of Copenhagen, Denmark.

Type Material: University of Copenhagen, Copenhagen, Denmark, 1881.1070.

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