



## Advanced Composites and Coatings for Nuclear Applications

Guest Editor:

**Dr. Cédric Sauder**

CEA, Service de Recherches  
Métallurgiques Appliquées,  
Université Paris-Saclay, 91191  
Gif-sur-Yvette, France

Deadline for manuscript  
submissions:

**closed (31 March 2022)**

### Message from the Guest Editor

This aim of this Special Issue is to publish original articles, critical reviews, as well as perspectives, from leading research in both academia and industry on all aspects related to recent advances in design, processing and development of composites and coatings for nuclear applications. The contributions on the new concepts, characterizations, simulation and the behavior in nominal and accidental conditions of materials are also welcome.

In particular, the topics of interest of this special issue includes, but are not limited to, the following:

- Advanced coatings for nuclear applications
- Composites for nuclear applications
- Post-irradiation examination of composites or coatings
- Corrosion behavior of composites or coatings in severe environment
- New methods for coatings characterization
- Tailoring the deposition process for nuclear applications
- Additive manufacturing methods for composites processing
- Evaluation of Complex Concentrated Alloys as coatings
- Simulation/prediction of mechanical behavior of composites
- Diffusion in 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

## 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.

## 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*)

## 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