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MICRO- AND MESOPOROUS
MINERAL PHASES

EDITORS:

Giovanni Ferraris*Università di Torino
Torino, Italy***Stefano Merlino***Università di Pisa
Pisa, Italy*

FRONT COVER: Perspective view of the crystal structure of montregianite seen along [101]. Channels delimited by eight-membered rings of silicon tetrahedra form (010) layers that alternate with continuous layers of sodium-yttrium octahedra. Potassium cations and water molecules within the channels are shown as blue and red spheres, respectively. Atomic coordinates from Ghose et al. (1987) *Am Mineral* 72:365-374. The photoluminescence spectrum and image of synthetic montregianite-(Tb) excited by X-rays (8.050 keV) are also depicted. See chapter 6 for details.

BACK COVER: (*top*) Mesopores in the hollow center of chrysotile fibers (average diameter close to 7 nm); see chapter 12 for details. HRTEM image by courtesy of C. Viti. (*bottom*) Association of two microporous titanosilicate minerals: cauliflower like penkvilksite (2 × 1 cm) on radiating spherical aggregates of pink zorite within a cavity of the peralkaline Yubileynaya pegmatite (Mt. Karnasurt, Lovozero, Kola Peninsula, Russia). See chapters 1, 2, 4, 5 and 6 for details. From the collection of Igor V. Pekov; photo by Natalia A. Pekova.

*Series Editor: Jodi J. Rosso*MINERALOGICAL SOCIETY OF AMERICA
GEOCHEMICAL SOCIETY
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