

## Special Issue

# Advanced Bio-Based Materials and Coatings for Energy and Environmental Applications

### Message from the Guest Editor

In recent years, bio-based materials and coatings have been widely applied in environmental protection. This is primarily due to their eco-friendliness and potential to combat greenhouse gas emissions. In the field of environmental applications, these materials can be utilized as alternative raw materials. They feature low carbon emissions and biodegradability. This Special Issue invites papers that focus on, but are not limited to, the following topics:

- Biodegradable materials and coatings;
- Low-carbon bio-based materials and coatings;
- Antimicrobial bio-based materials and coatings;
- Bio-based materials and coatings for environmental protection.

Researchers and scientists working in the field of environmental and material technology and related disciplines are encouraged to contribute their original research articles, reviews, and perspectives to this Special Issue.

---

### Guest Editor

Prof. Dr. Shinhao Yang

1. Environmental Sustainability Lab, Center for General Education, CTBC Business School, Tainan 709, Taiwan
2. AI Environmental Engineering and Circular Economy Research Center, CTBC Business School, Tainan 709, Taiwan

---

### Deadline for manuscript submissions

closed (30 November 2025)



## Coatings

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.8  
CiteScore 5.4



[mdpi.com/si/229636](https://mdpi.com/si/229636)

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

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





# Coatings

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.8  
CiteScore 5.4



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



## About the Journal

### 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.

---

### 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), Ei Compendex, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Physics, Applied) / CiteScore - Q2 (Surfaces, Coatings and Films)