FATIMA MATA NATIONAL COLLEGE

(AUTONOMOUS)

Kollam, Kerala, India

Department of Physics

PROJECT REPORT ON

MEASUREMENT OF RADON EXHALATION RATE FROM VARIUOS BUILDING MATERIALS OF SOUTH WEST COAST OF KERALA

Submitted by

AGNIESZKA KIMBERLY ROZARIO

Reg No.P1712001

Submitted to Fatima Mata National College (Autonomous) in partial fulfillment of the requirements for the award of degree of Master of Science in Physics during the academic year 2017-2019

Signature of invigilator:

CERTIFICATE

This is to certify that the Project Report titled **"Measurement of Radon Exhalation Rate from various Building Materials of South West Coast of Kerala"** is a bonafide record of the project work carried out by **AGNIESZKA KIMBERLY ROZARIO** (Reg.No.P1712001) of Fatima Mata National College, Kollam in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN PHYSICS, during the academic year 2017-2019. The project report has been approved as it satisfies the academic requirements in the respect of project work prescribed for the said degree.

Project Guide

Dr. Ben Byju. S

Guest Lecturer

Dept. of Physics

Head of the Department

Prof. V. Vimala

Associate Professor

Dept. of Physics

Place: Kollam

Date:

Examiners:

1. .....

2. .....

FATIMA MATA NATIONAL COLLEGE (AUTONOMOUS),
KOLLAM, KERALA

(NACC Reaccredited at A Level)

PROJECT REPORT (15PPH01)

ON

SYNTHESIS AND CHARACTERIZATION OF ZnO NANOPARTICLES THROUGH VARIATION OF CONCENTRATION

Submitted by

ANUPAMA IGNATIOUS (P1712002)

Under the guidance of

Mr. IGNATIUS J.

In partial fulfillment of the requirements for the award of degree of MASTER OF SCIENCE IN PHYSICS during the academic year 2017- 2019.

Department of Physics

Fatima Mata National College (Autonomous), Kollam, Kerala

FATIMA MATA NATIONAL COLLEGE (AUTONOMOUS),
KOLLAM, KERALA

(NACC Reaccredited at A Level)

DEPARTMENT OF PHYSICS

CERTIFICATE

This is to certify that this Project Report entitled **"SYNTHESIS AND CHARACTERIZATION OF ZnO NANOPARTICLES THROUGH VARIATION OF CONCENTRATION"** is an authentic record of the work carried out by ANUPAMA IGNATIOUS **(P1712002)** in partial fulfillment of the requirements for the award of **Degree of Master of Science in Physics**, under my supervision and guidance.

Project Guide

Mr. IGNATIUS J.
Assistant Professor
Department of Physics

Head of the Department

Prof. V.VIMALA
Associate Professor
Department of Physics

Examiners

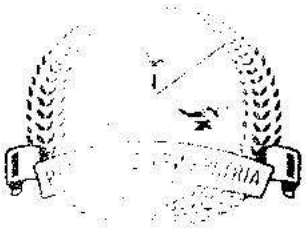
1.

2.

FATIMA MATHA NATIONAL COLLEGE

(AUTONOMOUS)

NAAC Reaccredited A Grade



Kollam, Kerala, India

Department Of Physics

PROJECT REPORT ON

Submitted by

ANUPAMA U B

Reg. No. P1712003

Course Code: 15 PPH01

Submitted to Fatima Mata National College(autonomous) in partial fulfilment of the requirements for the award of degree Master of Science in Physics during the academic year 2017-2019

Signature of invigilator

1.....

2.....

CERTIFICATE

This is to certify that the project entitled " **ESTIMATION OF RADON DOSE RATE USING TWIN CUP DOSIMETER FROM HIGH BACKGROUND RADIATION AREAS OF SOUTHWEST COAST OFKERALA** " is carried out by Anupama U B in the Department of Physics,Fatima Mata National College, Kollam, under my supervision and guidance in the partial fulfilment for the award of the degree of Master of Science in Physics.

Project Guide
Mr. Sunil . A
Assistant Professor
Dept. of Physics

Head of the Department
Ms. V Vimala
Assistant Professor
Dept. of Physics

Date:

Place:Kollam

Fatima Mata National College

(AUTONOMOUS)

Kollam, Kerala, India

DEPARTMENT OF PHYSICS

PROJECT REPORT ON

Study of Radon Exhalation Rate in Soil Samples of South West Coast of Kerala

SUBMITTED BY:

ARCHANA VISWAMBHARAN

(Reg.No.P1712004)

In partial fulfillment of the requirements for the award of degree of **Master of Science in Physics** during the academic year 2017-2019

Signature of the Invigilator:

Fatima Mata National College

(AUTONOMOUS)

Kollam, Kerala, India

CERTIFICATE

This is to certify that the Project Report titled **Study of Radon Exhalation Rate in Soil Samples of South West Coast of Kerala** is a bonafide record of the project work carried out by ARCHANA VISWAMBHARAN (Reg.No.P1712004) of Fatima Mata National College, Kollam in partial fulfillment of the requirements for the award of the degree of MASTER OF SCIENCE IN PHYSICS, during the academic year 2017-2019. The project report has been approved as it satisfies the academic requirements in the respect of project work prescribed for the said degree.

Project Guide

Dr Ben Byju

Dep. of Physics

Examiner 1

19/7/2019

19/7/19

FATIMA MATA NATIONAL COLLEGE
DEPARTMENT OF PHYSICS
KOLLAM

Head of the Department

Ms. Vimala. V

Dep. of Physics

Examiner 2

FATIMA MATA NATIONAL COLLEGE (AUTONOMOUS),
KOLLAM, KERALA

(NACC Reaccredited at A Level)

PROJECT REPORT

ON

SYNTHESIS AND CHARACTERIZATION OF ZnO NANOPARTICLES THROUGH THERMAL GROWTH.

Submitted by

ARYA T PILLAI (P1712005)

Under the guidance of

Mr. IGNATIUS J.

In partial fulfillment of the requirements for the award of degree of MASTER OF SCIENCE IN PHYSICS during the academic year 2017- 2019.

Department of Physics

Fatima Mata National College (Autonomous), Kollam, Kerala

FATIMA MATA NATIONAL COLLEGE (AUTONOMOUS),
KOLLAM, KERALA

(NACC Reaccredited at A Level)

DEPARTMENT OF PHYSICS

CERTIFICATE

This is to certify that this Project Report entitled **"SYNTHESIS AND CHARACTERIZATION OF ZnO NANOPARTICLES THROUGH THERMAL GROWTH "** is an authentic record of the work carried out by ARYA T PILLAI **(P1712005)** in partial fulfillment of the requirements for the award of **Degree of Master of Science in Physics**, under my supervision and guidance.

Project Guide

Mr. IGNATIUS J.
Assistant Professor
Department of Physics

Head of the Department

Prof. V.VIMALA
Associate Professor
Department of Physics

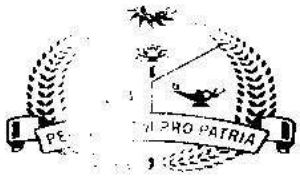
Examiners

1.

2.

EXPERIMENTAL VERIFICATION OF ZEEMAN EFFECT AND CALCULATION OF e/m OF AN ELECTRON

(A project report submitted in partial fulfillment of the requirements for the award of Final Year MSc Physics)



FATIMA MATA NATIONAL COLLEGE (AUTONOMOUS), KOLLAM

Submitted by

BLESSY THOMAS

Candidate Code: P1712006

Under the guidance & supervision of

Mr. IGNATIUS J

CERTIFICATION

This is to certify that the Project work entitled **"EXPERIMENTAL VERIFICATION OF ZEEMAN EFFECT AND CALCULATION OF e/m OF AN ELECTRON"** is bonafide record of Project work done by **Ms. BLESSY THOMAS (P1712006)** towards partial fulfillment of the requirements for the award of the M.Sc. PHYSICS (4th SEMESTER). She has carried out the Project work under my supervision and guidance.

Mr. IGNATIUS J
Project Guide

Ms. VIMALA V
Head of the Department

External Examiners

1)

2)

3)

Determination of e/m and Verification of Polarization using Zeeman Effect

(A Project Report Submitted in partial fulfillment of the requirements for the award of Final year MSc PHYSICS)

FATIMA MATA NATIONAL COLLEGE (AUTONOMOUS), KOLLAM

Submitted by

COLLIN B. NETTAR

Under the guidance and supervision of

Mr. IGNATIUS J

CERTIFICATION

This isto certify that the project work entitled "**Determination of e/m and Verification of Polarization using Zeeman Effect**" submitted by

Ms. COLLIN B NETTAR (P1712007) towards partial fulfillment of the requirements for the award of theMSc PHYSICS (4thSemester) is carried out by her under my supervision and guidance.

Mr. IGNATIUS J

Project Guide

Ms. VIMALA V

Head of the Department

External Examiners

1)

2)

3)

A Study On The Biological Effect Of Mobile Phone Radiation

(A Project Report Submitted in Partial fulfilment Of the requirements for the award of final year M.Sc. PHYSICS)

FATIMA MATA NATIONAL COLLEGE

(Autonomous)

Submitted by

DONA LOUIS

Candidate code: P1712008

Under the guidance and supervision of

Ms.BINDHU SUBIN

BIOSYNTHESIS OF SILVER NANOPARTICLES FROM NATURE'S CHEMICAL FACTORIES

(OCIMUM SANCTUM)

PROJECT REPORT

Submitted to the University of Kerala in partial fulfilment of the requirement of the award of degree of

MASTER OF SCIENCE

In

PHYSICS

By

KEERTHI R.

(Reg. No: P1712009)

Under the guidance of

Dr. SHEENA MARY Y.

(Assistant professor in physics)

DEPARTMENT OF PHYSICS

FATIMA MATA NATIONAL COLLEGE
(AUTONOMOUS)

CERTIFICATE

This is to certify that the project report entitled "BIOSYNTHESIS OF SILVER NANOPARTICLES FROM NATURE'S CHEMICAL FACTORIES" submitted by KEERTHI.R (P1712009) in partial fulfilment for the award of Master Degree of Science in Physics is a bonafide record of the project work by her under my guidance.

Project Guide

Dr. SHEENA MARY Y.

Assistant Professor

Dept. of Physics

Head of the Department

Prof. VIMALA V

Associate Professor

Dept. of Physics

External Invigilator

1.

2.

GREEN SYNTHESIS OF SILVER NANOPARTICLES FROM *AZADIRACHTA INDICA* AQUEOUS LEAF EXTRACT

Project report

Submitted to FATIMA MATA NATIONAL COLLEGE (Autonomous) in the partial fulfillment of the requirements for the award of the degree of

Master Of Science

In

Physics

Lithiya K unni (P1712010)

Under the guidance of

Dr Sheena Mary Y

Assistant professor

Department of physics

FATIMA MATA NATIONAL COLLEGE (AUTONOMOUS)

CERTIFICATE

This is to certify that the project entitled "**Green synthesis of silver nanoparticles from *Azadirachta indica* aqueous leaf extract**" is an authentic record of the project work carried out by **LITHIYA K UNNI (P1712010)** during the period of her study in the Department of Physics, Fatima Mata National College (Autonomous), Kollam, under my supervision and guidance.

Dr Sheena Mary Y.
Guide
Assistant Professor
Department of Physics
Fatima Mata National College
Kollam

Prof. V. Vimala
Head of the Department
Department of Physics
Fatima Mata National College
Kollam

Examiners

1.....

2.....

FATIMA MATA NATIONAL COLLEGE (AUTONOMOUS),
KOLLAM, KERALA

(NACC Reaccredited at A Level)

PROJECT REPORT (15PPH01)

ON

A STUDY OF
SYNTHESIS OF ZnO NANOPARTICLES:
METHOD OF REFLUXING
&
VARIATION OF CONCENTRATION

Submitted by

MARY LIZY P. (P1712011)

Under the guidance of

Mr. IGNATIUS J.

In partial fulfillment of the requirements for the award of degree of MASTER OF SCIENCE IN PHYSICS during the academic year 2017- 2019.

Department of Physics

Fatima Mata National College (Autonomous), Kollam, Kerala

FATIMA MATA NATIONAL COLLEGE (AUTONOMOUS),
KOLLAM, KERALA

(NACC Reaccredited at A Level)

DEPARTMENT OF PHYSICS

CERTIFICATE

This is to certify that this Project Report entitled **"A STUDY OF SYNTHESIS OF ZnO NANOPARTICLES: METHOD OF REFLUXING &VARIATION OF CONCENTRATION"** is an authentic record of the work carried out by MARY LIZY P. **(P1712011)** in partial fulfillment of the requirements for the award of **Degree of Master of Science in Physics**, under my supervision and guidance.

Project Guide

Mr. IGNATIUS J.
Assistant Professor
Department of Physics

Head of the Department

Prof. V.VIMALA
Associate Professor
Department of Physics

Examiners

1.

2.

FATIMA MATA NATIONAL COLLEGE (AUTONOMOUS), KOLLAM, KERALA

(NACC Reaccredited at A Level)

PROJECT REPORT

ON

SYNTHESIS OF ZnO NANOPARTICLES USING THERMAL GROWTH AND CHARACTERIZATION USING XRD & UV

Submitted by

NAHAMIYA CHRISTY (P1712012)

Under the guidance of

Mr. IGNATIUS J.

In partial fulfillment of the requirements for the award of degree of MASTER OF SCIENCE IN PHYSICS during the academic year 2017-2019.

Department of Physics

Fatima Mata National College (Autonomous), Kollam, Kerala

FATIMA MATA NATIONAL COLLEGE (AUTONOMOUS),
KOLLAM, KERALA

(NACC Reaccredited at A Level)

DEPARTMENT OF PHYSICS

CERTIFICATE

This is to certify that this Project Report entitled "SYNTHESIS AND CHARACTERIZATION OF ZnO NANOPARTICLES" is an authentic record of the work carried out by NAHAMIYA CHRISTY(P1712012) in partial fulfillment of the requirements for the award of Degree of Master of science in Physics, under my supervision and guidance.

Project Guide

Mr. IGNATIUS J.
Assistant Professor
Department of Physics

Head of the Department

Prof. V.VIMALA
Associate Professor
Department of Physics

(A project report submitted in partial fulfillment of the requirement for the award of Final Year MSc Physics)

FATIMA MATA NATIONAL COLLEGE (AUTONOMOUS), KOLLAM

Submitted by

VINDHYA KRISHNAN V

CANDIDATE CODE: P1712014

COURSE CODE : 15PPH01

Under the guidance & supervision of

Mr. SUNIL A

JUNE 2019

CERTIFICATION

This is to certify that the Project work entitled "**ESTIMATION OF ANNUAL EFFECTIVE DOSE OF RADON–THORON AND THEIR PROGENY USING PIN-HOLE BASED DOSIMETER** "is bonafide record of Project work done by Miss.VINDHYA KRISHNAN V (P1712014) towards partial fulfillment of the requirements for the award of the M.Sc. PHYSICS(4th SEMESTER). She has carried out the Project work under my supervision and guidance.

Mr. SUNIL A

Project Guide

Ms. VIMALA V

Head of the Department

External Examiners

1)

2)

3)