



Advances in Sol–Gel Synthesis of Magnetic Nanomaterials for Photocatalytic Applications

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

The synthesis of magnetic nanoparticles with multifunctional nanostructures through the sol–gel method has been an area of study because of the practical applications of such low-dimensional systems. This method is indispensable for the rapid construction of new nanostructure systems in order to overcome the ineffectiveness of the most frequently applied conventional treatment processes in adequately removing recalcitrant compounds from the environment. Considering the sustainability of solar energy, photocatalysis is a major advance for sustainable, nontoxic, and economically viable technologies. However, the development of a photocatalytic system with superior sensitivity to the visible region of the solar spectrum, appropriate band energetics, and agile carrier transport to inhibit recombination processes remains a major challenge.

I am pleased to invite contributions to discuss advances in sol–gel synthesis for producing magnetic photoactive catalysts, including single-phase catalysts, composites, MOF materials, core–shell photocatalysts, 3D heterostructures, and nanostructured catalytic membranes.

Dr. Adrian Iulian Borhan
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Message from the Editor-in-Chief

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