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Nanoparticles for Medical Applications: Progress in Surface Modification

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Deadline for manuscript submissions:
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Message from the Guest Editors

In the last years, nanoparticles attracted the researchers interest due to their exclusive chemical and physical properties. In medical applications, different kind of nanoparticles have been investigated; moreover, several progresses have been made regarding their synthesis method. However, more efforts are still required to improve and tailor the nanoparticles surface properties.

Surface features are extremely important since they can influence nanoparticles dispersion, biocompatibility, solubility, interaction with biomolecules and cellular internalization. Functionalization with small molecules, surfactants, dendrimers and polymers, is one of the most used strategy to protect nanoparticles against agglomeration, improve their biocompatibility, tailor the biodegradability and impart desired properties. Another strategy is to coat them with thin organic or inorganic layers. Potential topics concern, but are not limited to: Nanoparticles surface functionalization; organic/inorganic coating; Nanoparticles interaction with biomolecules; Biocompatibility; Interaction between nanoparticles and biological systems; Role of nanoparticles surface in the cell internalization.

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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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