



## Perovskite Materials: Preparations, Characterizations and Applications

Guest Editor:

**Dr. Yihang Li**

Academy of Advanced  
Interdisciplinary Research, Xidian  
University, Xi'an 710126, China

Deadline for manuscript  
submissions:

**closed (31 December 2022)**

### Message from the Guest Editor

Dear Colleagues,

Perovskite materials, represented by a formula of  $ABX_3$ , have attracted considerable attention because of their adjustable structure–composition–property relationships. Therefore, some special advantages can facilitate their scalable use as active components for a variety of applications, such as alleviating the energy crisis and environmental problems.

As the Guest Editor, I would like to invite you to submit your original research articles, reviews or perspective to this Coatings Special Issue entitled “Perovskite Materials: Preparations, Characterizations and Applications”.

Topics of interest include but are not limited to:

Solid oxide fuel/electrolysis cells, e.g., electrodes, electrolytes and interconnectors;

Gas sensors, e.g., sensing electrodes;

Hydrogen/oxygen permeation membranes;

Deposition method, e.g., plasma spraying, pulsed laser deposition;

Thermocatalysis/Electrocatalysis/Photocatalysis, e.g., alkane dehydrogenation, water splitting,  $CO_2$  reduction,  $N_2$  reduction;

Piezoelectric/ferroelectric ceramics;

Perovskite solar cells;

Additive manufacturing;

Experimental testing



[mdpi.com/si/122117](https://mdpi.com/si/122117)

# Special Issue

Any other aspects of perovskite materials



*coatings*



an Open Access  
Journal by MDPI

## Editors-in-Chief

### Prof. Dr. Wei Pan

State Key Laboratory of New  
Ceramics and Fine Processing,  
School of Materials Science &  
Engineering, Tsinghua University,  
Beijing 100084, China

### Dr. Emerson Coy

NanoBioMedical Centre, Adam  
Mickiewicz University in Poznań,  
ul. Wszechnicy Piastowskiej 3, 61-  
614 Poznań, Poland

## 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), Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q2 (*Physics, Applied*) / CiteScore - Q2 (*Surfaces, Coatings and Films*)

## Message from the Editorial Board

Now more than ever, research is asked to deliver knowledge and technologies to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed in the spotlight of most contemporary research. Surface science and engineering play a key role in this regard, with an incredible potential in delivering new and deep scientific understanding and technical solutions essential to solve most of the major societal challenges.

Coatings is a well-established, peerreviewed, online journal dedicated to the vibrant field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers that make the point on the hottest research topics.

## Contact Us

Coatings Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

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

mdpi.com/journal/coatings  
coatings@mdpi.com  
X@Coatings\_MDPI