



MOF/COFs Based Functional Materials: Design, Synthesis and Modification for Energy Storage and Conversion

Guest Editor:

Dr. Ying-Ya Liu

School of Chemical Engineering,
Dalian University of Technology,
Dalian 116023, China

Deadline for manuscript
submissions:

closed (20 November 2022)

Message from the Guest Editor

Dear Colleagues,

Among emerging materials for energy storage and conversion, metal–organic frameworks (MOFs) and covalent–organic frameworks (COFs) have shown great potential for such applications. MOFs and COFs are both porous materials. MOFs are constructed by linking multidentate ligands with metal/cluster nodes to form infinite crystalline networks, while COFs are solely organic frameworks connected by covalent bonds with better thermal and chemical stability. They share the common feature of high surface area, permanent porosity, and tunable structures and can act as excellent precursors to obtain hierarchical nanostructures, which have a significant impact on the performance in energy-related applications.

This Special Issue is to provide recent development in the field of MOF/COFs and their derived materials for energy storage (hydrogen storage, batteries, and supercapacitors) and conversion (solar cell and fuel cells, adsorption-driven heat-pumps and chillers, electrocatalysts, as well as photocatalysts). The development of the synthetic strategy as well as morphological control in MOF/COFs and their related hybrid materials are also fits in this theme.





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Editor-in-Chief

Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

Message from the Editor-in-Chief

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Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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