

Special Issue

Antimicrobial Provided Advanced Materials for Biomedical Engineering Applications

Message from the Guest Editors

During recent decades, tremendous research and development efforts have been made for medical applications of smart materials as potential medical devices of external and internal use. Thus, burns and wounds, tissue reconstruction and regeneration, but also transdermal drug controlled-release are important therapeutic targets. Association of antimicrobial activity has been compulsory, or at least promoting their efficacy in many cases, especially having in view the increasing dangerous environment generated by the antibiotic resistant microorganisms. This Special Issue will focus on such advanced materials provided with antimicrobial activity due to included specific active agents, usable in recalcitrant infected wounds healing, orthopedics (bone and cartilage regeneration), traumatology, dentistry and maxillofacial surgery, and cardiac devices. The antimicrobials will be directly therapeutic or preventing microbial contamination/fouling, sometimes formulated as nanoparticles, included in different functional biocompatible materials, frequently (bio)polymers.

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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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