Special Issue

Catalytic Conversion of Biomass to Furan Compounds

Message from the Guest Editors

The catalytic transformation of renewable biomass to value-added furan compounds is a promising approach for biomass utilization. Among various biomass-derived chemicals, 5-hydroxymethylfurfural (HMF) and furfural are a pivotal platform to bridge raw biomass materials with value-added products since they can be readily converted to a series of value-added products that have the potential to displace corresponding petrochemicals. The conversion of fructose, glucose, mannose, sucrose, cellobiose, maltose, inulin, starch, cellulose, industrial molasses, and real-world lignocellulosic biomass to HMF has been extensively studied. Nevertheless, the production efficiency and cost of HMF are still not satisfactory. Therefore, much effort is required to further improve HMF production efficiency and selectivity. This Special Issue aims to cover recent advances in the catalytic conversion of biomass to value-added furan compounds, including but not limited to HMF, furfural, DFF, FDCA, FFCA, HMFCA, BHMF, BHMTHF, DMF, 2-MF, and EMF.

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