

Special Issue

Novel Materials and Reactor Concepts for CO₂ Conversion into Methane, Methanol and DME

Message from the Guest Editors

The present Special Issue focuses on CO₂ utilization towards the production of methane, methanol, and DME, which can be used for energy production and as intermediates for obtaining other important chemicals. However, such CO₂ conversion processes have associated energy and thermodynamic barriers that can be overcome through the development of new catalysts and reactor concepts. Hence, we encourage the submission of manuscripts related to the conversion of CO₂ into these chemicals and covering the following topics: - Catalyst development, screening, and deactivation tests; - Development of non-conventional catalysts (e.g., dual-function materials, structured catalysts, etc.); - Multifunctional reactor concepts (e.g., membrane, sorption-enhanced, etc.); - Determination of reaction kinetics and mechanisms; - Modeling (lab, pilot, and industrial scale reactors and phenomena at a particle scale).

Guest Editors

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Deadline for manuscript submissions

closed (31 August 2021)



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