Special Issue

New Trends in the Surface Treatment of Biomaterials

Message from the Guest Editors

The surface plays a pivotal role in the design and application of biomaterials. In particular, the surface properties of biomaterials determine their biocompatibility with biological systems, and these properties may also determine the use of biomaterials in biomedical or pharmaceutical applications. The surface modification of biomaterials aids in tailoring their physicochemical behavior, interaction attributes, structural properties, etc., which helps to significantly improve their biocompatibility. Several physical and chemical surface modification approaches have been used so far for the adaptation of biomaterials to appropriate applications. There are also new trends in the surface treatment of biomaterials, which depend on the needs of the implant and/or artificial organs. Surface properties are also important in wound-healing materials. The main topics of this Special Issue will cover trends in the surface treatment of a wide group of materials for biomedical applications. New ideas in surface treatment and modification will be expected, especially those that consider an increase in biocompatibility and blood compatibility, which are strongly encouraged.

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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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