Special Issue

Absorbable Metals for Biomedical Applications

Message from the Guest Editors

Absorbable metals, as the ASTM and ISO standards named them, and known also as biodegradable metals, are metals and alloys that are intended for use in biomedical applications, mainly as materials for temporary implants, such as endovascular stents, bone plates and screws, and porous scaffolds. They are expected to be completely degraded and absorbed in the body after providing a needed function, thus eliminating the harmful potential effects of permanent implants. The introduction of these metals has shifted the established paradigm of metal implants from preventing corrosion to taking advantage of it. The families of absorbable metals can be grouped into iron. magnesium, zinc, and their alloys. This Special Issue aims to present the latest works in the research and development of absorbable metals, to solicit the most important findings, to highlight the remaining challenges, and to provide the perspectives on the future direction.

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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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