

## Special Issue

# Energy and Environmental Applications of Thin Films and Coatings

### Message from the Guest Editor

The aim of this Special Issue is to present the latest experimental and theoretical developments in thin film coatings prepared by physical and chemical deposition methods for application in the energy and environmental sectors. The topics include, but are not limited to, the following:

- Overview of the fundamentals and new concepts in design and use of thin film coatings for energy and environmental applications;
- Design of thin film materials and structures for particular surfaces to provide required properties;
- Recent advances in thin film deposition techniques;
- Novel catalytic and photocatalytic thin film coatings for CO<sub>2</sub> reduction;
- Electrochemical active, conductive or corrosion protective thin films and coatings for energy storage devices including, but not limited to, batteries and supercapacitors;
- Electro-catalytic thin films and coatings for hydrogen energy technologies including hydrogen production, storage, and fuel cells;
- Transparent, antireflection, and absorbing thin film coatings for solar cells and solar thermal collectors;
- Thin film coatings for improved hardness, abrasion resistance, and permeation for energy devices.

### Guest Editor

Prof. Dr. Dongfang Yang

National Research Council Canada, 800 Collip Circle, London, ON N6G 4X8, Canada

### Deadline for manuscript submissions

closed (20 June 2022)



## Applied Sciences

an Open Access Journal  
by MDPI

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/100028](https://mdpi.com/si/100028)

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

[mdpi.com/journal/  
appls-ci](https://mdpi.com/journal/appls-ci)





# 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, CAPlus / SciFinder, and other databases.

#### Journal Rank:

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