

**BIOCHEMICAL STUDIES OF BETA
GALACTOSIDASE FROM SOME
YEASTS**

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By

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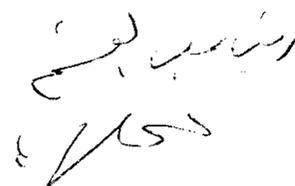


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ABSTRACT

The work included three parts:

Part one : Screening of yeast cultures for β -galactosidase production.

Part two : Studying the best cultural conditions for enzyme production by *Candida pseudotropicalis* and its extraction.

Part three: Studying the purification, physical and chemical properties.

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INTRODUCTION

I. INTRODUCTION

In the recent years growing interest has developed in microorganism as potential sources for various enzyme that are of applied nature in food industries and medical fields. Among the microbial enzymes which are of great interest is the β -galactosidase enzymes (lactase, β -D-galactoside galactohydrolase EC. 3.2.1.23) which catalyze the splitting of β -glycosidic linkages of lactose, a natural substrate, to glucose and galactose and the transferring of mono-sugar units to hydroxylic acceptors as sugar or alcohol, resulting in new glycosidic bonds, (*Wierzbick and Kosikowski, 1973*). Such a universal occurrence suggests they play important physiological roles. In humans, deficiencies these enzymatic activities are associated with pathological conditions, such as gastrointestinal and neurological diseases, (*Wallenfels and Well, 1972* and *Ben-Yoseph et al. 1979*).

lactose, is the major constituent of milk solids - not fat, limits the concentrations of milk solids-not fat that can be used in ice-cream, milk concentrates, pasteurized processed cheese spreads and numerous other food and feed products.

Lactose utilization is limited in food products because of its low solubility, lack of sweetness and its laxative