Special Issue

Prospects of Oxide Materials Electronic Structure and Related Applications in Devices

Message from the Guest Editors

Oxide materials have been extensively exploited in the electronics industry due to their ability to function in dielectrics, semiconductors or conductors. High-□ oxides have been broadly adopted in field-effect transistors (FETs) to lower the operating voltage. Owing to a high mobility and small leakage current, oxide semiconductors have been studied intensively, and oxide thin-film transistors (TFTs) have been commercialized in flat-panel displays. Additionally, further efforts are being contributed towards the realization of ultra-high-mobility oxide TFTs. In addition, transparent oxide conductors are widely used in solar cells and the display industry.

The Special Issue intends to provide researchers working in the field with a platform for the dissemination of their ideas regarding the design and characterization of novel oxides and oxide-based devices, highlighting outstanding performance developments and exploring additional promising applications. It should also stimulate a cross-fertilization between researchers of the field with other readers of the journal, providing the opportunity to find novel potential research directions.

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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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