URN etd-0407109-183702-85
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Statistics This thesis had been viewed 59 times. Download 0 times.
Department
Year 2007
Semester 1
Degree Master
Type of Document Master's Thesis
Language zh-TW.Big5 Chinese
Title Optimization of medium composition for the submerged specific polyphenolic production from mycelia with response surface methodology by Xylaria nigripes.
Date of Defense 0000-00-00
Page Count 48

Keyword
Xylaria nigripes
polyphenolic
Response surface method
antioxidation
after

Abstract
Xylaria nigripes, so called Wu Ling Sen, has significantly anti-oxidation. Our study aimed to discover that the relationship between polyphenolic production and the antioxidant ability. The study isolated from the ants nest associated with Termitomyces eurhizus in campus. Response surface method, RSM, has used to select the optimal fermentation condition for producing the highest polyphenolic activity. The result showed that the polyphenol was 193.98±3.67 mg/g dry cell obtained at the initial condition, while by using one-factor experimental designation had harvest 257.65±55.78 mg/g respectively. After optimization with RSM designation, the maximum polyphenol was 385.71±8.57 mg/g when the medium composition was 5.0 g/L Glucose, 3.0 g/L Peptone, 10.688 g/L Sucrose, 4.583 g/L Yeast extract and 0.389 g/L KH2PO4. Besides, the yield of polyphenol obtained from fruit body was 366.46±3.57 mg/g. The result strongly suggested that the RSM significantly increasing the harvest 98% and antioxidant activity up to 2.07 mg/mL.
Advisory Committee - advisor

Files No Any Full Text File.
Date of Submission 2008-01-29