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Advances in Catalytic Synthesis and Conversion of Methanol and Dimethyl Ether

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Message from the Guest Editors

Dear Colleagues,

Over the last few decades, an increasing interest from both academia and industry has been devoted to the development of new chemical and technological strategies for the efficient introduction of renewable energy in the value chain of chemical industry. In fact, the post-COVID pandemic policies are pushing towards a further increase in renewables utilization. In particular, the utilization of renewables for the production of chemicals represents a key strategy for a sustainable energetic transition. In this regard, methanol and/or dimethyl ether may be considered as valuable molecules for the production of several high-added-value products, such as olefins, gasoline, or other chemicals, or used as circular hydrogen carrier.

This Special Issue aims to collect original research papers, reviews, or short communication in the field of the synthesis of methanol/dimethyl ether from renewables and the conversion of methanol/dimethyl ether towards high-added-value molecules. In particular, studies on the effect of catalyst features on kinetic and catalytic behavior at both lab-scale and pilot-scale are welcomed.