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OPTIMIZATION OF 6-PENTYL-ALPHA-PYRONE PRODUCTION BY SOLID STATE FERMENTATION USING SUGARCANE BAGASSE AS RESIDUE

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Abstract

Solid state fermentation (SSF) has been used as a model for the study of microorganisms. The aim of the present study was to enhance 6-PP by *Penicillium harzianum* 4040 in solid state fermentation using sugarcane bagasse as substrate. A factorial design was used to select the components of the nutrient solution. The fermentation was carried out during 9 days, and the aroma extraction was done on the tenth and eleventh days using organic solvent. On the seventh day the major concentrations of the variables glucose, sucrose, and MgSO₄ were found to be significant statistical components of the nutrient solution used in the production of 6-PP by *Penicillium harzianum*.