Special Issue

Advanced Nanomaterials: Synthesis, Characterization and Applications

Message from the Guest Editor

Advanced nanomaterials represent one of the most promising classes of new materials having exceptional properties, very different from bulk material. These materials own good electrical, optic, mechanic, magnetic properties due to their unique structural architecture. This special issue will discuss the fundamental properties of nanomaterials and demonstrate their diversified applications, ranging from biomedical application to semiconductors or solar cells. The methods of preparation like "top-down" and "bottom-up", fabrication process and characterization methods (SEM&EDS, AFM, STEM, FTIR, Raman, electrochemical, etc.) will be discussed to demonstrate the future application of these materials. Nanocomposites, multifunctional materials, drug delivery systems, hybrid nano-surface coatings, polymers or battery materials, but not only, are some examples of advanced nanomaterials that will be the subject of this special issue. Topics of interest include, but are not limited to, the following:

- carbon and metalic nanostructures;
- polymers;
- biomaterials;
- hybrid materials and coatings;
- medical applications;
- semiconductors;
- energy storage;
- fuel cells.

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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