Special Issue

Bio-Binding Materials: Reactivity and Toxicity

Message from the Guest Editors

The present Special Issue is aimed at various types of bio-interaction with an emphasis on binding as a necessary precursor step of different manifestations of toxic action. This includes toxicity both as an undesired hazard and an intended action (targeted therapies). Toxicity is also regarded, among others, as:

- A descriptor of biocompatibility in healthcare industries for medical applications (immobilization of proteins, antigens/antibodies and vaccine preparation, tumor treatment, gene and drug delivery, wound dressing, bone and skin regeneration, tissue engineering, cardiovascular engineering, traumatology and dentistry, implantology);
- A tool that predicts the possible antibacterial action of packaging materials in food industry;
- A key feature for the development of self-cleaning fabrics with stain-resistant and antimicrobial properties;
- A means for the estimation of materials impact on the environment.

Binding materials may include metals and alloys, simple and mixed oxides, minerals, ceramics, polymers, hybrids, composites, nanoparticles and nanostructured materials, etc. Binding receptors envisaged are DNA, peptides, proteins, polysaccharides, biomembranes, etc.

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Deadline for manuscript submissions

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About the Journal

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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