Special Issue

Titania-Based Materials for Medical Applications

Message from the Guest Editors

Intense works in searching for new biomaterials and improvements of currently used ones are the response to the modern medicine demand for materials with new physicochemical, mechanical properties and appropriate bioactivity. Titania based-materials are an important group of biomaterials, in addition to their beneficial mechanical properties are high biocompatibility. Theis type of materials can be used to modify titanium or titanium alloys medical devices surface. The preparation of ceramic titanium materials with high chemical purity, specific physical and mechanical properties is an interesting issue. The strictly defined nano- or microarchitecture allows their enrichment in anti-inflammatory agents, which can be gradually released, e.g., after a surgical procedure. It is also interesting to note that titania-based materials, due to their properties—surface morphology, structure, and reactivity—can affect human body in different ways. Knowledge of the properties and synergistic effects is very important for optimal applications of these materials in various fields of medicine.

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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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