Special Issue

Microwave-Assisted Synthesis in Advanced Materials

Message from the Guest Editors

Microwave-assisted synthesis is a versatile technique in advanced material research, and provides substantial benefits regarding speed, energy efficiency, and control over material characteristics. Many highly efficient materials, including nanomaterials, polymers, ceramics, and others, have been successfully synthesized using microwave-assisted techniques in advanced materials. It is a vital technique to applications where nanoscale properties are the highest priority; for instance, chemical reaction catalysts require a large surface area and a high catalytic activity. Furthermore, it can heat specific components inside a mixture, facilitating new reaction conditions that are unattainable using traditional techniques. Microwave synthesis facilitates environmentally friendly "green" chemistry by frequently diminishing or obviating the necessity for solvents, lowering energy usage, and decreasing waste products. This Special Issue invites contributions related to microwave-assisted synthesis for catalysis, energy storage, pharmaceuticals and drug delivery systems, quantum dots, optical materials, and others diverse applications.

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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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