Special Issue

Nanoarchitectonics in Materials Science, Second Edition

Message from the Guest Editors

After our successful first two volumes of the Special Issue "Nanoarchitectonics in Materials Science," we decided to produce an additional Special Issue on this topic. Nanotechnology is now evolving and paving the way for a new kind of materials science—nanoarchitectonics. Bottom-up approaches that generate functional materials via self-assembly of constituent molecules have been developed in several research fields. These approaches are often based on simple intermolecular interactions between a limited number of constituent elements. In a departure from these conventional approaches, nanoarchitectonics goes beyond well-known self-assembly and related strategies. Rather, it aims to build material structures that contain many components and asymmetric, hierarchical motifs. Because nanoarchitectonics is such an exhaustive conceptual interdisciplinary field, it can be applied to a wide range of research areas, including hybrid/composite synthesis, structural control, sensing, catalysis, environmental remediation, energy production and storage, device formation, biology, and medicine. These topics are the subject of this Special Issue.

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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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