

عنوان مقاله:

Immobilization of pectinase on Fe₃O₄ nanoparticles coated with Docusate sodium salt

محل انتشار:

هفتمین کنگره ملی مهندسی شیمی (سال: 1390)

تعداد صفحات اصل مقاله: 5

نویسندگان:

Atieh Bahrami - *Biotechnology Research Laboratory, School of Chemical Engineering, Iran University of Science and Technology, P.O. Box: ۱۶۸۴۶-۱۳۱۱۴, Tehran, Iran*

Parisa Hejazi - *Biotechnology Research Laboratory, School of Chemical Engineering, Iran University of Science and Technology, P.O. Box: ۱۶۸۴۶-۱۳۱۱۴, Tehran, Iran*

Ali Partovinia - *Biotechnology Research Laboratory, School of Chemical Engineering, Iran University of Science and Technology, P.O. Box: ۱۶۸۴۶-۱۳۱۱۴, Tehran, Iran*

خلاصه مقاله:

Nanomagnetic particles of Fe₃O₄ were synthesized by co-precipitation method using NH₄OH as precipitating reagent and N₂H₄.H₂O as an oxidation-resistant reagent and finally coated with docusate sodium salt (AOT) as an anionic surfactant. These nanoparticles present a very simple, mild, low-priced and time-saving process for enzyme immobilization. The immobilized pectinase could be recovered by magnetic separation and retained 36.6 and 43.33% of activity after 4 recycles at 40 and 50 °C, respectively. It shows less stability at high temperature

کلمات کلیدی:

Magnetic nanoparticles (MNPs), AOT, Pectinase, Enzyme immobilization

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/341169>

