

عنوان مقاله:

PREPARATION AND CHARACTERIZATION OF DOPED TITANA NANOPARTICLES: PREPARED) VA VATER-N-OL
MICROEMULSION

محل انتشار:

سومین کنفرانس بین المللی مواد فوق ریزدانه و نانوساختار (سال: 1390)

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خلاصه مقاله:

The Microemulsion method was successfully used to prepare a series of TiO₂, iron oxide and SiO₂ doped TiO₂ nanoparticles at a doping level of 5 at. %. The molar ratio of water to surfactant W_o (= water/ Surfactant) was 2 and the samples were calcined at 350°C. The structural features of parent TiO₂, Fe oxide-TiO₂, and SiO-TiO₂, have been investigated by XRD, UV-Visible, SEM and TEM. The data indicated that in comparison with pure TiO₂ sample, the iron oxide and SiO₂ doped TiO₂ samples had relatively large particle size indicating that the doping with Fe oxide and SiO₂ can increase the particle size. Among all the samples, pure TiO₂, Fe oxide and SiO₂ doped TiO₂, Fe oxide TiO₂, sample showed the highest activity on the photocatalytic decomposition of methylene blue

کلمات کلیدی:

Titania; microemulsion; nano particle; Photocatalysis

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