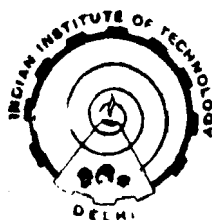


**Continuous Bioconversion of Carbohydrate
Feedstocks to Acetone — Butanol
Using Immobilized Cells.**

**THESIS SUBMITTED TO THE
INDIAN INSTITUTE OF TECHNOLOGY, DELHI
FOR THE AWARD OF THE DEGREE
OF
DOCTOR OF PHILOSOPHY**

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JULY 1989**

to

my parents

CERTIFICATE

This is to certify that the thesis titled CONTINUOUS BIOCONVERSION OF CARBOHYDRATE FEEDSTOCKS TO ACETONE-BUTANOL USING IMMOBILIZED CELLS submitted by SOMA CHAKRABARTI has been prepared under my supervision in conformity with the rules and regulations of the Indian Institute of Technology, Delhi. The research report and results presented in the thesis have not been submitted for any degree in any other University.

Sc, 11
SUBHASH CHAND

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