Theoretical and Experimental Advance in Catalytic CO₂ Hydrogenation to Produce Methanol

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Deadline for manuscript submissions:
closed (31 July 2022)

Message from the Guest Editors

Catalytic hydrogenation of CO_2 to value added chemical and fuels has attracted increasing attentions because of its great potential for closing the anthropological carbon-loop and producing the sustainable energy and materials. Great efforts have been made to develop efficient catalysts for CO_2 hydrogenation to methanol. Methanol is a particularly valuable product from CO_2 hydrogenation, because it is an excellent fuel for internal combustion engines or fuel cells, can be easily transported and stored using existing infrastructure, and is also an important feedstock for producing other valuable chemicals (e.g., dimethyl ether, ethylene, propylene) that current obtained from fossil fuels.

This Special Issue will present the most recent and significant theoretical and experimental studies and discoveries on heterogeneous and homogeneous catalysts including thermoal-, photo-, electro-catalysis for CO_2 hydrogenation to methanol. Original papers on the above topics and short reviews are welcome for submission.

mdpi.com/si/102863

Special Issue