

عنوان مقاله:

Preparation of polystyrene nanofiber modified with Dithizone using electrospinning technique

محل انتشار:

ماهنامه بین المللی علوم محض و کاربردی، دوره 4، شماره 7 (سال: 1394)

تعداد صفحات اصل مقاله: 7

نویسندگان:

D Kaviani - *Department of chemistry, Science and research branch, Islamic Azad University, Tehran, Iran*

M Saghi - *Department of chemistry, Arak branch, Islamic Azad University, Arak, Iran*

M Hajipoor - *Department of chemistry, Quchan branch, Islamic Azad University, Quchan, Iran*

B Assadi - *Department of chemistry, Arak branch, Islamic Azad University, Arak, Iran*

خلاصه مقاله:

In this paper, polystyrene nanofiber were made using electrospinning polystyrene inside THF/DMF solvent. The major parameters such as voltage, distance between injection and collector, polystyrene concentration and rotating speed of collector were optimized in electrospinning technique. The results indicated that in specific range, with increasing voltage, high electrospinning distance, low flow of injection and high collector's speed, we could achieve to nanofiber having regular chain structure and less diameter. In optimal condition and unmodified surface, polystyrene fiber had average diameter of 82.1 nm. Finally polystyrene absorbent by dithizone were modified and through selecting best condition, the modified polystyrene nanofiber with 92.98 nm average diameter were obtained which although it has more diameter than unmodified nanofiber, it possesses properties which the unmodified nanofiber does not have .those properties, for example property of absorbing metals

کلمات کلیدی:

Nanofiber, Polystyrene, Electrospinning, Dithizone

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/464061>

