Special Issue

Zirconia and Innovative Biomaterials for Dental and Biomedical Applications

Message from the Guest Editors

Zirconia and zirconia-based materials have a wide range of applications in the biomedical and dentistry fields owing to their excellent mechanical properties, aesthetics, and biocompatibility. This issue critically explores the art and state of zirconia surface treatments (mechanical/chemical/physical), which are a significant challenge in implantology in designing implant biomaterial using advanced technologies which have evolved rapidly to enrich the biological and osteointegration process of dental implants. The surface characteristics are proposed to improve the capacity of anchorage into the bone that determines the long-term clinical success rate. Besides, digital technology (CAD/CAM and 3D printing) in dentistry plays a crucial role in the fabrication of dental restorations and prostheses because of its efficient manufacturing process with high accuracy in a short time. The perfectibility of technology and the suitability of materials are considered as the ultimate requisite for the future. The extensive range of this Special Issue offers an admirable opportunity to submit full papers, short communications, or review papers.

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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.

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