Special Issue

Advances in Electrodeposition of Thin Films and Alloys

Message from the Guest Editors

Electrodeposition plays a crucial role in the production of thin films, alloys, and metal matrix composites (MMCs) and is a cost-effective and precise method for improving material properties. Some of its key applications include microtechnology and electronics, corrosion protection, energy storage and conversion, tribological applications, and wear-resistant coatings. Materials of interest for this Special Issue include thin metal films, amorphous and nanocrystalline films, metal-based alloys, two-dimensional (2D) materials, transition metals and graphene, rare earth metal alloys, magnetic coatings, metal matrix composites (MMCs), hydride coatings, and laminates, as well as other types of materials that can be created by electrodeposition. The optimization strategies that researchers and industry have focused on in recent years relate to the electrodeposition regime chosen, the optimization of electrodeposition parameters, the control of particle dispersion, post-treatments for films, etc. Statistical and mathematical techniques can also be used to optimize these processes.

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Message from the Editor-in-Chief

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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