Special Issue

Nanoparticles for Biomedical Applications

Message from the Guest Editors

Nanoparticles are categorized primarily as polymeric, inorganic, lipid, and carbon-based, each class featuring multiple forms, such as micelles, dendrimers, cyclodextrins, nanospheres, polymersomes, liposomes, lipid, metal and metal oxide nanoparticles, quantum dots, and carbon nanostructures. Their architecture (size, shape, and charge) and surface properties can be fine-tuned to optimize their stability, solubility, drug loading capacity, and controlled release so as to prolong their circulation and enhance delivery of various payloads, including small molecules, biological macromolecules, and proteins, leading to their use in a wide variety of biological and pharmaceutical applications. This Special Issue will highlight the latest research on nanoparticles focusing on their applications in the biomedical field, including but not limited to drug and gene delivery, stimuli-responsive therapeutics, antibacterials, bioimaging, theranostics, tissue engineering, and regenerative medicine.

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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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