



an Open Access Journal by MDPI

## Smart Materials for Dental Applications and Implants

Guest Editors:

### Prof. Dr. Eugenia Eftimie Totu

Department of Analytical  
Chemistry and Environmental  
Engineering, University  
Politehnica of Bucharest,  
Bucharesti, Romania

### Prof. Dr. Corina Marilena Cristache

Department of Dental  
Techniques, "Carol Davila"  
University of Medicine and  
Pharmacy, 050474 Bucharest,  
Romania

Deadline for manuscript  
submissions:  
**closed (20 October 2023)**

### Message from the Guest Editors

Dear Colleagues,

In the last decade, both evolutionary and revolutionary trends in the field of dental materials science have been noted. In the meantime, the antibacterial self-healing dental nanocomposites whose "strategic" actions are bioinspired represent the smart materials able to assure an extended life for dental restorations. The complexity of obtaining, functioning, and applying intelligent materials in dentistry involves the harmonious combination of knowledge and co-operation of specialists working in the most varied fields: materials science, analytics, complex material characterization, dental studies, in vitro and in vivo clinical determinations, microbiology, machine learning. This Special Issue aims to bring in front original works and studies on identifying novel dental smart materials and on developing and applying novel experimental and computational methods for understanding their dynamics, functional mechanisms, and interactions with the oral environment, as well as review papers on dental smart materials. The Special issue is focused on the used of the smart materials in all fields of dentistry.



[mdpi.com/si/117758](https://mdpi.com/si/117758)

# Special Issue



an Open Access Journal by MDPI

## 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

*Materials* (ISSN 1996-1944) was launched in 2008. The journal covers twenty-five comprehensive topics: biomaterials, energy materials, advanced composites, advanced materials characterization, porous materials, manufacturing processes and systems, advanced nanomaterials and nanotechnology, smart materials, thin films and interfaces, catalytic materials, carbon materials, materials chemistry, materials physics, optics and photonics, corrosion, construction and building materials, materials simulation and design, electronic materials, advanced and functional ceramics and glasses, metals and alloys, soft matter, polymeric materials, quantum materials, mechanics of materials, green materials, general. *Materials* provides a unique opportunity to contribute high quality articles and to take advantage of its large readership.

## 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), PubMed, PMC, Ei Compendex, CaPlus / SciFinder, Inspec, Astrophysics Data System, and other databases.

**Journal Rank:** JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Condensed Matter Physics)

## Contact Us

*Materials* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/materials](http://mdpi.com/journal/materials)  
[materials@mdpi.com](mailto:materials@mdpi.com)  
[X@Materials\\_Mdpi](https://twitter.com/Materials_Mdpi)