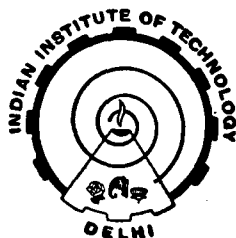


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PURIFICATION, CHARACTERIZATION OF THERMOSTABLE α -AMYLASE FROM *Bacillus amyloliquefaciens* AND ITS ACTIVE SITE STUDIES

A Thesis Submitted to the
Indian Institute of Technology, Delhi
for the Award of Degree of
DOCTOR OF PHILOSOPHY

by
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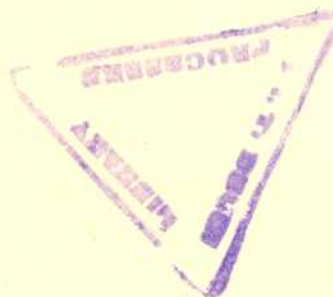
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C E R T I F I C A T E

This is to certify that the thesis entitled, "Purification, Characterization of Thermostable α -Amylase from Bacillus amyloliquefaciens-159 and its Active Site Studies" being submitted by Sunil Kochhar to Indian Institute of Technology, Delhi, for the award of the degree of "Doctor of Philosophy" is a record of bonafide research work carried out by him. Sunil Kochhar has worked under my guidance and supervision and has fulfilled the requirements for the submission of this thesis, which to my knowledge, has reached the requisite standard.

The results contained in this thesis have not been submitted in part or full to any other University or Institute for the award of any degree or diploma.



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A C K N O W L E D G E M E N T S

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1. Dua, R.D. and Kochhar, S. (1985) Active Site Studies on Bacillus amyloliquefaciens α -Amylase(I). Mol. Cell. Biochem. 66: 13-20.
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ABBREVIATIONS USED

N-Acetylimidazole, NIM

Tetranitromethane, TNM

N-Bromosuccinamide, NBS

p-Chloromercuribenzoate, PCMB

β -Cycloheptaamylose, CHA

Dinitrosalicylic acid, DNS

1-Ethyl-3-(3-dimethylaminopropyl)carbodiimide, EDC

N-Ethyl-5-phenylisoxazolium-3'-sulfonate, WRK

N-Ethylmaleimide, NEM

Sodium dodecyl sulphate, SDS

Tris-(hydroxymethyl)-aminoethane, Tris

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