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Metal Oxides

Guest Editor:

Dr. Maria Luisa Grilli

ENEA-Italian National Agency for New Technologies, Energy and Sustainable Economic Development, Rome, Italy

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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











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Department of Materials Science and Engineering, College of Engineering & Applied Science, University of Wisconsin-Milwaukee, 3200 N. Cramer Street, Milwaukee, WI 53211, USA

Prof. Dr. Yong Zhang

Beijing Advanced Innovation Center of Materials Genome Engineering, State Key Laboratory for Advanced Metals and Materials, University of Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083, China

Message from the Editorial Board

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 metallurgical field the ranging from processing. and mechanical behavior. phase transitions microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

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Metals Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/metals metals@mdpi.com X@Metals_MDPI