Special Issue

Novel Building Blocks for Nanotechnology: Applications and Perspectives

Message from the Guest Editor

When talking about the methods to build nanostructured systems and materials, two different approaches can be envisioned: the top-down approach, whose idea is the miniaturization of macroscopic structures and systems towards a nanoscale size, and the bottom-up approach, where atoms and molecules constituting the building nanoblocks are considered as the starting point to build desired nanostructures. Thus, when considering design of novel building blocks for nanotechnology, we can focus, first of all, on different types of nanoparticles (NPs). NPs are characterized by an immense surface area, a high proportion of atoms in the surface and near surface layers, and the ability to exhibit quantum constraint effects. NPs can be surface-functionalized in order to be used for specific applications. However, various molecular building blocks for nanotechnology are of great importance and research interest as well. Accordingly, this Special Issue seeks to showcase research papers and review articles that focus on recent developments of novel building blocks for nanotechnology.

Guest Editor

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