

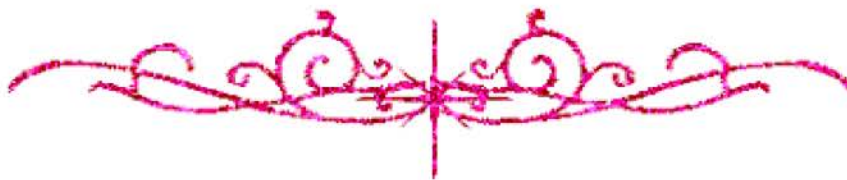
بسم الله الرحمن الرحيم



HOSSAM MAGHRABY



شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



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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



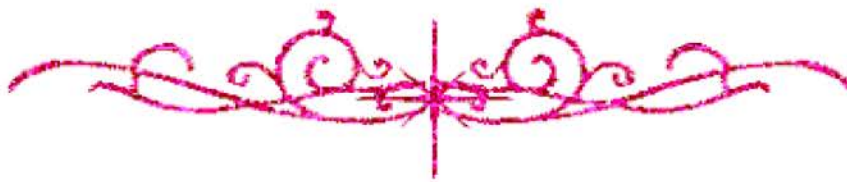
يجب أن

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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BIYKIE

A STUDY ON ENVIRONMENTAL POLLUTION WITH PESTICIDES AND HEAVY METALS

A Thesis
Submitted to
Cairo University
Faculty of Science

By

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B.Sc., M. Sc.

(Chemistry)

For
THE DEGREE OF
DOCTOR OF PHILOSOPHY
(CHEMISTRY)

1999

APPROVAL SHEET FOR SUBMISSION

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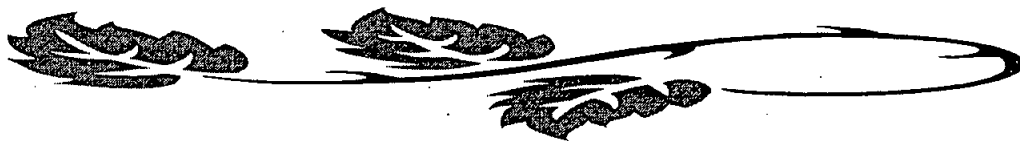
ABSTRACT

The leaching behavior of the two 1, 3, 5-triazines ametryn and atrazine in their active ingredient and formulation forms in calcareous, clay and sandy soil columns as well as their degradation under 5 pH levels was studied under laboratory conditions. The order of mobility of the four tested herbicides in soils always as follows: sandy > calcareous > clay soil. Also, it was found that the degradation of these herbicides in aqueous solution was mainly depended on the form of the applied herbicide and the pH level they work under.

The contamination levels of Cd, Co, Ni and Pb as well as ametryn and atrazine herbicides were measured in a 96 samples of whole body and filleted boliti fish (Tilapia nilotica) and catfish (Clarias lazaro) collected from Greater Cairo during the Peroid from November 1997 until April 1998. Data indicated that the concentration of such contaminants and their relative abundance were varied between the two fish species studied. This may be accounted for by the environmental conditions, fish species, age, sex, different feeding habits, the nature of the contaminant and the ability of the fish species to excrete it.



Prof. M. H. EL-NAGDI



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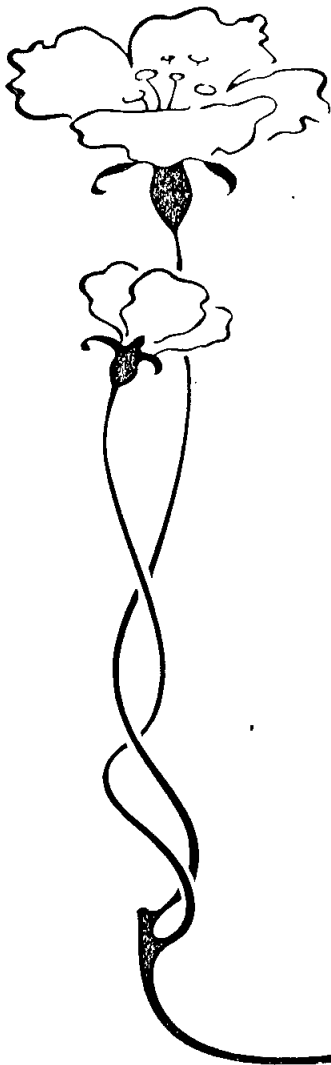
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Dedication



To the Greatest Mother

In the Universe

With My Love and

Appreciation.

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Arabic Summary.	

LIST OF ABBREVIATIONS

%	: Percentage
°C	: Percent degree
µg/kg	: Microgram per kilogram.
µg	: Microgram
µg/l	: Microgram/litter
µg/ml	: Microgram per milliliter
µL	: Microliter
µm	: Micrometer
λ	: Wavelength
a.i.	: Active ingredient
AAS	: Atomic absorption spectrometry
AOAC	: Association of Official Analytical Chemists
Approx.	: Approximately
Apr.,	: April
Ar	: Arsenic
C	: Carbon
Ca	: Calcium
Cal.	: Calcareous
Cd	: Cadmium
cm	: Centimeter

LIST OF ABBREVIATIONS Cont

Co	: Cobalt
Col.	: Column
Concn.	: Concentration
Cr	: Chromium
Cs	: Cesium
Cu	: Copper
d	: Day
DAD	: Diode array detection
Dec.,	: December
Det.	: Detector
E.C	: Electric conductivity
ECD	: Electron capture detection
FAO	: Food and Agriculture Organization of the United Nations
Fe	: Ferric
Feb.,	: February
FID	: Flame ionization detection
Fig.	: Figure
Freq.	: Frequency
g	: Gram
g/kg	: Gram per kilogram
g/l	: Gram per liter
GLC	: Gas liquid chromatograph