

**SIMILARITY ANALYSIS OF POLY ETHYLENE
TEREPHTHALATE HYDROLASE (PETase) OF SELECTED
PLASTIC DEGRADING BACTERIA**

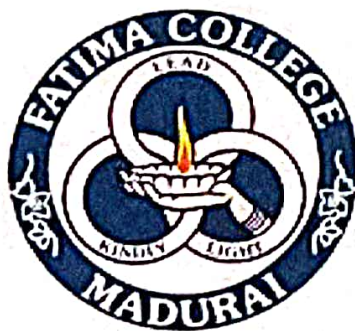
**Project Submitted for the Award of Degree of
Master of Science in Zoology**

Submitted By

Miss. AKSHAYA.T.S (2022MSCZ01)

GUIDED BY

Dr. A. TAMIL SELVI



PG DEPARTMENT OF ZOOLOGY

FATIMA COLLEGE (Autonomous)

Re-Accredited with 'A++' by NAAC (Cycle-IV)

MADURAI – 625018

APRIL, 2024

CERTIFICATE

This is to certify that this dissertation entitled “SIMILARITY ANALYSIS OF POLY ETHYLENE TEREPHTHALATE HYDROLASE (PETase) OF SELECTED PLASTIC DEGRADING BACTERIA” submitted by MISS. T.S. AKSHAYA (2022MSCZ01) as partial fulfillment for the degree of Master of Science in Zoology is based on the results of studies carried out by her under my guidance and supervision during the academic year 2023-2024 at Fatima College (Autonomous), Department of Zoology, Madurai-18. This project work has not been submitted elsewhere for any other degree.

Antony Amala Jayaseeli

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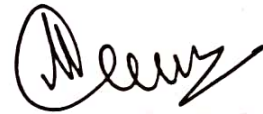
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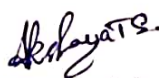
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(Dr. A. Tamil Selvi)

DECLARATION

I do hereby declare that this dissertation entitled “**SIMILARITY ANALYSIS OF POLYETHYLENE TEREPHTHALATE HYDROLASE (PETase) OF SELECTED PLASTIC DEGRADING BACTERIA**” has been originally carried out by me under the guidance and supervision of **Dr. A. Tamil Selvi**, Assistant Professor, Department of Zoology, Fatima College (Autonomous), Madurai- 18 and this work has not been submitted elsewhere for the award of any other degree.

STATION: MADURAI


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DATE: 02.04.2024

AKSHAYA.T.S

(2022MSCZ01)

**STUDY ON LENGTH-WEIGHT RELATIONSHIP AND
BIOCHEMICAL ANALYSIS OF SAND CRAB AND MARINE
MUSSELS, FROM MELMIDALAM, KANYAKUMARI DISTRICT**

Project submitted for the award of the Degree of Master of Science in Zoology



Submitted By

P.ANJUGAM (2022MSCZ02)

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This is to certify that the dissertation entitled "STUDY ON LENGTH-WEIGHT RELATIONSHIP AND BIOCHEMICAL ANALYSIS OF SAND CRAB AND MARINE MUSSELS, FROM MELMIDALAM, KANYAKUMARI DISTRICT submitted by **P. ANJUGAM (2022MSCZ02)** as partial fulfillment of Degree of Master of Science in Zoology is based on the results of studies carried out by her under my guidance and supervision during the academic year 2023-2024 at Fatima College (Autonomous), Department of Zoology, Madurai-18. This project work has not been submitted elsewhere for any other degree.

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Dr. Antony Amala Jayaseeli

DECLARATION

I do hereby declare that this dissertation entitled **"STUDY ON LENGTH-WEIGHT RELATIONSHIP AND BIOCHEMICAL ANALYSIS OF SAND CRAB AND MARINE MUSSELS, FROM MELMIDALAM, KANYAKUMARI DISTRICT** has been originally carried out by me under the guidance and supervision of **Dr. Antony Amala Jayaseeli**, Associate Professor and Head, Department of Zoology, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for the award of any other degree.

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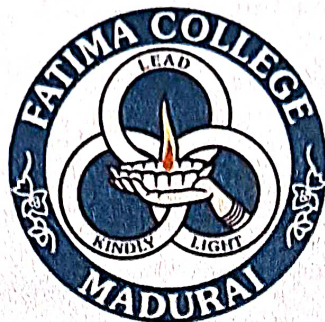
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2022MSCZ02

A STUDY ON BIOCHEMICAL ASPECTS OF SODIUM METABISULPHITE INDUCED TOXICITY IN ZEBRA FISH

Project submitted for the award of the Degree of Master of Science in Zoology



Submitted By

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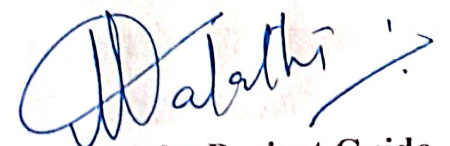
APRIL - 2024

CERTIFICATE

This is to certify that the dissertation entitled “**A STUDY ON BIOCHEMICAL ASPECTS OF SODIUM METABISULPHITE INDUCED TOXICITY IN ZEBRA FISH**” submitted by **P. ANTONETTE SIENA (2022MSCZ03)** as partial fulfillment of Degree of Master of Science in Zoology is based on the results of studies carried out by her under my guidance and supervision during the academic year 2023-2024 at Fatima College (Autonomous), Department of zoology, Madurai-18. This project work has not been submitted elsewhere for any other degree.


Head of the Department

(Dr. Antony Amala Jayaseeli)


Signature of the Project Guide
(Dr. N. Malathi)

STATION: MADURAI

DATE: 02.04.2024

DECLARATION

I do hereby declare that this dissertation entitled “**A STUDY ON BIOCHEMICAL ASPECTS OF SODIUM METABISULPHITE INDUCED TOXICITY IN ZEBRA FISH**” has been originally carried out by me under the guidance and supervision of **Dr. N. MALATHI**, Assistant Professor, Department of Zoology, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for the award of any other degree.

PLACE: MADURAI

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P. Antonette Siena

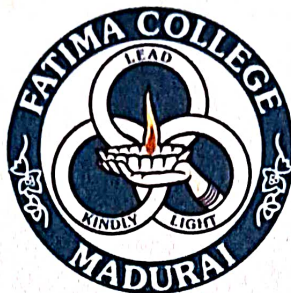
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P. ANTONETTE SIENA

2022MSCZ03

**MORPHOLOGICAL, BEHAVIOURAL AND
HISTOPATHOLOGICAL ASPECTS OF SODIUM
METABISULPHITE INDUCED TOXICITY IN ZEBRA FISH**

Project submitted for the award of the Degree of Master of Science in Zoology



Submitted By

K. HIMALINI (2022MSCZ04)

Guided by

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Re – Accredited with 'A++' by NAAC (Cycle – IV)

MADURAI – 625 018

APRIL - 2024

CERTIFICATE

This is to certify that the dissertation entitled "**MORPHOLOGICAL, BEHAVIOURAL AND HISTOPATHOLOGICAL ASPECTS OF SODIUM METABISULPHITE INDUCED TOXICITY IN ZEBRA FISH**" submitted by **K. HIMALINI (2022MSCZ04)** as partial fulfillment of Degree of Master of Science in Zoology is based on the results of studies carried out by her under my guidance and supervision during the academic year 2023-2024 at Fatima College (Autonomous), Department of zoology, Madurai-18. This project work has not been submitted elsewhere for any other degree.

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Signature of the Project Guide
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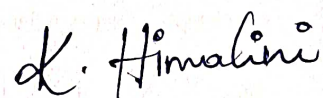
DATE: 02.04.2024

DECLARATION

I do hereby declare that this dissertation entitled "**MORPHOLOGICAL, BEHAVIOURAL AND HISTOPATHOLOGICAL ASPECTS OF SODIUM METABISULPHITE INDUCED TOXICITY IN ZEBRA FISH**" has been originally carried out by me under the guidance and supervision of **Dr. N. MALATHI**, Assistant Professor, Department of Zoology, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for the award of any other degree.

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DATE: 02.04.2024



Signature of the student

K.HIMALINI

2022MSCZ04

EVALUATION OF ANTI-DIABETIC AND ANTI-OBESITY POTENTIAL OF WHEAT GRASS

(Triticum aestivum)

A Project report submitted in partial fulfillment of the requirements for the award of the Degree of Master of in Zoology



Submitted By

P. JEMIMA GLADY

(2022MSCZ05)

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Assistant Professor

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PROJECT REPORT

APRIL – 2024

CERTIFICATE

This is to certify that this dissertation entitled “EVALUATION OF ANTI-DIABETIC AND ANTI-OBESITY POTENTIAL OF WHEAT GRASS (*Triticum aestivum*)” submitted by **P.JEMIMA GLADY (2022MSCZ05)** as partial fulfilment for the degree of Master of Science in Zoology is based on the results of studies carried out by her under my guidance and supervision during the academic year 2023-2024 at Fatima College (Autonomous), Department of Zoology, Madurai-18. This project work has not been submitted elsewhere for any other degree.


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Madurai-625 018.


Signature of the Guide

(Dr. J. Asnet Mary)

STATION: MADURAI


DATE: 02.04.2024

DECLARATION

I do hereby declare that this dissertation entitled “EVALUATION OF ANTI-DIABETIC AND ANTI-OBESITY POTENTIAL OF WHEAT GRASS (*Triticum aestivum*)” has been originally carried out by me under the guidance and supervision of **Dr. J. ASNET MARY**, Assistant Professor, Department of Zoology, Fatima College (Autonomous), Madurai- 18 and this work has not been submitted elsewhere for the award of any other degree.

Place: MADURAI

Date : 02 – 04 – 2024

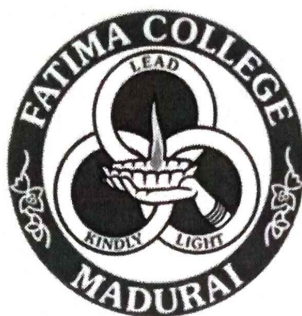

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P. JEMIMA GLADY

(2022MSCZ05)

A STUDY ON PHYTOCHEMICAL AND BIOACTIVITY OF CARISSA CARANDAS

Project submitted for the award of the Degree of Master of Science in Zoology



Submitted By

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APRIL - 2024

CERTIFICATE

This is to certify that the dissertation entitled “A STUDY ON PHYTOCHEMICAL AND BIOACTIVITY OF CARISSA CARANDAS” submitted by P. MERCILIN (2022MSCZ06) as partial fulfillment of Degree of Master of Science in Zoology is based on the results of studies carried out by herunder my guidance and supervision during the academic year 2023-2024 at Fatima College (Autonomous), Department of zoology, Madurai-18. This project work has not been submitted elsewhere for any other degree.

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DATE: 02.04.2024

Dr. Biji Cyriac

Signature of the Project Guide

(Dr. Sr. Biji Cyriac)

DECLARATION

I do hereby declare that this dissertation entitled “A STUDY ON PHYTOCHEMICAL AND BIOACTIVITY OF CARISSA CARANDAS” has been originally carried out by me under the guidance and supervision of **Dr. Sr. BIJI CYRIAC**, Assistant Professor, Department of Zoology, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for the award of any other degree.

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2022MSCZ06

**“Phytochemical characterization and in silico analysis of
Jatropha multifida”**

Project submitted to Fatima College (Autonomous)

In partial fulfillment of the requirements

For the degree of

MASTER OF SCIENCE IN ZOOLOGY

Submitted by

B.SARASWATHI

(REG No: 2022MSCZ07)



FATIMA COLLEGE (AUTONOMOUS)

MADURAI-625018

Under the guidance of

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PG DEPARTMENT OF ZOOLOGY

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MADURAI-18

APRIL- 2024

CERTIFICATE

This is to certify that the dissertation entitled "**Phytochemical characterization and in silico analysis of *Jatropha multifida***" submitted by B.SARASWATHI (2022MSACZ07) as partial fulfillment of Degree of Master of Science in Zoology is based on the results of studies carried out by her under my guidance and supervision during the academic year 2023-2024 at Fatima College (Autonomous), Department of Zoology, Madurai-18. This project work has not been submitted elsewhere for any other degree.

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DATE: 02 . 04 . 2024

V. Bharathy
Signature of the Project
Guide

(Dr.V.Bharathy)

DECLARATION

I do hereby declare that this dissertation entitled "**Phytochemical characterization and in silico analysis of *Jatropha multifida***"

Submitted to Fatima college, Madurai in Partial fulfillment of requirement of the award of **MASTER OF SCIENCE IN ZOOLOGY**, is a record of original project work done by me. I also declare that this dissertation or part of work has not been published earlier elsewhere in any manner.

B. Saraswathi

Place: Madurai

Signature of
the candidate

Date: 02 . 04 . 2024 ,

(B.SARASWATHI)

ORGANIC STAINING OF ANIMAL AND PLANT CELLS

**Dissertation submitted to Fatima College (Autonomous)
In partial fulfillment of the requirements
For the degree of**

MASTER OF SCIENCE IN ZOOLOGY

Submitted by

**L. SATHYARANI
(REG. NO 2022MSCZ08)**



Under the guidance of

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Assistant Professor**

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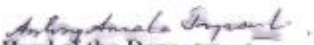
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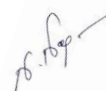
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CERTIFICATE

This is to certify that the dissertation entitled “ORGANIC STAINING OF ANIMAL AND PLANT CELLS” submitted by L. SATHYARANI (2022MSCZ08) as partial fulfilment of Degree of Master of Science in Zoology is based on the results of studies carried out by her under my guidance and supervision during the academic year 2023- 2024 at Fatima College (Autonomous), Department of Zoology, Madurai -18. This project work has not been submitted elsewhere for any other degree.


Head of the Department
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DATE: 2 / 4 / 2024

Signature of the Guide



DECLARATION

I do hereby declare that this dissertation entitled “ **ORGANIC STAINING OF ANIMAL AND PLANT CELLS** ” has been originally carried out by me under the guidance and supervision of Dr. N. Nagarani Assistant Professor, Department of Zoology, Fatima College (Autonomous), Madurai -18 and this work has not been submitted elsewhere for the award of any degree.



Place: Madurai

Signature of the candidate

Date: 02.04.2024

IDENTIFICATION OF BIOMARKERS WITH RELEVANCE TO BIOMONITORING FRESH WATER FISH FARMS

Project submitted for the award of the Degree of Master of Science in Zoology



Submitted By

S. THAHSIN BANU (2022MSCZ09)

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MADURAI – 625 018

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CERTIFICATE

This is to certify that the dissertation entitled “IDENTIFICATION OF BIOMARKERS WITH RELEVANCE TO BIOMONITORING FRESH WATER FISH FARM” submitted by S. THAHSIN BANU (2022MSCZ09) as partial fulfillment of Degree of Master of Science in Zoology is based on the results of studies carried out by her under my guidance and supervision during the academic year 2023-2024 at Fatima College (Autonomous), Department of zoology, Madurai-18. This project work has not been submitted elsewhere for any other degree.


Head of the Department

(Dr. Antony Amala Jayaseeli)

Dr. ANTONY AMALA JAYASEELI

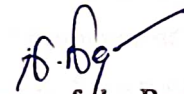
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Madurai-625 018.

STATION: MADURAI


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(Dr. N. NAGARANI)

DATE: 02.04.2024

DECLARATION

I do hereby declare that this dissertation entitled “**IDENTIFICATION OF BIOMARKERS WITH RELEVANCE TO BIOMONITORING FRESH WATER FISH FARMS**” has been originally carried out by me under the guidance and supervision of **Dr. N.NAGARANI**, Assistant Professor, Department of Zoology, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for the award of any other degree.

PLACE: MADURAI

DATE: 02.04.2024

S. Thaahsin banu .

Signature of the student

S. THAHSIN BANU

2022MSCZ09

ANALYSIS OF FUNCTIONAL GROUPS IN SELECTED SPECIES OF MAYFLIES (EPHEMEROPTERA) USING FTIR

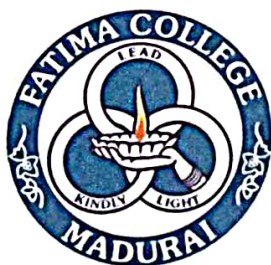
**Project submitted for the award of the Degree of Master of Science in
Zoology**

Submitted By

K. VARALAKSHMI (2022MSCZ10)

Guided by

Dr. S. BARATHY



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FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' by NAAC (Cycle – IV)

MADURAI – 625 018

APRIL - 2024

CERTIFICATE

This is to certify that the dissertation entitled "ANALYSIS OF FUNCTIONAL GROUPS IN SELECTED SPECIES OF MAYFLIES (EPHEMEROPTERA) USING FTIR" submitted by K.VARALAKSHMI (2022MSCZ10) as partial fulfillment of Degree of Master of Science in Zoology is based on the results of studies carried out by her under my guidance and supervision during the academic year 2023-2024 at Fatima College (Autonomous), Department of zoology, Madurai-18. This project work has not been submitted elsewhere for any other degree.



Head of the Department

(Dr. Antony Amala Jayaseeli)

Dr. ANTONY AMALA JAYASEELI

Associate Professor and Head,

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Fatima College (Autonomous),

Madurai-625 018.

STATION: MADURAI


Signature of the Project Guide

(Dr. S. Barathy)

DATE: 02 - 04 - 2024

DECLARATION

I do hereby declare that this dissertation entitled "ANALYSIS OF FUNCTIONAL GROUPS IN SELECTED SPECIES OF MAYFLIES (EPHEMEROPTERA) USING FTIR" has been originally carried out by me under the guidance and supervision of Dr. S. BARATHY, Assistant Professor, Department of Zoology, Fatima College (Autonomous), Madurai-18 and this work has not been submitted elsewhere for the award of any other degree.


Signature of the student

K. VARALAKSHMI 2022MSCZ10

PLACE: MADURAI

DATE: 02 - 04 - 2024

DIVERSITY AND ECOLOGY OF EPHEMEROPTERA IN SELECTED STREAMS OF VAIGAI

Project submitted for the award of the Degree of Master of Science in Zoology



Submitted By

G. YOGESHWARI (2022MSCZ11)

Guided by

Dr. S. BARATHY

PG DEPARTMENT OF ZOOLOGY

FATIMA COLLEGE (AUTONOMOUS)

Re - Accredited with 'A++' by NAAC (Cycle – IV)

MADURAI – 625 018

APRIL - 2024

CERTIFICATE

This is to certify that the dissertation entitled “DIVERSITY AND ECOLOGY OF EPHEMEROPTERA IN SELECTED STREAMS OF VAIGAI” submitted by G. YOGESHWARI (2022MSCZ11) as partial fulfillment of Degree of Master of Science in Zoology is based on the results of studies carried out by her under my guidance and supervision during the academic year 2023-2024 at Fatima College (Autonomous), Department of Zoology, Madurai - 18. This project work has not been submitted else where for any other degree.

Antony Amala Jayaseeli

Head of the Department

(Dr. Antony Amala Jayaseeli)

Dr. ANTONY AMALA JAYASEELI

Associate Professor and Head,

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Madurai-625 018.

STATION: MADURAI

DATE: 02.04.2024

S. Barathy

Signature of the Project Guide

(Dr. S. Barathy)

DECLARATION

I do hereby declare that this dissertation entitled "**DIVERSITY AND ECOLOGY OF EPHEMEROPTERA IN SELECTED STREAMS OF VAIGAI**" has been originally carried out by me under the guidance and supervision of **Dr. S. BARATHY**, Assistant Professor, Department of Zoology, Fatima College (Autonomous), Madurai – 18 and this work has not been submitted elsewhere for the award of any other degree.

G. Yogeshwari

Signature of the student

G. YOGESHWARI 2022MSCZ11

PLACE: MADURAI

DATE: 02.04.2024

**ANTI-MICROBIAL ACTIVITY OF SILVER NANOPARTICLES
SYNTHESIZED BY MARINE BACTERIA**

Dissertation submitted to Fatima College (Autonomous)

In partial fulfillment of the requirements

For the degree of

MASTER OF SCIENCE IN ZOOLOGY

Submitted by

S.Rexline Sheeba (2022MSCZ12)



FATIMA COLLEGE (AUTONOMOUS)

MADURAI-625018

Under the guidance of

Dr. J. THELMA M.Sc., M.Phil., Ph.D

DEPARTMENT OF ZOOLOGY

FATIMA COLLEGE

MADURAI-18

APRIL- 2024

CERTIFICATE

This is to certify that this dissertation entitled “**ANTI-MICROBIAL ACTIVITY OF SILVER NANOPARTICLES SYNTHESIZED BY MARINE BACTERIA**” submitted by S. Rexline Sheeba (2022MSCZ12) as a partial fulfillment for the degree of **Master of Science in Zoology** is based on the results of studies carried out by them under my guidance and supervision during the academic year 2023-2024 in Fatima College (Autonomous), Department of Zoology, Madurai-18. This project work has not been submitted elsewhere for any other degree.



Head of the Department

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STATION: Madurai

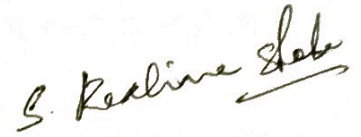
DATE: 02.04.2024

DECLARATION

I do hereby declare that this dissertation entitled “ANTI-MICROBIAL ACTIVITY OF SILVER NANOPARTICLES SYNTHESIZED BY MARINE BACTERIA” has been originally carried out by me under the guidance and supervision of **Dr. J. Thelma**, Assistant professor, Department of Zoology, Fatima College (Autonomous), Madurai – 18 and this work has not been submitted elsewhere for the award of any other degree.

STATION: Madurai

DATE:02.04.2024



Signature of the student

(S. Rexline Sheeba 2022MSCZ12)