

**ENVIRONMENTALLY BENIGN SYNTHESIS OF NiO
NANOPARTICLES EMPLOYING LEAF EXTRACT OF
CALLISTEMON CITRINUS**

Dissertation submitted to Alphonsa College

In partial fulfillment

For the award of degree of

**MASTER OF SCIENCE IN
CHEMISTRY**

Submitted by

AISWARYA BIJU (200011009636)



**PG Department of Chemistry
Alphonsa College
Arunapuram, Kottayam**

**Under the Guidance of
Dr. Ajith R. Mallia**



**Department of Chemistry
St. Berchmans College
Changanacherry- 686101, India**

September 2022



St Berchmans College

AUTONOMOUS College with Potential for Excellence | Reaccredited by NAAC with A Grade

Affiliated to Mahatma Gandhi University, Kottayam, Kerala

Changanasserry

27 September 2022

CERTIFICATE

This is to certify that the dissertation entitled **ENVIRONMENTALLY BENIGN SYNTHESIS OF NiO NANOPARTICLES EMPLOYING LEAF EXTRACT OF CALLISTEMON CITRINUS** is an authentic record of the project work carried out **Aiswarya Biju (200011009636)** at the department of Chemistry, St. Berchmans College, Changanasserry, Kottayam-686101 under my supervision and guidance during the period of May to June 2022 in partial fulfilment of the requirements for the degree of Masters of Science in Chemistry and no part of this has been presented for the award of any degree, diploma or associationship in any university.

Dr. Ajith R. Mallia



Caritas Vera Nobilitas

Changanasserry, Kottayam, Kerala, India - 686101, Tel: 91-481-2420025, Mob: 9961231314
Email: sbc@sbccollege.ac.in Web: www.sbccollege.ac.in

**AN ASSESSMENT OF WATER QUALITY PARAMETERS OF SOURCES
LIKE PADDY, WELL AND STREAM IN PALAI MUNICIPALITY**

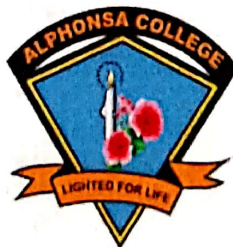
PROJECT REPORT SUBMITTED TO
MAHATMA GANDHI UNIVERSITY
IN PARTIAL FULFILLMENT OF THE DEGREE OF
MASTER OF SCIENCE IN CHEMISTRY

BY

ALEENA BABU

Reg No:200011009637

UNDER THE GUIDANCE OF
Ms. DEEPAMOL VARGHESE
Head Of PG Department Of Chemistry
Alphonsa College Palai, Kottayam



PG DEPARTMENT OF CHEMISTRY
ALPHONSA COLLEGE, PALAI, KOTTAYAM

CERTIFICATE

This is to certify that the project report entitled " AN ASSESSMENT OF WATER QUALITY PARAMETERS OF SOURCES LIKE PADDY, WELL AND STREAM IN PALAI MUNICIPALITY" is an authentic record of the work carried out by ALEENA BABU under guidance of Ms. DEEPAMOL VARGHESE, Head of PG Department of Chemistry, Alphonsa College Palai in partial fulfillment of the requirements for award of Degree of Master of Science from Mahatma Gandhi university Kottayam, Kerala.



Smt. Deepamol Varghese

(Teacher In Charge)

Head Of The Department

PG Department Of Chemistry

Alphonsa College Palai, Kottayam

Palai

29/05/2022

**SOIL ANALYSIS IN POTENTIAL CARDAMOM GROWING
TRACTS OF IDUKKI**

**PROJECT REPORT SUBMITTED TO
MAHATMA GANDHI UNIVERSITY
IN PARTIAL FULFILLMENT OF THE DEGREE OF
MASTER OF SCIENCE IN CHEMISTRY**

BY

AMALU THOMAS

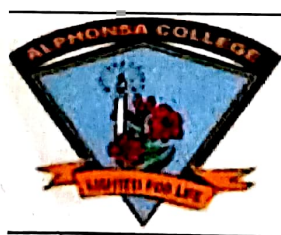
Reg No: 200011009639

UNDER THE GUIDANCE OF

Ms. DEEPAMOL VARGHESE

Head of PG department of Chemistry

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PG DEPARTMENT OF CHEMISTRY

ALPHONSA COLLEGE PALAI

SEPTEMBER 2022

CERTIFICATE

This is to certify that the project report entitled “ SOIL ANALYSIS IN POTENTIAL CARDAMOM GROWING TRACTS OF IDUKKI” is an authentic record of the work carried out Ms.AMALU THOMAS under guidance of Ms. DEEPAMOL VARGHESE, head of the post graduation department of chemistry ,Alphonsa college Palai in partial fulfillment of the requirements for award of Degree of Master of Science from Mahatma Gandhi university Kottayam, Kerala

Palai

29/05/2022

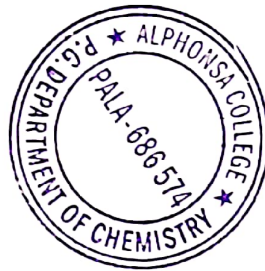


Submitted .Ms. Deepamol Varghese

Head of Department

PG Department of Chemistry

Alphonsa College, Palai



**COMPARISON OF EXTEND OF SILICA ALUMINA
COATING ON TITANIUM DIOXIDE PIGMENT**

Done At

**The Kerala Minerals and Metals LTD
(KMML, CHAVARA)**

SUBMITTED TO

**MAHATMA GANDHI UNIVERSITY
KOTTAYAM**

In partial fulfillment for the award of degree of

MASTER OF SCIENCE IN CHEMISTRY

SUBMITTED BY

AMRUTHA CHANDRAN

REG.NO: 200011009640

UNDER THE SUPERVISION OF

AAMS K.P.

Scientific Officer Q C Lab KMML



POST GRADUATE DEPARTMENT OF CHEMISTRY

ALPHONSA COLLEGE PALAI

2020-2022



The Kerala Minerals and Metals Ltd.
(A Govt. Of Kerala Undertaking)
(An ISO 9001, ISO 14001, OHSAS 18001 & SA 8000 Certified Company)
SANKARAMANGALAM, CHAVARA-691 583
KOLLAM, KERALA, INDIA.
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Fax : +91- 0476-2680101, 2686721
E-mail : contact@kmml.com, URL : www.kmml.com



CIN-U14109KL1972SGC002399

TP/PD/T-14/22
17.09.2022

C E R T I F I C A T E

This is to certify that **Ms. Amrutha Chandran**, M Sc (Chemistry), student of Alphonsa College, Pala has successfully completed project work entitled “**COMPARISON OF EXTEND OF SILICA-ALUMINA COATING ON TITANIUM DIOXIDE PIGMENT**” under the guidance of Mr. Aams K P, Scientific Officer QC LAB as a part of her studies in the Titanium Dioxide Pigment Unit of the Company at Chavara from **16.05.2022 to 30.05.2022.**

She was found to be an industrious and motivated person with good Conduct and Character during the entire training period.

DEPUTY MANAGER (P&A)

TONY M.
Deputy Manager (P&A)
The Kerala Minerals and Metals Ltd.
Sankaramangalam, Chavara, Kollam, Kerala



**INVESTIGATION OF THE BINDING OF APOMORPHINE AND
PRAMIPEXOLE AT THE ACTIVE SITE OF ACETYL CHOLINESTERASES
ENZYME BY DOCKING PROCEDURE**

Project Report Submitted to

Mahatma Gandhi University, Kottayam

In Partial Fulfilment of the Requirements for the Award of the Degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

ANASWARA SANTHOSH

Reg.No:200011009641

2020-2022

PG Department of Chemistry, Alphonsa College Pala



Under the Guidance of

Dr.THOMAS V MATHEW

Assistant Professor, Department of Chemistry

St.Thomas College, Pala

BONAFIDE CERTIFICATE

This is to certify that the project report entitled "INVESTIGATION OF THE BINDING OF APOMORPHINE AND PRAMIPEXOLE AT THE ACTIVE SITE OF ACETYL CHOLINESTERASES ENZYME BY DOCKING PROCEDURE" submitted by ANASWARA SANTHOSH (Reg. No:200011009641) in partial fulfilment of the requirements for the degree in Master of Science in Chemistry offered by the Mahatma Gandhi University during the academic year 2020-2022 is original work carried out by the student under my supervision and guidance.

To the best of our knowledge, the matter embodied in the project has not been submitted to any other University/Institute for the award of any degree or diploma.

Project Guide ,



Dr.Thomas V Mathew

Assistant Professor

Department of Chemistry

St.Thomas College Pala

Countersigned by,



Mrs.Deepamol Varghese

Head of the Department

PG Department of Chemistry

Alphonsa College Pala

Place: Pala

Date:

**THE STUDY ON EFFICIENCY OF FERRIC TO FERROUS
CONVERSION IN ILMENITE AT DIFFERENT
TEMPERATURES**

A project work submitted to MG University on partial fulfillment
of the requirement for the award of Degree of

MASTER OF SCIENCE

IN

CHEMISTRY

Submitted by

ANJIMA MOHAN

Candidate Code:200011009642

Under the supervision and guidance of

AAMS .K.P

Scientific Officer, QC Lab , KMML



ALPHONSA COLLEGE PALA
POST GRADUATE DEPARTMENT OF CHEMISTRY



The Kerala Minerals and Metals Ltd.
(A Govt. Of Kerala Undertaking)
(An ISO 9001, ISO 14001, OHSAS 18001 & SA 8000 Certified Company)
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KOLLAM, KERALA, INDIA.
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Fax : +91- 0476-2680101, 2686721
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TP/PD/T-14/22
17.09.2022

C E R T I F I C A T E

This is to certify that **Ms. Anjima Mohan**, M Sc (Chemistry), student of Alphonsa College, Pala has successfully completed project work entitled **“THE STUDY ON EFFLCCENCY OF FERRIC TO FERROUS CONVERSION IN ILMENITE AT DIFFERENT TEMPERATURES”** under the guidance of Mr. Aams K P, Scientific Officer QC LAB as a part of her studies in the Titanium Dioxide Pigment Unit of the Company at Chavara from **16.05.2022 to 30.05.2022**.

She was found to be an industrious and motivated person with good Conduct and Character during the entire training period.

DEPUTY MANAGER (P&A)

TONY M.
Deputy Manager (P&A)
The Kerala Minerals and Metals Ltd.
Sankaramangalam, Chavara, Kollam, Kerala



**COMPARATIVE STUDY OF DRUGS LIKE EBSELEN, IVERMECTIN,
MOLNUPIRAVIR AND SABIZABULIN AND THEIR POTENTIAL INHIBITORY
EFFECT ON SARS COV-2 PAPAIN LIKE PROTEINASE**

Project Report Submitted to

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

In Partial Fulfillment of the Requirements for the award of the Degree of

MASTER OF SCIENCE IN CHEMISTRY

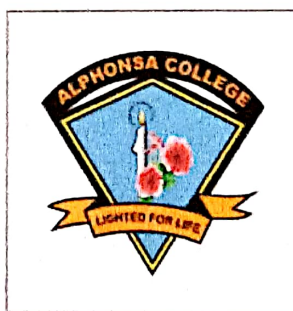
Submitted by

ANSHA R P

(REG NO: 200011009644)

2020-2022

PG Department of Chemistry, Alphonsa College, Pala

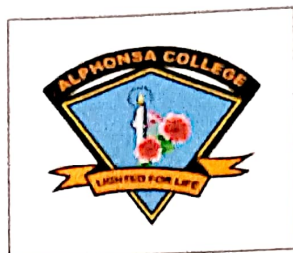


Under the guidance of

Ms. MEERA K S

PG Department of Chemistry

Alphonsa College, Pala



BONAFIDE CERTIFICATE

This is to certify that the project report entitled “**COMPARATIVE STUDY OF DRUGS LIKE EBSELEN, IVERMECTIN, MOLNUPIRAVIR AND SABIZABULIN AND THEIR POTENTIAL INHIBITORY EFFECT ON SARS COV-2 PAPAIN LIKE PROTEINASE**” submitted by ANSHA R P(Reg. No: 20011009644) in partial fulfillment of the requirements for the degree in Master of Science in Chemistry offered by the Mahatma Gandhi University during the academic year 2020-2022 is original work carried out by the student under my supervision and guidance.

To the best of our knowledge, the matter embodied in the project has not been submitted to any other University/Institute for the award of any degree or diploma.

Project Guide,


Ms. Meera K S


PG Department of Chemistry

Alphonsa College, Pala

Place: Pala

Date: 17 Oct 2021

Countersigned by,


Ms. Deepamol Varghese

Head of the PG Department
of Chemistry, Alphonsa
College, Pala.



**INVESTIGATION OF THE BINDING OF ARECOLINE AND
CEVIMELINE AT THE ACTIVE SITE OF ACETYL CHOLINESTERASES
ENZYME BY DOCKING PROCEDURE**

Project Report Submitted To

Mahatma Gandhi University , Kottayam

In Partial Fulfilment of the Requirements for the Award of the degree of

MASTER OF SCIENCE IN CHEMISTRY

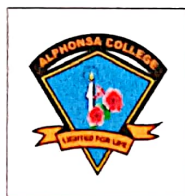
Submitted by

APARNA JAYAN

Reg No 200011009645

2020-2022

PG Department of Chemistry, Alphonsa College Pala



Under the Guidance of

Dr Thomas V Mathew

Assistant Professor, Department of Chemistry

St Thomas College Pala

BONAFIDE CERTIFICATE

This is to certify that project report entitled "INVESTIGATION OF THE BINDING OF ARECOLINE AND CEVIMELINE AT THE ACTIVE SITE OF ACETYL CHOLINESTERASES ENZYME BY DOCKING PROCEDURE" submitted by APARNA JAYAN (Reg No 200011009645) in partial fulfilment of the requirements for the degree in Master of Science in Chemistry offered by the Mahatma Gandhi University of Kottayam during the academic year 2020-2022 is original work carried out by the student under my supervision and guidance .

To the best of our knowledge, the matter embodied in the project has not been submitted to any other University / Institution for the award of any degree or diploma.

Project Guide,



Dr. Thomas V Mathew

Assistant Professor

Department of Chemistry

St Thomas College Pala

Place: Pala

Date:

Countersigned by

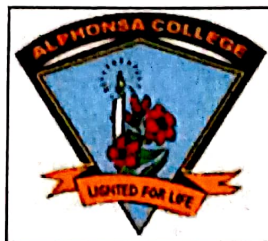


Mrs Deepamol Varghese

Head of the Department

PG Department of Chemistry

Alphonsa College Pala



BONOFIDE CERTIFICATE

This is to certify that the project report entitled “INSILICO STUDY OF POTENTIAL ANTIVIRAL ACTIVITY OF TELLURIUM DERIVATIVES OF EBSELENE AGAINT SARS COV 2 MAIN PROTEASE” submitted by ARCHANA JAYAN (Reg. No:190011009646) in partial fulfilment of the requirements for the degree in Master of in Science in Chemistry offered by the Mahatma Gandhi University during the academic year 2020-2022 is original work carried out by the student under my supervision and guidance.

To the best of our knowledge, the matter embodied in the project has not been submitted to any other University/Institute for the award of any degree or diploma.

Project Guide,

Sri. Aby Jimson
Head of the Department
St. Stephen's College, Uzhavoor

Countersigned by,

Ms. Deepamol Varghese
Head of the PG Department
Alphonsa College, Pala

Place: Pala

Date: 12 July 2022

**INSILICO STUDY OF POTENTIAL ANTIVIRAL ACTIVITY OF
TELLURIUM DERIVATIVES OF EBSELENE AGAINST SARS
COV 2 MAIN PROTEASE**

Project Report Submitted to
Mahatma Gandhi University, Kottayam
In Partial Fulfilment of the Requirements for the award of the Degree of
MASTER OF SCIENCE IN CHEMISTRY

Submitted by

ARCHANA JAYAN

2020-2022

PG Department of Chemistry, Alphonso College, Pala



Under the guidance of
Sri. ABY JIMSON
Assistant Professor, Department of Chemistry
St. Stephen's College, Uzhavoor

**CHARACTERISATION OF DUST PARTICLES BY
ATR-FTIR SPECTROSCOPY**

**Dissertation submitted to Mahatma Gandhi University in partial fulfillment of
the requirement for the award of the degree of
MASTER OF SCIENCE IN CHEMISTRY**

Submitted by

KRISHNAPRIYA V. R

(Reg.no: 200011009647)



Under the supervision of

Dr. C.T.ARAVINDA KUMAR

Professor and Director

School of Environmental Sciences

Mahatma Gandhi University, Kottayam



PG DEPARTMENT OF CHEMISTRY

ALPHONSA COLLEGE

PALA, KOTTAYAM

SEPTEMBER 2022



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Prof. (Dr.) C.T.Aravindakumar
(Hon. Director)

CERTIFICATE

This is to certify that the dissertation entitled **CHARACTERISATION OF DUST PARTICLES BY ATR-FTIR SPECTROSCOPY** is an authentic record of the project work carried out by **Krishna priya VR (Reg.no.200011009647)** at the Inter University Instrumentation Centre, Mahatma Gandhi University, Kottayam under my supervision and guidance during the period of May to June 2022 in partial fulfilment of the requirements for the degree of Master of Science in Chemistry and no part of this has been presented for the award of any degree, diploma or associationship in any university.

Signature of the Guide

**ANALYSIS OF NUTRIENT COMPOSITION IN
AMOPHOS**

PROJECT REPORT

*Submitted to mahatma Gandhi university in the partial fulfilment Of
the requirements for the award of the degree of
Master of science in chemistry*

Done at

**The fertilizer and chemical Travancore Ltd,(FACT)
Udyogamandal division**

**Under the supervision and guidance of
Mr.K.S.SELVARAJ, DM(QA)**

SUBMITTED BY

LAKSHMI PRIYA P

200011009648


2020-2022



**PG DEPARTMENT OF
CHEMISTRY
ALPHONSA COLLEGE
PALA, KOTTAYAM**

CERTIFICATE

This is to certify that the project work entitled "ANALYSIS OF NUTRIENT COMPOSITION IN AMOPHOS" is a bonafide work of LAKSHMI PRIYA P, completed under my supervision and guidance in partial fulfilment of the requirements of the award of the degree of Master of Science in Chemistry during the academic year 2020-2022.


DEEPA MOL VARGHESE
Head of the Department
PG Dept. of Chemistry
Alphonsa College
Pala, Kottayam

June
Pala



GREEN SYNTHESIS OF REDUCED GRAPHENE OXIDE USING ALGAE

*Thesis submitted for the partial fulfilment of the requirement for the
award of the Master of Science in chemistry*

Submitted by

LIGIMOL SHIBY
(Reg No: 200011009649)
2020-2022

Under the guidance of

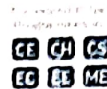
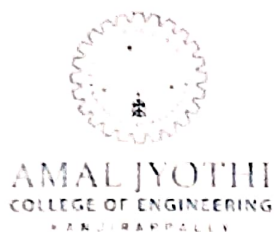
DR.SONEY C GEORGE (Professor)
AMAL JYOTHI COLLEGE OF
ENGINEERING
KOOVAPPALLY

And

DEEPAMOL VARGHESE



PG DEPARTMENT OF CHEMISTRY
ALPHONSA COLLEGE, PALA
KOTTAYAM, KERALA




Approved by: Government of Kerala, Department of Higher Education, Kanjirappally

CERTIFICATE

This is to certify that the project work entitled, "GREEN SYNTHESIS OF REDUCED GRAPHENE OXIDE USING ALGAE" is a bonafide record of project work carried out by Ms. LIGIMOL SHIBY (Register No: 200011009649) under my guidance, in partial fulfillment of the requirement for the award of the degree of Master of Science in Pure Chemistry of Mahatma Gandhi University, Kerala. This work presented in this report has not been submitted for any other degree or diploma earlier.

Kanjirappally
Date: 26.09.2022


Dr. Soney C George
Supervising Teacher

www.ajce.in

AMAL JYOTHI COLLEGE OF ENGINEERING
KANJIRAPPALLY
KANNUR DISTRICT
KERALA

AMAL JYOTHI COLLEGE OF ENGINEERING
KANJIRAPPALLY
KANNUR DISTRICT
KERALA

www.ajce.in



**AN ASSESSMENT OF WATER QUALITY PARAMETERS OF SOURCES
LIKE RIVER, CANAL AND POND IN PALAI MUNICIPALITY**

PROJECT REPORT SUBMITTED TO
MAHATMA GANDHI UNIVERSITY
IN PARTIAL FULFILLMENT OF THE DEGREE OF
MASTER OF SCIENCE IN CHEMISTRY

BY

MAHIMA AMMU RAJAN

Reg No:200011009650

UNDER THE GUIDANCE OF
Ms. DEEPAMOL VARGHESE
Head Of PG Department Of Chemistry
Alphonsa College Palai, Kottayam



PG DEPARTMENT OF CHEMISTRY
ALPHONSA COLLEGE, PALAI, KOTTAYAM

CERTIFICATE

This is to certify that the project report entitled "AN ASSESSMENT OF WATER QUALITY PARAMETERS OF SOURCES LIKE RIVER, CANAL AND POND IN PALAI MUNICIPALITY" is an authentic record of the work carried out by MAHIMA AMMU RAJAN under the guidance of Ms. DEEPAMOL VARGHESE, Head Of PG Department of Chemistry Alphonsa College Palai in partial fulfillment of the requirements for award of Degree of Master of Science from Mahatma Gandhi University Kottayam, Kerala.



Smt: Deepamol Varghese

(Teacher In Charge)

Head Of The Department

PG Department Of Chemistry

Alphonsa College, Palai, Kottayam

Palai

29/05/2022



**STUDY ON TRIBOLOGICAL PROPERTIES OF SILICONE RUBBER
AND GRAPHITE BASED COMPOSITES**

*Thesis submitted for the partial fulfillment of the requirement for the award of the Master of
science in chemistry*

By

MARIYA JACOB

Reg:200011009651

Under the guidance of

DR. SONEY C GEORGE(Professor)

AMAL JYOTHI COLLEGE OF ENGINEERING

KOOVAPPALLY

and

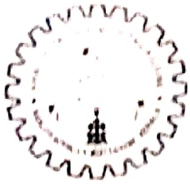
Ms.DEEPAMOL VARGHESE (HOD)



PG DEPARTMENT OF CHEMISTRY

ALPHONSA COLLEGE, PALA

KOTTAYAM, KERALA



AMAL JYOTHI
COLLEGE OF ENGINEERING
KANJIRAPPALLY



Accredited B.Tech
Programmes in
CE CH CS
EC EE ME



Approved By AICTE Affiliated to APJ Abdul Kalam Technological University, Kerala

CERTIFICATE

This is to certify that the project work entitled, "STUDY ON TRIBOLOGICAL PROPERTIES OF SILICONE RUBBER AND GRAPHITE BASED COMPOSITES" is a bonafide record of project work carried out by Ms. MARIYA JACOB (Register No: 200011009651) under my guidance, in partial fulfillment of the requirements for the award of the degree of Master of Science in Pure Chemistry of Mahatma Gandhi University, Kerala. This work presented in this report has not been submitted for any other degree or diploma earlier.

KANJIRAPPALLY

Date: 26-09-2022

Dr. Soney C George

Supervising Teacher

Contact Info

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Kanjirappally, Kollam District
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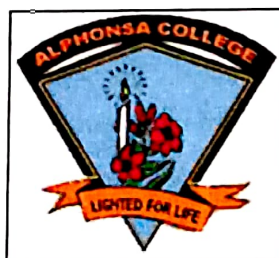
**INSILICO STUDY OF POTENTIAL ANTIVIRAL ACTIVITY OF
TELLURIUM DERIVATIVES OF EBSELENE AGAINST
SARS COV-2 MAIN PROTEASE**

Project Report Submitted to
Mahatma Gandhi University, Kottayam
In Partial Fulfilment of the Requirements for the award of the Degree of
MASTER OF SCIENCE IN CHEMISTRY

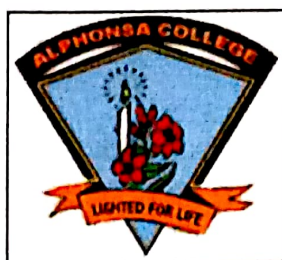
Submitted by
MIDHUNA AJI

2020 – 2022

PG Department of Chemistry, Alphonsa College, Pala



Under the guidance of
Sri. ABY JIMSON
Assistant Professor, Department of Chemistry
St. Stephen's College, Uzhavoor



BONOFIDE CERTIFICATE

This is to certify that the project report entitled "INSILICO STUDY OF POTENTIAL ANTIVIRAL ACTIVITY OF TELLURIUM DERIVATIVES OF EBSELENE AGAINST SARS COV-2 MAIN PROTEASE" submitted by MIDHUNA AJI (Reg. No:200011009652) in partial fulfilment of the requirements for the degree in Master of science in Chemistry offered by the Mahatma Gandhi University during the academic year 2020-2022 is original work carried out by the student under my supervision and guidance.

To the best of our knowledge, the matter embodied in the project has not been submitted to any other University/Institute for the award of any degree or diploma.

Project Guide

Sri. Aby Jimson

Head of the Department

St. Stephen's College, Uzhavoor

Countersigned by,

Ms. Deepamol Varghese

Head of the PG Department

Alphonsa College, Pala

Place: Pala

Date: 12 July 2022



**SCREENING OF ELECTROSPUN
POLYURETHANE FIBER FOR DYE
DECOLOURISATION AND OIL SORPTION**

*Thesis submitted for the partial fulfillment of the requirement for the
award of the Master of science in chemistry*

By

NEETHA PRASAD

REG:200011009653

Under the guidance of

DR.SONEY C GEORGE(Professor)

AMAL JYOTHI COLLEGE OF

ENGINEERING

KOOVAPPALLY

and

Ms. DEEPAMOL VARGHESE (HOD)



PG DEPARTMENT OF CHEMISTRY

ALPHONSA COLLEGE ,PALA

KOTTAYAM ,KERALA



AMAL JYOTHI
COLLEGE OF ENGINEERING
KANJIRAPPALLY



Approved by AICTE • Affiliated to APJ Abdul Kalam Technological University, Kerala

CERTIFICATE

This is to certify that the project work entitled “SCREENING OF ELECTROSPUN POLYURETHANE FIBER FOR DYE DECOLORISATION AND OIL SORPTION” is a bonafide record of project work carried out by Ms. NEETHA PRASAD (Reg.No: 200011009653) under my guidance, in partial fulfillment of the requirements for the award of the degree of Master of Science in pure Chemistry of Mahatma Gandhi University, Kottayam, Kerala. This work presented in this report has not been submitted for any other degree or diploma earlier.

KANJIRAPPALLY

Date: 26.09.2022

Dr. Soney C George

Supervising Teacher

Contact Info

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www.ajce.in



**INVESTIGATION OF THE BINDING OF DONEPEZIL AND
GALANTAMINE AT THE ACTIVE SITE OF ACETYL
CHOLINESTERASE BY DOCKING PROCEDURE**

Project Report Submitted to

Mahatma Gandhi University, Kottayam

In Partial Fulfillment of the Requirements for the award of the Degree of

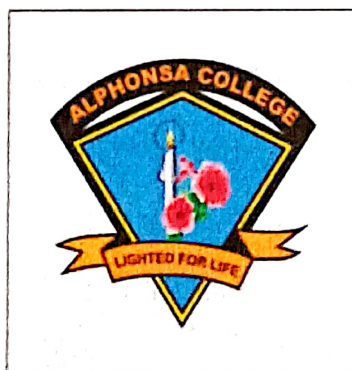
MASTER OF SCIENCE IN CHEMISTRY

Submitted By

NEHA SARAH ABRAHAM

2020-2022

Department of Chemistry, Alphonsa College, Pala



Under the guidance of

Dr. THOMAS V MATHEW

Department of Chemistry

St. Thomas College, Pala

BONAFIDE CERTIFICATE

This is to certify that the project report entitled "INVESTIGATION OF THE BINDING OF DONEPEZIL AND GALANTAMINE AT THE ACTIVE SITE OF ACETYL CHOLINESTERASE BY DOCKING PROCEDURE" submitted by NEHA SARAH ABRAHAM (Reg No: 200011009654) in partial fulfillment of the requirements for the degree in Master of Science in Chemistry offered by the Mahatma Gandhi University during the academic year 2020-2022 is original work carried out by the student under my supervision and guidance.

To the best of our knowledge, the matter embodied in the project has not been submitted to any other University/Institute for the award of any degree or diploma.

Project Guide,



Dr Thomas V Mathew

Department of Chemistry

St. Thomas College , Pala

Countersigned by,



Ms. Deepamol Varghese

Head of the Department

PG Department of Chemistry

Alphonsa College, Pala

Place : Pala

Date :

**ASSESSMENT OF SOIL FERTILITY STATUS OF SOIL UNDER
CARDAMOM PLANTATION OF IDUKKI**

PROJECT REPORT SUBMITTED TO
MAHATMA GANDHI UNIVERSITY, KOTTAYAM
In Partial Fulfillment of the Requirements for the award of Degree of
MASTER OF SCIENCE IN CHEMISTRY



Submitted by
SANDRA DEVASIA
Reg. No: 200011009655
2020-2022

Under the guidance of
Ms. DEEPAMOL VARGHESE
Head of PG department of Chemistry
Alphonsa College Pala, Kottayam



BONAFIDE CERTIFICATE

This is to certify that the project report entitled “ASSESSMENT OF FERTILITY STATUS OF SOIL UNDER CARDAMOM PLANTATION OF IDUKKI” is an authentic record of the work carried out by SANDRA DEVASIA under guidance of Ms. DEEPAMOL VARGHESE, head of the department of chemistry, Alphonsa College Pala in partial fulfillment of the requirements for award of Degree of Master of Science from Mahatma Gandhi University Kottayam, Kerala.

Project Guide

Countersigned by,

Ms. Deepamol Varghese
Head of the Department
PG Department of Chemistry
Alphonsa College Pala

Ms. Deepamol Varghese
Head of the Department
PG Department of Chemistry
Alphonsa College Pala



Place: Pala

Date: 16 May 2022

**GREEN SYNTHESIS OF NiO NANOPARTICLES FROM THE
LEAF EXTRACT OF CALLISTEMON CITRINUS.**

Dissertation submitted to Alphonsa College

in partial fulfilment

for the award of the degree of

**MASTER OF SCIENCE IN
CHEMISTRY**

Submitted by

SARIMOL P S (200011009656)



Department of Chemistry

Alphonsa College

Arunapuram, Kottayam

Under the supervision of

Dr. Ajith R .Mallia



Department of chemistry

St. Berchmans College

Changanassery-686101,India

September 2022



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Changanasserry

27 September 2022

CERTIFICATE

This is to certify that the dissertation entitled "GREEN SYNTHESIS OF NiO NANOPARTICLES FROM THE LEAF EXTRACT OF CALLISTEMON CITRINUS" is an authentic record of the project work carried out by at Sarimol P S (Reg. No 200011009656) the department of Chemistry, St. Berchmans College, Changanasserry, Kottayam-686101 under my supervision and guidance during the period of May to June 2022 in partial fulfilment of the requirements for the degree of Masters of Science in Chemistry and no part of this has been presented for the award of any degree, diploma or associationship in any university.



Caritas Vera Nobilitas

Changanassery, Kottayam, Kerala, India - 686101, Tel: 91-481-2420025, Mob: 9961231314
Email: sbc@sbcollege.ac.in Web: www.sbcollege.ac.in

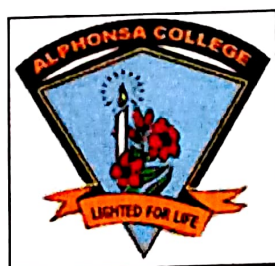
**INSILICO STUDY OF POTENTIAL ANTIVIRAL ACTIVITY OF
TELLURIUM DERIVATIVES OF EBSELENE AGAINST SARS COV-2
MAIN PROTEASE**

Project Report Submitted to
Mahatma Gandhi University, Kottayam
In Partial Fulfilment of the Requirements for the award of the Degree of
MASTER OF SCIENCE IN CHEMISTRY

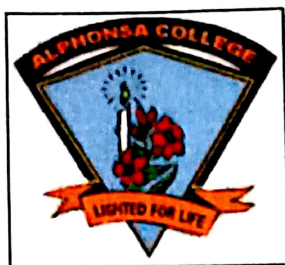
Submitted by
SARITHA MOL P.S

2020-2022

PG Department of Chemistry, Alphonsa College, Pala



Under the guidance of
Sri. ABY JIMSON
Assistant Professor, Department of Chemistry
St. Stephen's College, Uzhavoor



BONOFIDE CERTIFICATE

This is to certify that the project report entitled "INSILICO STUDY OF POTENTIAL ANTIVIRAL ACTIVITY OF TELLURIUM DERIVATIVES OF EBSELENE AGAINST SARS CoV-2 MAIN PROTEASE" submitted by SARITHA MOL PS (Reg. No:200011009657) in partial fulfilment of the requirements for the degree in Master of in Science in Chemistry offered by the Mahatma Gandhi University during the academic year 2020-2022 is original work carried out by the student under my supervision and guidance.

To the best of our knowledge, the matter embodied in the project has not been submitted to any other University/Institute for the award of any degree or diploma.

Project Guide

Sri. Aby Jimson

Head of the Department

St. Stephen's College, Uzhavoor

Countersigned by,

Ms. Deepamol Varghese

Head of the PG Department

Alphonsa College, Pala

Place: Pala

Date: 12 July 2022



**COMPARATIVE STUDY OF DRUGS LIKE EBSELEN,
ACYCLOVIR, OSELTAMIVIR AND RUBITECAN AND
THEIR POTENTIAL INHIBITORY EFFECT ON SARS COV-2
MAIN PROTEASE**

Project Report submitted to

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

In Partial Fulfilment of the Requirements for the award of the Degree of

MASTER OF SCIENCE IN CHEMISTRY

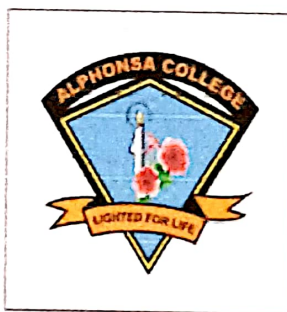
Submitted by

SONA SAJI

(REG NO: 200011009658)

2020-2022

PG Department of Chemistry, Alphonsa College, Pala

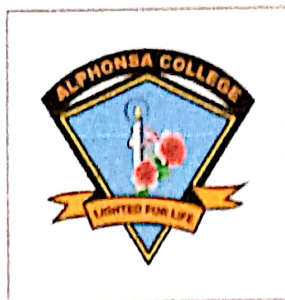


Under the guidance of

Ms. Meera KS

PG Department of Chemistry

Alphonsa College, Pala



BONAFIDE CERTIFICATE

This is to certify that the project report entitled "**COMPARATIVE STUDY OF DRUGS LIKE EBSELEN, ACYCLOVIR, OSELTAMIVIR AND RUBITECAN AND THEIR POTENTIAL INHIBITORY EFFECT ON SARS COV-2 MAIN PROTEASE**" submitted by **SONA SAJI** (Reg. No: 200011009658) in the partial fulfilment of the requirements for the degree in Master of Science in Chemistry offered by the Mahatma Gandhi University during the academic year 2020-2022 is original work carried out by the student under my supervision and guidance.

To the best of our knowledge, the matter embodied in the project has not been submitted to any other University/Institute for the award of any degree or diploma.

Project Guide,


Ms. Meera K S

PG Department of Chemistry

Alphonsa College, Pala

Place: Pala

Date: 21-10-2021

Countersigned by


Ms. Deepamol Varghese

Head of the PG Department

of Chemistry, Alphonsa

College, Pala



**COMPARATIVE STUDY OF DRUGS LIKE REMDESIVIR,
LOPINAVIR, RITONAVIR AND 2- DEOXYGLUCOSE AND THEIR
POTENTIAL INHIBITORY EFFECT ON SARS CoV-2 SPIKE PROTEIN**

Project Report Submitted to

MAHATMA GANDHI UNIVERSITY, KOTTAYAM

In Partial Fulfilment of the Requirements for the award of the Degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

TESLIN THOMAS

(Reg. No: 200011009659)

2020-2022

PG Department of Chemistry, Alphonsa College Pala



Under the guidance of

Ms. DEEPAMOL VARGHESE

Head of the Department

PG Department of Chemistry

Alphonsa College Pala



BONAFIDE CERTIFICATE

This is to certify that the project report entitled “**COMPARATIVE STUDY OF DRUGS LIKE REMDESIVIR, LOPINAVIR, RITONAVIR AND 2- DEOXY GLUCOSE AND THEIR POTENTIAL INHIBITORY EFFECT ON SARS CoV-2 SPIKE PROTEIN**” submitted by **TESLIN THOMAS** (Reg. No: 200011009659) in partial fulfilment of the requirements for the degree in Master of in Science in Chemistry offered by the Mahatma Gandhi University during the academic year 2020-2022 is original work carried out by the student under my supervision and guidance.

To the best of our knowledge, the matter embodied in the project has not been submitted to any other University/Institute for the award of any degree or diploma.

Project Guide,

Ms. Deepamol Varghese

Head of the Department

PG Department of Chemistry

Alphonsa College Pala

Place: Pala

Date: 20 Oct 2021

Countersigned by,

Ms. Deepamol Varghese

Head of the Department

PG Department of Chemistry

Alphonsa College Pala



**EFFECT OF IMPURITIES IN THE COLOUR
AND TONE OF TiO₂ PIGMENT**

Done At

The Kerala Minerals and Metals LTD
(KMML, CHAVARA)

SUBMITTED TO
MAHATMA GANDHI UNIVERSITY
KOTTAYAM

In partial fulfillment for the award of degree of
MASTER OF SCIENCE IN CHEMISTRY

SUBMITTED BY
UNNIMAYA B
REG.NO: 200011009660

UNDER THE SUPERVISION OF
AAMS K.P.
Scientific Officer Q C Lab KMML



POST GRADUATE DEPARTMENT OF CHEMISTRY

Alphonsa College Palai

2020-2022



The Kerala Minerals and Metals Ltd.
(A Govt. Of Kerala Undertaking)
(An ISO 9001, ISO 14001, OHSAS 18001 & SA 8000 Certified Company)
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KOLLAM, KERALA, INDIA.
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E-mail : contact@kmml.com, URL : www.kmml.com



TP/PD/T-14/22
17.09.2022

C E R T I F I C A T E

This is to certify that **Ms. Unnimaya B**, M Sc (Chemistry), student of Alphonsa College, Pala has successfully completed project work entitled "**EFFECT OF IMPURITIES IN THE COLOUR AND TONE OF TITANIUM DIOXIDE PIGMENT**" under the guidance of Mr. Aams K P, Scientific Officer QC LAB as a part of her studies in the Titanium Dioxide Pigment Unit of the Company at Chavara from 16.05.2022 to 30.05.2022.

She was found to be an industrious and motivated person with good Conduct and Character during the entire training period.

DEPUTY MANAGER (P&A)

TO
Deputy Manager (P&A)
The Kerala Minerals and Metals Ltd.
Sankaramangalam, Chavara, Kollam, Kerala

