Special Issue

Micro- and Nano-Scaled Functionalization and Characterization of Surfaces of Materials for Biomedical Applications

Message from the Guest Editors

It is well known that the biocompatibility of materials depends on their interaction with surrounding cells and biomolecules. In order to control the communication between the cell/biomolecule and the material its surface is engineered/functionalized. There are different technologies which can be used to facilitate this. Traditionally, this might be classified as the engineering of a surface's morphology and/or the deposition of coatings, etc., and there are plenty of publications dedicated to this topic. However, the advantages of nanotechnologies provide a unique opportunity to achieve the desired properties of a biomaterial's surface through engineering its quantum-mechanical features at the nano and even at the micro scale. This Special Issue aims to demonstrate the achievements that have been made in both the "quantum-mechanical" functionalization and characterization of the surfaces of materials for biomedical applications. *Keywords*

- cells
- biomolecules
- coatings
- biomaterials
- surface morphology
- in vitro/in vivo tests
- corrosion
- degradation
- biocompatibility

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