

研究快报

微波聚合快速制备分子印迹毛细管电色谱整体柱

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摘要 以甲基丙烯酸为功能单体、己二醇二甲基丙烯酸酯为交联剂、对羟基苯甲酸为模板分子, 采用微波辐射聚合的方式快速制备了分子印迹毛细管电色谱整体柱, 并取得了较好的印迹效果. 分子印迹材料的原位制备5 min即可完成, 大大快于国内外传统的方法.

关键词 [微波](#) [分子印迹聚合物](#) [整体柱](#) [毛细管电色谱](#)

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Rapid Preparation of Molecularly Imprinted Capillary Monolithic Columns by Microwave Polymerization

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Abstract Microwave irradiation was firstly attempted to prepare molecularly imprinted polymers (MIPs) monoliths, which were *in situ* prepared rapidly with methacrylic acid (MAA) as a functional monomer, ethylene glycol dimethacrylate (EDMA) as a cross-linking agent, toluene and isooctane as the porogenic solvents and AIBN as an initiator. The baseline separation of isomers of hydroxybenzoic acid was achieved on these monolithic columns with 4-HBA as the template, but not on the blank polymer. Furthermore, some neutral compounds could also be baseline-separated on the imprinted polymer columns in the modes of pressure-driven capillary electrochromatography and low-pressure driven capillary electrochromatography. It was shown that the monoliths were not only used as the molecularly imprinted polymers but also as the reverse phase chromatographic material.

Key words [Microwave](#) [Molecularly imprinted polymer](#) [Monolithic column](#) [Electrochromatography](#)

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