Special Issue

Functionalization of Dental Materials towards Improved Interaction with the Oral Environment

Message from the Guest Editors

This Special Issue on "Functionalization of Dental Materials towards Improved Adaptation to the Oral Environment", therefore, aims to focus on original research papers and comprehensive reviews dealing with innovative developments in dental materials for improved adaptation to the oral environment, the elucidation of interaction mechanisms between dental materials and the biofilm, modulation of dental biofilm formation through surface functionalization and the control of the amount and type of release of bioactive principles. Topics of interest for this Special Issue include, but are not limited to, the following:

- Mechanisms of biofilm control through interactions with dental materials;
- Advanced experimental techniques for characterizing oral biofilm formation;
- Surface functionalization of dental materials to modulate biofilm formation;
- Toxicity of dental materials;
- Behavior of dental materials under simulated oral conditions;
- Accelerated aging protocols.

Guest Editors

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Deadline for manuscript submissions

closed (31 May 2025)



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Editor-in-Chief

Prof. Dr. Anthony Guiseppi-Elie Department of Biomedical Engineering, Texas A&M University, College Station, TX 77843, USA

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