

Tentative Outline (Preliminary Proposal of Thematic Issue)

Special/Thematic Issue for the journal "Current Catalysis"

Title of the Thematic Issue: Recent Advances in Catalytic Oxidation of Biomass

Section Editor: Dr. Haixin Guo

• Scope of the Thematic Issue:

This Thematic Issue on "**Recent Advances in Catalytic Oxidation of Biomass**", aims to cover biomass-derived organic acid synthesis systems, including heterogeneous catalysis, homogeneous catalysis, photocatalysis, electrochemical catalysis systems etc. In this context, we welcome submissions that deal with the development of novel catalyst for catalytic oxidation of biomass. We expect submissions on of catalytic process development for the oxidation of biomass and biomass-derived materials (e.g. cellulose, lignin, glucose etc) to organic acid (e.g. maleic acid, succinic acid, levulinic acid, glycolic acid, formic acid, 2,5-furandicarboxylic acid and so on). Furthermore, we will consider submissions within the novel catalytic oxidation techniques and their technical, environmental, and economic implications. In addition, we look forward to submissions on the conversion process particularities for catalytic oxidation of Lignin. Additionally, we expect submissions related to technoeconomic and environmental analysis. Consequently, this Thematic Issue is particularly addressed to researchers in crosscutting areas addressing any aspects of biomass-derived organic acid.

Keywords: Biomass conversion; Sustainable catalysis; Heterogeneous catalysis; Homogeneous catalysis; Photocatalysis; Electrochemical catalysis

Sub-topics:

- Design and character of catalyst for the biomass oxidation process;
- Design, analysis, and modeling of oxidation catalytic reactors;
- Advances in the catalytic oxidation of biomass and biomass-derived materials;
- Low-carbon economy sustainability based on biomass oxidation processing.

Schedule:

- ✧ Thematic issue submission deadline: December 31, 2023

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