شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of 15-25- c and relative humidity 20-40%

بعض الوثائـــــــق الاصليـــــة تالفـــة

بالرسالة صفحات لم ترد بالاصل

STUDIES ON THE FORMATION OF PREDNISOLONE BY MICROBIAL MEANS

A Thesis Submitted For Ph.D. Degree
In
Microbiology

By

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Abstract

Abeer Abd El-Hadi Ahmed. Studies on the Formation of Prednisolone by Microbial Means. Ph.D. Ain Shams University, Faculty of Girls, Microbiology Department, 1999.

Studies were made on 39 different microbial cultures (15 fungi and 24 bacteria), *Ps. fluorescens* was found to be the most active organism.

The highest prednisolone yield (63.4 %) was obtained by using 5 mg of cortisol/50 ml medium and addition of 0.6 ml/l of H_2O_2 at optimum conditions, transformation medium (beef extract, 3; peptone, 5 and glucose, 10 g/l), pH 6.5, temperature 30°C, culture age 48 h and agitation speed 200 rpm.

Ca-alginate, polyacrylamide and poly-HEMA were used to transform cortisol. Poly-HEMA immobilized cells was chosen, the prednisolone yield was increased to 84.3 % by the repeated use of the immobilized cells for 7 cycles. Prednisolone yield reached to its maximum (96.8 %) by the repeated use of the immobilized cells for 9 cycles by using 2L fermentor.

Isolation and identification of the transformation products were carried out by using modern techniques.

Key words: Microbiological transformation, cortisol, prednisolone, additives, immobilization, fermentor, identification, HPLC, IR, NMR, X-ray and DSC.

This thesis has not been previously submitted for any degree at this or at any other university.

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Abeer Abd El-Hadi Ahmed