Mazzite $K_2CaMg_2(Si,Al)_{36}O_{72}\cdot 28H_2O$

Crystal Data: Hexagonal. *Point Group:* $6/m\ 2/m\ 2/m$. Crystals are hexagonal prisms terminated by pinacoids. As radiating bundles of thin needles, up to 4 mm.

Physical Properties: Hardness = 4 D(meas.) = n.d. D(calc.) = 2.11

Optical Properties: Transparent. *Color:* Colorless. *Streak:* White.
Optical Class: Uniaxial (–). $\omega = 1.506$ $\epsilon = 1.499$

Cell Data: *Space Group:* $P6_3/mmc$. $a = 18.392$ $c = 7.646$ Z = [1]

X-ray Powder Pattern: Mont Sémiol, France.
3.185 (100), 2.941 (100), 3.824 (95), 3.531 (90), 9.20 (60), 6.02 (53), 4.729 (50)

Chemistry:

	(1)
SiO_2	58.10
Al_2O_3	18.14
MgO	2.92
CaO	2.75
Na_2O	0.03
K_2O	3.27
H_2O	18.42
Total	103.63

(1) Mont Sémiol, France; by electron microprobe, average of three analyses, H_2O by TGA; the high sum is thought due to loss of H_2O in the vacuum chamber during analysis; corresponds to $(K_{1.91}Na_{0.03})_{\Sigma=1.94}Ca_{1.35}Mg_{1.99}(Si_{26.53}Al_{9.77})_{\Sigma=36.30}O_{72}\cdot 28.06H_2O$.

Mineral Group: Zeolite group.

Occurrence: In cavities in a porphyritic olivine basalt.

Association: Phillipsite, offretite, chabazite, calcite, siderite.

Distribution: On Mont Sémiol (Mont Semiouse), near Montbrison, Loire, France.

Name: To honor Professor Fiorenzo Mazzi, mineralogist, University of Pavia, Pavia, Italy.

Type Material: University of Modena, Modena, Italy; National Museum of Natural History, Washington, D.C., USA, 128520.

References: (1) Galli, E., E. Passaglia, D. Pongiluppi, and R. Rinaldi (1974) Mazzite, a new mineral, the natural counterpart of the synthetic zeolite . Contr. Mineral. Petrol., 45, 99–105. (2) (1975) Amer. Mineral., 60, 340 (abs. ref. 1). (3) Galli, E. (1974) Mazzite, a zeolite. Cryst. Struct. Comm., 3, 339–344. (4) (1976) Mineral. Abs., 27, 300 (abs. ref. 3). (5) Gottardi, G. and E. Galli (1985) Natural zeolites. Springer, 160–163.