研究论文

扑热息痛分子印迹聚合物膜选择性结合和渗透性质的研究

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摘要 采用紫外光引发原位聚合的方法制备了具有支撑膜的扑热息痛分子印迹聚合物膜.

紫外分光光度法证明了模板分子与功能单体之间存在相互作用,并据此选择了聚合反应时合适的溶剂.

用傅立叶红外光谱和扫描电镜分别测定了膜的结构和表面形貌.

渗透实验结果表明渗透时所用溶剂对渗透结果有重要影响.

合适的渗透溶剂可提高印迹膜对模板分子的渗透选择性. 关键词 分子印迹技术 分子印迹膜 膜渗透 扑热息痛

分类号

Binding Selectivity and Permeation Characterization of Molecularly Imprinted Polymer Membranes with Paracetamol as Template

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Abstract Using paracetamol as template molecule, molecularly imprinted polymer membranes with supporting membrane were synthesized through *in situ* polymerization by UV irradiation. The interaction between template and functional monomer was proved by UV spectrophotometry and based on the results, appropriate reaction solvent was selected. The membrane structure and surface features were analyzed by FT-IR and scan electron micrography. Permeation experiment showed that permeation solvent greatly influenced the permeation result. Appropriate solvent could increase the permeation selectivity of the imprinted membrane for the template.

Key words molecularly imprinting technique molecularly imprinted membrane membrane permeation paracetamol

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