

## Special Issue

# Synthesis, Properties, and Applications of Low-Dimensional Transition Metal Oxides and Selenides

### Message from the Guest Editors

Low-dimensional transition metal oxides and selenides have garnered significant attention in the scientific community owing to their unique physical and chemical characteristics. These materials demonstrate novel electronic, optical, magnetic, and thermal properties, paving the way for unparalleled opportunities in diverse technological applications, ranging from high-speed electronic devices to efficient energy storage and conversion techniques, as well as advanced optoelectronic detection and sensing technologies. This research topic is aimed at publishing the latest advancements and breakthroughs in the field of low-dimensional transition metal oxides and selenides, including explorations of the synthesis methodologies, novel processing strategies, key performances and fundamental mechanisms, and multifaceted applications.

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### Guest Editors

Prof. Dr. Yong He  
Dr. Di Peng  
Dr. Bingsheng Du

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### Deadline for manuscript submissions

closed (20 May 2025)



## 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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