

## Special Issue

# Advancements in High Voltage Insulation Materials

### Message from the Guest Editors

This Special Issue highlights interdisciplinary advancements at the intersection of materials science, nanotechnology, computational modeling, and electrical engineering. Topics of interest include, but are not limited to, the following: nanostructured dielectrics, bio-based polymers, adaptive self-healing insulation systems, multiphysics simulation frameworks, eco-friendly insulating gases, and condition assessment technologies leveraging machine learning. Contributions addressing scalability, lifecycle performance, and circular economy principles are particularly encouraged. We invite researchers and industry experts to share cutting-edge discoveries, case studies, and visionary perspectives that advance the frontiers of high-voltage insulation technology. By fostering collaboration across academia and industry, this collection aims to catalyze innovations critical to building resilient, sustainable, and intelligent power grids for a decarbonized future. Submit your manuscript to help shape this pivotal dialogue.

### Guest Editors

Dr. Bin Cao

Dr. Yuhao Liu

Dr. Ying Lin

### 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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### Editor-in-Chief

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