

## عنوان مقاله:

Study nanostructures of semiconductor zinc oxide (ZnO) as a photocatalyst for the degradation of organic pollutants

## محل انتشار:

مجله بین المللی ابعاد نانو، دوره 2، شماره 2 (سال: 1390)

تعداد صفحات اصل مقاله: 10

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## خلاصه مقاله:

In the present study, comparison of photocatalytic activity of nanostructures semiconductor zinc oxide (ZnO) was prepared using the different methods on the degradation of organic dye such as methylene blue that was investigated. Previous studies have proved that such semiconductors can degrade most kinds of persistent organic pollutants, such as detergents, dyes, pesticides and volatile organic compounds, under UV-irradiation. In some observed reports the photocatalytic activity of the coupled photocatalysts, evaluated by using organic dyes photodegradation as a probe reaction which shows increase the photocatalytic activity in different coupled photocatalysts. In this survey, the activities of ZnO nanostructures and ZnO nanocrystalline, for degradation of methylene Blue are different. Also the rate of operation photocatalysts ZnO nano composites on the organic dye is different too. Measurements of catalyst characteristics were obtained by BET, XRD, TEM, AFM, Raman and FTR-IR spectroscopy.

## کلمات کلیدی:

Zinc oxide nanoparticle, Nanostructures, Surface, Photocatalytic Activity, Methylene blue

## لینک ثابت مقاله در پایگاه سیویلیکا:

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