

## Special Issue

# Silicon-based Bioactive Materials and their Applications

### Message from the Guest Editor

This Special Issue is dedicated to the most recent research in the field of silicon-based materials with bioactive properties. Indeed, silicon-based materials are widely known, especially for their application in the fields of microelectronics, photonics and photovoltaic.

However, they are also of great interest for their application in the biomedical field, thanks to their capability to interact with biological systems, such as tissues, cells and bacteria. The presence of an interaction between silicon and biological systems has been widely described in the scientific literature. However, the mechanisms of interaction between silicon and biological systems are still not clear. This Special Issue is intended to cover original research articles, as well as critical reviews, concerning the most recent advances in the study of the interaction between silicon-based materials and biological systems. Both fundamental studies and research aimed at studying advanced applications of these materials are of interest.

### Keywords

- biomaterials
- silicon-based surfaces
- silicon-based coatings
- silicon implantation
- nanostructured silicon surfaces

---

### Guest Editor

Dr. Pietro Mandracci

Department of Applied Science and Technology, Politecnico di Torino,  
I-1029 Turin, Italy

---

### Deadline for manuscript submissions

closed (30 June 2019)



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/19171](https://mdpi.com/si/19171)

*Applied Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[appls@mdpi.com](mailto:appls@mdpi.com)

[mdpi.com/journal/  
appls](https://mdpi.com/journal/appls)





# Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/journal/  
applsci](https://mdpi.com/journal/applsci)



## About the Journal

### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

---

### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,  
20133 Milano, Italy

---

### 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), Ei Compendex, Inspec, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering )