

# ADVANCED FUNCTIONAL MATERIALS



## ZEOLITES

Zeolites are microporous materials that are used as catalysts and adsorbents. For reactions and adsorption involving bulky molecules, it is desirable to reduce the length over which molecules diffuse to access the internal porosity, and to utilize the zeolite external surfaces and pore mouths. The lower limit of diffusion length and upper bound of pore mouth surface area can be approached in practice using single-unit-cell zeolites in a “house-of-cards” arrangement, as discussed on page 201 by X. Zhang, M. Tsapatsis, and co-workers.