



an Open Access Journal by MDPI

Hydrothermal Synthesis of Nanoparticles

Guest Editors:

Dr. Gimyeong Seong

New Industrial Creation
Hatchery Center (NICHe), Tohoku
University, Sendai, Japan

Dr. Juan Carlos Rendón- Angeles

Center for Research, Advanced
Studies of the National
Polytechnic Institute, Mexico City,
Mexico

Deadline for manuscript
submissions:
closed (20 February 2022)

Message from the Guest Editors

The recent developments in the preparation of nanoparticles by heterogeneous chemical solution reactions favored the production of a large number of advanced functional materials. Additionally, the particle size control enhanced by high crystallization kinetics occurring in aqueous substances provides the sufficient conditions to produce nanoparticles of various inorganic compounds. The innovation of technology triggers the challenge of optimizing the synthesis of nanostructured advanced and functional materials to overcome the requirements of the current technology. Hence, the hydrothermal synthesis (including supercritical region) of nanoparticles has emerged as a sustainable technique to produce inorganic materials on a large scale in continuous flow reactors at a relatively low cost. This Special Issue intends to gather original and review papers on scientific fundamentals and technological applications of the hydrothermal synthesis of nanoparticles of new nanomaterials for energy storage, catalysis engineering use, and environmental sustainability challenges.



mdpi.com/si/43279

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, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank: JCR - Q2 (*Chemistry, Multidisciplinary*) / CiteScore - Q1 (General Chemical Engineering)

Contact Us

Nanomaterials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/nanomaterials
nanomaterials@mdpi.com
[X@nano_mdpi](https://x.com/nano_mdpi)