



## Synthesis and Characterization of Nanomaterials: Latest Advances and Prospects

Guest Editor:

**Prof. Dr. Jaime Santoyo-Salazar**

Physics Department, Center for Research and Advanced Studies of the National Polytechnic Institute, CINVESTAV-IPN, Ciudad de México 07360, Mexico

Deadline for manuscript submissions:

**closed (30 March 2022)**

### Message from the Guest Editor

This Special Issue of Applied Sciences aims to cover the synthesis of nanomaterials by physical, chemical, and biological routes, as well as to promote the emerging interdisciplinary advances to control nanomaterials processing, functionalization, and coating, including their formation mechanisms.

The characterization of nanomaterials properties involves the correlations between atomic structure, composition, dimension, size, morphology, shape, surface, coating, stability, and self-assembly, among others with their physical, chemical, and biological responses as function of time and environment.

This issue ponders the latest advances and prospects in the synthesis and modification of nanomaterials, through improved properties. These features open unlimited possibilities for potential applications in different areas.

### Keywords:

- synthesis and characterization
- biomimetics nanoparticles
- semiconductor nanomaterials
- smart nanomaterials
- bio-nanomaterials
- magnetic nanomaterials
- nanotoxicity





an Open Access Journal by MDPI

## Editor-in-Chief

**Prof. Dr. Giulio Nicola Cerullo**  
Dipartimento di Fisica,  
Politecnico di Milano, Piazza L.  
da Vinci 32, 20133 Milano, Italy

## Message from the Editor-in-Chief

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.

## 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), Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

## Contact Us

---

Applied Sciences Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

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

[mdpi.com/journal/applsci](http://mdpi.com/journal/applsci)  
[applsci@mdpi.com](mailto:applsci@mdpi.com)  
[X@Applsci](#)