

Tribological Properties and Wear Protection of Coatings and Alloys

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

Surface-initiated damage (SID) is becoming the dominant failure mode in the mechanical engineering field due to the requirement of increasing mechanical system efficiency. Over 80 percent of engineering part failures are due to SID. It is thus of increasing importance to study SID and prevent the catastrophic consequences caused by it.

Coating is a critical and widely used approach to fight against SID. The understanding of tribological properties and wear protection of coatings and alloys are crucial to minimize the cost due to SID. This kind of research covers the design and modification of tribology properties.

This Special Issue focuses on “Tribological Properties and Wear Protection of Coatings and Alloys”. The topics of interest for this Special Issue, in particular, include (but are not restricted to):

- Experimental testing of the tribology properties of coating and alloy.
- Evaluation of SID resistance due to coating and surface alloying, either through experimental or numerical/modeling approaches;
- New technology for coatings and surface treatment technologies



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Message from the Editorial Board

Now more than ever, research is called for to produce technologies and improve knowledge 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 at the center of most contemporary research. Surface science and engineering play a key role in this regard. Refining surfaces and their modifications provides new materials, architectures and processes with a huge potential to aid most societal challenges. *Coatings* is a well-established, peer-reviewed, online journal that focuses on the dissemination of publications in the field of surface science and engineering. *Coatings* publishes original research articles that report cutting-edge results and review papers on the hottest topics.

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