Special Issue

Preparation and Application of Advanced Solar Cell Materials and Devices

Message from the Guest Editors

Solar cell is a technique to convert solar energy to electricity and promote the development of a carbon-free society. In the past decade, many emerging photovoltaic techniques such as perovskite solar cells (PSCs), organic photovoltaics (OPV), quantum dot solar cells (QDSCs) and inorganic thin film solar cells have been comprehensively studied beside the mature crystal silicon (c-Si) solar cells.

These new types of advanced solar cells will likely further promote the solar energy conversion and decrease the cost of production, and extend the application scenarios to indoor photovoltaics, building-integrated photovoltaics, flexible electronics, and outside space application. In this Special Issue, we aim to collect the research topics of preparation and application of advanced solar cell materials and devices based on, but not limited to, the solar cell types mentioned above. We kindly invite you to submit a manuscript(s) for this Special Issue. Full papers, communications, and reviews are all welcome.

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Message from the Editorial Board

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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