Special Issue

Research on Perovskite Materials and Optoelectronic Devices

Message from the Guest Editor

Metal halide perovskites have been actively studied in fields of optoelectronics including solar cells and light-emitting diodes because of a unique combination of advantages including a high absorption coefficient, high photoluminescence quantum yield, high charge carrier mobility, compositional tunability, and solution processability. Although significant progress has been already made, the fundamental limitations of halide perovskites, such as low material/device stability and toxicity, must be overcome for successful commercialization. This requires extensive and rigorous studies from both materials and device perspectives. It is my pleasure to invite you to submit manuscripts to this Special. The following topics are expected to be submitted but the issue is not limited to them:

- Materials physics/chemistry/engineering (e.g., low-dimensional perovskites, lead-free perovskites, surface/interface engineering and grain size/morphology control)
- Device physics/engineering (solar cells, light-emitting diodes, photodetectors, etc.)
- Colloidal perovskite nanocrystals
- Solution processing and patterning

Guest Editor

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Deadline for manuscript submissions

closed (20 October 2022)

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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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