

Special Issue

Conductive Polymers and Composites for Medical Application

Message from the Guest Editors

Conductive polymers (CPs) are a class of organic materials with peculiar electrical and optical properties comparable with those of inorganic semiconductors and metals. They include synthetic or structurally modified natural polymers. Relevant benefits—including flexibility, high workability, light weight, biocompatibility to some extent – make them suitable candidates for the development of smart materials—for a variety of applications in the biomedical field (i.e., cell guiding scaffolds, bioelectronics and biosensing). Moreover, CPs can be combined with various types of materials at the nanoscale (i.e., graphene, fullerene, nanotubes, nanoparticles, metal ions) creating the opportunity to develop conductive composite materials with hierarchical structural organizations and multi-level functional properties, extending the applicability of CPs also to structural applications. This Special Issue aims at describing the recent progress in the design and investigation of functional conductive polymers and composite materials as smart devices to be applied in, but not limited to, biomaterials, bioengineering and bioelectronics.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

The biomaterials field is one of the largest and fastest growing research areas both in the scientific community and in the industrial one. Biomaterials are the result of collaborations between different disciplines: chemistry, medicine, pharmacology, engineering and biology. The objective of this collaboration is to lead to the implementation of new devices to restore form and human body functions. The mission of the *Journal of Functional Biomaterials (JFB)* is to focus attention on physico-chemical characteristics and their importance in the interactions between biomaterials and living tissues. *JFB* seeks to publish studies on the preparation, performance and use of biomaterials in biomedical devices, as well as regarding their behavior in physiological environments. We are pleased to welcome you as our authors.

Editor-in-Chief

Prof. Dr. Pankaj Vadgama

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