Special Issue

Emerging Materials for Energy Applications

Message from the Guest Editors

Renewable electricity generation is expected to become a cornerstone of our future sustainable, climate-neutral energy system, and could become the 'primary fuel of the future', serving most of our needs. Designs based on improved photonic and/or advanced concepts can help approach the efficiency limit by eliminating losses from incomplete absorption or nonradiative recombination, playing a crucial role in the next generation of PV technology. The exciting research opportunities and challenges in photonic design and innovative advanced materials could accelerate the massive integration of photovoltaics.

This Special Issue is devoted to the most recent results focused on:

- Recent developments in photonic materials in the fields of applications such as photonics-integrated layers, organic photonics and, especially, photovoltaics.
- New absorbers, alternative transparent electrodes based on advanced materials with innovative architectures and their applications in the development of next-generation PV devices.

Guest Editors

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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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