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Progress in Designing of Tribological Materials and Coatings

Guest Editor:

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Message from the Guest Editor

The design and manufacturing of advanced tribological materials and coatings have gained importance as methods of reducing energy dissipation and/or mechanical load on moving parts or where the use of lubricants is not possible, and it addresses industrial sectors such as space application, engine technology, dry sliding application and even biomedical implants.

The design encompasses the composition of the materials (doping effect, structured/ layered materials, etc.) whereas manufacturing deals with the possibility to create gradient-based materials, multi-materials thin layers, etc.

In addition, the evaluation of the mechanical properties of such materials or coatings in relation with their application conditions such as high temperature and corrosive environment is essential for their optimization. The use of advanced modelling tools to the material structure and behavior is an asset to refine the design and their lifetime.



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Special issue



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Message from the Editor-in-Chief

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