

利用辐射接枝化学共价法固定酶的研究

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摘要 文章叙述了利用辐射接枝技术,缩合共价法,使葡萄糖氧化酶固定在聚乙烯、氟46膜上。并用红外光谱法证明葡萄糖氧化酶固定在聚乙烯膜上是有效的。实验结果发现,对于氟46膜,共价率、接枝率、膜蛋白含量和膜酶活力间的相互关系,剂量率低,共价率低时,显示出单位膜酶活力较大。当共价率在4.3%时,单位膜酶活力达到最大值,实验也说明了丙烯酸会影响酶的保留活力。对于聚乙烯酶膜,证明红外光谱法表征是一种简便、有效的方法。

关键词 [辐射接枝](#) [聚乙烯](#) [氟46膜](#) [葡萄糖氧化酶](#) [固定化酶](#)

分类号

STUDY ON IMMOBILIZATION ENZYME USING RADIATION GRAFTING AND CONDENSATION COVALENT

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Abstract The paper is described the immobilization of GOD on polyethylene and F₄₆ by radiation grafting and condensation covalent. The GOD on polyethylene film is characterized with IR-spectrum. The results show that the enzyme activity on F₄₆ film is high when dose rate and covalent yield are low. When covalent yield is 4.3% the enzyme relative activity achieves the highest for F₄₆ film. The experiment also demonstrates that acrylic acid affects the enzyme relative activity and the method of IR-spectrum character is convenient efficient for GOD on polyethylene film.

Key words [Radiation grafting](#) [Polyethylene](#) [F₄₆ copolymer](#) [Glucose oxidase \(GOD\)](#)
[Immobilization enzyme](#)

DOI

通讯作者

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