



## 2D Materials-Based Thin Films and Coatings

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Deadline for manuscript  
submissions:

**closed (29 February 2024)**

### Message from the Guest Editor

Dear Colleagues,

The related 2D materials that are currently considered as promising thin films and coatings include the following: graphene oxide, molybdenum disulfide, boron nitride, mica, zirconium phosphate, layered hydrotalcite, the MXene family, carbon nitride, amongst others.

This Special Issue is expected to serve as a forum for papers in the following concepts:

- Recent developments in multi-functional graphene-based coatings;
- Theoretical and experimental research, and new ideas in protective and preventive coating mechanisms using beyond-graphene materials;
- Coatings or thin films produced by different processes as additive manufacturing processes, thermal spray, laser and plasma processing, CVD, plating, etc.;
- Coatings with exposure to high temperatures, high stress, and other extreme environment applications;
- Understanding the degradation mechanisms of coatings through friction, wear or other dynamic loading conditions, and corrosion;
- Modeling and simulation to predict coating properties, performance, durability, and reliability.



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Prof. Dr. Cristian Vacacela Gomez  
*Guest Editor*

**Special** *Issue*



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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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