

研究快报

带有酰胺侧基的中空手性高分子微球的合成及其分离性能

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摘要 合成了带有手性基团的多孔高分子微球, 并将其作为高效液相色谱手性固定相用于分离制备盐酸贝那普利的一个重要中间体(*R*)- α -羟基苯丁酸乙酯.

关键词 [高分子微球](#) [手性固定相](#) [手性高分子](#) [\(*R*\)- \$\alpha\$ -羟基苯丁酸乙酯](#) [\(-\) \$\alpha\$ -苯乙基-丙烯酰胺](#) [\(-\) \$\alpha\$ -苯乙基-10-十一烯酰胺](#)

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Synthesis and Chiral Recognition of Hollow Chiral Polymer Microspheres with Amide Side Group

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Abstract Two kinds of chiral monomers, (-) α -phenylethyl-acrylamide and (-) α -phenylethyl-10-undecendyl amide, were synthesized via condensation of (*S*)- α -phenyl ethyl amine and acryl chloride or 10-undecendyl chloride. Their structures and purities were determined *via* IR, ¹H NMR and elemental analysis. The seeded microspheres of polystyrene (about 3 μ m) were prepared with dispersion polymerization, and monodisperse hollow chiral polymer microspheres were prepared with two-stage swelling procedure *via* copolymerization of styrene, divinyl benzene and the chiral monomers synthesized above. The average diameter of the microsphere was about 10 μ m. The chiral polymer microspheres were used to be the stationary phase of HPLC. The molar ratio of (*S*)- α -ethyl hydroxy phenylbutyrate and (*R*)- α -ethylhydroxy phenylbutyrate were determined *via* chiral HPLC. The chromatography results showed that the chiral recognition was very high when using chiral polymer microsphere, prepared by *S*-10-undecylenoyl(α -phenyl) ethylamide as chiral monomer, as chiral stationary phase of HPLC.

Key words [Polymer microsphere](#) [Chiral stationary phase](#) [Chiral polymer](#) [\(*R*\)- \$\alpha\$ -Ethylhydroxy phenylbutyrate](#) [\(-\) \$\alpha\$ -Phenylethyl-acrylamide](#) [\(-\) \$\alpha\$ -Phenylethyl-10-undecendyl amide](#)

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