Special Issue

Organic Solar Cell and Optoelectronic Functional Materials

Message from the Guest Editors

The conversion efficiency of organic solar cells (OSCs) have steadily increased and reached 17% last year. Because of the variety of the absorption region of organic semiconductors, OSCs have the potential to show efficiencies beyond 20%. Recently, the two major issues are the carrier recombination mechanism determining the open-circuit voltage, and the non-fullerene acceptor materials. Moreover, the IR sensitivity has become a new challenge of OSC. In this Special Issue, we are soliciting original papers and some critical reviews, which relate the fundamental mechanism, new materials, new concepts, and so on, about OSC. We are looking for contributions on the following topics:

- Fundamental mechanisms on OSC such as carrier generation, carrier recombination, carrier transport, exciton, CT state, doping, nanostructure, and so on
- New materials, new device structure, and new concepts about OSC
- Module fabrication and durability, aimed at the practical application
- Fabrication, characterization, and properties of optoelectronic functional materials for OSC

Guest Editors

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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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