



## Progresses and Challenges in Experimental Characterization of Coatings

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### Message from the Guest Editors

Dear Colleagues,

We all know that adoption of coatings has spread widely in the last few decades. At present, coatings are required to satisfy higher levels of performances under heavier conditions; at the same time, an increased level of durability and often multifunctional properties should be addressed. The assessment and the achievement of these targets requires, as a direct consequence, the improvement of the experimental analysis techniques in order to obtain a more accurate, complete, and detailed information about the coating behavior. The aim of this Special Issue is to host the most recent and advanced methods in experimental characterization of coatings.

In particular, the topics of interest include but are not limited to:

- Development of new techniques for coating characterization;
- Residual stress measurement in coatings;
- Durability evaluation of coatings;
- Full-field, optical methods for coating evaluation;
- Measurement of wear, corrosion, and erosion effects;
- Acoustic methods for under film corrosion analysis;
- Experimental analysis of multifunctional coatings;
- Nondestructive methods for coating characterization.





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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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