



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

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Deadline for manuscript
submissions:
closed (15 October 2022)

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 NO_x;
- (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.





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Message from the Editor-in-Chief

Processes (ISSN 2227-9717) provides an advanced forum for process/system-related research in chemistry, biology, material, energy, environment, food, pharmaceutical, manufacturing and allied engineering fields. The journal publishes regular research papers, communications, letters, short notes and reviews. Our aim is to encourage researchers to publish their experimental, theoretical and computational results in as much detail as necessary. There is no restriction on paper length or number of figures and tables.

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