Special Issue

Recent Advances in Catalytic CO_2 Conversion for Value-Added Chemical Production

Message from the Guest Editors

Catalytic CO2 conversion is a promising option for mitigating greenhouse gases while maintaining the economic feasibility of chemical production processes. Catalytic CO2 conversion may include 1) thermochemical catalytic CO2 conversion, 2) electrochemical CO2 reduction, and 3) biological CO2 capture and conversion. Amongst them, several research topics such as CO2 hydrogenation and electrochemical CO2 reduction processes are highlighted for the practical application of value-added chemical production as large-scale demonstration projects have successfully demonstrated the economic feasibility of CO2 utilization. This Special Issue on catalytic CO2 conversion will present an overview of currently applied techniques for CO2 conversion, focusing on their advantages, and disadvantages and on the main challenges facing their large-scale application.

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