Special Issue

Nanomaterials Based on Supramolecular Structures: From Synthesis to Applications

Message from the Guest Editor

Nanoparticles and nanostructured materials, due to their tunable physicochemical properties and their enhanced performance with respect to the corresponding bulk counterparts, represent an active area of research due to their impact in many application fields. In this framework, recent progress in the synthesis of nanomaterials and the fundamental understanding of their properties have led to significant advances in different areas of research. A bottom-up approach based on supramolecular chemistry, with a convergent methodology, allows obtaining fascinating samples with high performance and low costs. This nonconventional methodology is crucial for the design and synthesis of novel systems with optimized structures and properties. It overcomes the limits of covalent synthesis and provides the requested structures whose flexibility and tunability are typical of the dynamic nature of non-covalent interactions. This Special Issue welcomes submissions of original research papers or comprehensive reviews that demonstrate or summarize significant advances in self-assembled systems investigated for engineering nanostructures with peculiar architectures and functionalities.

Guest Editor

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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 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.

Editor-in-Chief

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