

SYNTHESIS AND APPLICATION OF POLYMER SUPPORTS FOR SOLID-PHASE PEPTIDE SEQUENCE ANALYSIS

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ABSTRACT

Several polymer supports for sequence analysis were derived from low crosslinked gelatinous and macroporous poly(styrene-divinylbenzene). Three types of functionalized supports have been compared with each other for coupling model peptide and subsequent Edman degradation.

The experimental results indicated that under suitable functional group content of about 1.0 mmol NH_2/g of resin, the attaching yields of peptide to macroporous resin were higher than that of the gel type of resin. Macroporous TEPA resin has been demonstrated to be qualified as a polymer support for solid-phase sequence analysis of peptide.

Key words polymer support, solid phase sequence analysis, Edman degradation, peptide, macroporous resin

经验交流

凝胶电泳槽的简易快速密封法

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关键词 凝胶电泳槽密封法, 聚甲基丙烯酸甲酯

为解决电泳槽的漏胶问题,我们在长期的电泳实践中,摸索出一种简单、快速、经济、实用的 PMMA(聚甲基丙烯酸甲酯)塑料密封法,经反复使用效果良好。现介绍如下:

1. PMMA 密封胶的配制及其使用方法

称 PMMA 粉末 1g (有机玻璃粉末亦可),置于具磨口塞的玻璃瓶中,然后加入 8ml 三氧甲烷,按紧瓶塞轻微摇动,完全溶解后即为密封胶。

用 PMMA 胶密封板状槽时,先用文具铁夹将模板紧固,继之,用玻璃棒或毛笔尖蘸取胶液沿左右及底边连续涂抹,并力求快速均匀。涂好后倒立于板槽支架上至出现乳白色薄膜时即可灌胶,待电泳胶聚合后,

随即将 PMMA 膜剥下,收集起来留做重新配密封胶用。此胶也可用于管状槽的密封,方法是将玻管的一端插入胶液 3mm 左右,然后快速旋转拔出,垂直倒立风干即可。

2. PMMA 密封胶使用注意事项

(1) 此胶的溶剂是三氧甲烷,它易产生有害电光气,在其中加入其量约 1—2% 的无水乙醇则可消除;(2) 板状槽的密封条不能用有机玻璃质的,此胶易使之损坏;(3) 配制 PMMA 胶时切勿搅拌,否则易产生大量气泡,影响成膜性和密封效果。

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