

Special Issue

Novel Load Systems for In Vitro Testing of Biomaterials and Medical Devices

Message from the Guest Editors

The purpose of this Issue is to gather studies in different areas of biomedical engineering; orthopedic, dental, and cardiovascular biomechanics, etc.; mechanical characterization methodologies on different scales of biological materials and tissues; implantable and non-implantable materials; biomaterials; and simple or complex devices. Some loading solutions designed in the absence of indications from existing regulations to simulate the real physiological loading conditions, as much as possible, to which biological tissues, biomaterials, medical devices (prostheses, osteosynthesis systems, sutures, etc.), and biomechanical systems are subjected are of particular interest for this Issue. Keywords

- in vitro biomaterials testing;
- physiological environment replication;
- testing set up design;
- testing methodology design;
- biomechanics of biological materials;
- biomechanics of biomedical devices;
- material behavior;
- mechanics of materials;
- material interaction with human tissues;
- experimentation;
- materials applications in medicine

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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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