Special Issue

Advances in Semiconductor / Electrolyte Interfaces Research

Message from the Guest Editor

The growing demands for green and sustainable energy have resulted in numerous worldwide investigations of design, validation, and characterization of effective energy storage and energy conversion devices. A deeper understanding of processes occurring at interfaces between constructional parts of the electrochemical devices, such as chemical reactions and a charge transfer, can be a critical point determining an overall cell performance and durability, hampering an acceleration of new devices implementation. This Special Issue will address current findings and novel insights in observation and characterization of all types of the physical and chemical processes and emergent properties, occurring at the semiconductor/electrolyte interfaces in electrochemical devices. Articles and reviews, regarding studies of the structure and peculiar properties of heterogeneous interfaces in solid oxide fuel cells, solid oxide electrolysis cells, solid oxide reversible cells, and solid state batteries by means of X-Ray diffraction, X-Ray Photoelectron Spectroscopy, Scanning Electron Microscopy, Transmission Electron Microscopy, and Electrochemical Impedance Spectroscopy, are greatly welcome.

Guest Editor

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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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