Special Issue

From Small Molecules to High-Value Chemicals: Theory and Practice

Message from the Guest Editors

Promising progress has been made over the past few years in reaching this target, such as developing electrochemical-based reaction systems, discovering novel structured high-performance catalysts, and establishing smart process integration and scaleup systems. This Special Issue aims to cover recent progress and research efforts in the related field of converting small molecules into high-value chemicals, including innovative process development and integration, novel materials discovery and evaluation, as well as reaction mass/heat transfer studies. Topics include but are not limited to:

- CO2 hydrogenation to hydrocarbons;
- Electrochemical CO2 reduction to liquid fuels;
- Selective catalytic reduction (SCR) of NOx;
- (Electro)chemical ammonia synthesis from N2;
- CH4 partial oxidation to value-added chemicals;
- CO preferential oxidation in H2-rich atmosphere (CO PROX);
- Modeling and simulation of the abovementioned processes.

All experimental and theoretical works falling into the scope of this Special Issue, including original research papers, short communications, review articles, and perspective articles, are invited for submission.

Guest Editors

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Deadline for manuscript submissions

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Message from the Editor-in-Chief

You are invited to contribute either a research article or a comprehensive review for consideration and publication in *Processes* (ISSN 2227-9717). *Processes* is published in open access format – research articles, reviews, and other content are released on the internet immediately after acceptance. The scientific community and the general public have unlimited, free access to the content. As an open access journal, *Processes* is supported by the authors and their institutes through the payment of article processing charges (APCs) for accepted papers. We would be pleased to welcome you as one of our authors.

Editor-in-Chief

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