Special Issue

Catalytic Conversion of Glycerol

Message from the Guest Editors

Glycerol is the core byproduct in the production of biodiesel. Value-added applications of glycerol, e.g., as a low-cost raw material for chemicals and fuels, has attracted increasing attention. Due to the highly functionalized molecular structure of glycerol, it can be catalytically converted into many high-value chemicals/fuels including: citric acid, lactic acid, 1,3dihydroxyacetone, 1,3-propanediol, 1,2-propanediol, dichloro-2-propanol, acrolein, solketal, hydrogen, ethanol, etc. To realize efficient and cost-effective production of these chemicals/fuels from glycerol, the development of proper heterogeneous catalysts or biocatalysts, and catalytic processes is essential. According to the target products, catalytic strategies for alveerol conversion can be classified into oxidation. dehydration, acetylation, esterification, reforming, reduction, etherification, ammoxidation, acetalization, gasification, etc. This Special Issue welcomes both review and original research articles on all aspects of glycerol conversion/utilization by catalysis in both heterogeneous and homogeneous systems.

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