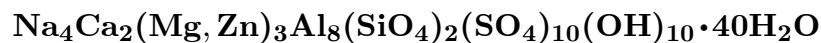


Chessexite

©2001 Mineral Data Publishing, version 1.2

Crystal Data: Orthorhombic. *Point Group:* n.d. As euhedral, thin, square or rectangular plates, to 0.03 mm.

Physical Properties: *Cleavage:* Indistinct || [101]. *Hardness =* n.d. *D(meas.) =* n.d. *D(calc.) =* 2.21

Optical Properties: Semitransparent. *Color:* White. *Luster:* Silky.
Optical Class: Biaxial (+). *Orientation:* *X = a; Y = c; Z = b.* $\alpha = 1.456$ $\beta = 1.460$
 $\gamma = 1.480$ $2V(\text{meas.}) = 47^\circ$

Cell Data: *Space Group:* n.d. $a = 13.70$ $b = 27.96$ $c = 9.99$ $Z = 2$

X-ray Powder Pattern: Maine mine, France.
13.91 (100), 3.422 (100), 4.85 (90), 3.982 (60), 3.451 (40), 3.322 (40), 2.908 (30)

Chemistry:	(1)
SiO ₂	3.64
Al ₂ O ₃	15.30
ZnO	3.73
MgO	3.50
CaO	3.92
Na ₂ O	4.44
K ₂ O	0.30
H ₂ O	31.11
SO ₃	31.91
Total	97.85

(1) Maine mine, France; Ca, Mg, Zn, Si, and Al by AA, Na and K by flame photometry, S by chromatography, and H₂O by TGA; corresponds to (Na_{3.75}K_{0.17}Ca_{0.08})_{Σ=4.00}(Ca_{1.75}Mg_{0.25})_{Σ=2.00}(Mg_{1.87}Zn_{1.20})_{Σ=3.07}(Al_{7.85}Mg_{0.15})_{Σ=8.00}Si_{1.58}S_{10.42}O_{53.46}•45.13H₂O.

Occurrence: As a coating on fluorite.

Association: Fluorite, gypsum.

Distribution: From the Maine fluorite mine, near Autun, Saône-et-Loire, France.

Name: For Professor Ronald Chessex, petrographer, University of Geneva, Geneva, Switzerland.

Type Material: Natural History Museum, Geneva, Switzerland, 435/70.

References: (1) Sarp, H. and J. Deferne (1982) Le chessexite, un nouveau minéral. Schweiz. Mineral. Petrog. Mitt., 62, 337-341 (in French with English abs.). (2) (1984) Amer. Mineral., 69, 406 (abs. ref. 1).