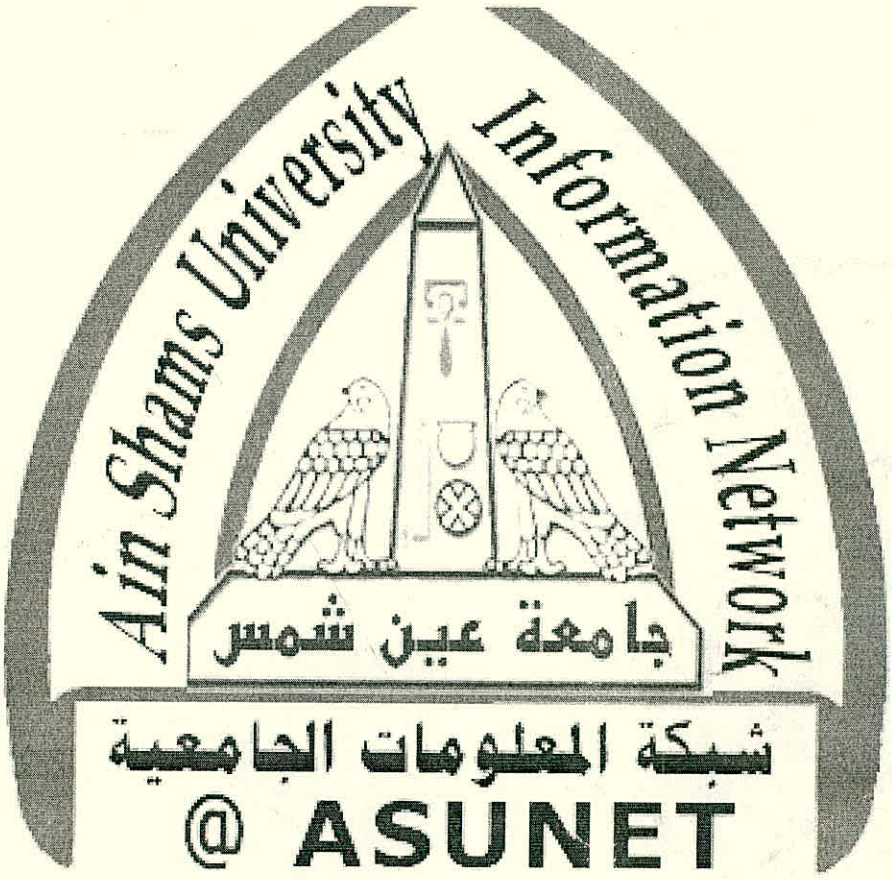
ثبكة المعلومات الجامعية

بسم الله الرحمن الرحيم



شبكة المعلومـــات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

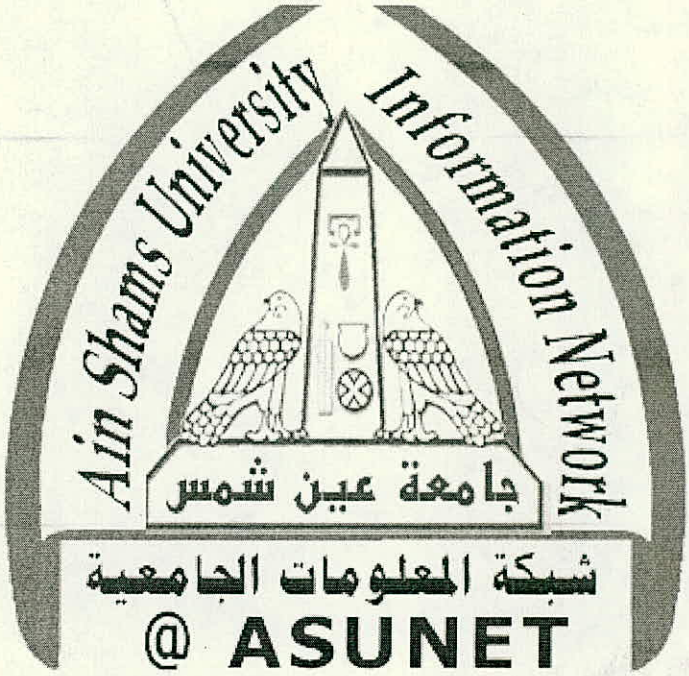
نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد اعدت دون آية تغيرات

يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 منوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %



بعض الوثائق الأصلية تالفة

بالرسالة صفحات

لم ترد بالأصـــل

TANTA UNIVERSITY
FACULTY OF AGRICULTURE,
KAFR EL-SHEIKH

CHEMICAL AND TECHNOLOGICAL STUDIES ON SOME FOOD

METHODS OF BIOTECHNOLOGY FOR QUALITY CONTROL OF LOCAL SMOKED FISH DURING PROCESS AND STORAGE UNDER DIFFERENT CONDITIONS

BY

MOHAMED SOBHY MOHAMED ELSHENAWI

B.Sc. Agric. (Food Technology), Fac. of Agric. Tanta Univ., 1998

THESIS

Submitted in Partial Fulfilment of the
Requirements for the Degree of

MASTER OF SCIENCE

IN
AGRICULTURE SCIENCES
(FOOD TECHNOLOGY)

FOOD TECHNOLOGY DEPARTMENT
FACULTY OF AGRICULTURE, KAFR EL-SHEIKH
TANTA UNIVERSITY

(2005)

APPROVAL SHEET

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Name of Candidate: Mohamed Sobhy Mohamed Elshenawi

Degree of Master of Science

. *in* (Food Technology)

وكيل الكلية
لشئون الدراسات العليا والبحوث
أ.د. محمود مصباح عبد الرحمن

Approved by:

Prof. Dr. .....

Prof. Dr. .....

Prof. Dr. .....

Prof. Dr. .....

(Committee in Charge)

Date: / /2005

TANTA UNIVERSITY
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TANTA UNIVERSITY

Under the Supervision of :

Prof. Dr. **ABD EL-HAMEED MILIGI**
Professor of Food Science and Technology, Department of Food Technology, Faculty of Agriculture, Kafr El-Sheikh, Tanta University.

Prof. Dr. **MAHMOUD SABER GOUDA**
Professor of Food Science and Technology, Department of Food Technology, Faculty of Agriculture, Kafr El-Sheikh, Tanta University.

Dr. **SAADALAH MOHAMED SALIH**
Lecture of Food Science and Technology, Department of Food Technology, Faculty of Agriculture, Kafr El-Sheikh, Tanta University.

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Methods of biotechnology for quality control locally smoked fish during process and storage under different conditions

ABSTRACT

BY

MOHAMED SOBHY MOHAMED EL- SHENAWI

The present investigation was aimed to study the chemical, microbiological and sensory properties of cold smoked herring, stored in three degrees of temperature (Room temperature, refrigerator at 4±1°C and deep freezer at -18°C) with two types of packing (normal package and vacuum package), to evaluate quality and storage stability of smoked herring fish. The effect of smoking process on the quality of herring fish was also studied. Smoked herring fish stored at room temperature were the lowest samples in quality and shelf life was little. Samples were spoiled after 21 days for normal package, while the samples stored in vacuum package were spoiled after 30 dates of storage.Fish stored at refrigerator storage had the higher in quality and longer shelf life than those stored in room temperature. The samples were spoiled after 60 and 150 days of storage for normal and vacuum package, respectively. Samples stored at frozen storage (-18°C) had the highest fish for quality and longest of shelf life where the samples stored in vacuum package stile accepted after 12 months.