

## Special Issue

# Analysis of Structure and Mechanical Properties of Coatings

### Message from the Guest Editor

Coatings and thin films materials have increasingly attracted the attention of scientists and technologists. Due to the unique microstructure, large surface-to-volume ratio, small size, and substrate constraints of thin films and coatings, their mechanical properties differ from those of bulk materials. Understanding the processes that control the mechanical properties of thin films and coatings structures is important in a variety of scientific and technological applications, such as various preparation techniques and structural fracture failure analysis of hard coatings and films. There are many film-substrate structures in MEMS, and their mechanical behavior will be different in the micro-scale structure. Meanwhile, during application, many physical fields are included, such as electric, magnetic, moisture, and thermal fields. Research areas may include (but are not limited to) the following:

- preparation of coatings and thin films;
- structure and microstructure analysis of coatings and thin films;
- fracture failure analysis of coatings and thin films;
- simulation and theoretical analysis of coatings and thin film failure;
- application of protective coating.

### Guest Editor

Dr. Huayang Dang

Associate Professor, School of Mechanics and Safety Engineering, Zhengzhou University, Zhengzhou 450001, China

### Deadline for manuscript submissions

closed (30 December 2024)



## Coatings

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Impact Factor 2.8  
CiteScore 5.4



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

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## 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.

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

Dr. Emerson Coy

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