

Advanced Biomaterials and Coatings

Guest Editors:

Dr. Richard Drevet

Department of Physical
Electronics, Masaryk University,
Brno, Czech Republic
drevet@mail.muni.cz

**Prof. Dr. Hicham
Benhayoune**

Institut de Thermique,
Mécanique et Matériaux
(ITheMM), Université de Reims
Champagne-Ardenne (URCA),
Reims, France
hicham.benhayoune@univ-
reims.fr

Deadline for manuscript
submissions:
31 December 2022

Message from the Guest Editors

Dear Colleagues,

The ageing of the worldwide population requires the continuous development of advanced biomaterials and coatings by academic and industrial research. Inside the body, the implanted materials need specific biological, chemical, and mechanical properties for a good interaction with the surrounding tissues. Specifically, orthopaedic and dental surgeries need bone implants with enhanced properties and an extended lifespan. To reach this objective, many research labs focus their works on improving the osseointegration of bone implants by modifying the surface of prosthetic alloys with bioactive coatings made of calcium phosphate or bioglass. These coatings support bone cell growth at the surface of the implant, promoting the formation of an intimate link with the surrounding bone tissues.

Several methods can be used to synthesize bioactive coatings on prosthetic alloys such as plasma spraying, magnetron sputtering, pulsed laser-deposition, electrophoretic deposition, or electrodeposition.

In that framework, this Special Issue aims to present the latest developments in this field.



mdpi.com/si/119630

Special Issue

Editors-in-Chief

Dr. Alessandro Lavacchi

Istituto di Chimica dei Composti
OrganoMetallici (ICCOM-CNR),
Via Madonna del Piano 10,
50131 Sesto San Giovanni, Italy

Message from the Editorial Board

Now more than ever, research is called for to produce technologies and improve knowledge to solve the major challenges faced by our society. The development of new materials and devices for (without the ambition to be

50019 Sesto Fiorentino, Firenze,
Italy

Prof. Dr. Wei Pan

State Key Laboratory of New
Ceramics and Fine Processing,
School of Materials Science &
Engineering, Tsinghua
University, Beijing 100084,
China

Materials and Surface for (narrowed the application to be exhaustive) energy, health and food technology, together with the need for establishing processes that reduce the impact on critical resources and the environment, is indeed at the center of most contemporary research. Surface science and engineering play a key role in this regard. Refining surfaces and their modifications provides new materials, architectures and processes with a huge potential to aid most societal challenges. Coatings is a well-established, peer-reviewed, online journal that focuses on the dissemination of publications in the field of surface science and engineering. Coatings publishes original research articles that report cutting-edge results and review papers on the hottest topics.

Author Benefits

Open Access:— free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, CAPlus / SciFinder, and other databases.

Journal Rank: JCR - Q2 (Materials Science, Coatings & Films) / CiteScore - Q2 (Materials Chemistry)

Contact Us

Coatings
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/coatings
coatings@mdpi.com
@Coatings_MDPI