Special Issue

Advanced Nanotechnology for Sustainable Energy

Message from the Guest Editors

Among the main advances in nanotechnology, those concerning the sustainability of our planet presently assume crucial importance, with great prominence for the methods of production and storage energy that are, in fact, able to assure a healthy way of living for humans. Contributions from nanotechnology for improving the efficiency of energy generation, or to develop new methods of using and storing energy, can represent real breakthroughs for changing the conventional technologies currently used in these fields. Interesting processes that can benefit from nanotechnology achievements are being developed to produce more cost-effective energy. They are prone to include nanostructures for improving electricity generation, reducing power losses, hydrogen generation and storage, greenhouse gas conversion, energy harvesting, green synthetic fuels, radiation-to-steam conversion, plasma catalysis, among others; these are opportunities for the appearance of innovative devices developed by new synthetic routes to come into play, presenting novel properties.

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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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