Special Issue

Recent Developments on Catalysts for CO_2 Reduction

Message from the Guest Editors

Excessive emission of CO2 has caused many environmental issues and is severely threatening the ecosystem. One of the most promising methods to cut-down CO2 emissions and alleviate the global challenge of climate change is CO2 reduction reaction (CO2RR). Developing robust catalysts that have high reaction activity and selectivity under mild reaction conditions for CO2RR is key to achieving energy and environmental sustainability. Therefore, carrying out CO2RR using renewable energy is a promising strategy to end the anthropogenic chemical carbon cycle and simultaneously increase carbon feedstock production. This Special Issue is dedicated to novel research and discussions on CO2RR, with a focus on, but not limited to, the following: (1) Fundamental research on mechanisms of CO2RR; (2) CO2 photocatalytic/electrocatalytic reduction; (3) Theoretical simulation research for CO2RR; (4) Carbon dioxide recycling; (5) Related catalytic materials. Original research papers and reviews providing new insights into these areas are welcome.

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