



Advanced Microstructural Characterizations of Biomaterials and Scaffolds

Guest Editors:

Dr. Fabrizio Fiori

Associate Professor, Department of Applied Physics, Università Politecnica delle Marche—Di.S.C.O., Via Breccie Bianche, 60131 Ancona, Italy

Dr. Alessandra Giuliani

Di.S.C.O., Via Breccie Bianche, Università Politecnica delle Marche, 60131 Ancona, Italy

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Message from the Guest Editors

New materials and technologies, also coupled to advanced biomedical techniques such as stem cell and gene therapies, result in continuously improving biocompatible and smart materials, promoting very promising therapies especially (but not only) in oncology, cardiology, neurology, orthopedics, and dentistry.

In this framework, a fundamental role is played by advanced experimental techniques for the material characterization. In particular, new imaging techniques based on optical and electron microscopy as well as on X-rays and synchrotron radiation (micro-CT) have recently been developed. On the other hand, other methods for investigations at the nanoscale, including neutron techniques such as diffraction and small-angle scattering, are used to determine several important microstructural parameters influencing the macroscopic and biological behavior of materials.

This Special Issue will focus on some of these experimental methods, putting into evidence their contribution to the development of new biomaterials and biocompatible devices, leading to new promising therapies for the treatment of a large number of diseases.





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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

Message from the Editor-in-Chief

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Materials Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

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