

Oxygen Reduction on the Surface of PANI Modified GCE with

9,10-Phenanthrenequinone

A project submitted to

ST. MARY'S COLLEGE (Autonomous), Thoothukudi.

Affiliated to

MANONMANIAMSUNDARANAR UNIVERSITY, TIRUNELVELI

In partial fulfilment of the award of the degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

K.AMBIKA

Reg.No: 17SPCH01

Under the Supervision and Guidance of

Dr. Mrs. J. Antony Rajam M.SC., M.Phil., SET., Ph.D.



PG DEPARTMENT OF CHEMISTRY (SSC)

St. Mary's College (Autonomous), Thoothukudi - 628001

October-2018

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This is to certify that this project work entitled "Oxygen Reduction on the Surface of PANI Modified GCE with 9,10-Phenanthrenequinone" is submitted St. Mary's College to (Autonomous), Thoothukudiaffiliated to ManonmaniamSundaranar University, Tirunelveli in partial fulfilment for the award of the Degree of Master of Science in Chemistry and is work done during the year 2017 - 2019 by K.AMBIKA (Reg. No: 17SPCH01)

J. Aly G. Signature of the Guide

J. And D. Signature of the HOD

Signature of the Director

Director Self Supporting Courses St. Mary's College (Autonomous) Thoothukudi - 628 001.

Signature of the principal

Principal St. Many's College (Autonomous) Thoothukudi - 628 001.

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Signature of the Examiner

I do hereby declare that the project entitled "Oxygen Reduction on the Surface of PANI Modified GCE with 9,10-Phenanthrenequinone" submitted for the degree of Master of Science in Chemistry is my original work carried out under the guidance of Dr. J. Antony Rajam M.Sc., M.Phil., SET., PhD. Assistant professor, PG Department of Chemistry (SSC), St. Mary's College (Autonomous), Thoothukudi and that it has not previously formed the basis for award of any Degree.

Ju. Ambika.) K.AMBIKA

Station: Thoothukudi

Date: 22.10.2018

COMPARISION OF ECO- FRIENDLY SYNTHESIZED COBALT OXIDE NANOPARTICLES BY TWO DIFFERENT SATIVUM SPECIES, ITS CHARACTERIZATION AND PHOTO-CATALYTIC ACTIVITY

A project submitted to

ST. MARY'S COLLEGE (Autonomous), Thoothukudi.

Affiliated to

MANONMANIAMSUNDARANAR UNIVERSITY, TIRUNELVELI

in partial fulfilment of the award of the degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

ASHA.G

Reg.No:17SPCH02

Under the Supervision and Guidance of

Mrs. D. Carolin Jeniba Rachel M.Sc., SET



PG DEPARTMENT OF CHEMISTRY (SSC)

St. Mary's College (Autonomous), Thoothukudi - 628001

This is to certify that this project work entitled "COMPARISION OF ECO- FRIENDLY SYNTHESIZED COBALT OXIDE NANOPARTICLES BY TWO DIFFERENT SATIVUM SPECIES, ITS CHARACTERIZATION AND PHOTO-CATALYTIC ACTIVITY" is submitted to St. Mary's College (Autonomous), Thoothukudi affiliated to Manonmaniam Sundaranar university, Tirunelveli in partial fulfilment for the award of the Degree of Master of Science in chemistry and is work done during the year 2017-2018 by ASHA.G (Reg.No: 17SPCH02)

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Director Self Supporting Courses St. Mary's College (Autonomous) Thoothukudi - 628 001.

Signature of the Principal

Principal 31. Mary's College (Autonomous) Thoothukudi - 628 001.

Signature of the aminer



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I do here by declare that the project entitled "COMPARISION OF ECO- FRIENDLY SYNTHESIZED COBALT OXIDE NANOPARTICLES BY TWO DIFFERENT SATIVUM SPECIES, ITS CHARACTERIZATION AND PHOTO-CATALYTIC ACTIVITY" submitted for the degree of Master of Science in Chemistry is my original work carried out under the guidance Mrs. D. Carolin Jeniba Rachel M.Sc., SET., Assistant Professor, PG DEPARTMENT OF CHEMISTRY (SSC), St. Mary's College (Autonomous), Thoothukudi and that it has not previously formed the basis for award of any Degree.

Station: Thoothukudi

Date: 2018

ly. Atha ASHA.G

BIOSYNTHESISE OF ZnO & Ag DOPED ZnO NANOPARTICLES FROM VITIS VINIFERA LEAF FOR ANTIBACTERIAL & PHOTOCATALYTIC APPLICATION

A project submitted to

ST. MARY'S COLLEGE (Autonomous), Thoothukudi.

Affiliated to

MANONMANIAMSUNDARANAR UNIVERSITY, TIRUNELVELI

In partial fulfilment of the award of the degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

DINOLA.A

Reg.No:17SPCH03

Under the Supervision and Guidance of

Mrs. K. SARAVANADEVI M.SC., M.Phil., SET.,



PG DEPARTMENT OF CHEMISTRY (SSC)

St. Mary's College (Autonomous), Thoothukudi - 628001

This is to certify that this project work entitled "BIOSYNTHESIS OF ZnO & Ag DOPED ZnO NANOPARTICLES FROM VITIS VINIFERA PHOTOCATALYTIC LEAF FOR **ANTIBACTERIAL** & APPLICATION" is submitted to St.Mary's College (Autonomous), University, Thoothukudi affiliated ManonmaniamSundaranar to Tirunelveli in partial fulfilment for the award of the Degree of Master of Science in Chemistry and is work done during the year 2017 - 2019 by A.Dinola (Reg. No: 17SPCH03)

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J. Anly (Signature of the

Director Self Supporting Courses St. Mary's College (Autonomous) Thoothukudi - 628 001.

Suit. Rose **Signature of the Principal** St. Mary's College (Autonomous) Thoothukudi - 628 001.

Signature o Examiner

I do hereby declare that the project entitled "BIOSYNTHESIS OF ZnO & Ag DOPED ZnO NANOPARTICLES FROM VITIS VINIFERA LEAF FOR ANTIBACTERIAL & PHOTOCATALYTIC APPLICATION" submitted for the degree of Master of Science in Chemistry is my original work carried out under the guidance of Mrs.K.SARAVANADEVI. M.Sc., M.Phil., SET, Assistant professor, PG Department of Chemistry (SSC), St. Mary's College (Autonomous), Thoothukudi and that it has not previously formed the basis for award of any Degree.

Station: Thoothukudi

Date: 2.2. 10..2018

A. Dinola.

DINOLA.A



ENVIROSAFE SYNTHESIS OF LAYERED GRAPHENE BY GREEN BASED SURFACTANTS, ITS CHARACTERISATION AND ELECTROCHEMICAL BEHAVIOUR

A project submitted to

ST. MARY'S COLLEGE (Autonomous), Thoothukudi.

Affiliated to

MANONMANIAMSUNDARANAR UNIVERSITY, TIRUNELVELI

in partial fulfilment of the award of the degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

ESAKKI NARTHINNI.M

Reg.No:17SPCH04

Under the Supervision and Guidance of

Mrs. D. Carolin Jeniba Rachel M.Sc., SET



PG DEPARTMENT OF CHEMISTRY (SSC)

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October – 2018

This is to certify that this project work entitled "ENVIROSAFE SYNTHESIS OF LAYERED GRAPHENE BY GREEN BASED SURFACTANTS, ITS CHARACTERISATION AND ELECTROCHEMICAL BEHAVIOUR" is submitted to St. Mary's College (Autonomous), Thoothukudi affiliated to Manonmaniam Sundaranar university, Tirunelveli in partial fulfilment for the award of the Degree of Master of Science in chemistry and is work done during the year 2017-2018 by ESAKKI NARTHINNI.M (Reg.No: 17SPCH04)

Guide

J. Alty 32/10/18 Signature of the HOD

Signature of the Di

Director Self Supporting Courses St. Mary's College (Autonomous) Thoothukudi - 628 001.

Luci Rose Signature of the Principal Principal St. Mary's College (Autonamous) Vinoothukudi - 626 001.



I do here by declare that the project entitled "ENVIROSAFE SYNTHESIS OF LAYERED GRAPHENE BY GREEN BASED SURFACTANTS, ITS CHARACTERISATION AND ELECTROCHEMICAL BEHAVIOUR" submitted for the degree of Master of Science in Chemistry is my original work carried out under the guidance Mrs. D. Carolin Jeniba Rachel M.Sc., SET., Assistant Professor, PG DEPARTMENT OF CHEMISTRY (SSC), St. Mary's College (Autonomous), Thoothukudi and that it has not previously formed the basis for award of any Degree.

Station: Thoothukudi Date: 22,10, 2018

H. Esakki Northinni,

ESAKKI NARTHINNI.M

MOLECULAR DOCKING STUDIES OF PHYTOMEDICINAL DRUG INHIBITOR IN COPD DISEASE

A project submitted to

ST. MARY'S COLLEGE (Autonomous), Thoothukudi.

Affiliated to

MANONMANIAMSUNDARANAR UNIVERSITY, TIRUNELVELI

In partial fulfilment of the award of the degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

MARIA CHITRA.S

Reg.No:17SPCH06

Under the Supervision and Guidance of

Dr. Mrs. C. ZOZIMUS DIVYA LOBO M.SC., M.Phil., Ph.D.,



PG DEPARTMENT OF CHEMISTRY (SSC)

St. Mary's College (Autonomous), Thoothukudi - 628001

This is to certify that this project work entitled "MOLECULAR DOCKING STUDIES OF PHYTOMEDICINAL DRUG INHIBITOR IN COPD DISEASE" is submitted to St. Mary's College (Autonomous), Thoothukudiaffiliated to ManonmaniamSundaranar University, Tirunelveli in partial fulfilment for the award of the Degree of Master of Science in Chemistry and is work done during the year 2017 - 2019 by S. Maria Chitra (Reg. No: 17SPCH06)

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Signature of the Guide

J. Anty ()

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Director Self Supporting Courses St. Mary's College (Autonomous) Thoothukudi - 628 001.

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Signature of the principal

Principal St. Mary's College (Autonomous) Thoothukudi - 628 001.

Signature of the Examiner

I do hereby declare that the project entitled "MOLECULAR DOCKING STUDIES OF PHYTOMEDICINAL DRUG INHIBITOR IN COPD DISEASE" submitted for the degree of Master of Science in Chemistry is my original work carried out under the guidance of Dr. Mrs. C. ZOZIMUS DIVYA LOBO M.Sc., M.Phil., PhD, Assistant professor, PG Department of Chemistry (SSC), St. Mary's College (Autonomous), Thoothukudi and that it has not previously formed the basis for award of any Degree.

Station: Thoothukudi Date : 22-10-2018

S. Maria C MARIA CHITRA.S

PROSPECTIVE STUDY FOR DRUG DISCOVERY IN ANGIOTENSIN CONVERTING ENZYME

A project submitted to

ST. MARY'S COLLEGE (Autonomous), Thoothukudi.

Affiliated to

MANONMANIAMSUNDARANAR UNIVERSITY, TIRUNELVELI

in partial fulfilment of the award of the degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

MISTIKA.S

Reg.No:17SPCH07

Under the Supervision and Guidance of

Dr. Mrs. C. ZOZIMUS DIVYA LOBO M.SC., M.Phil., Ph.D.,



PG DEPARTMENT OF CHEMISTRY (SSC)

St. Mary's College (Autonomous), Thoothukudi - 628001

This is to certify that this project work entitled "PROSPECTIVE STUDY FOR DRUG DISCOVERY IN ANGIOTENSIN CONVERTING ENZYME" is submitted to St. Mary's College (Autonomous), Thoothukudi affiliated to Manonmaniam Sundaranar university, Tirunelveli in partial fulfillment for the award of the Degree of Master of Science in chemistry and is work done during the year 2017-2018 by MISTIKA.S (Reg.No: 17SPCH07)

C. D-Jakob Signature of the Guide

J. Alt Distoit

Signature of the Director

Self Supportine Courses SL Mary's Chillage (Autonomous) Theod. 1920 - 628 001.

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Signature of the Principal St. Mary's College (Autonemous) Thoothukudi - 628 001.

Signature of the Examiner

the guidance DR. Mrs. C. ZOZIMUS DIVYA LOBO M.Sc., M.Phil., PH.D., Assistant for the degree of Master of Science in Chemistry is my original work carried out under of any Degree. (Autonomous), Thoothukudi and that it has not previously formed the basis for award Professor, PG DEPARTMENT OF CHEMISTRY (SSC), St.Mary's College FOR DRUG DISCOVERY IN ANGIOTENSIN CONVERTING ENZYME" submitted I do here by declare that the project entitled "PROSPECTIVE STUDY

Date:22, 10, 2016

Station: Thoothukudi

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MISTIKAS

Electro catalytic Reduction of Oxygen in 2-Amino-3-Chloro-1, 4-Naphthoquinone solution at PAN1 Modified GCE

A project submitted to

ST. MARY'S COLLEGE (Autonomous), Thoothukudi.

Affiliated to

MANONMANIAMSUNDARANAR UNIVERSITY, TIRUNELVELI

In partial fulfilment of the award of the degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

J.C.NANCY SILVIA

Reg.No:17SPCH08

Under the Supervision and Guidance of

Dr. Mrs. J. Antony Rajam M.SC., M.Phil., SET., Ph.D.



PG DEPARTMENT OF CHEMISTRY (SSC)

St. Mary's College (Autonomous), Thoothukudi - 628001

This is to certify that this project work entitled "Electro catalytic Reduction of Oxygen in 2-Amino-3-Chloro-1,4-Naphthoquinone solution at PANI Modified GCE" is submitted to St. Mary's College (Autonomous), Thoothukudi affiliated to ManonmaniamSundaranar University, Tirunelveli in partial fulfilment for the award of the Degree of Master of Science in Chemistry and is work done during the year 2017 - 2019 by J.C.NANCY SILVIA (Reg. No: 17SPCH08)

J. Anty OL

Signature of the Guide

J. Andry Dialo is Signature of the HOD

Signature of the Direc

Director Self Supporting Courses St. Mary's College (Autonomous) Thoothukudi - 628 001.

Signature of the principal Principal

St. Mary's College (Autonomous) Theothukudi - 628 001.

Signature of the Examiner



I do hereby declare that the project entitled "Electro catalytic Reduction of Oxygen in 2-Amino-3-Chloro-1,4-Naphthoquinone solution at PANI Modified GCE" submitted for the degree of Master of Science in Chemistry is my original work carried out under the guidance of Dr. Mrs. J. Antony Rajam M.Sc.,M.Phil.,SET.,Ph.D. Assistant professor, PG Department of Chemistry (SSC), St. Mary's College (Autonomous), Thoothukudi and that it has not previously formed the basis for award of any Degree.

> J.C. Narcy silvia. J.C.NANCY SILVIA

Station: Thoothukudi

Date : 22.10.2018

• CORROSION INHIBITORS OF MILD STEEL IN THOOTHUKUDI GROUND WATER USING PLANT EXTRACT

A project submitted to

ST. MARY'S COLLEGE (Autonomous), Thoothukudi.

Affiliated to

MANONMANIAMSUNDARANAR UNIVERSITY, TIRUNELVELI

In partial fulfilment of the award of the degree of

MASTER OF SCIENCE IN CHEMISTRY

Submitted by

S.SEYEDALI FATHIMA

Reg.No:17SPCH09

Under the Supervision and Guidance of

Dr. Mrs. J. Antony Rajam M.SC., M.Phil., SET., Ph.D.



PG DEPARTMENT OF CHEMISTRY (SSC)

St. Mary's College (Autonomous), Thoothukudi - 628001

This is to certify that this project work entitled "Corrosion Inhibitors Of Mild Steel In Thoothukudi Ground Water Using Plant Extract" is submitted to St. Mary's College (Autonomous), Thoothukudi affiliated to ManonmaniamSundaranar University, Tirunelveli in partial fulfilment for the award of the Degree of Master of Science in Chemistry and is work done during the year 2017 - 2019 by S.SEYEDALI FATHIMA (Reg. No: 17SPCH09)

J. Anty Signature of the Guide

J. Alt O 22/10/16 Signature of the HOD

Signature of the Director ector

Self Supporting Courses St. Mary's College (Autonomous) Thoothukudi - 628 001.

Signature of the principal Principal

St. Mary's College (Autonomous) 'Thoothukudi - 628 001.

ALWIN Signature of the Examiner

I do hereby declare that the project entitled "Corrosion Inhibitors Of Mild Steel In Thoothukudi Ground Water Using Plant Extract" submitted for the degree of Master of Science in Chemistry is my original work carried out under the guidance of Dr. Mrs. J. Antony Rajam M.Sc., M.Phil., SET., Ph.D. Assistant professor, PG Department of Chemistry (SSC), St. Mary's College (Autonomous), Thoothukudi and that it has not previously formed the basis for award of any Degree.

Station: Thoothukudi

S. Seyedali Fathima S.SEYEDALI FATHIMA

Date: 22.10.2018