

## SPECIAL ISSUE FOR CURRENT ORGANIC CHEMISTRY

### MULTI-CATALYSIS FOR EFFICIENT BIOMASS CONVERSIONS AND ORGANIC TRANSFORMATIONS

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#### **Aims & Scope:**

Multi-catalysis generally divided to bifunctional catalysis, double activation catalysis, cascade catalysis and synergistic catalysis has been recently considered as an efficient strategy to promote chemical transformations and catalytic enantioselectivities that are difficultly or unattainably performed by mono-catalysis. In order to explore efficient catalytic processes for developing sustainable and renewable chemistry, tremendous potential applications of multi-catalysis notably in biomass conversions as well as green organic transformations are being intensely illustrated by academic researchers. This thematic issue thereby aims to highlight the benefits of multi-catalysis and provide a glimpse into successful examples in this area. Importantly, while challenges in investigating methods and mechanisms of multi-catalysis for these chemical transformations are recognized, leading efforts with respect to these issues will be attempted to emphasize.

**Keywords:** Multi-catalysis; Bifunctional catalysis; Double activation catalysis; Cascade catalysis; Synergistic catalysis; Homogeneous/Heterogeneous catalysis; Mesoporous/Nanosized materials; Biomass conversion; Organic transformation; Asymmetric synthesis

#### **Subtopics:**

1. Multi-catalysis for direct conversion of biomass into specific chemicals
2. Catalytic transformation of platform molecules derived from biomass into valuable chemicals and biofuels via synergistic catalysis
3. Functionalized mixed oxides in multi-catalysis
4. Homogeneous/Heterogeneous bifunctional catalysts for asymmetric synthesis
5. Combination of biological and chemical catalysts in one-pot for organic transformations
6. Organic transformations catalyzed by mesoporous/nanosized materials functionalized with multiple active sites

#### **Approximate Schedule:**

Manuscript Submission Deadline: October 25, 2013

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Final Manuscript Due: February 25, 2014