

عنوان مقاله:

Synthesis and Kinetic Investigation of Fe-Mn Binary Metal Oxide for Adsorption of Black Reactive δ Dye

محل انتشار:

دوازدهمین کنگره ملی سراسری فناوری های نوین در حوزه توسعه پایدار ایران (سال: 1402)

تعداد صفحات اصل مقاله: 5

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خلاصه مقاله:

In the present study, a bimetallic nanocomposite of Fe-Mn was synthesized using a facile co-precipitation method. The prepared sample was characterized using XRD analysis to determine the important formed phases. The removal efficiency of Reactive Black δ (RB δ) dye using the fabricated Fe-Mn binary metal oxide was measured to be about 84.8% under the normal condition. The achievements indicated that the bimetallic adsorbent Fe-Mn can be effectively utilized for removal of the anionic ions from aqueous solutions. Furthermore, the adsorption kinetic was also investigated which showed that the second order kinetic equation had the good conformity with the experimental data. Therefore the electrostatic adsorption was carried out for uptake of dye

کلمات کلیدی:

Nanostructure; Bimetal Oxide; Adsorbent; Reactive Black δ ; Kinetics

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