

عنوان مقاله:

Removal of EBT dye from water using silica filled composite hydrogels of poly acrylic acid and polyethylene glycol as a copolymer

محل انتشار:

دومین کنفرانس بین المللی یافته های نوین پژوهشی در شیمی و مهندسی شیمی (سال: 1395)

تعداد صفحات اصل مقاله: 6

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خلاصه مقاله:

In this study, super absorbent hydrogels were synthesized from polyethylene glycol (PEG) and crosslinked polyacrylic acid. Actually a copolymer was formed. The nano and micro silica filled composite hydrogels were also synthesized incorporating 0.1, 0.5 wt% (of total polymer) fillers in hydrogels. These were characterized by FTIR, ¹HNMR, ¹³CNMR, TGA and TEM. The nano silica filled composite hydrogels showing the best result for adsorption and desorption of Eriochrome black T (EBT) for low range (2.5-100 mgr / L) of feed dye concentration. Also, the investigations are carried out to study the effects of concentration dye and contact time by UV- VIS spectroscopy .technique

کلمات کلیدی:

Silica composite hydrogels, Eriochrome black T(EBT), plastic Red

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