MOFs for Advanced Applications

Message from the Guest Editors

Metal organic frameworks (MOFs) are a class of porous materials with a modular structure. This allows for a very wide structural diversity and the possibility of synthesizing materials with tailored properties for advanced applications. Thus, MOF materials are the subject of intense research, with strong relevance to both science and technology. MOFs are formed by the assembly of two components: Cluster or metal ion nodes, which are also called secondary building units (SBUs), and organic linkers between the SBUs, usually giving rise to crystalline structures with an open framework and significant porous texture development. Some of the key topics relevant to this Special Issue are:

- Synthesis and characterization of novel MOFs or MOF-based materials, including new synthetic routes;
- Porous MOFs for adsorption and gas storage/capture;
- Drug delivery application with MOF based-materials;
- Catalysis and photocatalysis with MOFs;
- Synthesis of MOFs for chemical sensing;
- Energy storage in MOFs.