Special Issue

Latest Advances in Biomimetic Materials for Biomedical Applications

Message from the Guest Editors

This is a Special Issue focusing on the latest advances in the biomimetic materials for biomedical applications. Biomimetic materials are materials designed based on the inspiration from the designs and principles of nature. For example, superhydrophobic surfaces on the medical implants are designed based on the unique nano features/patterns on lotus leaves' surface. Novel biomimetic materials are developed by several groups across the globe for wide range of biomedical applications like tissue engineering, smart medical devices, drug delivery systems, artificial enzymes (nanozymes), artificial tissue especially muscles, novel composite materials, biomineralization, stem cell differentiation, superhydrophobic surfaces and many others. The core research activity in this domain involves understanding the mechanism/s behind the desired biological systems and applying the same in the design and engineering of novel synthetic systems/patterns, resulting in materials/systems with biomimetic properties. In this special issue, we are looking for the latest advancement in this field both as original research and as review articles.

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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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