

Special Issue

Heterogeneous Catalysis System for Biofuels Production

Message from the Guest Editors

Biofuels include any energy-enriched chemicals generated through biological processes or derived from chemical conversion from biomass. They are indicated as “first generation” biofuels (as bioethanol synthesized from carbohydrates and biodiesel from fats and oils) or “second-generation” (obtained from non-edible feedstocks as lignocellulosic biomass or woody crops, agricultural residues, or wastes) as a function of the feedstock used. In this field, the research is focused on exploring new and sustainable solid catalysts both for improving the synthesis of first-generation biofuels by replacing commercial homogenous catalytic materials and the production of second-generation biofuels by designing the specific catalyst. Based on this, this Special Issue aims at collecting recent progress, including challenges and opportunities in the heterogeneous catalytic materials designed and developed for liquid or gaseous biofuels production for transport purposes with a specific focus on innovative chemical formulations or synthesis procedures and exploring the main activity-properties relationships.

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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