

Fermentative production of lactic acid from lignocellulosic biomass by mutant *Lactobacillus delbreuckii*

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ABSTRACT

In this research, a comparative study of fermentative production of lactic acid from wild and mutant strains of *Lactobacillus delbreuckii*, under various process parameters like temperature, pH and inoculum size was performed. Ligno-cellulosic substrates utilized in solid state fermentation are groundnut shells. Total lactic acid produced was estimated by colorimetric methods and purified using various membrane separation processes like centrifugation and microfiltration. Furthermore, genome sequencing of mutant bacterial strain produced by physical mutagenesis was also performed, to identify the mutated form of gene encoding specific nucleotide sequence of lactate dehydrogenase enzyme.

Keywords: Fermentation, Lactic acid, *Lactobacillus delbreuckii*, Pretreatment.

