Special Issue

Design, Synthesis and Performance Improvements of Solar Cells

Message from the Guest Editor

For a long time, the energy issue has been a core problem that must be faced by humankind. Compared to other renewable energy sources, solar energy has an irreplaceable position in the development of new energy thanks to its environmentally friendly and inexhaustible nature. In the third generation of solar cells, polymer solar cells (PSCs) have attracted much attention from scientists. So far, with the efforts of scientists, the power conversion efficiencies (PCEs) of PSCs have reached 16–18%, and are expected to exceed 20%. It seems clear that research on PSCs has advanced to the level of commercial application. However, whether the problems of its efficiency, cost, and stability can be solved well is a decisive factor for the industrialization and application of PSCs. It is of significant to develop new types of donor and acceptor materials for organic photovoltaic devices. This SI aims to provide an international platform for professions to discuss and present their most recent research in the design, synthesis, and performance improvements of solar cells. Submissions on other topics are also welcomed.

Guest Editor

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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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