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Biosynthesized transition metal oxide nanostructures for photocatalytic degradation of organic dyes
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Abstract

Transition metal oxide nanoparticles have received a growing attention in the field of materials science because of their size- and shape-dependent physicochemical and functional properties. One of the promising applications of transition metal oxides is their ability to degrade wide varieties of organic dyes in the presence of sunlight or UV light irradiation. As the worldwide demand for sustainable and green processes for the synthesis of various materials increases, great attention has been paid to the synthesis of transition metal oxide nanoparticles using biogenic processes. Such green processes explore the various renewable, vast available, green, and low-cost bio-constituents derived from various bio-derived sources as sustainable, environmentally friendly and easy scalable approaches to synthesize transition metal oxide nanostructures. Thus, this chapter summarizes the research accomplishments on the biosynthesized transition metal oxide nanostructures as photocatalysts for the degradation of organic dyes. © 2022 Elsevier Inc.

Author keywords

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