Special Issue

Preparation, Characteristics and Application of Bioactive Glass to Dentistry

Message from the Guest Editors

Teeth are complex structures composed of hard tissue (enamel, dentin, and cementum) and soft tissue (dental pulp) which undergo various demineralization and remineralization processes in the oral cavity. Remineralization of teeth has been studied for a long time because demineralization may cause destruction of dental hard tissues. Bioactive glass (BAG) is a well-known, effective material for tissue remineralization. It has excellent bioactivity to hard and soft tissues, and thus, numerous studies has been published on its preparation, characterization, and application. Conventional melt-quenching BAG is not appropriate for use in dentistry due to its large particle size. However, the advancement of preparation techniques via various sol–gel processing methods has made its particle size suitable for dentistry, such as a dental restorative material, remineralizing agent, coating material for dental implants, as well as pulp capping, root canal treatment, air abrasion, etc. This Special Issue invites studies on the use of BAG in dentistry, with the aim to offer readers a comprehensive view of the effect of BAG and the possibility of its clinical use.

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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.

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