

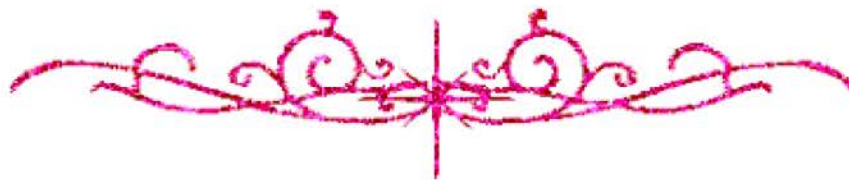
# بسم الله الرحمن الرحيم



**HOSSAM MAGHRABY**



# شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



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# جامعة عين شمس

## التوثيق الإلكتروني والميكروفيلم

### قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها  
على هذه الأقراص المدمجة قد أعدت دون أية تغيرات



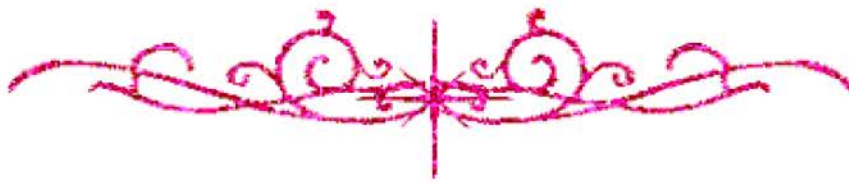
## يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

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# بعض الوثائق الأصلية تالفة



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بالرسالة صفحات

لم ترد بالأصل



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# **STUDIES ON THE UTILIZATION OF CARP FISH IN SOME FISHERY PRODUCTS**

By

**Mohamed Abo-Taleb EL-Sayed Hassanin**

B.Sc. Agric., (Food Technology) Ain Shams University, (1987)

M.Sc. (Food Science and Technology) Ain Shams University, (1993)

A thesis submitted in partial fulfillment  
of  
the requirements for the degree of  
**Doctor of Philosophy**  
in  
Agriculture  
(Food Science and Technology)

To

Department of Food Science  
Faculty of Agriculture  
Ain Shams University

1997

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# APPROVAL SHEET

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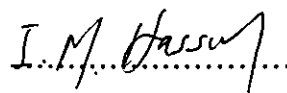
This thesis for Ph.D. degree has been approved by:

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Dean of Home Economics Faculty Menofiya University.

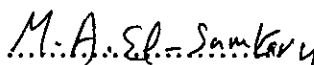
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Date of Examination: 27/ 1 / 1997





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## **ABSTRACT**

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MOHAMED ABO-TALEB EL-SAYED HASSANIN. Studies on the utilization of Carp fish in some fishery products. Unpublished Doctor of Philosophy, University of Ain Shams Faculty of Agriculture Department of Food Science 1997.

This investigation was carried out to study the utilization of silver carp fish. Different canned silver carp fish forms and silver carp steaks processed as fried, microwave cooked and smoked were manufactured. All canned and fish steak samples were subjected to organoleptic evaluation as well as chemical analysis, and microbiological evaluation periodically during storage.

A significant increase in TVB-N,  $\text{NH}_3\text{-N}$ , tyrosine and TBA was detected after canning. While, a significant loss in TMA-N, FAN, and VRS, was obtained after canning. During storage of canned fish at ambient temperature, an incremental trend was noticed in TVB-N,  $\text{NH}_3\text{-N}$ , TMA-N, FAN, VRS, tyrosine and TBA values with the prolongation of storage period. After smoking, frying and microwave cooking a significant decrease in TVB-N,  $\text{NH}_3\text{-N}$ , TMA-N, FAN and VRS values was noticed in silver carp steaks. It was concluded that the

formation of TVB-N,  $\text{NH}_3$ -N, TMA-N, FAN and VRS could be used as successful indicators for assessing quality of silver carp products. Processing treatments improved the market acceptability as well as keeping quality of investigated silver carp products.

#### KEY WORDS

Freezing. Canning. Ready to Eat Products. Fish Steaks. Processing Treatments. Potassium Sorbate. Total Volatile Basic Nitrogen. Trimethylamine Nitrogen. Ammonia Nitrogen. Free Amino Nitrogen. Volatile Reducing Substances. Tyrosine. Thiobarbituric Acid. Smoking. Frying. Microwave. Cooking. Vacuum Packaging. Electrophoresis. Gas Liquid Chromatography.

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