Special Issue

Two-Dimensional Materials for Energy Conversion and Storage

Message from the Guest Editor

The development of energy conversion and storage methods has attracted a great deal of attention to counter the global energy crisis and environmental issues. Materials science plays a vital part in energy conversion and storage technologies; consequently, a search for novel and efficient materials is the need of the hour. Particularly, two-dimensional (2D) materials have taken centre stage in research, owing to their unique structural, electronic, mechanical, and surface properties which have led to their potential applications in energy conversion and storage. The goal of this Special Issue is to share the recent progress in the applications of low-dimensional materials in energy conversion and storage. Topics of interest broadly include theoretical and/or experimental research on 2D materials' properties and applications, including:

- Materials for water splitting;
- Materials for CO2 reduction;
- Thermoelectric materials;
- Materials for photovoltaics;
- Materials for fuel cells;
- Electrode materials for metal ion batteries;
- Piezoelectric materials.

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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