Special Issue

Research of Advanced Materials for Energy and Environmental Applications

Message from the Guest Editors

This Special Issue aims to cover topics encompassing synthesis, high-throughput characterization and application of advanced materials to clean energy and environmental applications. This includes the various applications related to batteries, sensors, solar energy, fuel cells, supercapacitors, hydrogen generation and storage, optoelectronic devices for efficient energy usage, etc. These advanced materials include novel inorganic, hybrid, catalytic, and/or organic materials. By optimising the synthesis conditions, it is possible to create novel nanomaterials with precise dimensions and shapes, such as nano-tubes, nanofibers or nanowires, nanocomposites, nanorods, nanoparticles, nanospheres, and nano-shells, which have special features. Understanding the physicochemical, structural, microstructural, surface, and interface properties of nanostructures is pre-vital for attaining the desired efficiency, cycle life, shelf life, and sustainability in several technological advancements. This Special Issue is focussed on basic nanoscience research and application for cutting-edge technology, combining the most recent interdisciplinary research.

Guest Editors

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Deadline for manuscript submissions

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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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