Special Issue

Advanced Polymeric Biomaterials: Preparation, characterization and applications

Message from the Guest Editor

The rapidly growing field of biomedical engineering has been driven by advances in materials preparation and characterization techniques for target applications. The similarities between natural tissues, proteins, and polymers with their long-chain architecture lead to the reasonable conclusion that polymers are better representations of natural tissue response compared with metals and ceramics, for example. For these reasons, polymers have attracted a lot of interest, even if their industrial application is prevented by their poor mechanical, thermal and barrier properties. Thus, there is an urgent need for the development of innovative and advanced biomaterials based on natural or synthetic polymers with natural and synthetic additives, both inorganic and organic, in order to provide improved performance.

The present Special Issue welcome contributions in form of full article, short communication, or review article in topics related to the design, synthesis, characterization, surface modification and processing of multifunctional polymeric and composite biomaterials for use in different biomedical applications.

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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