Special Issue

Nano-Composite Coatings: Processing, Characterization, Properties, and Applications

Message from the Guest Editor

In recent years, interest in nanocomposite coatings has been increasing due to their applications in many strategic industries, such as food and health, automotive, aerospace, construction, textile, and solar and wind energy production. The unique physical and functional properties of nanocomposite coatings are mostly attributed to the improved morphology with nanoscale phase-separated domains and depend on several factors, including the individual components, dispersion, morphology and shape, surface functionalization, interfacial interactions, and processing techniques. Nanocomposite coatings are engineered to provide attractive performance and cost-saving advantages, to enhance the physicochemical properties, which do not meet the rule of mixtures of component. These types of coatings allow surface functionalization that can improve product longevity by enhancing heat, wear, and scratch resistance, surface mechanical strength, and specific properties, such as antimicrobial, self-healing, flame retardant, and barrier properties.

This Special Issue will be dedicated to all nanocomposite coating materials. Full papers, communications, and reviews are all welcome.

Guest Editor

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Materials (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

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