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Photophysics of Media Doped with Nanoobjects

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Message from the Guest Editor

The Special Issue main focus is going to be centered on the use of perspective nanoobjects, such as fullerenes, carbon nanotubes, shungites, J-aggregates, Janus-nanoparticles, quantum dots, graphene oxides, DNA, etc., which can be considered as affective dopant agents to sensitize the conjugated organics, including liquid crystal ones. Moreover, the carbon nanotubes and relative nanostructures can be taken into account to modify the materials surface to increase their transparency, mechanical and wetting properties. The mechanisms responsible for the drastic change of photorefractivity, photoconductivity, etc. features of the modified nanocomposites will also be under investigation. Some innovative accent correlated with the replacement of nano-objects by bio-objects will be considered under the conditions of saving the basic matrix materials properties. As an additional, new process to develop the nanostructured solar energy elements, nonlinear absorbers, modulators, display devices, etc., will be proposed.



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Special Issue



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Message from the Editor-in-Chief

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 nanometer-scale 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.

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