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黄多孔菌产漆酶最佳培养条件的优化

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Optimization of culture conditions for laccase production from Polyporus elegans Fr.

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全文: PDF (851 KB) HTML (1 KB) **输出**: BibTeX | EndNote (RIS) **背景资料**

摘要 采用Plackett-Burman设计法,对影响黄多孔菌生产漆酶的9个因素进行了筛选。结果表明，影响该菌产生漆酶的主要营养因素为碳氮比、铜离子浓度和pH。在此基础上,采用响应面法对其中3个显著因子的最佳水平范围进行研究,利用统计软件Design-Expert进行二次回归分析得知，碳氮比、铜离子浓度和pH分别为4:1、0.1 mmol/L和5.5时,漆酶产量从178 U/mL提高到446 U/mL。

关键词:

Abstract: The 9 factors that influenced laccase production from Polyporus elegans Fr. was studied using Plackett-Burman design. The result showed that the main nutrition factors was C/N ratio, the concentration of Cu2+ and pH. On that basis，response surface analysis were adopted to investigate the optimal levels of the 3 main factors. The result was undertaked the second regression analysis using Design-Expert software and showed that the laccase activity was 446U/mL(178U/mL before optimization) when the C/N ratio, the concentration of Cu2+ and pH was 4:1, 0.1 mmol/L and 5.5 respectively.

Key words:

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