

Special Issue

Molecular Scale Design, Synthesis, and Application of Macroporous, Mesoporous, and Microporous Materials

Message from the Guest Editor

Macro-, meso- and microporous membranes are widely used for separation and catalysis in the fields of food processing, biotechnology, pharmaceuticals, petrochemicals, and many more besides. In addition, they are also employed in production and energy storage. They can be tailored to provide different types of architecture, which requires the use of novel designs and specific synthesis methods. The optimal membrane microstructure consists of desirable pore sizes, a sharp pore size distribution, good pore interconnectivity and porosity, large surface areas, and an absence of defects. Furthermore, the design of three-dimensional materials with multiscale pore architecture represents an ongoing challenge. This Special Issue welcomes original research papers and reviews on the design, preparation and application of macro-, meso- and microporous materials. This Special Issue focuses on researching these porous materials at the molecular level, with a specific focus on mechanistic studies.

Guest Editor

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