A STUDY OF MECHANICAL PROPERTIES OF ZINC OXIDE – NATURAL RUBBER NANOCOMPOSITES

Submitted to

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

In partial fulfilment of the requirements for the award of the degree of

MASTER OF SCIENCE IN APPLIED CHEMISTRY

Submitted by
AJAY GOPINATH
Reg. No:200011011836

Under the guidance of
Dr.SANDHYA P. K
Assistant Professor(on contract)



DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE

KALADY

2020-2022

1

Remudivi. P. R Junt 2919122

POSTGRADUATE DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE, KALADY



CERTIFICATE

This is to certify that the project entitled "A STUDY OF MECHANICAL PROPERTIES OF NATURAL RUBBER- ZINC OXIDE NANOCOMPOSITES" is a bonafide work done by Mr. AJAY GOPINATH, Reg No: 200011011836, in the partial fulfilment of the requirement for the award of Degree of Master of Science in Applied Chemistry under the guidance of Dr. SANDHYA P K, Assistant Professor (on contract) Department of Chemistry, Sree Sankara College, Kalady.

Forwarded by,

for J

Dr.SEENA K THOMAS

Head of the Department Department of Chemistry Sree Sankara College, Kalady Sandhyt

Dr.SANDHYA P K
Assistant Professor(on contract)



Project on

AGEING STUDIES OF PHENOL FORMALDEHYDE RESIN REINFORCED BY NANOSILICA IN TEXTILE COMPOSITES

Submitted to

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

In partial fulfillment of the requirement for the award of

MASTER OF SCIENCE IN APPLIED CHEMISTRY

Submitted by

AJINIYAMOL IBRAHIM

Reg No: 200011011837

Under the guidance of

Dr. SREEKALA M.S.

Assistant professor



POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE, KALADY

2020-2022 Valued Remader OF Jalalee

Sylvasa DEVIP ASI

POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE, KALADY



CERTIFICATE

This is to certify that the dissertation entitled "AGEING STUDIES OF PHENOL FORMALDEHYDE RESIN REINFORCED BY NANOSILICA IN TEXTILE COMPOSITES" is a record of original work done by Ms. AJINIYAMOL IBRAHIM, Reg No: 200011011837, in the partial fulfillment of the requirement for the award of degree of MASTER OF SCIENCE IN APPLIED CHEMISTRY under the guidance of Dr. SREEKALA M.S, Assistant professor, Department of Chemistry, Sree Sankara College, Kalady.

Forwaded by,

Dr. SEENA K THOMAS

Head of the Department

Department of Chemistry

Sree Sankara College, Kalady

Dr. SREEKALA M.S.

reckalı

Assistant Professor

Sree Sankara College, Kalady

Place: Kalady

Date: 23/09/2022

PIN-683 57

A STUDY OF MECHANICAL PROPERTIES OF TITANIUM DIOXIDE – NATURAL RUBBER NANOCOMPOSITES

A dissertation submitted to Mahatma Gandhi University In partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE IN APPLIEDCHEMISTRY

Submitted by

ANUJA RAJAN

Reg No:200011011838

Under the Guidance of

Prof. Dr. SANDHYA P.K

Assistant professor (on contract)



POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE, KALADY PIN 683574

2020-2022

Valued

Remider 82

HILD DENIE

and 122

POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE, KALADY

(Affliated to Mahatma Gandhi University, Kottayom)



CERTIFICATE

This is to certify that the project entitled "A STUDY OF MECHANICAL PROPERTIES OF NATURAL RUBBER- GRAPHENE OXIDE NANOCOMPOSITES" is a bonafied Work done by Ms.ANUJA RAJAN, Reg No: 200011011838, in the partial fulfillment of the requirement for the award of Degree of Master of Science in Applied Chemistry under the guidance of Dr. SANDHYA P K, Assistant Professor (on contract) Department of Chemistry, Sree Sankara College, Kalady.

Forwarded by,

Dr. Seena K Thomas
Head of the department
Department of chemistry
Sree Sankara College, Kalady

KALADY PIN-683 574

Sandhut

Dr .Sandhya p k (Project Guide) Assistant Professor, (on contract) Sree Sankara College, Kalady

"EFFECT OF MODIFICATIONS ON THE MECHANICAL PROPERTIES OF STARCH FILMS"

Submitted to

MAHATHMA GANDHI UNIVERSITY, KOTTAYAM

in partial fulfillment of the requirements for the award of the degree of

MASTER OF SCIENCE IN APPLIED CHEMISTRY

Submitted by

ARCHANA SURENDRAN

Reg No:200011011839

Under guidance of

Dr. SREEKALA M.S.

Asst. professor



POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE, KALADY

2020-2022

Remaderi. P. K Remader 29/9/22

POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE, KALADY



CERTIFICATE

This is to certify that the project entitled "EFFECT OF MODIFICATIONS ON THE MECHANICAL PROPERTIES OF STARCH FILMS" is a bonafied project work done by Ms. ARCHANA SURENDRAN, Reg.No.200011011839, in the partial fulfillment of the requirement for the award of MASTER OF SCIENCE IN APPLIED CHEMISTRY under the guidance of Dr. SREEKALA M.S, Assitant professor, DEPARTMENT OF CHEMISTRY, Sree Sankara College, Kalady.

KALADY

Forwarded by,

Dr. SEENA K THOMAS

Head of the Department

Department of Chemistry

Sree Sankara College Kalady

Place: Kalady

Date: 23 09 2022

Siekali.

Dr. SREEKALA M S

Assistant Professor

Department of Chemistry

EFFECT OF ACETIC ACID ON THE PROPERTY IMPROVEMENTS OF STARCH FILMS

A Project Work Submitted to

THE MAHATMA GANDHI UNIVERSITY

In partial fulfilment of the requirements for the degree of

MASTER OF SCIENCE IN APPLIED

by

DEVIKA N S

Reg.no. 200011011840



DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE, KALADY ERNAKULAM, KERALA 2020-2022

DEPARTMENT OF CHEMISTRY

Remudivi.P.R SULAJA DEMP

SREE SANKARA COLLEGE, KALADY - 2022



CERTIFICATE

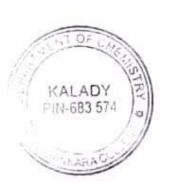
This is to certify that the project entitled "EFFECT OF ACETIC ACID ON THE PROPERTY IMPROVEMENTS OF STARCH FILM" is an authentic record work carried out by Miss. DEVIKA N S with Reg.no. 200011011840 during the academic year 2020-2022 She completed this work under our guidance of Dr.SREEKALA M S, Assistant professor, Department of Chemistry, Sree Sankara College, Kalady and no part of this has been presented before for any other degree.

Place:Kalady

Date: 23.09.2022

Dr. SREEKALA M S

Assistant Professor



"FABRICATION OF STARCH FILMS USING CLOVE OIL"

A Project Report Submitted to

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

In partial fulfilment for the award of the degree of

MASTER OF SCIENCE IN APPLIED CHEMISTRY

Submitted By

HARISHMA K H

(Reg.no:200011011841)

Under guidance of

Dr. SREEKALA M S

Asst. professor



POSTGRADUATE AND REASEARCH DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE, KALADY

2020-2022

valued

Remuchivi. B.R

29/9/

POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE, KALADY



CERTIFICATE

This is to certify that the project entitled "FABRICATION OF STARCH FILMS USING CLOVE OIL" is a bonafide work carried out by Miss. HARISHMA K H (Reg. No:200011011841) of M.Sc. Applied chemistry at Sree sankara college, Kalady, affiliated to Mahatma Gandhi University, Kottayam during year 2020-2022, in partial fulfilment of the requirement for the award of the degree of master of science in applied chemistry under my supervision and no part of this has been presented by her for any other degree.

Forwarded by,

Dr. Seena K Thomas

Head of the department

Sree Sankara College, Kalady

Place: Kalady

Date:



Dr. Sreekala M S

Assistant Professor

SYNTHESIS AND CHARACTERIZATION OF IRON NANOPARTICLES AND STUDY ON THE AQUATIC TOXICITY TO GREEN MICROALGAE CHLORELLA VULGARIS

Submitted to the Mahatma Gandhi University in partial fulfilment of the requirements for the award of the degree of

MASTER OF SCIENCE IN APPLIED CHEMISTRY

Submitted by,

INDUKALA PM

Reg No:200011011842



SREE SANKARA COLLEGE, KALADY, PIN- 683574

Under the Guidance of

Dr. JESITHA.K

Assistant Professor

Research and postgraduate department of chemistry

SREE SANKARA COLLEGE

KALADY -683574

MONTH 2022

Valued Remader, PA Japa122

541438 DEVID 29/3/2

CERTIFICATE

This is to certify that the project report entitled "Synthesis and characterization of iron nanoparticles and study on the aquatic toxicity to green microalgae chlorella vulgaris" is the bonafied project work done by Ms. INDUKALA PM MSc. APPLIED CHEMISTRY STUDENT (Reg No :200011011842), Department of Chemistry, SREE SANKARA COLLEGE, KALADY under the guidance of Dr. JESITHA K, Assistant Professor, SREE SANKARA COLLEGE, KALADY PIN:683574. The work was carried out as part of the partial fulfilment of the requirement for the award of the degree of Master of Chemistry from Mahatma Gandhi University, Kottayam.

DR. JESITHA.K

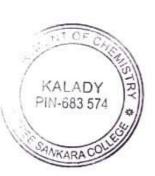
Assistant Professor

Research and postgraduate department of chemistry

SREE SANKARA COLLEGE, KALADY

Place: Kalady

Date: 12/9/2022



"SYNTHESIS AND CHARACTERIZATION OF IRON NANOPARTICLES AND ITS ENTRAPMENT IN CALCIUM ALGINATE BEADS FOR WATER PURIFICATION APPLICATIONS"

A dissertation submitted to

MAHATMA GANDHI UNIVERSITY

In partial fulfilment of the requirements for the award of the degree of

MASTER OF SCIENCE IN APPLIED CHEMISTRY

By JESLY JOSHY

(Reg No:200011011843)

Under the guidance of Dr. JESITHA.K

Assistant Professor



POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE, KALADY, PIN- 683574

2022

valued

Remadevi. B.R Remadevi SYLAJA DEVIP 850 2919129

CERTIFICATE

This is to certify that the dissertation entitled "SYNTHESIS AND CHARACTERIZATION OF IRON NANOPARTICLES AND ITS ENTRAPMENT IN CALCIUM ALGINATE BEADS FOR WATER PURIFICATION APPLICATIONS" submitted to Mahatma Gandhi University in the partial fulfilment of the requirements for the award of the degree of MASTER OF SCIENCE IN APPLIED CHEMISTRY is a record of original work done by Jesly Joshy (Reg no: 200011011843 under the guidance of Dr. Jesitha K, Assistant Professor, Sree Sankara College, Kalady, during the year 2022.

for Gil

Forwarded by,

Dr. SEENA K. THOMAS

Head of the Department Sree Sankara College, Kalady Project Guide

Dr. JESITHA.K

Assistant Professor



SYNTHESIS AND CHARACTERISATION OF SILVER NANOPARTICLES AND DEVELOPMENT OF A WATER PURIFICATION SYSTEM FOR REMEDIATION OF BACTERIA

Submitted to

MAHATMA GANDHI UNIVERSITY

In partial fulfilment of the requirement for the award of the degree of

MASTER OF SCIENCE IN APPLIED CHEMISTRY

Submitted by,

JESTO MATHEW

Reg No: 200011011844

Under the guidance of

Dr. JESITHA K

Asst. Professor

Sree Sankara College, Kalady



POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE, KALADY

2020 - 2022

Valued Remoderist January 2919122

59 LAJA DEVI P 3919122

POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE, KALADY

(Affiliated to Mahatma Gandhi University, Kottayam)



CERTIFICATE

This is to certify that the project entitled "SYNTHESIS AND CHARACTERISATION OF SILVER NANOPARTICLES AND DEVELOPMENT OF A WATER PURIFICATION SYSTEM FOR REMEDIATION OF BACTERIA" is a bonafied project work done by Mr.JESTO MATHEW, Reg. No.200011011844, in the partial fulfillment of the requirement for the award of the degree MASTER OF SCIENCE IN APPLIED CHEMISTRY under the guidance of Dr.JESITHA K, Assistant Professor, Department of Chemistry, Sree Sankara College, Kalady.

for Col

Forwarded by,

Dr Seena K Thomas

Head of the Department

Department of Chemistry

Sree Sankara College, Kalady

PALADI O COSSIA

Project guide,

Dr JESITHA K

Assistant Professer

"SYNTHESIS OF SILVER NANOPARTICLESAND DEVELOPMENT OF SILVER NANOPARTICLE ENTRAPPED MEMBRANEAND STUDY OF ANTIBACTERIAL PROPERTY"

Project Report Submitted to

MAHATMA GANDHI UNIVERSITY

in partial fulfilment of therequirements for the award of the degree of

MASTER OF SCIENCE IN APPLIED CHEMISTRY

Submitted by

KEERTHY SUNI

Reg No.200011011845

Under guidance of

Dr.JESITHA K

Asst. Professor



POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE, KALADY 2022

Valued

Remadivi. P. K Juniahor

CERTIFICATE

This is to certify that the project entitled "SYNTHESIS OF SILVER NANOPARTICLE AND DEVELOPMENT OF SILVERB NANOPARTICLE ENTRAPPED MEMBRANE AND STUDY OF ANTIBACTERIAL PROPERTY" is a bonafied project work done by Ms. KEERTHY SUNI, Reg. No.200011011845, in the partial fulfillment of the requirement for the award of the degree of MASTER OF SCIENCE IN APPLIED CHEMISTRY under the guidance of Dr. JESITHA K, Assistant Professor, Department of Chemistry, Sree Sankara College, Kalady.

Forwarded by,

Dr. Seena K.Thomas

Head of the Department

Sree Sankara College, Kalady

Byras.

Project guide,

Dr JESITHA K

Assistant Professer



MODIFICATION OF NANOCELLULOSE WHISKERS WITH RESORCINOL AND HEXAMETHYLENE TETRAMINE AND ITS PROPERTY EVALUATION

Submitted to

MAHATMA GANDHI UNIVERSITY

In partial fulfillment of the requirement for the award of

MASTER OF SCIENCE IN APPLIED CHEMISTRY

Submitted by

KRISHNA PRIYA N B

Reg. No: 200011011846

Under the guidance of

Dr. SEENA K. THOMAS

Assistant professor

Research and Postgraduate Department of Chemistry



SREE SANKARA COLLEGE, KALADY SEPTEMBER 2022

Remoder. P. R

391912

1

RESEARCH AND POSTGRADUATE DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE, KALADY

(Affiliated to Mahatma Gandhi University, Kottayam)



CERTIFICATE

This is to certify that the dissertation entitled "MODIFICATION OF NANOCELLULOSE WHISKERS WITH RESORCINOL AND HEXAMETHYLENE TETRAMINE AND ITS PROPERTY EVALUATION" is a record of original work done by KRISHNA PRIYA N B, Reg.No: 200011011846, in the partial fulfillment of the requirement for the award of degree of Master of Science in Applied chemistry under the guidance of Dr. SEENA K THOMAS, Assistant professor, Research and Postgraduate Department of Chemistry, Sree Sankara College, Kalady. It is further certified that this dissertation or any part of this thesis has not been submitted elsewhere for any other degree.

Place: Kalady

Date: 16/09/22



Dr. SEENA K THOMAS

Assistant Professor Research and postgraduate

Department of Chemistry

MORPHOLOGICAL AND THERMAL PROPERTY ANALYSIS OF SODIUM ISOPROPYL XANTHATE MODIFIED NANO CELLULOSE WHISKERS

Submitted to

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

In partial fulfillment of the requirement for the award of

MASTER OF SCIENCE IN APPLIED CHEMISTRY

Submitted by

PRAVISHA V P

Reg. No. 200011011847

Under the guidance of

Dr. SEENA K THOMAS

Assistant professor

Research and post graduate

Department of Chemistry



SREE SANKARA COLLEGE, KALADY

2022

Remedelli P.R Remedi SYLAJA DEVIP SUP 2919122

RESEARCH AND POST GRADUATE DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE, KALADY

(Affiliated to Mahatma Gandhi University, Kottayam)



CERTIFICATE

This is to certify that the dissertation entitled "MORPHOLOGICAL AND THERMAL PROPERTY ANALYSIS OF SODIUM ISOPROPYL XANTHATE MODIFIED NANO CELLULOSE WHISKERS" is a record of original work done by PRAVISHA V P, Reg. No. 200011011847, in the partial fulfillment of the requirement for the award of degree of Master of Science in Applied Chemistry under the guidance of Dr. SEENA K THOMAS, Assistant professor, Department of Chemistry, Sree Sankara College, Kalady. It is further certified that this dissertation or any part of this thesis has not been submitted elsewhere for any other degree.

Place: Kalady

Date: 16/09/2022



Dr. SEENA K THOMAS

Assistant Professor

Research and Postgraduate

Department of Chemistry

Sree Sankara College, Kalady

PROJECT ON

"WATER SORPTION OF PHENOL FORMALDEHYDE/CELLULOSE TEXTILE COMPOSITES"

Submitted to

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

in partial fulfillment of the requirements for the award of the degree of

MASTER OF SCIENCE IN APPLIED CHEMISTRY

Submitted by

SANDRA SUDHAN

Reg No: 200011011848

Under guidance of

Dr. SREEKALA M.S

Asst. professor



POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE ,KALADY 2022

1 Remadivi. P. L gamadiv.
Sylaja DEVI. P. 29/9/22
35/15/22

POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE, KALADY



CERTIFICATE

This is to certify that the project entitled "WATER SORPTION OF PHENOL FORMALDEHYDE/CELLULOSE TEXTILE COMPOSITE" is a bonafide project work done by Ms. SANDRA SUDHAN, Reg.No. 200011011848, in the partial fulfillment of the requirement for the award of the degree of MASTER OF SCIENCE IN APPLIED CHEMISTRY under the guidance of Dr. SREEKALA M.S., Assistant professor, DEPARTMENT OF CHEMISTRY, Sree Sankara College, kalady.



Place: Kalady Date:6-04-2022



Dr Sreekala M S

Assistant professor Sree Sankara College, Kalady

A STUDY OF MECHANICAL PROPERTIES OF NATURAL RUBBER- GRAPHENE OXIDE NANOCOMPOSITES

Submitted to

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

In partial fulfillment of the requirements for the award of the degree of

MASTER OF SCIENCE IN APPLIED CHEMISTRY

Submitted by

SHAIN MARTIN

(Registration No: 200011011849)

Under the guidance of

Dr. SANDHYA P K

Assistant Professor(on contract)
Sree Sankara College, Kalady



POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE, KALADY

2020 - 2022

Remadivior agint

POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE, KALADY

(Affiliated to Mahatma Gandhi University, Kottayam)



CERTIFICATE

This is to certify that the project entitled "A STUDY OF MECHANICAL PROPERTIES OF NATURAL RUBBER-GRAPHENE OXIDE NANOCOMPOSITES" is a bonafied Work done by Mr. SHAIN MARTIN, Reg No: 200011011849, in the partial fulfillment of the requirement for the award of Degree of Master of Science in Applied Chemistry under the guidance of Dr. SANDHYA P K, Assistant Professor (on contract) Department of Chemistry, Sree Sankara College, Kalady.

Forwarded by, the things

Dr.SEENA K THOMAS

Head of the Department Department of Chemistry Sree Sankara College, Kalady



Sundbet

Dr.SANDHYA P K

Assistant Professor(on contract) Sree Sankara College, Kalady

GREEN SYNTHESIS, CHARECTERIZATION AND ANTIBACTERIAL STUDY OF ZINC OXIDE NANOPARTICLES FROM AZADIRACHTA INDICA (NEEM) LEAF EXTRACT

Submitted to

MAHATMA GANDHI UNIVERSITY

In partial fulfilment of the requirement for the award of the degree of

MASTER OF SCIENCE IN APPLIED CHEMISTRY

Submitted by,

SHOJIN P JOSHI

REGISTER NUMBER: 200011011850

Under the guidance of

Dr. SANDHYA P K

Assistant Professor (on contract)

Sree Sankara College, Kalady



POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE, KALADY

2022

valued

Kemedivi

SYLAJA DEVIP

29/9/24 29/9/24

POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE, KALADY



CERTIFICATE

This is to certify that the project entitled "GREEN SYNTHESIS,"
CHARECTERIZATION AND ANTIBACTERIAL STUDY OF ZINC OXIDE
NANOPARTICLES FROM AZADIRACHTA INDICA (NEEM) LEAF
EXTRACT" is a bonafide project work done by Mr SHOJIN P JOSHI. Reg. No:
200011011850, in the partial fulfilment of the requirement for the award of the
degree of MASTER OF SCIENCE IN APPLIED CHEMISTRY under the
guidance of Dr. SANDHYA P K. Assistant Professor (on contract) Department of
Chemistry, Sree Sankara College, Kalady.

Forwarded By:

Dr. SEENA K THOMAS

Head of the Department

Department of Chemistry

Sree Sankara College Kalady

Sandling

Dr. SANDHYA P K

Assistant Professor (on contract)

Department of Chemistry



SYNTHESIS OF GRAPHENE OXIDE AND REDUTION USING GREEN ALTERNATIVES

A dissertation submitted to

Mahatma Gandhi University

In partial fulfilment of the requirement for the award of degree of

MASTER OF SCIENCE IN APPLIED CHEMISTRY

Submitted by

SREEJAYA CHANDRAN

Reg.200011011851

Under the guidance of

Prof. Dr. SANDHYA P.K

Assistant professor (on contract basis)

Department of chemistry



DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE KALADY-683574

2022

Remudivi. B.R. gums
SYLAJA DEVID SUL 2911122

POSTGRADUATE DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE, KALADY-683574



CERTIFICATE

This is to certify that the dissertation entitled "SYNTHESIS OF GRAPHENE OXIDE AND REDUTION USING GREEN ALTERNATIVES" is a record of original work done independently by SREEJAYA CHANDRAN Reg.No:200011011851, in the partial fulfilment of the requirements for the award of degree of Master of Science in applied chemistry under the guidance of Dr. SANDHYA P.K, Assistant Professor, (on contract basis), Department of Chemistry, Sree Sankara College, Kalady. It is further certified that this dissertation or any part thereof has not been submitted elsewhere for any other degree.

KALADY PIN-683 574

VKARA C

Joh D

Dr. SEENA K THOMAS

Head of the department

Department of chemistry

Sree Sankara college, Kalady

Dr.SANDHYAP.K

project guide

GREEN SYNTHESIS OF SILVER NANOPARTICLES USING Impatiens balsamina LEAF EXTRACT & IT'S APPLICATION IN TEXTILE

Dissertation submitted to

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

in partial fulfillment for the award of the Degree of

MASTER OF SCIENCE IN APPLIED CHEMISTRY

Submitted by

SREYA BALJU

(Reg. No.200011011852)

Under the Guidance of

Dr. JESITHA K

Assistant Professor



POST GRADUATE DEPARTMENT OF APPLIED CHEMISTRY SREE SANKARA COLLEGE, KALADY

PIN:683574

SEPTEMBER 2022 Valued

Remudiri. PR premidiri 54LAJA DEVIP BU 2919122

CERTIFICATE

This is to certify that the project report entitled "Green synthesis of Silver Nanoparticles using Impatiens balsamina leaf extract &it's application in textile" is the bonafied project work done by Ms.SREYA BAIJU, MSc. Applied Chemistry student (Reg. No.200011011852), Sree Sankara College, Kalady under the guidance of Dr. JESITHA K, Assistant Professor, Sree Sankara College, Kalady. The work was carried out as part of the partial fulfillment of the requirement for the award of the degree of Master of Chemistry from Mahatma Gandhi University, Kottayam.

Dr. JESITHA K

Assistant Professor

Sree Sankara College, Kalady

Kalady 16/09/2022



Project on

SYNTHESIS AND MOLECULAR DOCKING STUDIES OF CHALCONES

Submitted to

MAHATMA GANDHI UNIVERSITY

In partial fulfilment of the requirement for the award of

MASTER OF SCIENCE IN APPLIED CHEMISTRY

Submitted by

VIDYA VINOD

Reg No: 200011011853

Under the guidance of

Dr. AMRUTHA U

Assistant professor (on contract)

Department of Chemistry



POST GRADUATE DEPARTMENT OF APPLIED CHEMISTRY SREE SANKARA COLLEGE, KALADY

PIN: 683574

2020-2022

1 Remadivired Quality

SYLMIN DEN-P SUT

AGISTEL

POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE KALADY



CERTIFICATE

This is to certify that the dissertation entitled "SYNTHESIS AND MOLECULAR DOCKING STUDIES OF CHALCONES" is a record of original work done by VIDYA VINOD, Reg No: 200011011853, in the partial fulfilment of the requirement for the award of degree of MASTER OF APPLIED CHEMISTRY under the guidance of Dr. AMRUTHA U, Assistant Professor (on contract), Department of Chemistry, Sree Sankara College, Kalady. It is further certified that this dissertation or any part of this thesis has not been submitted elsewhere for any other degree.

Place: Kalady

Date: 16/9/2022



Smt. Dr. AMRUTHA U

Assistant Professor (on contract)

Sree Sankara College, Kalady

SYNTHESIS OF COPPER NANOPARTICLES BY CHEMICAL AND GREEN METHOD

Submitted by

ABHIJITH JAYAN (200021026428)

AKHIL H (200021026429) AKSHAY VINOD T V (200021026430)



Under the guidance of DR. JESITHA K

Asst. Professor

This project report is submitted to Mahatma Gandhi University in partial fulfillment of the requirement for the Under Graduate degree in Chemistry.

RESEARCH AND POST GRADUATE DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE KALADY

2. Remedy 1 8 games 2020-23
Signature of Examiners with date 291412

Lecturer in charge of project

4 7 3 13	I
	2
	CERTIFICATI
	CHATTA
	This is to certify that project work entitled "Synthesi
Acres	became motherd" is an authentic record of work consis-
in see	on Mr. Aleshay wined T V under my guidance and au-
The same	incompany for the Degree of Bachelor of Science in S
, Mi	ahatma Gandhi University , Kottayam Forwarded B
	, do
	Jesitha K stant Professor
	artment of chemistry
	Sankara College Kalady
	ONT OF CO.
	KALADY E
	PIN-683 574
	SHIVARAC

This is to certify that project work entitled "Synthesis of copper nanoparticles by chemical And green method" is an authentic record of work carried out by Mr .Akhil H ,Mr .Abhijith jayan Mr. Akshay vinod T V under my guidance and supervision in partial fulfilment of the requirements for the Degree of Bachelor of Science in Chemistry under the Faculty of Science , Mahatma Gandhi University , Kottayam Forwarded By:

Smt. Manjula Krishnan Assistant Professor and HOD Department of chemistry Sree Sankara College Kalady



DETERMINATION OF VITAMIN C IN FRUIT JUICES BY TITRIMETRIC METHOD

Submitted by

ABHIRAMI K M(200021026470)

ABHISHEK BABY(200021026471)

AMAL BINU(200021026472)



Under the guidance of SREELAKSHMY R

Asst. Professor

This project report is submitted to Mahatma Gandhi University in partial fulfillment of the requirement for the Under Graduate degree in Chemistry.

RESEARCH AND POST GRADUATE DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE KALADY

2020-23

Signature of Examiners with date linene

2 Remade VI-PR

This is to certify that project work entitled "Determination of Vitamin C in Fruit Juices by Titrimetric Method" is an authentic record of work carried out by Ms. Abhirami K M(Reg No:200021026470), Mr. Abhishek Baby(Reg No:200021026471), Mr. Amal Binu (Reg No:20021026472) under my guidance and supervision in partial fulfilment of the requirements for the Degree of Bachelor of Science in Chemistry under the Faculty of Science, Mahatma Gandhi University, Kottayam.

Forwarded By:

Smt.Sreelakshmy R

Assistant Professor

Department of Chemistry

Sree Sankara College Kalady

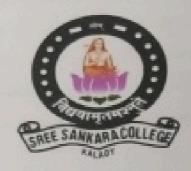
Smt. Manjula Krishnan Assistant Professor and HoD Department of Chemistry Sree Sankara College Kalady



COMPARISON OF CALCIUM CARBONATE CONTENT IN DIFFERENT EGGSHELLS

Submitted by

AIVIN WILSON (Reg No. 200021026455) AMAL MON AD (Reg No. 200021026456) ANNA DAVIS (Reg No. 200021026457)



Under the guidance of

Dr. Seena K Thomas

Asst. Professor

This project report is submitted to Mahatma Gandhi University in partial fulfillment of the requirement for the Undergraduate degree in Chemistry.

RESEARCH & POSTGRADUATE DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE KALADY

2022-23

Signature of Examiners with date

Certifical Control

1 R. Marcya Antony S

2 Remodellik

22/4/23

Lecturer in Charge of Project

Dr. Seens K Thomas

This is to certify that project work entitled "Comparison of Calcium Carbonate Content in Different Eggshells" is an authentic record of work carried out by Mr. Aivin Wilson (Reg. No.200021026455), Mr. Amal Mon AD (Reg. No. 200021026456), Ms. Anna Davis (Reg. No. 200021026457) under my guidance and supervision in partial fulfilment of the requirements for the Degree of Bachelor of Science in Chemistry under the Faculty of Science, Mahatma Gandhii University, Kottayam.

Fopwarded By:

Smt. Manjula Krishnan

Assistant Professor and HoD Research & Post Graduate Department of Chemistry

Sree Sankara College, Kalady

Dr. Seena K Thomas

Assistant Professor Research & Post Graduate Department of Chemistry

Sree Sankara College, Kalady



COMPARISON OF CLEANSING ACTION OF DIFFERENT SAMPLES OF DETERGENTS

Submitted by

Amrutha Ashok (Reg no : 200021026473)

Anagha MS (Reg no: 200021026474)

Anupama K Kuttan (Reg no : 200021026475)

Nandana Prasad (Reg no : 200021026476)



Under the guidance of

Ms. P R Remadevi

Lecturer

This project report is submitted to Mahatma Gandhi University in partial fulfillment of the requirements for the Undergraduate degree in Chemistry.

POSTGRADUATE AND RESEARCH DEPARTMENT OF CHEMISTRY

SREE SANKARA COLLEGE, KALADY

2020-23

Signature of Examiners with date	0
, Dr. Freebala. S. Stevens-	1
1. Provided	63 85 23
2. Kemeder P. P.	1
1 Gen	col

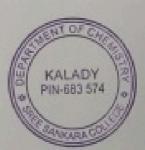
Teacher in charge of Project

315127

This is to certify that the project work entitled "Comparison of cleansing action of different samples of Detergents" is an authentic work carried out by Amrutha Ashok (Reg. No: 200021026473), Anagha MS (Reg no: 200021026474), Anupama K Kuttan (Reg no: 200021026475), Nandana Prasad (200021026476) under my guidance and supervision in partial fulfillment of the requirements for the Degree of Bachelor of Science in Chemistry under the faculty of Science, Mahatma Gandhi University, Kottayam.

Place: KALADY

Date: 03/05/2023



Ms. P.R Remadevi

Lecturer

Post Graduate and Research

Department of Chemistry

Sree Sankara College Kalady

SYNTHESIS OF CARBON QUANTUM DOTS FROM CITRIC ACID AND UREA IN A MICROWAVE OVEN

Submitted by

ANASWARA RAVI (200021026431)

ANJOE MARTIN (200021026432)

ANULAKSHMI PB (200021026433)



Under the guidance of Dr. SEENA K. THOMAS

Asst. Professor

This project report is submitted to Mahatma Gandhi University in partial fulfillment of the requirement for the Under Graduate degree in Chemistry.

RESEARCH AND POST GRADUATE DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE, KALADY

2020-23

Signature of Examiners with date

2 Remoder It Jum

Lecturer in charge of project.

Dr. Seena K Thomas

This is to certify that project work entitled "Synthesis of Carbon Quantum Dots from Citric acid And Urea in a Microwave Oven" is an authentic record of work carried out by ms. Anaswara Ravi (Reg No. 200021026431), mr. Anjoe Martin (Reg No 200021026432), ms. Analakshmi PB (Reg No 200021026433) under my guidance and supervision in the partial fulfilmentof requirements for the Degree of Bachelor of Science in Chemistry under Faculty of Science, Mahatma Gandhi University, Kottayam.

Forwarded By:

Dr. Seena K Thomas Assistant Professor

Department of Chemistry Score Sankara College, Kalady 26/4/23

Smt. Manjula Krishnan Assistant Professor and HOD Department of Chemistry Sree Sankara College, Kalady



EXTRACTION OF CAFFEINE FROM TEA

Submitted by

ASIF ANISHATH (200021026434)

ASWIN REJI (200021026435)

ATHIRA SIVAN (200021026436)

Under the guidance of

DR. GIREESH MK

Asst. professor



This project report is submitted to Mahatma Gandhi University in partial Fulfilment of the requirement for the Under Graduate degree in Chemistry.

RESEARCH AND POST GRADUATE DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE KALADY

2020 - 2023

Signature of Examiners with date

Remedi. 1:1 gemed 27/4/23

271412

lecture in charge of project:

This is to certify that project work entitled "EXTRACTION OF CAFFEINE FROM TEA" is an authentic work carried out by ASIF ANISHATH [200021026434]. ASWIN REJI [200021026435], ATHIRA SIVAN [200021026436] under my guidance and supervision in partial fulfilment of the requirements for the Degree of Bachelor of Science in Chemistry under the Faculty of Science, Mahatma Gandhi University, Kottayam.

20/4/20

FORWADED BY:

Dr. Gireesh Mk

Asst. professor

File of the Continue of the Co

Post Graduate Department of Chemistry

Sree Sankara college, Kalady

#1 8000

Smt. Manjula Krishnan

Assistant Professor and HOD

Post Graduate Department of Chemistry

Sree Sankara College, Kalady



SYNTHESIS OF SiO2 FROM BAMBOO LEAVES AND IT'S CHARACTERISATION

Submitted by

ATHULLYA RAVI (200021026437)

BINSON M PAUL (200021026438)

DON FRANCIS (200021026439)



Under the guidance of REMYA M NAIR

Asst. Professor

This project report is submitted to Mahatma Gandhi University in partial fulfillment of the requirement for the Under Graduate degree in Chemistry.

RESEARCH AND POST GRADUATE DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE KALADY

2020-23

Signature of Examiners with date

Lecturer in charge of project.

Remya. M. Nais

KALADY HN-683 574

This is to certify that project work entitled SYNTHESIS OF SiO2 FROM BAMBOO LEAVES AND IT'S CHARACTERIZATION is an authentic record of work carried out by Miss Athullya Ravi (200021026437), Mr. Binson M Paul(2000210264380), Mr. Don Francis (200021026439)under guidance and supervision in partial fulfilment of the requirements for the Degree of Bachelor of Science in Chemistry under the Faculty of Science, Mahatma Gandhi University, Kottayam.

Forwarded By

Smt. Remya M.Nair.

Assistant Professor

Post Graduate And Research

Department of Chemistry

Sree Sankara College

Kalady

Smt. Manjula Krishnan

Assistant Professor and HoD

Post Graduate And Research

Department of chemistry

Sree Sankara College

Kalady



COMPARISON OF PERCENTAGE OF SODIUM BENZOATE IN DIFFERENT SOFT DRINKS

Submitted by

BIBITHA POULOSE (200021026458) DEV SANKAR S (200021026459) DILSY DENNY (200021026460)



Under the guidance of

DR. GIREESH M K

Assistant Professor

This project report is submitted to Mahatma Gandhi University in partial fulfillment of the requirement for the Under Graduate degree in Chemistry.

RESEARCH AND POST GRADUATE DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE KALADY

2020-23

Signature of Examiners with date

Lecturer in charge of project.

This is to certify that project work entitled "Comparison of Percentage of Sodium Benzoate in Different Soft Drinks" is an authentic record of work carried out by Ms. Bibitha Poulose (200021026458), Mr. Dev Sankar S (200021026459), Ms. Dilsy Denny (Reg No. 200021026460) under my guidance and supervision in partial the fulfilment of requirements for the Degree of Bachelor of Science in Chemistry under the Faculty of Science, Mahatma Gandhi University, Kottayam.

Forwarded By:

Dr. Gireesh M K

Assistant Professor

Department of Chemistry

Sree Sankara College, Kalady

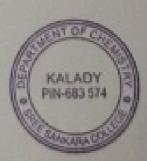
To Down

Smt. Manjula Krishnan

Assistant Professor and HOD

Department of Chemistry

Sree Sankara College, Kalady



insitu Synthesis of Nickel Sulphide (NiS) Nanoparticles on Transparent Rigid Substrates (FTO) for Potential Photoelectrochemical Applications

Submitted by

Elsa Thomas (200021026440)

Ganga P.M (200021026441)

Hidha Farveen P.A (200021026442)



Under the guidance of Dr. Vivek Ramakrishnan Asst. Professor

This project report is submitted to Mahatma Gandhi University in partial fulfillment of the requirement for the Undergraduate degree in Chemistry.

RESEARCH & POSTGRADUATE DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE KALADY

2022-23

This is to certify that project work entitled "insitu Synthesis of Nickel Sulphide (NiS) Nanoparticles on Transparent Rigid Substrates (FTO) for Potential Photoelectrochemical Applications" is an authentic record of work carried out by Miss Elsa Thomas (200021026440), Ganga P.M (200021026441) and Hidha Farveen P.A (200021026442) under my guidance and supervision in partial fulfilment of the requirements for the Degree of Bachelor of Science in Chemistry under the Faculty of Science, Mahatma Gandhi University, Kottayam.

Forwarded By:

2444444444

Smt. Manjula Krishnan

Assistant Professor and HoD

Post Graduate Department of Chemistry

Sree Sankara College Kalady

Dr. Vivek Ramakrishnan

Assistant Professor

Post Graduate Department of Chemistry

Sree Sankara College Kalady



DETERMINATION OF QUANTITY OF CASEIN IN DIFFERENT SAMPLES OF MILK.

Submitted by

FATHIMA MAHIN (200021026461) FEBEENA SHAMEER (200021026462) GANGA RAJIV (200021026463)



Under the guidance of REMYA M NAIR

Asst. Professor

This project report is submitted to Mahatma Gandhi University in partial fulfillment of the requirement for the Under Graduate degree in Chemistry.

RESEARCH AND POST GRADUATE DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE KALADY

2020-23

Signature of Examiners with date

Demselv. PR

KALADY PIN-683 574 Lecturer in charge of project.

This is to certify that project work entitled "Determination of Quantity of Casein

Present in Different Samples of Milk" is an authentic record of work carried out by Ms. Fathima

Mahin (Reg No. 200021026461), Ms. Febeena Shameer (Reg No. 200021026462), Ms. Ganga Rajiv (Reg

No. 200021026463) under my guidance and supervision in partial the fulfilment of requirements for the

Degree of Bachelor of Science in Chemistry under Faculty of Science,

KALADY

PIN-683 574

Mahatma Gandhi University, Kottayam.

Forwarded By:

Smt. Remya M Nair

and the and a leaded deliberation

Assistant Professor Department of Chemistry

Sree Sankara College Kalady

Smt. Manjula Krishnan

Assistant Professor and HoD

Department of Chemistry Sree Sankara College Kalady

insitu Synthesis of Cobalt Sulphide (CoS) Nanoparticles on Transparent Rigid Substrates (FTO) for Potential Photoelectrochemical Applications

Submitted to Mahatma Gandhi University in partial fulfillment of the requirement for the Undergraduate degree in Chemistry.

Submitted by

Jayakrishna A R (Reg No: 200021026464)

Lekha Sadasivan (Reg No: 200021026465)

Mancy K M (Reg No: 200021026466)



Under the guidance of Dr. Vivek Ramakrishnan Asst. Professor

RESEARCH & POSTGRADUATE DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE KALADY

2022-23

Lecturer in Charge of Project

Signati	Dr. Stellale S. Shaens	13/05/00 L3
	0	Dimed.

This is to certify that project work entitled "Institu Synthesis of Cobalt Sulphide (CoS)

Nanoparticles on Transparent Rigid Substrates (FTO) for Potential Photoelectrochemical

Applications" is an authentic record of work carried out by Mr Jayakrishna A R (Reg No: 20021026464), Ms Lekha Sadasivan (Reg No: 200021026465) Ms Mancy K M (Reg No: 200021026466) under my guidance and supervision in partial fulfillment of the requirements for the Degree of Bachelor of Science in Chemistry under the Faculty of Science, Mahatma Gandhi University, Kottayam.

Forwarded By:

Service of the servic

Smt. Manjula Krishnan

Assistant Professor and HoD Research & Post Graduate Department

of Chemistry Sree Sankara College Kalady Dr. Vivek Ramakrishnan

Dr. Vivek Ramakrishnan Assistant Professor Research & Post Graduate Department of Chemistry Sree Sankara College Kalady



SYNTHESIS AND CHARACTERIZATION OF POLYANILINE A CONDUCTING POLYMER USING HCI AS DOPANT

Submitted by KHADEEJA NAZREEN INDRAJITH PS JOSHNA JOHNY

Under the guidance of Dr. JEENA C B



This report is submitted to Mahatma Gandhi University in partial fulfillment of the requirement of the Under Graduate Degree in chemistry

RESEARCH AND POST GRADUATE DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE, KALADY

2020-2023

Signature of examiners with date

1. Dr. Navya Antony 2. Remuch VI. P. R. Jone

CERTIFIED BONA PIDE RECORD

30/08/2023

Lecturer in charge

of Project

This is to certify that project work entitled "Synthesis and characterization of polyaniline a conducting polymer using HCl as a dopant" is an authentic work carried out by Mr. IndrajithP S (Reg NO:200021026443) Ms. Joshna Johny (Reg NO:200021026444).

Ms. Khadeeja Nazreen (Reg NO: 200021026445) under my guidance and supervision in partial fulfillment of the requirements for the Degree of Bachelor of Science in Chemistry

under the Faculty of Science, Mahatma Gandhi University, Kottayam.

Forwarded By:

Ms. Manjula Krishnan

Assistant Professor & HOD

Research & Postgraduate Department of Chemistry

SreeSankara College Kalady

80/08/2023

Dr. Jeena C B

Assistant Professor

Research & Postgraduate Department of Chemistry

SreeSankara College Kalady



DETERMINATION OF CITRIC ACID IN FRUIT JUICES BY TITRIMETRIC METHOD

Submitted by

KRIPA GEORGE(200021026446)

MARIA GEORGE(200021026447)

MEENAKSHI C S(200021026448)



Under the guidance of

SREELAKSHMY R

Asst. Professor

This project report is submitted to Mahatma Gandhi University in partial fulfillment of the requirement for the Under Graduate degree in Chemistry.

RESEARCH AND POST GRADUATE DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE KALADY

2020-23

Signature of Examiners with date

2. Navya Anteny

Lunsdin P. R.

2714123

Lecturer in charge of project

This is to certify that project work entitled "Determination of Citric Acid in Fruit Juices by Titrimetric Method" is an authentic record of work carried out by Ms. Kripa George (Reg No:200021026446),Ms. Maria George (Reg No:200021026447),Ms. Meenakshi C S (Reg No:20021026448) under my guidance and supervision in partial fulfilment of the requirements for the Degree of Bachelor of Science in Chemistry under the Faculty of Science, Mahatma Gandhi University, Kottayam.

Forwarded By:

Smit Sreelakshmy R

Assistant Professor Department of Chemistry Sree Sankara College Kalady Smt. Manjula Krishnan Assistant Professor and HoD Department of Chemistry Sree Sankara College Kalady



ISOLATION OF TRIMYRISTIN FROM NUTMEG AND PREPARATION OF SODIUM MYRISTATE (SOAP)

Submitted by

NANDANA SABU (200021026449) NAVYA K. S (200021026450) RISNA T. P (200021026451)



Under the guidance of Ms. Manjula Krishnan

Asst. Professor

This project report is submitted to Mahatma Gandhi University in partial fulfillment of the requirement for the Undergraduate degree in Chemistry.

RESEARCH AND POSTGRADUATE DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE KALADY

2020-23

Signature of Examiners with date

1 Dy Nayya Antroy

271416

CERTIFIED BONA FIDE RECORD

Teacher in Charge of Project

This is to certify that project work entitled "Isolation of trimpristin from nutmeg and preparation of sodium myrostate (soap)" is an authentic record of work carried out by Ms. Nandana Sabu 200021026451) (200021026449), Ms. Navya K. S (200021026450) and Ms. Risna T. P (Reg No: under my guidance and supervision in partial fulfilment of the requirements for the Degree of Bachelor of Science in Chemistry under the Faculty of Science, Mahatma Gandhi University, Kottayam.

Forwarded By:

Place: Mattoor

COCCEPPINAL CONTRACTOR CONTRACTOR

Date: 27/03/2023

Ms. Manjula Krishnan

Asst. Prof. and Head

Research and Postgraduate Department

of Chemistry

Sree Sankara College Kalady



SYNTHESIS AND CHARACTERIZATION OF POLYANILINEACONDUCTING POLYMERUSING H₂SO₄ AS DOPANT

Submitted by NAVYA N S SREEPARVATHY M C NATHASHA RAJAN

Under the guidance of Dr. JEENA C B



This report is submitted to Mahatma Gandhi University in partial fulfillment of the requirement of the Under Graduate Degree in chemistry

RESEARCH AND POST GRADUATE DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE, KALADY

2020-2023

Signature of examiners with date

1 Dr. Sreekala S. Shareme Jostes

2 Remoder Pt Queed

CERTIFIED BONA FIDE RECORD

Lecturer in charge

of Project

This is to certify that project work entitled "Synthesis and characterization of polyaniline a conducting polymer using H₂SO₄ as a dopant" is an authentic work carried out by

Ms. Nathasha Rajan(Reg NO:200021026467) Ms. Navya N S (Reg NO:200021026468)

Ms. Sreeparvathy M C (Reg NO: 200021026469) under my guidance and supervision in partial fulfillment of the requirements for the Degree of Bachelor of Science in Chemistry under the Faculty of Science, Mahatma Gandhi University, Kottayam.

Forwarded By:

Ms. Manjula Krishnan

Assistant Professor & HOD

Research & Postgraduate Department of Chemistry

Sree Sankara College Kalady

30/08/2023

Dr. Jeena C B

Assistant Professor

Research & Postgraduate Department of Chemistry

Sree Sankara College Kalady

DETERMINATION OF PERCENTAGE OF CITRAL IN LEMONGRASS OILS

Dissertation

Submitted to Mahatma Gandhi University in partial fulfillment of the requirement for the Award of the degree of Bachelor of Chemistry

By

Nimisha M.N - 200021026477

Sreehari baiju - 200021026478

Sreekutty sabu - 200021026479

Suryajith Sreekumar - 200021026480

Under the Guidance of Smt. Sylajadevi P.



Department of Chemistry

Sree Sankara College, Kalady

2. Renelv. P.R. Jemil

EEEE CERTIFICATION OF THE

This is to certify that this dissertation titled 'Determination of percentage of citral in lemongrass oils submitted to Mahatma Gandhi University in partial fulfillment of the requirement for the Award of the degree of Bachelor of Chemistry is a record of bonafide research carried out by Nimisha M.N., Sreehari baiju, Sreekutty sabu and Suryajith Sreekumar under the guidance of Smt. Sylajadevi P. Asst. Professor, Dept. of Chemistry, Sree Sankara College, Kalady.

Internal Project Guide

Smt. Sylajadevi P.

Kalady 28 /4/2023

FEFFER FEFFER CONTRACTOR CONTRACTOR

Head of the Department

Smt. Manjula Krishnan

Jes Jones

2

SYNTHESIS OF IRON NANOPARTICLES BY CHEMICAL METHOD AND ITS CHARACTERISATION

Submitted by

ROSE MARIYA SHAJU (200021026452) RUKSIYA BAQUIR C K (200021026453) VARSHA V (200021026454)



Under the guidance of DR. JESITHA K Assistant Professor

This project report is submitted to Mahatma Gandhi University in partial fulfilment of the requirement for the Under Graduate degree in Chemistry.

RESEARCH AND POST GRADUATE DEPARTMENT OF CHEMISTRY SREE SANKARA COLLEGE KALADY

2020-2023

Signature of Examiner with date

Lecture in charge of project.

1 De Navya Antony

2. Kennalyr. V

27142

This is to certify that project work entitled "Synthesis of Iron Nanoparticles by Chemical Method and its Characterisation* is an authentic record of work carried out by Ms. Rose Mariya Shaju (Reg. No. 200021026452), Ms Ruksiya Baquir C K (Reg. No. 200021026453), Ms. Varsha V (Reg. No. 200021026454) under my guidance and supervision in partial fulfilment of the requirements for the Degree of Bachelor of Science in Chemistry under the faculty of Science, Mahatma Gandhi University, Kottayam.

> KALADY PIN-683 5T

Forwarded By:

In Sur

Dr. Jesitha K.

Assistant Professor

Department of Chemistry

Sree Sankara College, Kalady

Smt. Manjula Krishnan

Assistant Professor and HOD

Department of Chemistry

Sree Sankara College, Kalady



SREE SANKARA COLLEGE, KALADY

SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ABHIRAMY MOHANAN**, Adm. No. E 7961, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair

Principal



SREE SANKARA COLLEGE, KALADY

SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **AISWARYA PAUL**, Adm. No. E 7930, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair

Principal



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **AJAL MUKUNDAN**, Adm. No. E 8055, First Semester B. Sc. Chemistry has completed a project titled 'Organic Manure Making' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ALBIN BAIJU**, Adm. No. E8044, First Semester B. Sc. Chemistry has completed a project titled **'Organic Manure Making'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ALEENA ROSE BENNY**, Adm. No. E 8050, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **AMALA MARY BENNY**, Adm. No. E 8358, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **AMALKRISHNA M. G.,** Adm. No. E 8080, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **AMEENA THAHZEEN N. S.,** Adm. No. E 8118, First Semester B. Sc. Chemistry has completed a project titled **'Organic Manure Making'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ANANDU K A**, Adm. No. E 8272, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ANNA JOY**, Adm. No. E 8057, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ARCHANA S. NAIR**, Adm. No. E 8013, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ARUN PRAKASH**, Adm. No. E 8439, First Semester B. Sc. Chemistry has completed a project titled **'Organic Manure Making'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **FATHIMA SARDAR**, Adm. No. E 8334, First Semester B. Sc. Chemistry has completed a project titled 'Organic Manure Making' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **GOURI NANDANA T. H.,** Adm. No. E 8021, First Semester B. Sc. Chemistry has completed a project titled **'Organic Manure Making'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **HANIYA C. A.,** Adm. No. E 7937, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **HUSNA THASNEEM K H,** Adm. No. E 8336, First Semester B. Sc. Chemistry has completed a project titled **'Organic Manure Making'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **K R HISHAM MUHAMMED**, Adm. No. E 8338, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **LAKSHMIPRIYA N. U.,** Adm. No. E 7838, First Semester B. Sc. Chemistry has completed a project titled **'Organic Manure Making'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **PARVATHY K. S.,** Adm. No. E 8101, First Semester B. Sc. Chemistry has completed a project titled 'Organic Manure Making' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **SUMAIYA V. S.,** Adm. No. E 8086, First Semester B. Sc. Chemistry has completed a project titled **'Organic Manure Making'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **UMA R.**, Adm. No. E 8204, First Semester B. Sc. Chemistry has completed a project titled **'Organic Manure Making'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **AKHIL VINOD**, Adm. No. E 8053, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ALEENA BIJU**, Adm. No. E 8072, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **AMRITHALAKSHMI C. U.,** Adm. No. E 7821, First Semester B. Sc. Chemistry has completed a project titled **'Organic Manure Making'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ANTONY A. I.,** Adm. No. E 8040, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ANUPAMA P. B.**, Adm. No. E 7801, First Semester B. Sc. Chemistry has completed a project titled **'Organic Manure Making'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ASHNA JOLLY**, Adm. No. E 7825, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ATHIRA SANTHOSH**, Adm. No. E 8024, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **BASIL BAIJU**, Adm. No. E 8344, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **BEEGUM SUHAILA P**, Adm. No. E 8249, First Semester B. Sc. Chemistry has completed a project titled 'Organic Manure Making' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **BEEVI NAFIAH**, Adm. No. E 8360, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **INDULEKHA K. P.,** Adm. No. E 8174, First Semester B. Sc. Chemistry has completed a project titled 'Organic Manure Making' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ISSAC T. SHAJU**, Adm. No. E 8076, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **K. M. BHAGYALAKSHMI**, Adm. No. E 8166, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **LAKSHMI**, Adm. No. E 8018, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **LAKSHMI ANILKUMAR**, Adm. No. E 7864, First Semester B. Sc. Chemistry has completed a project titled 'Organic Manure Making' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **NANDANA SAJEEV**, Adm. No. E 8393, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **RESHMI RADHAKRISHNAN**, Adm. No. E 8146, First Semester B. Sc. Chemistry has completed a project titled 'Organic Manure Making' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **RUTH M. T.,** Adm. No. E 8144, First Semester B. Sc. Chemistry has completed a project titled '**Organic Manure Making**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **UNNIKRISHNAN P. V.,** Adm. No. E 8181, First Semester B. Sc. Chemistry has completed a project titled **'Organic Manure Making'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **VYSAK A. S.,** Adm. No. E 7770, First Semester B. Sc. Chemistry has completed a project titled **'Organic Manure Making'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ASWANI M. R.,** Adm. No. E 8175, First Semester B. Sc. Chemistry has completed a project titled **'Organic Manure Making'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **MEENAKSHI N. V.,** Adm. No. E 8019, First Semester B. Sc. Chemistry has completed a project titled 'Organic Manure Making' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **PARVATHY RAJU**, Adm. No. E 7817, First Semester B. Sc. Chemistry has completed a project titled 'Organic Manure Making' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **SISIRA SHANMUGHAN**, Adm. No. E 8006, First Semester B. Sc. Chemistry has completed a project titled **'Organic Manure Making'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ABHIRAMY MOHANAN**, Adm. No. E 7961, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **AISWARYA PAUL**, Adm. No. E 7930, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **AJAL MUKUNDAN**, Adm. No. E 8055, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ALBIN BAIJU**, Adm. No. E8044, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ALEENA ROSE BENNY**, Adm. No. E 8050, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **AMALA MARY BENNY**, Adm. No. E 8358, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **AMALKRISHNA M. G.**, Adm. No. E 8080, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

GREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **AMEENA THAHZEEN N. S.**, Adm. No. E 8118, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ANANDU K A**, Adm. No. E 8272, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

GREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ANNA JOY**, Adm. No. E 8057, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ARCHANA S. NAIR**, Adm. No. E 8013, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ARUN PRAKASH**, Adm. No. E 8439, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

GREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **FATHIMA SARDAR**, Adm. No. E 8334, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **GOURI NANDANA T. H.**, Adm. No. E 8021, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **HANIYA C. A.**, Adm. No. E 7937, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **HUSNA THASNEEM K H**, Adm. No. E 8336, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **K R HISHAM MUHAMMED**, Adm. No. E 8338, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **LAKSHMIPRIYA N. U.**, Adm. No. E 7838, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **PARVATHY K. S.**, Adm. No. E 8101, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **SUMAIYA V. S.**, Adm. No. E 8086, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **UMA R.**, Adm. No. E 8204, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **AKHIL VINOD**, Adm. No. E 8053, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ALEENA BIJU**, Adm. No. E 8072, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **AMRITHALAKSHMI C. U.**, Adm. No. E 7821, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ANTONY A. I.**, Adm. No. E 8040, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ANUPAMA P. B.**, Adm. No. E 7801, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ASHNA JOLLY**, Adm. No. E 7825, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ATHIRA SANTHOSH**, Adm. No. E 8024, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **BASIL BAIJU**, Adm. No. E 8344, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **BEEGUM SUHAILA P**, Adm. No. E 8249, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **BEEVI NAFIAH**, Adm. No. E 8360, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **INDULEKHA K. P.**, Adm. No. E 8174, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ISSAC T. SHAJU**, Adm. No. E 8076, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **K. M. BHAGYALAKSHMI**, Adm. No. E 8166, Second Semester B. Sc. Chemistry has completed a project titled '**Organic**' Farming' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **LAKSHMI**, Adm. No. E 8018, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKARA COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **LAKSHMI ANILKUMAR**, Adm. No. E 7864, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **NANDANA SAJEEV**, Adm. No. E 8393, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **RESHMI RADHAKRISHNAN**, Adm. No. E 8146, Second Semester B. Sc. Chemistry has completed a project titled 'Organic Farming' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **RUTH M. T.**, Adm. No. E 8144, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **UNNIKRISHNAN P. V.**, Adm. No. E 8181, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **VYSAK A. S.**, Adm. No. E 7770, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **ASWANI M. R.**, Adm. No. E 8175, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **MEENAKSHI N. V.**, Adm. No. E 8019, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **PARVATHY RAJU**, Adm. No. E 7817, Second Semester B. Sc. Chemistry has completed a project titled '**Organic Farming**' as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair



SANKAR NAGAR, KALADY – 683 574, ERNAKULAM DISTRICT, KERALA
Phone: 0484 2462341 Fax: 0484 2466878 Website: www.ssc.edu.in Email:info@ssc.edu.in
RE-ACCREDITED IN THE THIRD CYCLE BY NAAC WITH B++ GRADE

CERTIFICATE

This is to certify that **SISIRA SHANMUGHAN**, Adm. No. E 8006, Second Semester B. Sc. Chemistry has completed a project titled **'Organic Farming'** as part of the Massive Open Online Course of Mahatma Gandhi University on 'Organic Farming' during the academic year 2022-23.

Dr. Minimol K. C.

Course Coordinator

SREE SANKAR A COLLEGE

Dr. Preethi Nair