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Catalysis for CO_2 Conversion, 2nd Edition

Guest Editor:

Prof. Dr. Zhixin Yu
Department of Energy and Petroleum Engineering, University of Stavanger, 4036 Stavanger, Norway

Deadline for manuscript submissions:
20 December 2024

Message from the Guest Editor

CO_2, a cheap, nontoxic, and abundant carbon feedstock, has garnered significant interest from academia and industry for its conversion into valuable products. The potential to transform CO_2 into fuels, chemicals, polymers, and building materials has opened up new avenues for sustainable development. Although some industrial processes utilizing CO_2, such as urea synthesis, are well established, the chemical conversion of CO_2 remains challenging due to its thermodynamic nature.

This new edition aims to bring together leading scientists to present their cutting-edge research in catalyst development, process design, system analysis, and multidisciplinary approaches. We invite researchers to contribute original research, reviews, and communications papers that delve into various aspects of CO_2 conversion. Topics of interest include, but are not limited to:

Catalyst synthesis and characterization;

Reactor design and optimization;

Process engineering and scale-up;

Mechanistic investigations;

Numerical simulations and modelling.