

## Special Issue

# Advancements in Emerging Semiconductor Materials for Diverse Applications

### Message from the Guest Editors

This Special Issue highlights the recent advancements in high-performance semiconductor materials to develop next-generation electronics and catalysts. It also explores and emphasizes emerging applications for flexible electronics, innovations in power electronics for efficient power conversion, and the use of high-performance semiconductor materials in sensors. Featured articles include the integration of emerging 2D materials into electronics, catalysts, and sensors and advancements in chalcogenide-based photoabsorbers and perovskites for optoelectronic device applications (photodetectors, solar cells). This issue offers a thorough overview of ongoing research and future pathways in high-performance semiconductor materials for electronic devices and sensors.

Dr. Jongsung PARK

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### Guest Editors

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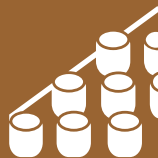
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### Deadline for manuscript submissions

20 October 2025



## Materials

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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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