







Special Issue Reprint

# Morphological Design and Synthesis of Nanoparticles

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The aim of this reprint is to capture some of the current trends in nanoparticle research focused on the correlation between nanoparticle morphology and function. For instance, the asymmetry of Janus nanoparticles gives them amphiphilic properties and the ability to partition at interfaces, self-assemble into superstructures, emulsify, or act as unidirectional nanomotors, among other things. However, there are countless other examples of functionality that stem from the morphological design of the nanoparticles, such as in nanoparticle catalysis, in drug delivery systems, or for nanoparticles used as technology facilitators for designing nanostructured materials, interfaces, and composites. This compilation of articles, bound in the book titled "Morphological Design and Synthesis of Nanoparticles," aims to provide a snapshot of the latest developments in the synthetic strategies of nanoparticles with unique morphologies that grant them special functions, covering a wide range of applications, from biology to catalysis, optoelectronics, and beyond. This collection of articles is committed to advancing the synthetic strategies of uniquely shaped nanoparticles, the design of materials derived from the use of functional nanoparticles, the physicochemical investigation of phenomena resulting from such nanoparticles, devices incorporating these nanoparticles as active components, and new applications.





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