



Functionalized Porous Silica-Based Nanoparticles: From Synthesis to Applications

Guest Editor:

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Message from the Guest Editor

Porous silica-based nanoparticles are one of the most commonly-used supports to prepare functional nanomaterials. In general, these materials are synthesized using a self-assembly strategy based on the hydrolysis of an inorganic precursor around a pre-organized organic template such as surfactant micelles or block copolymers. The obtained supports can be easily chemically-modified as silicon oxide functionalization chemistry has been widely studied. At present, it is possible to modulate density, distribution, or even the location of the incorporated functional groups. Decoration of these materials with molecules, super-molecules or even with other inorganic materials confers new advantageous features to the final material, which find application in many fields, such as controlled release, molecular and biomolecular recognition, imaging, self-healing, remediation, catalysis or biomaterials among others.





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Message from the Editor-in-Chief

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