Special Issue

Nanoparticles for Biological Imaging and Treatment Applications

Message from the Guest Editor

The progress in nanotechnology, wave propagation in tissue, and understanding of disease biological markers enables new and powerful methods for early detection, treatment, and monitoring. Nanoparticles can be used for treatment by themselves or enhance chemotherapeutic agents' effect on the disease. Nanocages can carry drugs and can release them in a controllable way in an area where they are needed. This can be done with outside energy or self-opening when in a certain conditions (i.e., pH). Various imaging modalities such as MRI, magnetic particle imaging, magnetoacoustics, thermal imaging, and other optical methods are adapted, further developed or totally new and used for nanoparticle imaging. Imaging can be done with big expensive machines or portable bedside instruments. Nanoparticles are excellent vehicles for development of theranostics applications. This Special Issue has been created to report all these fascinating advances in medical applications. We are seeking high-level manuscripts that report the newest results in the field.

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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