

Special Issue

Advanced Energy Materials and Structures for Solar Cell: Design and Application

Message from the Guest Editors

Solar cells, for direct conversion of solar energy to electrical power, is one of the key components in the required transition to renewable energy sources for minimizing climate changes. Emerging solar cell structures are being proposed by different research groups world-wide to develop thinner (ultrathin) and flexible solar cells but still with a high conversion efficiency and performance stability with novel and environment friendly materials. Perovskite is a popular example, but new materials are constantly being investigated and attract attention for photovoltaic applications such as transition metal oxides and kesterite sulfides. Nanotechnology and nanostructures have demonstrated promising pathways for pushing conversion efficiencies even further, and record-breaking efficiencies have been demonstrated using tandem solar cell technology. The continued research on photovoltaics is of critical importance. In this special issue we call for papers focusing on the cutting edge, and advancement, in the field of solar cell research and photovoltaics. It is our pleasure to invite you to submit papers for this special issue. We accept full papers, communications, and reviews.

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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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