Special Issue

Advances in Catalytic Conversion of Biomass

Message from the Guest Editors

With the aggravation of global environmental problems and the shortage of fossil resources, various homogenous/heterogenous catalytic processes have been developed for the conversion of biomass into biofuels or biochemicals via hydrolysis, isomerization, dehydration, oxidation, hydrogenation, etherification, and so on. Heterogeneous catalysts have gained prominence in this field due to their recyclability and product separation compared to homogeneous catalysts and biocatalysts. But there are still challenges to overcome in terms of catalytic performance, reaction conditions, and cost-effectiveness. To address these issues, researchers have turned to innovative approaches such as photocatalysis and electrocatalysis, which are regarded as environmentally friendly methods for biomass conversion. This Special Issue aims to highlight recent advances in these areas that can help spur further research and development, ultimately leading to more efficient and sustainable biomass conversion technologies.

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