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

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Message from the Guest Editors

Dear Colleagues,

Catalytic CO_2 conversion is a promising option for mitigating greenhouse gases while maintaining the economic feasibility of chemical production processes. Catalytic CO_2 conversion may include 1) thermochemical catalytic CO_2 conversion, 2) electrochemical CO_2 reduction, and 3) biological CO_2 capture and conversion. Amongst them, several research topics such as CO_2 hydrogenation and electrochemical CO_2 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 CO_2 utilization. This Special Issue on catalytic CO_2 conversion will present an overview of currently applied techniques for CO_2 conversion, focusing on their advantages, and disadvantages and on the main challenges facing their large-scale application.

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Guest Editors