عنوان مقاله:

Design and synthesis of Fe۲O۳-bentonite for the degradation of Methyl Orange by heterogeneous photo-Fenton process

محل انتشار:

هفدهمین کنگره ملی مهندسی شیمی ایران (سال: 1400)

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خلاصه مقاله:

Fe۲O۳-bentonite was fabricated by a facile preparation method as a heterogeneous catalyst, for the degradation of methyl orange by photo-Fenton process. Bentonite as an efficient substrate with acceptable surface area plays the remarkable role for boosting the catalytic activity of iron oxide. The catalyst was characterized by XRD and FT-IR analysis which showed that Fe۲O۳ is formed over the bentonite. The results also showed that the highest efficiency of Fe۲O۳-bentonite was calculated to be about ۹۸.۳% for the degradation of methyl orange. The degradation kinetics was also investigated which illustrated that the MO degradation follows the Pseudo-first order kinetics model.

کلمات کلیدی:

photo_Fenton, catalyst, bentonite, degradation, methyl orange.