

عنوان مقاله:

Water Purification from Metal Ions with Modified Polypropylene Non-Woven Fabric Membrane

محل انتشار:

هفدهمین کنگره ملی مهندسی شیمی ایران (سال: 1400)

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خلاصه مقاله:

The adsorption of thorium ion was investigated in this study by a modified polymer adsorbent in which polypropylene is a substrate and modifying monomers, including acrylonitrile and acrylic acid. Adsorption condition was investigated, including temperature ۲۵-۵۵ °C and pH ۱-۱۰ and residence time ۱-۵ h to obtain the highest percentage of adsorption. As a result, the maximum adsorption capacity was ۵۹.۱ (mg/g). Also, the adsorption test was performed continuously in the fixed bed column. The output concentration starts to increase after ۳۳ minutes, and the column is wholly saturated after ۸۷ minutes.

کلمات کلیدی:

Heavy Metal, Adsorption, Polymeric Adsorbent, Thorium

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