

## Special Issue

# Advancements in Perovskite Solar Cells for Improved Energy Efficiency

### Message from the Guest Editor

Perovskite solar cells (PSCs) have emerged as one of the most promising photovoltaic technologies, combining low-cost fabrication with rapidly increasing power conversion efficiencies. Recent progress in compositional engineering, defect passivation, and interfacial optimization has significantly improved device performance and operational stability. However, challenges remain regarding scalability, environmental durability, and long-term stability under realistic conditions. This Special Issue aims to highlight the latest advancements in perovskite-based solar cells and related optoelectronic systems. We invite original research and review papers addressing innovative materials, device architectures, characterization techniques, and degradation mechanisms that contribute to higher efficiency and stability of PSCs. Studies exploring emerging directions such as tandem cells, radiation-resistant designs, and flexible or large-area devices are particularly encouraged.

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### Guest Editor

Dr. Mykhailo Solovan

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### Deadline for manuscript submissions

20 May 2026



## Materials

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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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