Special Issue

Synthesis and Biomedical Applications of Carbon-Based Materials

Message from the Guest Editor

The new technologies of carbon-based nanostructure synthesis have seen a huge growth in their applications in different fields of science, including biomedicine. The following applications are in great demand:

- Tissue engineering and one of its branches, developing an application of biopolymer implants based on graphene/nanotube 3D/2D-networks;
- Gas multisensor chips designed on the basis of multilayer functionalized graphene structures (carbonylated, carboxylated, aminated graphene, etc.) with immobilized peptides and aptamers sensitive to the adsorption of various gas analytes;
- Biosensors based on multilayer heterostructures, including functionalized graphene with coordination-bound lanthanides (Eu, Sc, etc.) and nanocrystals of transition metal oxides (ZnO, SnO2, etc.);
- Personalized medicine, implying smart drug delivery using fullerenes, carbon nanotubes, graphene, and its composites.

Guest Editor

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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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