# Special Issue

## Advances and Future Trends in Selective Oxidation Catalysis

### Message from the Guest Editors

The development and application of selective oxidation catalysts are key processes within this field. The rapid development of controllable synthesis and characterization techniques for catalytic new materials, such as single atoms, diatoms, clusters, etc., has provided an important foundation for the design and preparation of selective oxidation catalysts with spatially separated active centers. Additionally, the progress in the development of several other new catalytic materials has brought new insights and breakthroughs regarding the catalytic selective oxidation process. Photocatalysis or electrocatalysis methods offer new opportunities in the field by generating highly reactive oxygen species or directly activating reactants under mild conditions. Ideas such as replacing organic peroxides with air/oxygen/hydrogen peroxide as oxidants and replacing organic solvents with water have become major trends in selective oxidation catalysis research. Selective oxidation of low-carbon hydrocarbons such as methane, epoxidation of propylene, phenol production from benzene, and selective oxidation of biomass represent the most challenging problems in this field.

### Guest Editors

Prof. Dr. Gongde Wu

Energy Research Institute, Nanjing Institute of Technology, Nanjing 211167, China

Dr. Junhua Liu

College of Chemistry and Materials Science, Nanjing Normal University, Nanjing 210023, China

### Deadline for manuscript submissions

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*Catalysts*
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
catalysts@mdpi.com

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Prof. Dr. Keith Hohn
Carl R. Ice College of Engineering, Kansas State University, Manhattan, KS, USA

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