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## Metal, and Alloys Based Thin Films and Nanocomposites: Synthesis and Applications

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### Message from the Guest Editor

Nanocomposites consisting of noble metals and a matrix of metal oxides are considered promising materials for use in catalysis, electronics, fuel cells, and gas sensors. Within the films of these materials, various additional technological applications exist, such as use in coated medical devices, magnetic recording media, electro-optical systems, photocatalytic coatings, or gas sensing devices. Additionally, nanoscale metals and their alloys can serve as the best materials for shielding electromagnetic interference. The creation and application of flexible polymer nanocomposites based on metals and metal alloys with the addition of carbon nanoforms can replace the materials already used for electromagnetic interference protection due to their unique characteristics, such as their lightweight, excellent corrosion resistance, and excellent electrical, dielectric, thermal, mechanical, and magnetic properties that are very useful in the suppression of electromagnetic interference.



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## Message from the Editor-in-Chief

Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometer-scale dimensions, which we call “nanomaterials”. These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, *Nanomaterials*, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access.

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