

Tentative Outline
Special Issue for Current Organic Chemistry
Guest Editor(s): Xiao-Feng Wang

**TITLE: Metal-Organic Frameworks: A New Class of
Catalyst or Catalyst Carrier**

Aims & Scope:

The metal-organic frameworks (MOFs), or porous coordination polymers (PCPs), are a new generation porous materials constructed from the metallic clusters as secondary building units and rigid organic ligands as spacers through the strong coordination bonds. The MOFs epitomize the beauty of chemical structures and combine the power of organic and inorganic chemistry, those two disciplines often regarded as disparate. Notwithstanding that its initial interesting is derived from the inorganic chemical fields, such as the variably topologic structures and potential gas absorption/separation applications, MOFs also might play an important role in the organic chemistry. On a fundamental level, even though the mechanism is still not really well understood; MOF materials duly performed the hetero-catalyst in organic reactions.

The scope of the volume ranges from synthesis to post-synthesis modified, from host to guest catalyst carries, from general catalysis to enantio-selective syntheses, and from metal dipping, nano-particles inserting, and bio-segment embedding to applications in organic catalysis. As such, we hope that it will serve as a valuable resource for new and current researchers all over the world in the field alike.

Key words: Metal-organic framework, active site, syntheses, separation, asymmetric, mechanism

Subtopics:

- In-situ organic ligand reaction @ solid state MOFs
- Asymmetrical catalysis with MOFs
- Functional organic ligands of MOFs serve as active centers
- Rational preparation of variable MOF structures
- Post-synthesis to modify the functional cavity
- Product selectivity depends on the size of cage
- The thin-film of MOFs for organic separation
- Catalysis metals@MOFs
- As the host of bio-segment to mimic the biochemical catalysts
- Chiral MOFs in enantioselective separations and syntheses
- Design and construction of open active site as the active center
- The mechanism of catalysis with MOFs

Approximate Schedule:

- Manuscript submission deadline: 30th July 2015
- Peer review due: 20th September 2015

- Revision due: 5th October 2015
- Notification of Acceptance by the Guest Editor: 20th October 2015
- Final manuscript Due: 10th November 2015