Special Issue

Nanocomposites as Effective and Targeted Antibacterial Agents

Message from the Guest Editors

Biomaterials-based nanoparticles (NPs), such as chitosan or cellulose, and nanostructured lipid carriers (NLCs) are increasingly used to target bacteria as an alternative to antibiotics. The bio-based matrices not only provide support for nanoparticles, but can also improve the antimicrobial effects of the agents they incorporate, and expand the potential applications of these materials to meet multiple demands in the biomedical field, in water treatment, and in the food industry. The use of nanocomposites containing natural compounds to confer antimicrobial properties is also an interesting challenge in the formulation of non-active medical devices and in the design of biodegradable food packaging. This Special Issue will focus on enhancing the antimicrobial properties of nanocomposites as effective and targeted antibacterial agents. They could either actively release antimicrobial agents or passively act through antiseptic surface properties.

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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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