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# Advanced Coating Technology by Physical Vapor Deposition and Applications

Guest Editor:

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Deadline for manuscript submissions:
**30 November 2024**

## Message from the Guest Editor

Dear Colleagues,

Physical vapor deposition (PVD) is a widely used technique used for the preparation of thin films and surface coatings. PVD has been widely used in industry and combined with different methods to produce film components with excellent performance. Uniform PVD coatings provide hard surfaces that can be applied to a variety of materials and substrates. The PVD process can also be used to form multilayer coatings, composite coatings, oblique coatings, and unique structures. The PVD multilayered film structure is beneficial for improving oxidation resistance, enhancing mechanical properties, reducing internal stress, inhibiting crack propagation, and improving fracture toughness. We sincerely invite you to contribute your original papers to this Special Issue. The topics of interest include (but are not limited to) the following topics:

- Thin film coating techniques;
- Characterization of thin films for micro-components;
- Advanced sputtering coatings;
- -Multilayer thin film preparation and applications;
- Novel PVD coating techniques;
- Optical interference coatings;
- Mechanical stress in thin films and coatings;
- Simulation and modeling in PVD processes.

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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.

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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