

AN ABSTRACT OF A THESIS

STUDY ON THE IMMOBILIZATION OF GLUCOAMYLASE AND ITS CATALYTIC ACTIVITIES ON THE CONVERSION OF GLUCOSE FROM MALTOSE

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Master of Science in Chemical Engineering

The main purpose of this study was to make an operating immobilized enzyme bed to examine its catalytic activities on the production of glucose from maltose by changing reaction parameters; e.g. pH, concentration, temperature, time, etc. Another objective of this experiment was to compare some of the data with the results produced by previous investigators.

Studies of optimum pH and temperature produced results very close to the data published earlier. The studies also showed that the substrate concentration might be chosen around 20 percent (maltose) for better glucose conversion at 22°C. A particular catalyst bed could be used for about 20 days continuous operation with 5 percent substrate for production of glucose satisfactorily at 20°C.

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A Thesis
Presented to
the Faculty of the Graduate School
Tennessee Technological University

by
Biswajit Maiti

In Partial Fulfillment
of the Requirements for the Degree
MASTER OF SCIENCE
Chemical Engineering

August 1992

CERTIFICATE OF APPROVAL OF THESIS

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