

Preface to "Thermocatalytic Conversion of CO₂ into Sustainable Chemical Products"

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It is well-documented that the anthropogenic CO_2 and CH_4 gases play a central role in global warming. Significantly, the Paris Agreement within the United Nations Framework Convention on Climate Change (UNFCCC) was officially signed in 2016, targeting on climate change mitigation. In particular, the mitigation of CO_2 effects on the weather pattern comes in several ways such as CO_2 capture, storage and utilization.

This issue is specially created in our continuous efforts to promote the recent gains by our colleagues in combating climate change through utilizing CO_2 . The collection of articles in this special issue reports on the thermocatalytic reaction of CO_2 , viz. dry reforming, hydrogenation and reverse-water–gas-shift. Both experimental and simulation works are reported herein. The end-products from this thermocatalytic pathway are usually value-added chemical species such as syngas, hydrogen and alcohols which are synonymous with the downstream petrochemical industry. In lieu of this, we believe that the CO_2 utilization could be retrofitted into the existing petrochemical facilities for greater economic benefit.

Before bowing out, we urge the readers of this special issue to cite these published works for their future references and continue to work diligently in protecting this planet. An effort to preserve this planet as a habitable place for our future generation is definitely less daunting than relocating to a new, hostile planet lying millions of miles away.

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