Special Issue

Open Framework Materials in the Application of Adsorption, Separation, and Catalysis

Message from the Guest Editors

Open framework materials (OFMs) constitute a large and growing class of nanoporous crystalline structures attracting considerable attention for adsorption, separation, and catalysis. The control of pore structure, adsorption properties, and the nature of the active sites and co-active sites of OFMs is of vital importance for the adsorption, separation, and catalytic performance. Together with traditional porous materials, the emerging newly developed porous materials, including Metal–Organic Frameworks (MOFs), Hydrogen-bonded Organic Frameworks (HOFs), Covalent Organic Frameworks (COFs), and Conjugated Microporous Polymers (CMPs), dramatically expand the database of OFMs and the range of applications.

This Special Issue seeks high-quality works focusing on the latest novel advances of porous materials for adsorption, separation, and catalysis. Topics include, but are not limited to:

Newly developed OFMs (MOFs, COFs, HOFs, CMPs, etc.);

Composites containing OFMs or derivatives originating from OFMs;

OFMs-related characterization techniques;

Applications of OFMs, including adsorption, separation, and catalysis;

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Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal–organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

Editor-in-Chief

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