Special Issue

Frontiers in Functional Materials for Bioelectronics and Biosensors

Message from the Guest Editors

In the past decade, the impact of functional materials on biomedical engineering has seen a dramatic increase. Attributed to the efforts of materials scientists, various promising materials and devices that possess unique biological properties and functions have been developed, such as piezoelectric materials, pyroelectric materials, triboelectric materials, bionic materials, self-healing materials, biodegradable materials, hydrogels, stretchable/flexible devices, and electronic skin. These functional materials have been widely studied and used in energy harvesting from organisms, pulse sensing, human motion detection, electroencephalogram monitoring, electrophysiological monitoring, wireless monitoring of vital signs, etc. The continuous development of functional materials enables scientists and technicians in biomedical engineering to yield more and more valuable achievements for human health and life sciences. Meanwhile, due to advances in nanotechnology and electrical science, wearable/implantable bioelectronics and biosensors have evolved to become miniaturized, multifunctional, soft, and smart, creating new demands for functional materials.

Guest Editors

Prof. Dr. Zhou Li

1. School of Biomedical Engineering, Tsinghua University, Beijing 100084, China
2. Tsinghua Changgung Hospital, School of Clinical Medicine, Tsinghua University, Beijing 100084, China

Prof. Dr. Bojing Shi

Beijing Advanced Innovation Centre for Biomedical Engineering, Key Laboratory for Biomechanics and Mechanobiology of Ministry of Education, School of Biological Science and Medical Engineering, Beihang University, Beijing, China

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Materials
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
materials@mdpi.com

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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.

Editor-in-Chief

Prof. Dr. Maryam Tabrizian
1. Department of Biomedical Engineering, Faculty of Medicine and Health Sciences, McGill University, Montreal, QC H3A 2B6, Canada
2. Faculty of Dentistry and Oral Health Sciences, McGill University, 3640 Rue University, Montreal, QC H3A 0C7, Canada

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