

## Special Issue

# Recent Advances in Functional Materials for Energy Conversion, Storage, and Saving

### Message from the Guest Editor

The development of functional materials with desired properties plays a key role in advancing renewable energy applications. This Special Issue aims to provide materials scientists and engineers with the most recent progress in the rapid development of functional materials for energy conversion, storage, and saving. In this issue, we focus on research into new and novel materials related to energy applications, including but not limited to thermoelectric generators, semiconductor devices, carbon dioxide conversion systems, photovoltaic (PV) devices, batteries, and fuel cells. Materials can include polymeric, complex oxide, nanoionic, caloric, and porous materials for energy applications. We kindly invite you to submit a manuscript to this Special Issue. Research articles, review articles, and significant preliminary communications are all welcome. Keywords:

- functional energy materials
- energy conversion and storage devices
- energy conversion and storage mechanisms

---

### Guest Editor

Dr. Dongkyu Lee

Department of Mechanical Engineering, University of South Carolina, Columbia, SC 29208, USA

---

### Deadline for manuscript submissions

closed (31 December 2023)



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/129797](https://mdpi.com/si/129797)

*Applied Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[applsci@mdpi.com](mailto:applsci@mdpi.com)

[mdpi.com/journal/](https://mdpi.com/journal/)

[applsci](https://mdpi.com/journal/applsci)





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/journal/  
applsci](https://mdpi.com/journal/applsci)



## 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.

---

### Editor-in-Chief

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

---

### 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), Ei Compendex, Inspec, Embase, CAPIus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering )