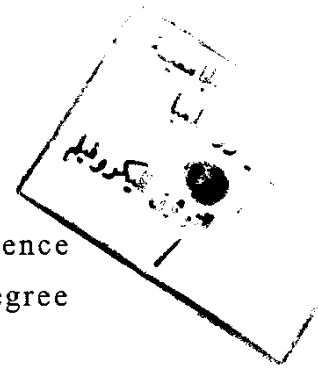
THE MUTAGENIC EFFECTS OF SOME PESTICIDES THROUGHOUT THE ONTOGENY OF THE HOUSEFLY *MUSCA DOMESTICA* DUE TO DIFFERENCES IN THE CHEMICAL NATURE

A THESIS
Presented to the Faculty of Science
for the Award of the Ph. D. Degree



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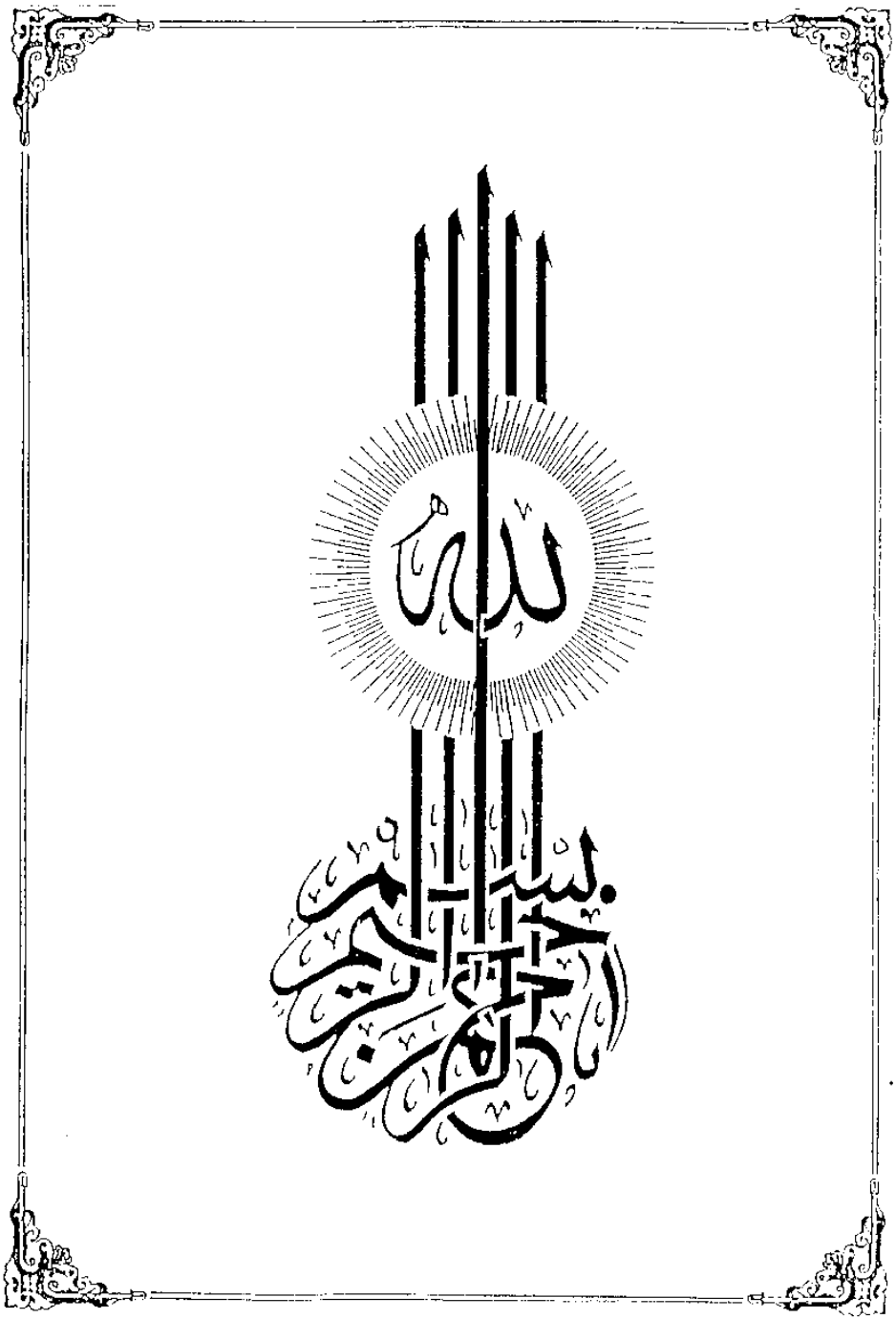

Dedication

I have a great honor to dedicate this dissertation and the including research to the spirit of my Professor, Prof. Dr. *Awni Mohamed Guneidy*. To whom I am really indebted for all I have learned in both moral and scientific aspects.

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Abstract

The present work designed to study the mutagenic effect of three insecticides: zolone, cidial and hostathion on ***Musca domestica*** using two protocols, dominant female sterility and isozymes variations for the four enzymes: Me, α-Gpdh, Ldh and Mdh using starch gel electrophoresis.

It is clear from all the data gained by these protocols that the three used insecticides have no effects on the fertility of females and have no mutagenic effects on Me enzyme. On the other hand, they have mutagenic effects on α-Gpdh, Ldh and Mdh enzymes when adult ***Musca domestica*** flies were treated.

Key words: ***Musca domestica*** - Dominant female sterility - Isozymes variations - Malic enzyme (Me) - α-Glycerophosphate dehydrogenase (α-Gpdh) - Lactate dehydrogenase (Ldh) - Malate dehydrogenase (Mdh).

List of abbreviations used in this thesis:

EDTA : Ethylene diamine tetra acetic acid disodium salt..

Ci : Cidial.

α-Gpdh: α- Glycerophosphate dehydrogenase.

HCl : Hydrochloric acid.

Ho : Hostathion.

Ldh : Lactate dehydrogenase.

Mdh : Malate dehydrogenase.

Me : Malic enzyme.

$Mg\ Cl_2$: Magnesium chloride.

NAD : Nicotinamid adenine dinucleotide

NADP : Nicotinamid adenine dinucleotide phosphate.

NBT : Nitro blue tetrazolium.

PMS : Phenazine methosulphat.

$Na_2\ CO_2$: Sodium carbonate.

Tris : Tris - hydroxy - methyl aminomethane.

Zo : Zolone

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