



an Open Access Journal by MDPI

## Nanoporous Graphitic Carbon Materials for Energy Storage and Conversion

Guest Editors:

### Dr. Lok Kumar Shrestha

International Center for Materials  
Nanoarchitectonics (WPI-MANA),  
National Institute for Materials  
Science (NIMS), 1-1 Namiki,  
Ibaraki, Tsukuba 305-0044, Japan

### Dr. Rekha Goswami Shrestha

Department of Applied  
Chemistry, Tokyo University of  
Science, 1-3 Kagurazaka  
Shinjuku-ku, Tokyo 162-8601,  
Japan

Deadline for manuscript  
submissions:

**closed (29 February 2020)**

### Message from the Guest Editors

Dear Colleagues,

Nanoporous graphitic carbon materials have received considerable attention due to their potential applications in a wide range of areas. Generally, the hard-templating approach is employed for the preparation of nanoporous carbon materials followed by thermal treatment for the development of the graphitic structure. Inorganic mesoporous silica and zeolites have also been utilized as templates and there are further recent reports of alternative approaches demonstrating direct self-assembly of amphiphilic molecules as a soft-template for carbon precursors. Furthermore, physical/or chemical activation of lignocellulosic materials give high surface area nanoporous carbon materials. Surface textural properties and the structure of the nanoporous carbon materials depends on synthetic conditions. Therefore, fabrication of nanoporous materials is important for the targeted applications. This Special Issue aims to collate original research papers, reviews and communications focusing on advancements of state-of-art nanoporous functional carbon materials in applications, including energy storage and energy conversion.

*Guest Editors*



[mdpi.com/si/17334](https://mdpi.com/si/17334)

# 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](http://www.mdpi.com)

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