Special Issue

New Advances in Mechanical Behaviour of Biomaterials

Message from the Guest Editor

At present, there are a large number of biomaterials developed for the manufacture of medical implants and devices. A desirable combination of properties, including mechanical, has always been an important target to achieve, in addition to biocompatibility, in order to produce medical implants that will have an acceptable performance in the body. This becomes more significant for those implants that are subjected to mechanical loads, such as orthopaedic implants under the mechanical loads of a patient's physical activities. Given an implant failure can result in significant consequences, the mechanical behaviour of biomaterials used for medical implants and devices has continuously been a subject for research and advancement with the aim to improve the performance and longevity of implants in the body. Keywords

- biomaterials
- mechanical behaviour
- fatigue and fracture
- fretting wear
- fretting corrosion
- microstructure
- simulation and modelling

Guest Editor

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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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