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عنوان مقاله:

ZnO nanoparticles with remarkably enhanced sunlight-driven photocatalytic performance

محل انتشار:

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خلاصه مقاله:

Global environmental pollution and energy supply demand have been regarded as important concerns in recent years. Zinc oxide (ZnO) based nanostructures have gained remarkable attention worldwide for their photocatalytic activation behavior as a semi-conductor metal oxide photocatalyst in different industries. Herein, a high-performance photocatalyst of ZnO nanoparticles was synthesized via a sol gel route and used for the photodegradation of methylene blue from water under sunlight. The nanoparticle was characterized by X-ray diffraction, scanning electron microscopy, energy dispersive x-ray spectroscopy (EDX), and UV–Vis diffusion reflectance spectroscopy. For the photodegradation of methylene blue as an organic dye under sun light, ZnO NPs exhibited remarkably enhanced photocatalytic efficiency.

کلمات کلیدی:

ZnO NPs, photocatalytic activity, semiconductor, sun light

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