سیویلیکا - ناشر تخصصی مقالات کنفرانس ها و ژورنال ها
گواهی ثبت مقاله در سیویلیکا
CIVILICA.com

## عنوان مقاله:
Optimization of zinc adsorption by polyaniline using experimental design

## محل انتشار:
هفتمین کنگره ملی مهندسی شیمی (سال: 1390)

تعداد صفحات اصل مقاله: 8

## نویسندگان:
Tahereh Shojaeimehr - *Biotechnology Research lab., Chemical Engineering Dept., Faculty of Engineering, Razi Univ., Kermanshah ۶۷۱۴۹-۶۷۳۴۶, Iran.*

Farshad Rahimpour - *Biotechnology Research lab., Chemical Engineering Dept., Faculty of Engineering, Razi Univ., Kermanshah ۶۷۱۴۹-۶۷۳۴۶, Iran.*

Rostam Moradian - *Nanotechnology Research lab., Physical Dept., Faculty of Science, Razi Univ., Kermanshah ۶۷۱۴۹-۶۷۳۴۶,*

Bandar Astinchap - *Nanotechnology Research lab., Physical Dept., Faculty of Science, Razi Univ., Kermanshah ۶۷۱۴۹-۶۷۳۴۶,*

## خلاصه مقاله:
Adsorption of aqueous solution consist of heavy metal ions can be an effective process for the removal of heavy metal ions from aqueous solutions. In this study, the adsorption properties of polyaniline (PAn) for Zn2+ adsorption were investigated by using batch adsorption techniques. The effects of initial metal ion concentration, initial pH, temperature and contact time on adsorption efficiency were studied using response surface methodology. In the experiments the optimum condition was found out as pH=12.0, C0 = 10 ppm, T=20 $^{0}$C and t = 600 min. The results indicated that the polyaniline (PAn) is a suitable adsorbent for removing Zn2+ removing from aqueous solutions.

## کلمات کلیدی:
Adsorption, polyaniline, zinc, response surface methodology

## لینک ثابت مقاله در پایگاه سیویلیکا:
https://civilica.com/doc/341479