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عنوان مقاله:

Synthesis and functionalization of maghemite nanoparticles and application for removal of rhodamine 6G from aqueous solution

محل انتشار:

اولین کنفرانس ملی علوم و فناوری نانو (سال: 1389)

تعداد صفحات اصل مقاله: 4

نویسندگان:

Abbas Afkhami - *Faculty of Chemistry, Bu-Ali Sina University, Hamadan ۶۵۱۷۴, Iran*

Rasoul Norooz-Asl - *Payame Noor university, Maraghe*

خلاصه مقاله:

We have synthesized successfully the functionalized maghemite (γ-Fe2O3) nanoparticles by a chemical precipitation technique of ferric ions and an amino acid (L-Lysine) in alkaline solution . The structure and morphology of the nanoparticles were studied using SEM and FTIR. The imagesof particles in the sample reveal of grains with mean diametre of 50 nm. The synthesized nanoparticles were used as an adsorbent for the removal of a cationic dye and were studied in batch mode. The effects of agitation time and initial dye concentration, adsorbent dosage and pH were examined. Adsorp;on reached equilibrium within <10 min and was independent of ini;al dye concentra;on. The maximum adsorp;on occurred at pHs higher than 7.5 (between 7.5-11). The Langmuir adsorption capacity (qmax) was found to be 24 mg rhodamine 6G /g of the adsorbent

کلمات کلیدی:

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