

Special Issue

Microbial Biofilms in Healthcare: Formation, Prevention and Treatment

Message from the Guest Editor

Biofilms are ubiquitous and cause many problems in industry. However, no where do biofilms impact on human health and welfare as much as those that are found contaminating the healthcare environment, surgical instruments, equipment and medical implantable devices. Approximately 70% of healthcare associated infections are due to biofilm formation resulting in increased patient morbidity and mortality. Biofilms formed on reusable surgical instruments, such as endoscopes, have been shown to transmit infection from patient to patient while biofilms formed medical implants are recalcitrant to antibiotic treatment, which leaves implant removal as the principal treatment option. Research has focused on preventing biofilm contamination of equipment and implants by physical surface modification of materials or impregnation of biocides into materials whilst treatment options have investigated combination therapy involving dispersal agents and biocides. This Special Issue will detail recent advances in biofilm prevention, removal and treatment strategies practical for use in healthcare.

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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