

Special Issue

Catalytic Reactions and Development of (Bio)Chemical Processes for Synthesizing Value Added Compounds

Message from the Guest Editors

This Special Issue of ChemEngineering will aim the publications regarding the process development principles, both at industrial and laboratory scales. Manuscripts emphasizing highly active catalyst preparation and testing, process design, modelling, optimization and their economic efficiency assessment, with the end goal of producing value-added (bio)chemical products, will be welcome.

In order to produce value-added chemical and biochemical products, an increasing number of processes, involving both homogeneous and heterogeneous catalytic materials, are proposed nowadays in different engineering fields. Manufacturing a catalyst with good activity and selectivity for a specific product plays a crucial role in increasing the economic efficiency of a process, whereas this step requires developing appropriate operating conditions for catalyst synthesis with a strong correlation between these aspects and the chemical structure of the catalyst. Given the global environmental requirements, a special emphasis should be conferred on the use of renewable raw materials as well as the minimization of waste in the proposed alternatives.

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About the Journal

Message from the Editor-in-Chief

ChemEngineering is to consolidate its position as a high-quality, open access journal that not only disseminates excellent research but also sets the agenda for future directions in chemical engineering. We will continue to highlight core areas such as catalysis, process intensification, and the circular economy, while also opening the door to emerging topics such as multi-energy systems that integrate light, heat, and electricity, etc., as well as digital tools, modelling, and artificial intelligence applied to chemical engineering.

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