Special Issue

Oxide Materials for Energy Applications

Message from the Guest Editor

The sustainable development of mankind requires the improvement and use of clean energy sources. Tremendous efforts have been devoted to researching effective energy conversion or storage technologies, such as ion batteries, solar cells, fuel cells, photocatalysis, or photoelectrochemical water splitting. Oxide materials, especially transition metal oxides, have an indispensable role in these fields. Therefore, this Special Issue of *Materials* aims to provide a collection of papers on research on oxide materials for various energy applications, which include, but are not limited to:

- The application of oxide materials on ion batteries, solar cells, fuel cells, and catalysis;
- The strategies to promote the efficiency of energy conversion or storage for oxide materials;
- Characterization technologies, especially operando technologies, to resolve the fundamental mechanisms concerning the efficiency, stability, safety, etc.;
- Calculations for oxide materials to understand various issues on energy conversion.

Guest Editor

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About the Journal

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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