

Special Issue

Metal Oxides

Message from the Guest Editor

Metal oxide's functional properties are strongly dependent on oxide's crystal structure, composition, native defects, doping, etc., which govern their optical, electrical, chemical, and mechanical characteristics. Processing methods and growth parameters strongly determine morpho-structural characteristics and therefore the physico-chemical properties of metal oxides. This Special Issue is devoted to the modelling, synthesis and characterization of oxide thin films, multilayer structures (superlattices, metamaterials, devices, etc.) and nanomaterials with novel multifunctional characteristics that combine at least two excellent properties: electrical and optical, optical and mechanical, chemical and mechanical, thermal and chemical, etc. Applications include:

- Solar cells
- Optoelectronic devices
- Transparent conductive oxides
- Plasmonics
- Photonics integrated circuits
- Chemical sensors
- Catalysis
- Corrosion protection
- Thermal protection
- Energy conversion and storage

Guest Editor

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About the Journal

Message from the Editor-in-Chief

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

Editor-in-Chief

Prof. Dr. Yong Zhang

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manuscripts are peer-reviewed and a first decision is provided to authors approximately 18.7 days after submission; acceptance to publication is undertaken in 2.7 days (median values for papers published in this journal in the second half of 2025).