

专论综述

分子印迹技术在生物大分子分离识别中的应用

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摘要 分子印迹技术是近些年发展起来的模拟抗体-抗原相互作用原理的新技术。该文介绍了分子印迹技术的产生和发展, 重点介绍了生物大分子印迹聚合物的制备条件、聚合方法及其识别机理, 并对该技术的应用前景及目前存在的问题进行了探讨。

关键词 [分子印迹](#) [分子识别](#) [生物大分子](#)

分类号

Separation and Recognition of Biomacromolecule by Molecular Imprinting Technique

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Abstract

Molecular imprinting technique is a novel technique based on mimicking specific action of antibody-antigen. The emergence and the development of the technique are reviewed in this article. The focuses of this article include the introductions of the synthesis conditions, the comparisons of the various approaches on preparation methods as well as the recognition mechanisms of the biomacromolecule imprinted polymers. The primary synthetic methods include the embed technique, the surface imprinting procedure and the epitope approach. The epitope approach is based on using a short peptide as a template that represents only part of a larger peptide or protein, which in turn can be recognized by the synthesized polymer. This approach for the development of the biomacromolecule imprinted polymers selective to proteins is attractive from an economic viewpoint: a small peptide is usually less expensive, and the quantity necessary for the polymer preparation is more readily available than that of the corresponding protein. In the end, the limitations and the prospective applications of this biomacromolecular imprinted technique are also discussed.

Key words [molecular imprinting](#) [molecular recognition](#) [biomacromolecule](#)

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