Special Issue

Solid State Physics in Advanced Power Semiconductors and Other Devices

Message from the Guest Editor

This Special Issue is a timely approach to survey recent progress in the area of advanced power semiconductors and other devices. The articles presented in this Special Issue will cover various topics from silicon to wide band gap materials, device design, numerical simulation, fabrication process, measurement, analysis, electrical characteristics at high temperature, and reliability. The scope is not just about the wide band gap devices. This also includes the silicon-based advanced power semiconductors, energy devices, solar cells, and nanoelectronics. The Special Issue will cover (but not be limited to) the following topics:

- Advanced power semiconductors
- Solid state physics
- Numerical simulation
- Fabrication
- High voltage switch
- High current switch
- Wide band gap devices including III-V, 4H-SiC, and diamond
- Energy devices
- Solar cells
- Nanoelectronics, etc.

Guest Editor

Prof. Dr. Min-Woo Ha

Department of Electrical Engineering, Myongji University, Yongin, Gyeonggi 17058, Republic of Korea

Deadline for manuscript submissions

closed (31 December 2020)



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Materials
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

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

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