Special Issue

Smart Nano-Devices

Message from the Guest Editors

Smart nano-devices, including nanorobots, nanoelectronics and nanosensors, which are nanoscale devices designed to response to external stimuli (light, electrical and magnetic fields, ultrasounds), internal stimuli (enzyme activity, pH, redox) and internal and external stimuli (temperature), have attracted a great deal of attention over the past decade due their promising multiple applications in different fields such as in the medicine, sensing and environmental fields. For instance, at present, in the field of nanomedicine, smart nano-devices have successfully demonstrated to enhance the diffusion and control de release of the drug to target locations in comparison with passive drug delivery systems or, in the environmental field, they have improved the mixing and mass transfer, greatly enhancing the rate of various remediation processes. This Special Issue of Nanomaterials tittle "Smart nanodevices" will attempt to cover the recent advancements in the Smart nano-devices focused on the nanomaterials employed.

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Nanoscience and nanotechnology are exciting fields of research and development, with wide applications to electronic, optical, and magnetic devices, biology, medicine, energy, and defense. At the heart of these fields are the synthesis, characterization, modeling, and applications of new materials with lower nanometerscale dimensions, which we call "nanomaterials". These materials can exhibit unusual mesoscopic properties and include nanoparticles, coatings and thin films, metal-organic frameworks, membranes, nano-alloys, quantum dots, self-assemblies, 2D materials such as graphene, and nanotubes. Our journal, Nanomaterials, has the goal of publishing the highest quality papers on all aspects of nanomaterial science to an interdisciplinary scientific audience. All of our articles are published with rigorous refereeing and open access. We are proud of our increasing impact factor and ability to provide rapid decisions to authors.

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