Special Issue

Development and Application of Metallic Biomaterials

Message from the Guest Editors

We should be aware that a number of challenges are still associated with the applications of various metallic implantable materials. A metallic biomaterial should be primarily biocompatible, which means that it does not illicit an adverse reaction when placed into services. In recent years, there has been intense emphasis on the multi-functionality of metallic biomaterials. Imparting multi-functionality on bio-inert metals is generally achieved by surface modification. In addition, 3D printing technology holds great promise for the processing of patient-specific metallic implants to create complex architectures. In the advancement of 3D printing, however, there are still a number of technological challenges including the integration of a vascular network. With the increased need for body part replacements, it is important to be aware about the limitations of metallic biomaterials and to develop new strategies in order to overcome the limitations. This Special Issue will compile recent developments and applications in the field of metallic biomaterials. It is our pleasure to invite you to contribute your research articles, short communications, or reviews for this Special Issue.

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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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