



## Applications of Nanocatalysts in Biomass Conversion: Volume II

Guest Editor:

**Prof. Dr. Juan Carlos Serrano-Ruiz**

Department of Engineering,  
University Loyola Andalucía,  
41014 Seville, Spain

Deadline for manuscript  
submissions:

**closed (20 September 2023)**

### Message from the Guest Editor

Dear Colleagues,

The world energy demand has increased continuously over the past decade, which directly affects the increase in fossil fuel consumption, resulting in a rise in greenhouse gas emissions. Considering the pollution problems associated with fossil fuels, biomass resources emerge as a promising alternative energy source. However, the complex heterogeneity of biomass places new demands on the design and optimization of catalysts. In this context, the role of nanocatalysts becomes crucial when considering process activity, product quality, and optimal operating conditions. Thus, exploring novel nanocatalysts could provide new and efficient methods for the production of renewable biofuels under environmentally friendly conditions.

In this Special Issue, recent results in the production of advanced biofuels using stable, highly active, inexpensive, and reusable nanocatalysts are presented. Papers providing physicochemical properties of nanocatalysts and insights into structure–activity relationships are very welcome. See more information at <https://www.mdpi.com/si/163188>



[mdpi.com/si/163188](https://www.mdpi.com/si/163188)

Prof. Dr. Juan Carlos Serrano-Ruiz  
Guest Editor

# Special Issue



an Open Access Journal by MDPI

## Editor-in-Chief

### **Prof. Dr. Shirley Chiang**

Department of Physics, University  
of California Davis, One Shields  
Avenue, Davis, CA 95616-5270,  
USA

## 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.

## Author Benefits

**Open Access:** free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

**High Visibility:** indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [PMC](#), [CAPus / SciFinder](#), [Inspecc](#), and [other databases](#).

**Journal Rank:** JCR - Q1 (*Physics, Applied*) / CiteScore - Q1 (*General Chemical Engineering*)

## Contact Us

*Nanomaterials* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/nanomaterials](http://mdpi.com/journal/nanomaterials)  
[nanomaterials@mdpi.com](mailto:nanomaterials@mdpi.com)  
[X@nano\\_mdpi](#)