



## Chemical Vapor Deposition (CVD) Coatings

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submissions:

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### Message from the Guest Editors

This Special Issue is dealing with deposition, fundamentals, characterization, and advanced surface engineering of materials and structures grown by different CVD deposition techniques, including but not limited to CVD, LPCVD, MTCVD, MOCVD, ALD, aerosol-assisted CVD, pulsed CVD, and their plasma-assisted counterparts, such as PECVD.

The topic of interest includes but is not limited to:

- Deposition of hard and wear resistant coatings, such as Ti(C,N), TiN,  $\alpha$ -Al<sub>2</sub>O<sub>3</sub>  $\kappa$ -Al<sub>2</sub>O<sub>3</sub> and other conventional tool coatings;
- Processing, deposition, and structure development of CVD c-TiAlN coatings;
- Processing, deposition and structure development of CVD nanocomposite coatings such as TiSiN and TiSiCN;
- Processing, deposition and structure development of superhard CVD coatings such as coatings of diamond, amorphous carbon, c-BN and metal borides;
- Coatings to resist high temperature oxidization and corrosion;
- Tool coatings: modification of microstructure, texture, stress state, and thermal properties;
- Thermal barrier coatings and diffusion barrier coatings;
- Self-lubricating coating;
- Microstructural characterization of CVD coatings.





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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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