

耕作栽培·生理生化

烟草木质素降解菌的筛选及在烟草中的应用

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摘要 采用木质素含量较高的烟梗为筛选材料, 分离筛选到一株具有降烟草木质素功能的真菌, 并测定了该菌的产酶活性、代谢物中挥发性成分及粗酶液在烟草快速陈化中的作用。结果表明: (1) 该菌在15 d可产生最高酶活1 920 U/L; (2) 发酵液中挥发性成分主要为倍半萜烯醇、萜烯醇类烟草本香成分; (3) 经膜过滤后的粗酶液在烟草快速陈化过程中降低烟草木质素含量达8%以上, 可降低烟叶呛咳和刺激性, 提高抽吸品质。

关键词 [木质素](#); [漆酶](#); [真菌](#); [挥发性成分](#); [烟草陈化](#)

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The Screening of Lignin and Metabolite of a Fungus from Tobacco and Its Application on Tobacco Technology

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Abstract

A fungus that can metabolize lignin of tobacco was obtained from tobacco. The activity of laccase, VOCs (volatile organic compounds) of zymotic fluid and its application were studied in this paper. The results showed that (1) the fungi can produce high quantity laccase up to 1 920 U/L on 15 days; (2) its metabolites including terpenol and sesquiterpene alcohol were all natural VOCs of tobacco; (3) the zymotic fluid applied on cured tobacco can apparently reduce the lignin of cured tobacco by 8% and the smoking quality was effectively improved.

Key words [lignin](#); [laccase](#); [fungi](#); [VOCs](#); [tobacco-aging](#)

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