

## Special Issue

# Recent Advances in the Synthesis and Applications of Nanoparticles

### Message from the Guest Editor

Nanoparticles are key components in a wide range of advanced applications. The fascinating richness of properties including size, morphology, and composition of polymeric, metallic, and semiconductor nanoparticles are essential for many important applications. In particular, this Special Issue focuses on advanced chemical and electrochemical approaches to synthesis-functionalized nanoparticles for advanced applications in catalysis, drug delivery, sensors, energy storage, textile, and disease diagnosis. The Special Issue also demonstrates advanced characterization techniques to explore physical properties, formation mechanisms, and growth kinetics. We expect to receive original works that emphasize on new synthesis approaches and recent applications of nanoparticles, identifying trends, potential future research areas, and potential commercial products. Keywords

- polymeric nanoparticles
- theoretical modeling
- growth kinetics
- nanoparticles and nanoengineering
- advance synthesis
- physical properties
- characterization techniques
- nanoparticle thin films
- nanoparticle composites
- multifunctional

### Guest Editor

Prof. Dr. Ezzeldin Metwalli

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### Deadline for manuscript submissions

closed (31 August 2022)



## Applied Sciences

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## About the Journal

### 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.

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### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
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