Special Issue

Advanced Photovoltaic Materials: Synthesis, Properties and Applications

Message from the Guest Editor

Solar energy, as a clean and sustainable energy, has witnessed an incredible increase in academic and industrial activity over the past several decades. To seek much more affordable PV technologies, advanced materials for cost-effective PV technologies including organic solar cells, organic–inorganic hybrid solar cells, quantum-dot solar cells, compound semiconductor solar cells, dye-sensitized solar cells, perovskite solar cells, tandem/multijunction solar cells, etc. have been explored in both academia and industry. Among them, most PV technologies are still in lab-scale research and are far from practical use. Efforts in cutting-edge research outcomes into action plans for cost-effective PVs are particularly critical in the research community. This Special issue aims to cover the most recent progress on advanced PV materials, with a particular focus on synthesis, properties, and applications. All kinds of advanced PV materials are welcome. We especially encourage the submission of manuscripts addressing hot materials such as perovskite, organic, quantum dots, organic–inorganic hybrid materials, nanostructured silicon, etc.

Guest Editor

Dr. Deying Luo
Department of Materials Science and Engineering, University of Toronto, Toronto, ON M5G 3E4, Canada

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Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

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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.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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