



Advanced Coating Materials for Machining Processes

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Message from the Guest Editors

This Special Issue aims to provide a platform for both academic and industrial researchers to disseminate their original research and critical review articles on all aspects of advanced coating materials utilized for diverse machining operations. Papers reporting important findings, novel insights, or useful techniques within the scope of this Special Issue are all welcome.

The topics of interest include but are not limited to:

- Fabrication and characterization of advanced coating materials;
- Evaluation of cutting performances of coated tools;
- Modeling and simulation of machining operations using coated tools;
- Machinability assessment of hard-to-cut materials;
- Thermal and frictional behaviors of coating materials;
- Wear modes and failure mechanisms of coated cutting tools;
- Quantification of coated tool wear in machining;
- Wear control strategies of coated cutting tools;
- Theoretical prediction of coated tool life;
- Machining quality and defects assessment when using coated tools.





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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.

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