

Special Issue

Electrochemical Energy Storage Materials and Devices

Message from the Guest Editor

Given current global issues such as climate change, global warming, the energy crisis, the need for bio-nanomaterials, and environmental concerns, academic and industrial researchers worldwide are focusing on designing and developing new nanomaterials, alloys, and conductive polymers. Biomaterials, electrocatalysts, semiconductors, supercapacitors, energy conversion into solar cells, electrochromic devices, and energy storage/release are just a few applications that can benefit from the multifunctional capabilities of these versatile materials. Many synthetic approaches to the manufacture of nanostructures, alloys, and conductive polymers are currently available, but among them, electrochemical methods (e.g., simple electrochemical oxidation (anodizing) of metals or electropolymerization) are particularly attractive due to their simplicity, cost-effectiveness, and versatility. Therefore, in this Special Issue of *Materials*, regular research papers and reviews on all aspects of the electrochemical synthesis and characterization of nanostructures, alloys, thin films, and conductive polymers with a wide range of applicability are welcome.

Guest Editor

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About the Journal

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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