



## Nanostructure Metal Alloys for the Transformation of Biomass

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### Message from the Guest Editors

This issue will be devoted to the preparation, characterization and application of nanostructured metal alloy for the transformation of molecules derived from biomass, including glycerol, cellulosic and hemicellulose compounds, lignin derived molecules. Metal nanoparticles have received a lot of interest in the last decade because of their unique properties finding potential applications in different fields, such as catalysis, electronics, optics, imaging, and biology. The superior performance of bimetallic systems compared to monometallic counterparts has been reported for different chemical reactions, including CO oxidation the selective oxidation of alcohols to aldehydes the direct synthesis of hydrogen peroxide the oxidation of primary C–H bonds and the transformation of biomass to fuel and chemical. The intrinsic properties of bimetallic particles has been shown to lead to catalytic properties different from monometallic counterparts, e.g., selectivity, and stability.





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## Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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