

Aërinite

©2001 Mineral Data Publishing, version 1.2

Crystal Data: Monoclinic. *Point Group:* n.d. As masses of cryptocrystalline fibers; earthy, compact.**Physical Properties:** Hardness = ~3 D(meas.) = 2.48(2) D(calc.) = [2.46]**Optical Properties:** Semitransparent. *Color:* Blue to blue-green.*Optical Class:* Biaxial (-). *Pleochroism:* Intense; X = bright blue; Y = Z = pale beige. $\alpha = 1.510(5)$ $\beta = 1.560(5)$ $\gamma = 1.580(5)$ $2V(\text{meas.}) = \text{n.d.}$ $2V(\text{calc.}) = 63^\circ$ **Cell Data:** *Space Group:* n.d. $a = 14.690(15)$ $b = 16.872(15)$ $c = 5.170(15)$ $\beta = 94^\circ 45'$
 $Z = [2]$ **X-ray Powder Pattern:** Saint-Pandelon, France.

14.65 (100), 4.050 (80), 2.721 (75), 2.812 (50), 3.798 (35), 3.651 (35), 2.135 (35)

Chemistry:

	(1)	(2)
SiO ₂	36.91	37.87
TiO ₂	trace	
Al ₂ O ₃	17.20	18.64
Fe ₂ O ₃	7.31	
FeO	3.47	7.00
MnO	0.10	
MgO	3.15	6.
CaO	12.03	11.93
Na ₂ O	0.27	2.70
K ₂ O	0.04	0.12
H ₂ O	17.79	15.45
CO ₂	2.30	
P ₂ O ₅	0.71	
Total	101.28	99.71

(1) Saint-Pandelon, France; H₂O by TGA, CO₂ by chromatography; corresponds to (Ca_{4.04}Na_{0.16}K_{0.02})_{Σ=4.22}(Al_{6.36}Fe_{1.72}³⁺Mg_{1.47}Fe_{0.91}²⁺Mn_{0.03})_{Σ=10.49}(Si_{11.59}P_{0.19})_{Σ=11.78}O_{35.21}(OH)_{12.11}(CO₃)_{0.99}•12.54H₂O. (2) Morocco.**Occurrence:** A hydrothermal mineral of the zeolite facies, formed at relatively low temperature, in fractures cutting mafic igneous rocks (Saint-Pandelon, France).**Association:** Prehnite, scolecite, mesolite (Saint-Pandelon, France).**Distribution:** At Caserras, Juseu, and Estopiñan, Huesca Province; Tartaren, Lerida Province; and other less-well-defined localities in Spain. From Saint-Pandelon, Landes, France. In Morocco, at Ourika. From the Gunsight Mountains, Pima Co., Arizona, USA.**Name:** From the Greek for *sky blue* for its distinctive color.**Type Material:** Wrocław University, Wrocław, Poland, II-8890; National School of Mines, Paris, France.**References:** (1) Dana, E.S. (1892) Dana's system of mineralogy, (6th edition), 1025. (2) Termier, H. and G. Termier (1946) Sur la presence d'aërinite au Maroc. Compt. Rend. Soc. Géol. France, 78-80 (in French). (3) (1948) Chem. Abs., 42, 7204 (abs. ref. 2). (4) Azambre, B. and P. Monchoux (1988) Précisions minéralogiques sur l'aërinite: nouvelle occurrence à Saint-Pandelon (Landes, France). Bull. Minéral., 111, 39-47 (in French with English abs.).

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise without the prior written permission of Mineral Data Publishing.