

Faculty of Science Entomology Department

Toxicological effects of nanoparticles on the common house mosquito, *Culex pipiens* L. (Diptera: Culicidae)

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BY

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DEDICATION

This thesis is dedicated to my beloved parents, brothers and friends.

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LIST OF ABBREVIATIONS

APS Ammonium persulfate

ASTM American Society of Testing and Materials

CBB Coomassie Brilliant Blue

CMC Critical Micelle Concentration

Cx. Culex

gm gram

gm.b.wt gram body weight

HNPs Hematite Nanoparticles

hrs hours

IOS International Organization for

Standardization

kDa Kilo-Dalton

kg kilogram

kV Kilo-volt

L Liter

LC Lethal Concentration

LD Lethal Dose

LT Lethal Time

M Molar

m meter

mg milligram

ml milliliter

nm nanometer

ppm part per million

r.p.m. Revolutions per minute

RH Relative humidity

RHA Rice husk ash

SCCP Scientific Committee on Consumer Products

SCCS Scientific Committee for Consumer Safety

SDS-PAGE Sodium dodecyl sulfate-polyacrylamide gel electrophoresis

SNPs Silica nanoparticles

TEM Transmission electron microscope

TEMED N, N, N, N, tetramethylenediamine

TEOS Tetraethyl orthosilicate / Tetraethoxysilane

V Volt

WHO World Health Organization

μl microliter

μm micrometer

List of Tables

No	Title	Page
1.	Aliquots of various strength solutions added to 100 ml water to yield final concentration	28
2.	Toxicity data of silica nanoparticles against 3 rd instar larvae of laboratory <i>Cx. pipiens</i> strain (p <0.05)	46
3.	Toxicity data of hematite nanoparticles against 3 rd instar larvae of laboratory <i>Cx. pipiens</i> strain (p < 0.05)	48
4.	Toxicological evaluation of tested nanoparticles	50
5.	Toxicity of silica nanoparticles against 3 rd instar larvae of <i>Cx. pipiens</i> at different time intervals (p< 0.05)	52
6.	Toxicity of hematite nanoparticles against 3 rd instar larvae of <i>Cx. pipiens</i> at different time intervals (p< 0.05)	54
7.	Values of LT _{50n} of different nanoparticles against 3 rd instar larvae of <i>Cx. pipiens</i>	56
8.	Determination of Total protein and lipid of 3 rd instar larvae of <i>Cx. pipiens</i> treated with LC ₂₅ and LC ₅₀ of tested nanoparticles	59
9.	Molecular weights and percentage amount of SDS-electrophoretic protein patterns for both untreated and treated samples of 3 rd larval instar of <i>Cx. pipiens</i>	68

List of Figures

No.	Figure	Pag
		e
1.	Standard curve of total	24
1.	protein	31
2.	Standard curve of total	22
	lipid	33
3.	TEM image showing silica nanoparticles	
	produced by sol-gel method (20 nm scale);	
	particle size detected by TEM images	39
	software were 2.83, 3.33, 4.33 and 6.06 nm	39
	(arrows)	
	•••••	
4.	TEM image showing silica nanoparticles	
-	produced by sol-gel method (200 nm scale);	40
	agglomeration of nanoparticles was detected	40
	in the sample (arrows)	
5.	TEM image showing silica nanoparticles	
	produced by sol-gel method (50 nm scale);	
	particle size detected by TEM images	41
	software were 3.15, 4.53 and 5.92 nm	41
	(arrows)	
	•••••	
6.	TEM image showing hematite nanoparticles	
	produced by hypothermal method (200 nm	43
	scale); agglomeration of nanoparticles was	43
	detected in the sample (arrows)	
7.	TEM image showing hematite nanoparticles	
	produced by hypothermal method (50 nm	44
	scale) (arrows)	
8.	TEM image showing hematite nanoparticles	
	produced by hypothermal method (20 nm	
	scale); particle size detected by TEM images	45
	software were 5.21, 5.24, 5.86, 8.34 and 9.12	
	(arrows)	
9.	Toxicity regression line of silica	
	nanoparticles bioassay against 3 rd instar	47
	larvae of Cx. pipiens	
10.	Histogram showing observed mortality % of	47
	3 rd instar larvae of Cx. pipiens after	4/

	treatment with serial concentrations of silica	
	nanoparticles	
11.	Toxicity regression line of hematite nanoparticles bioassay against 3 rd instar larvae of <i>Cx. pipiens</i>	49
12.	Histogram showing observed mortality % of 3 rd instar larvae of <i>Cx. pipiens</i> after treatment with serial concentrations of hematite nanoparticles	49
13.	Histogram showing a comparison between the values of LC ₅₀ of the tested nanoparticles	51
14.	Histogram showing toxicological evaluation of the tested nanoparticles	51
	Toxicity regression line of silica nanoparticles against 3 rd instar larvae of <i>Cx. pipiens</i> at different time intervals (25 ppm)	53
16.	Histogram showing mortality percentage of 3 rd instar of <i>Cx. pipiens</i> after treatment with silica nanoparticles at different exposure time	53
	Toxicity regression line of hematite nanoparticles against 3 rd instar larvae of <i>Cx. pipiens</i> at different time intervals (25 ppm)	55
18.	Histogram showing mortality percentage of 3 rd instar of <i>Cx. pipiens</i> after treatment with hematite nanoparticles at different exposure time	55
19.	Histogram showing median lethal time values of silica nanoparticles and hematite nanoparticles against 3 rd instar larvae of <i>Cx. pipiens</i>	57

20.	Histogram showing total protein and lipid of untreated and treated 3 rd instar larvae of <i>Cx. pipiens</i>	59
21.	SDS-electrophoretic protein patterns of larval total protein of <i>Cx. pipiens</i> as control and treated samples with tested nanoparticles	64
22.	Analysis of SDS-electrophoretic protein patterns of larval total protein of <i>Cx. pipiens</i> as control and treated samples with tested nanoparticles	65
23.	Densitometric analysis of SDS- electrophoretic protein patterns of 3 rd instar larvae of <i>Cx. pipiens</i> as control and treated samples with tested nanoparticles	67

Contents

Contents	Pa
	ge
I. Introduction	1
II. Literature review	6
1- Chemical synthesis of nanoparticles	6
1.1. Synthesis of silica nanoparticles	6
1.2 Synthesis of hematite nanoparticles	8
2- Toxicological studies	10
2.1 Toxicological effects of silica nanoparticles on insects	10
2.2 Toxicological effects of different forms of iron oxide nanoparticles on insects	15
3- Biochemical studies	17
3.1 Biochemical effects of nanoparticles on biological systems	17
III. Materials and methods	21
1- Toxicological Studies	21
1.1 Laboratory maintenance of <i>Cx. pipiens</i> L	21
1.2 Tested nanoparticles	22

1.3 Toxicological	24
evaluation	
1.4 Calculations and data	26
analysis	
1.5 Effect of time variation on the	27
larvicidal activity of tested	
nanoparticles against 3 rd instar larvae of	
Cx.	
pipiens	
•••••	
2- Biochemical	28
studies	
2.1 Preparation of samples for	28
biochemical	
analysis	
•••••	
2.2 Determination of total protein of	29
untreated and treated 3 rd instar larvae	
of Cx. pipiens	
2.3. Determination of total lipid of	30
untreated and treated 3^{rd} instar larvae of Cx .	
pipiens	
2.4. Analysis of total protein of	32
untreated and treated 3 rd instar larvae	
of Cx. pipiens using polyacrylamide gel	
electrophoresis	
IV. Results	38
•••••	
1- Synthesis of	38
nanoparticles	
1.1 Silica	38
nanoparticles	
1.2 Hematite	42
nanoparticles	
2- Toxicological	46
studies	

2.1 Toxicity of silica nanoparticles against	46
3 rd instar larvae of Cx. pipiens	
L	
2.2 Toxicity of hematite	48
nanoparticles against 3 rd instar larvae of	
Cx. pipiens L	
2.3 Toxicological	50
Evaluation	
2.4 Effect of time variation on the	52
larvicidal activity of tested	
nanoparticles against 3 rd instar larvae of	
Cx.	
pipiens	
3- Biochemical	58
studies	
3.1 Determination of total protein	58
and total lipid of untreated and treated	
3 rd instar larvae of <i>Cx. pipiens</i>	
3.2 Electrophoretic fraction protein	58
patterns (SDS-PAGE) of untreated and	
treated 3^{rd} instar larvae of Cx .	
pipiens	
pipiens	
V. Discussion	69
v. Discussion	
••••	. –
VI.	87
Summary	
VII. References	92
Arabic summary	