Special Issue

Applications of Diatoms in the Fields of Environment Resuscitation, Biomedical Research and Nanoparticles Production

Message from the Guest Editors

Diatomaceous silica is naturally formed porous nanostructure, which is extremely abundant in marine and freshwater ecosystems. This excellent bioresource can, therefore, be a good option for wastewater treatment. The high surface area of this nanostructured silica is useful for functionalization with various biomolecules. The functionalized biosilica is beneficial for biomedical research, namely drug delivery. biosensing, and regenerative medicine. Metal nanoparticles are sometimes modified with silica to make them more effective and stable. This natural nanosilica can be combined with metal nanoparticles following some environmentally friendly techniques. This silica doped metal nanoparticles would be very significant for bioimaging and other medical applications. In this Special Issue, the applications of diatomaceous silica in environment restoration, biomedical research, and metal-silica nanohybrid productions would be highlighted and discussed. It is my pleasure to invite you to submit a manuscript for this Special Issue. Full papers, communications, and reviews are all welcome.

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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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