Special Issue

Material Design and Optimization for Opto-Electronic Devices

Message from the Guest Editors

We are delighted to introduce an upcoming Special Issue in MDPI *Materials*. This issue seeks to spotlight advances in research and innovations in the field of photodetectors, which play an indispensable role in modern technology by converting light into electrical signals. Photodetectors serve as the backbone for applications ranging from optical communications and environmental sensing to security, imaging, night vision, and beyond. We are inviting submissions of papers that advance the knowledge and technology in this dynamic field. Topics of interest for this Special Issue include but are not limited to the following:

- The development of novel materials tailored for optimal optical detection (including density functional theory calculations and other simulations).
- The exploration of photodetectors spanning frequencies from X-rays to Terahertz.
- Innovation in ultrafast and broadband detectors, addressing the needs of high-speed applications.
- Application-focused studies on photodetectors for night vision, environmental monitoring, and security systems.
- Advancements in polarimetric imaging technologies and imaging devices for diverse contexts.

Guest Editors

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Deadline for manuscript submissions

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About the Journal

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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