



an Open Access Journal by MDPI

## Synthesis, Characterization and Application of Powder Materials in Batteries

Guest Editor:

**Dr. Alessandro Dell'Era**

Department SBAl, Sapienza  
University of Rome, 00161 Rome,  
Italy

Deadline for manuscript  
submissions:

**closed (20 February 2022)**

### Message from the Guest Editor

The purpose of this Special Issue is to publish high-quality research papers as well as review articles addressing recent advances on synthesis, characterization and application of powder materials in batteries. We seek original, high-quality contributions that are not yet published or that are not currently under review by other journals or peer-reviewed conferences.

Potential topics include preparation methods, material characteristics, and applications of powder electrode materials, but are not limited to the following:

- Study, synthesis, and characterization of anodic and cathodic active powder;
- Study of the interaction between electrode materials and electrolyte;
- Transport processes in free and porous media;
- Electrochemical reaction kinetic studies for batteries optimization;
- Powder and particle characterization;
- Measurement and control of powder processes;
- Advanced nanomaterials for efficient electrodes in batteries;
- Chemistry and materials science of diffusion, mass transport, and reactivity of powder electrode materials.



[mdpi.com/si/38238](https://mdpi.com/si/38238)

# Special Issue



an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Maryam Tabrizian

1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada

2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

## Message from the Editor-in-Chief

*Materials* (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

## 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, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

**Journal Rank:** JCR - Q1 (Metallurgy and Metallurgical Engineering) / CiteScore - Q2 (*Condensed Matter Physics*)

## Contact Us

Materials Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

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

[mdpi.com/journal/materials](http://mdpi.com/journal/materials)  
[materials@mdpi.com](mailto:materials@mdpi.com)  
[X@Materials\\_Mdpi](https://twitter.com/Materials_Mdpi)