

1.3.3 QnM Percentage of programmes that have components of field projects / research projects / internships during the last five years.

Programme name	Program Code	Name of students undertaking field projects /internships/student projects	Title	Link to the relevant document
M.Sc Physics	PH02	M.Meshach Britto,	Synthesis And Characterization Of Fe <sub>3</sub> O <sub>4</sub> ,@Nio Core-Shell Nanocomposite By Co-Precipitation Method",	
M.Sc Physics	PH02	T. Kamali	"Synthesis And Characterization Of Pure And Ni, Cu Doped Cds Nano Particles"	
M.Sc Physics	PH02	R.Naveen Kumar	Investigations On The Ammonium Penta Borate Hexa Hydrate Single Crystals Grown By Evaporation And Ctb Technique	
M.Sc Physics	PH02	S.Priyadharshni,	"Growth And Characterization Of 4-Chloroanilinium Hydrogen Phthalate Single Crystal	
M.Sc Physics	PH02	J.Jayasudha	Influence Of Dynamic Pressure In Enhancing The Efficacy Of Doxorubicin	
M.Sc Physics	PH02	Pooja.A	Synthesis And Charecterization Of Pure And Ce-Doped Yttrium Oxide Nanoparticles By Sol-Gel Method	
M.Sc Physics	PH02	R.Santhosh Kumar	Spectroscopic Studies (Ft-Ir, Ft-Raman, Nmr, Uv), Homo-Lumo, Nbo, Nlo Studies Of Dermatological Important Drug Ethyl 4-Hydroxybenzoate By Theoretical Method	
M.Sc	PH02		Synthesis And	

Physics		S.Ajithkumar	Charecterization Of Titanium Zirconium Oxide Nanosphere	
M.Sc Physics	PH02	D. Naveen Rufus	Growth And Characterization Of Two Dimensional $M_2O_3$ Flakes By Chemical Vapour Deposition"	
M.Sc Physics	PH02	B.Sumitra	Synthesis And Characterization Of Zinc Doped Oxide Nanoparticles	
M.Sc Physics	PH02	M. Navaneethan	Effect Of Mn Doping On The Physical, Optical, Magnetic And Dielectric Properties Of Cerium Oxide Nanoparticles"	
M.Sc Physics	PH02	K. Syed Abdul Hanif	Electrical Impedence Analysis Of 4-Bromoaniline Hydrogen Phthalate (Bap) Single Crystal"	
M.Sc Physics	PH02	V.Vidhya	Influence Of Shockwave On The Seed Germination And Physiological Aspects Of Vigna Mungo	
M.Sc Physics	PH02	R, Nithiyavathi	Green Synthesis Of Nickel Oxide Nanoparticles Using Cassia Auriculata Leaf Extract For Antibacterial Application	
M.Sc Physics	PH02	D.S. Poomagal	Effect Of Sr Doping On Structural, Magnetic And Electrical Properties Of Perovskite Lanthanum Manganite Nanoparticles"	
M.Sc Physics	PH02	S.Chiranjeevi,	"Growth And Characterization Of L-Glutamic Acid Doped L-Asaragine (Lalg) Crystal",	
M.Sc Physics	PH02	M. Sowmiya	Green Synthesis Of Copper Oxide Nanoparticles From Terminalia Chebula For	

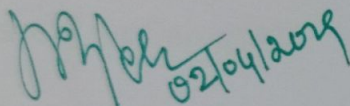
			Antimicrobial Activity	
M.Sc Physics	PH02	S. Saritha	Synthesis And Characterization Of Pure, Ni And Co Doped Yttrium Oxide Nanoparticles By Sol-Gel Method	
M.Sc Physics	PH02	C.Suruthi	Synthesis And Charecterization Of Bao And (Baf <sub>e12</sub> O <sub>19</sub> ) Barium Hexa Ferrite Nanoparticles By Co- Precipitation Method"	
M.Sc Physics	PH02	K.Nivedha	Peanut Cake Mediated Bio Synthesis Of Zinc Oxide Complex And Its Effect In The Agronomical Traits Of Catharanthas Roseus	
M.Sc Physics	PH02	Sarumathi. M	Enhancementof Optical Transparency Of L- Threonine And Copper Sulphate Crystals By Shock Wave Loading Technique"	
M.Sc Physics	PH02	R. Sylvia Reena	Investigation On Dysprosium Substituted Highly Porous Zinc Ferrite Nanocrystals For The Application Of Photo Fenton Activity	
M.Sc Physics	PH02	E.Delhidona	Synthesis And Characterization Of Pure And Ni Doped Zns Nanoparticles"	
M.Sc Physics	PH02	S. Selva Kumaran	"Effect Of Precursor On The Properties Of Cuo Nanoparticles	
M.Sc Physics	PH02	D. Lakshmi	"Bio Synthesis Of Npk Added Iron Oxide Complex Using Neem Cake Extract And Its Influence In The Agronomical Traits Of Vigna Mungo"	

M.Sc Physics	PH02	M.Priyadharshini	"Growth And Characterization Of Sulphamic Acid With Cadmium Chloride Monohydrate Crystal	

\* Certificate for Internships/IPT/Project Work or Certificate Page of Internships/IPT/Project Work report signed by the internal examiner and external examiner.

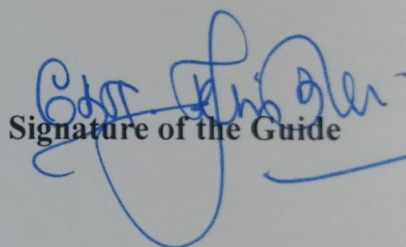
## CERTIFICATE

This is to certify that the dissertation, entitled “**Synthesis and Characterization of Fe<sub>3</sub>O<sub>4</sub>@NiO Core-Shell Nanocomposite by Co-Precipitation Method**”, submitted to Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by M.Meshach Britto, Reg. No. BP170301 during the period of 2018-2019 in the Department of Physics at Sacred Heart College (Autonomous), Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

  
02/04/2019

Signature of the HOD

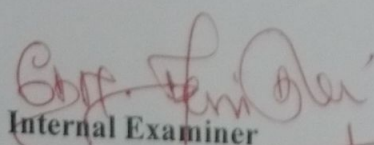
Dr. M. Jose ,  
Head (PG)  
Department of Physics  
Sacred Heart College (Autonomous)  
Tirupattur – 636 601



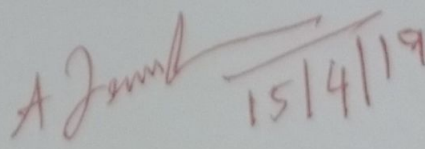
Signature of the Guide

Mr. D.Rajkumar,  
Assistant Professor,  
Department of Physics  
Sacred Heart College (Autonomous)  
Tirupattur – 636 601

Submitted to the SACRED HEART COLLEGE , Tirupattur at the viva-voce examination held on.....15/4/19..

  
Internal Examiner

15/4/19.

  
15/4/19

External Examiner



Mr. C. THIRUPATHY., M.Sc., M.Phil., B.Ed.,  
Assistant Professor of Physics,  
Sacred Heart College (Autonomous),  
Tirupattur - 635 601.

### CERTIFICATE

This to certify that the dissertation, entitled "**Synthesis and characterization of pure and Ni, Cu doped CdS nano particles**" submitted to the Sacred Heart College, Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by **Miss. T. KAMALI (Reg. No: BP170302)** during the period of 2018-2019 of her study in the Department of physics at Sacred Heart College, Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

Signature of the Head

**Dr. M. JOSE**

Head (PG)

Department of Physics

Tirupattur-635 601

Research Supervisor & Guide

**Mr. C. THIRUPATHY**

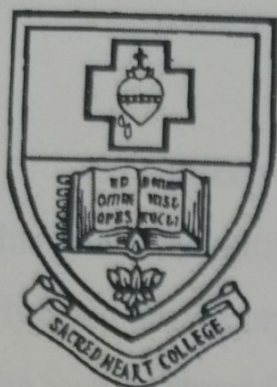
Head (UG)-Shift-II

Department of Physics

Tirupattur-635 601

Examiner - 1

Examiner - 2



Mr. L. ANANDARAJ, M.Sc., M. Phil. B.Ed.,  
Assistant Professor, Department of Physics  
Sacred Heart College (Autonomous)  
Tirupattur-635601

### CERTIFICATE

This is to certify that the dissertation, entitled "Investigations on the Ammonium Penta Borate Hexa Hydrate single crystals grown by evaporation and CTB technique" submitted to the Sacred Heart College, Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by **Naveen Kumar R (Reg. No: BP170303)** during the period of 2018-2019 of her study in the Department of Physics at Sacred Heart College, Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

Signature of the Head

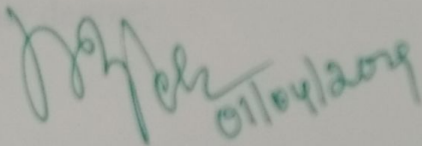
(Dr. M. Jose)

Research Supervisor & Guide

(Mr. L. Anandaraj)

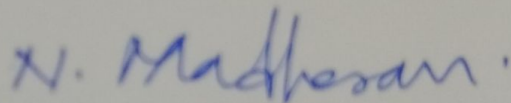
## BONOFIDE CERTIFICATE

This is to certift that this report entitled, "GROWTH AND CHARACTERIZATION OF 4-CHLOROANILINIUM HYDROGEN PHTHALATE SINGLE CRYSTAL" is a bonofide record of the project work done by S.PRIYADHARSHNI, Reg.No.BP170304 during the academic year 2018-2019 in partial fulfillment of the requirement for the award of the "MASTER OF SCIENCE IN PHYSICS"



**Dr.M.JOSE.** M.Sc., M.Phil.,Ph.D.,

HEAD,  
PG and Research Department of physics  
Sacred Heart College,  
Tirupattur 635601.

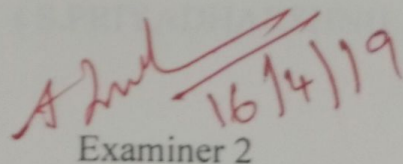


**Mr.N.MADHAVAN.** M.Sc., M.Phil.B.Ed.,

Research supervisor  
Department of physics  
Sacred Heart College,  
Tirupattur 635601.

Submitted to Sacred Heart College (Autonomous), Tirupattur at the viva- voice examination held on 16/11/19.....

Examiner 1

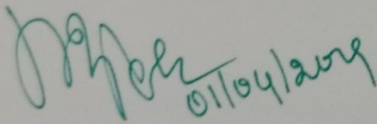


16/11/19  
Examiner 2



## CERTIFICATE

This is to certify that the dissertation entitled "**INFLUENCE OF DYNAMIC PRESSURE IN ENHANCING THE EFFICACY OF DOXORUBICIN**" submitted to the Sacred Heart College (Autonomous), Tirupattur in the partial fulfilment of the requirement for the award of the degree of master of science in physics is a record of original research work done by **J.JAYASUDHA (Reg. No. BP170305)** during the academic year 2017 -2019 under my supervision and guidance, the dissertation has not formed the basis for the award of any degree or other similar title to any candidate of any college and university .



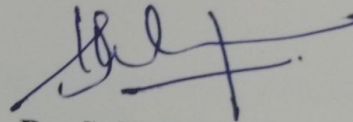
**Dr.M.Jose, M.Sc., M.Phil, Ph.D.,**

Head of the Department,

P G and Research Department of physics

Sacred Heart College(Autonomous),

Tirupattur-635601



**Dr. S .Kalaiarasi**

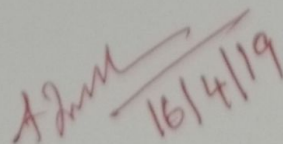
Assistant professor

PG and research Department of Physics

Sacred Heart College(Autonomous),

Tirupattur-635601

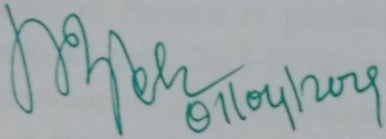
Examiner -1



Examiner -2

## CERTIFICATE

This is to certify the dissertation entitled "SYNTHESIS AND CHARECTERIZATION OF PURE AND Ce-DOPED YTTRIUM OXIDE NANOPARTICLES BY SOL-GEL METHOD" submitted to the sacred heart college (autonomous), Tirupattur in partial fulfillment of the requirement for the award of the degree of Master of Science in Physics is a record of original research work done by POOJA.A (Reg. No. BP170306) during the academic year 2018 - 2019 under my supervision and guidance. The dissertation has not formed the basis for the award of any degree or other similar title to any candidate of any college and university .

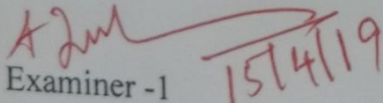


Signature of HOD

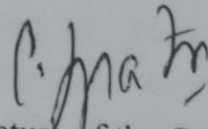
Dr.M.Jose

Department of physics (P.G)

Tirupattur -635601



Examiner -1 15/4/19

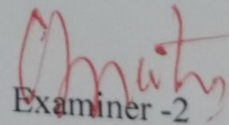


Signature of the Guide

Prof.C.Thirupathy

Department of physics

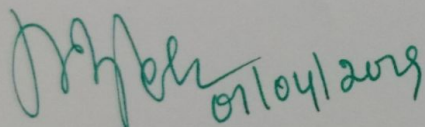
Tirupattur -635601



Examiner -2

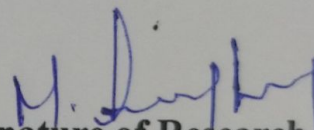
## CERTIFICATE

This is to certify that the dissertation, entitled “*SPECTROSCOPIC STUDIES (FT-IR, FT-RAMAN, NMR, UV), HOMO-LUMO, NBO, NLO STUDIES OF DERMATOLOGICAL IMPORTANT DRUG ETHYL 4-HYDROXYBENZOATE BY THEORETICAL METHOD*”, submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics in a record of original research work done by **R.SANTHOSH KUMAR**, (Reg. No : BP170307) during the period of 2018 – 2019 of his study in the Department of Physics at Sacred Heart College (Autonomous), Tirupattur, under my guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.



**Signature of the HOD**

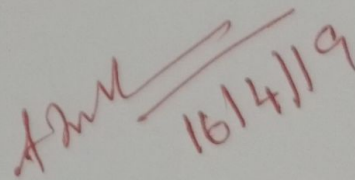
(Dr. M. Jose)



**Signature of Research Guide**

(Mr. M. Aravinthraj)

Examiner – 1



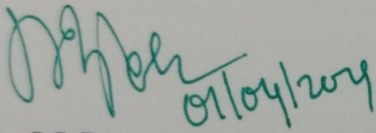
Examiner – 2

Place: Tirupattur,

Date:

## CERTIFICATE

This is to certify the dissertation entitled "SYNTHESIS AND CHARECTERIZATION OF TITANIUM ZIRCONIUM OXIDE NANOSPHERE" submitted to the sacred heart college (Autonomous), Tirupattur in the partial fulfillment of the requirement for the for the award of the degree of master of science in physics is a record of original research work done by **S.Ajithkumar** (Reg. No. **BP170308**) during the academic year 2018 -2019 under my supervision and guidance, the dissertation has not formed the basis for the award of any degree or other similar title to any candidate of any college and university.



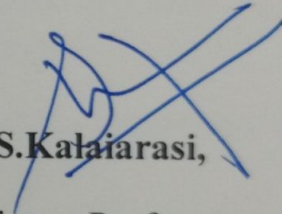
**Dr.M.Jose,**

Head of the Department,

PG and Research Department of Physics,

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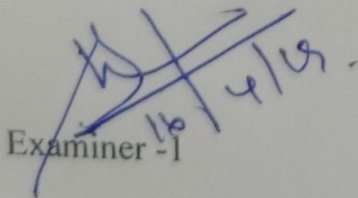
**Dr.S.Kalaiarasi,**

Assistant Professor,

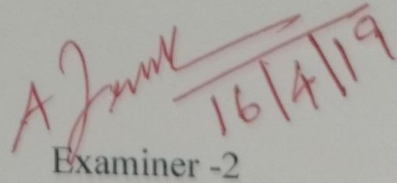
PG and Research Department of Physics,

Sacred Heart College (Autonomous),

Tirupattur-635601



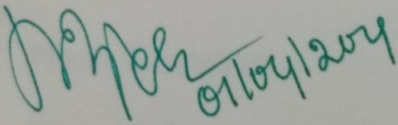
Examiner -1



Examiner -2

## CERTIFICATE

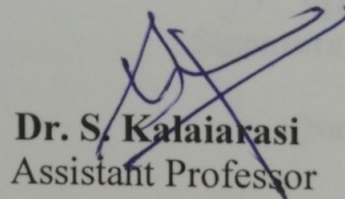
This is to certify that the dissertation, entitled “**Growth and Characterization of Two Dimensional MoO<sub>3</sub> Flakes by Chemical Vapour Deposition**”, submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfilment of the requirements for the award of the Degree of Master of Science in Physics is a record of the original research work done by **D. Naveen Rufus, Reg. No. BP170309** during the period of June 2018-march 2019 of his study in the Department of Physics at Sacred Heart College (Autonomous), Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.



**Dr. M. Jose**  
Head of the Department (PG)

Sacred Heart College (Autonomous)

Tirupattur – 635 601



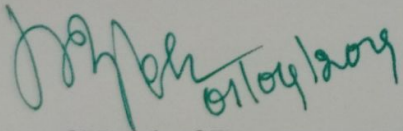
**Dr. S. Kalaiarasi**  
Assistant Professor

Sacred Heart College (Autonomous)

Tirupattur – 635 601

## CERTIFICATE

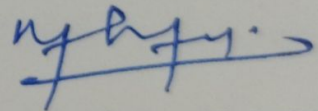
This is to certify that the dissertation entitled "SYNTHESIS AND CHARACTERIZATION OF ZINC DOPED COPPER OXIDE NANOPARTICLES" submitted to Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the degree of Master of Science in Physics is a bonafide record of the project work done by B.SUMITRA(Reg. No. BP170310) under my guidance and supervision during 2018-2019 in the department of Physics, Sacred Heart College (Autonomous), Tirupattur and this dissertation has not formed the basis for the award of any Degree/ Diploma/ Fellowship or other similar title to any candidate in any university.



Signature of Head of Department (PG)

**Dr. M. Jose M.Sc.,M.Phil.,Ph.D.,**

**Assistant Professor**

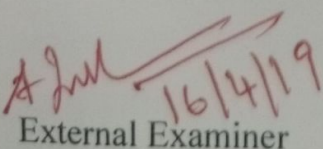


Research supervisor and Guide

**Mr. D. MagimaiAntoni Raj M.Sc., M.Phil.,B.Ed.,Ph.D.,**

**Assistant Professor**

Submitted to Sacred Heart College (Autonomous), Tirupattur at the viva-voce examination held on 16/4/19

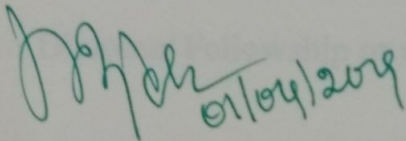


External Examiner

Internal Examiner

## CERTIFICATE

This is to certify that the dissertation entitled "Effect of Mn Doping on the Physical, Optical, Magnetic and Dielectric Properties of Cerium Oxide Nanoparticles" submitted to Sacred Heart College (Autonomous), Tirupattur in partial fulfilment of the requirements for the award of the degree of Master of Science in Physics is a bonafide record of the project work done by **M. Navaneethan (Reg. No. BP170311)** under my guidance and supervision during 2018-2019 in the Department of physics, Sacred Heart College (Autonomous), Tirupattur and this dissertation has not formed the basis for the award of any Degree/ Diploma/ Fellowship or other similar title to any candidate in any university.

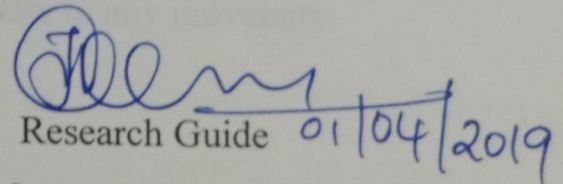


Signature of Head of Department

**Dr. M. Jose, M.Sc., M.Phil. Ph.D.**

HOD, PG & Research Department of Physics

Sacred Heart College (Autonomous)



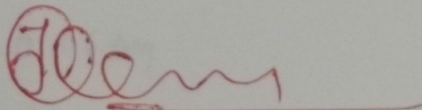
Research Guide

**Mr. G. Jayakumar, M.Sc, M.Phil., ME.**

Assistant Professor,

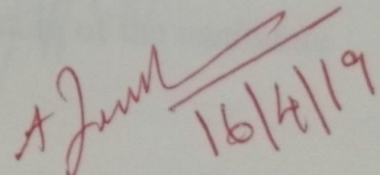
Department of Physics, SHC

Submitted to Sacred Heart College (Autonomous), Tirupattur at the viva-voce examination held on \_\_\_\_\_



Internal Examiner

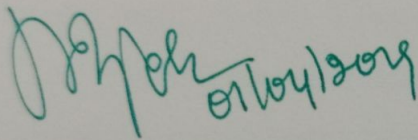
16/04/2019



External Examiner

## CERTIFICATE

This is to certify that the dissertation entitled "ELECTRICAL IMPEDENCE ANALYSIS OF 4-BROMOANILINE HYDROGEN PHTHALATE (BAP) SINGLE CRYSTAL" submitted to Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the degree of Master of Science in Physics is a bonafide record of the project work done by **K. SYED ABDUL HANIF (Reg. No. BP170314)** under my guidance and supervision during 2018-2019 in the department of physics, Sacred Heart College (Autonomous), Tirupattur and this dissertation has not formed the basis for the award of any Degree/ Diploma/ Fellowship or other similar title to any candidate in any university.

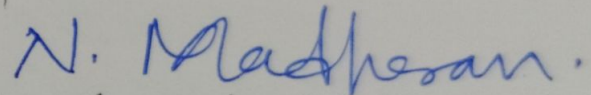


Signature of Head of Department

**Dr. M. JOSE. M.Sc., M.Phil., Ph.D.**

HOD, PG & Research Department of Physics

Sacred Heart College (Autonomous)



Research supervisor & Guide

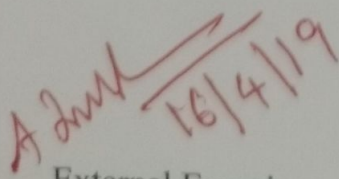
**Mr. N. MADHAVAN, M.Sc., M.Phil.**

Assistant Professor

Department of Physics, SHC

Submitted to Sacred Heart College (Autonomous), Tirupattur at the viva-voce examination

held on 16/4/19



External Examiner

Internal Examiner





Mr. R. RAMESH, M.Sc., M.Phil., B.Ed.,(Ph.D)

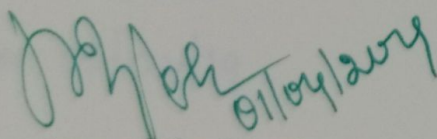
Assistant Professor of Physics,

Sacred Heart College (Autonomous),

Tirupattur - 635 601.

### CERTIFICATE

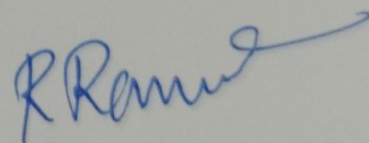
This to certify that the dissertation, entitled "INFLUENCE OF SHOCKWAVE ON THE SEED GERMINATION AND PHYSIOLOGICAL ASPECTS OF VIGNA MUNGO" submitted to the Sacred Heart college, Tirupattur in partial fulfilment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by **Miss. V.VIDHYA(Reg. No: BP170315)** during the period of 2018-2019 of her study in the Department of physics at Sacred Heart College, Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

  
01/04/2019

Signature of the Head

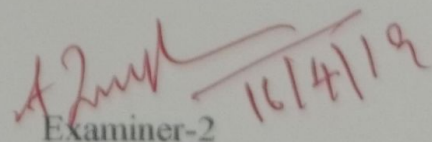
(Dr. M. JOSE)

Examiner-1



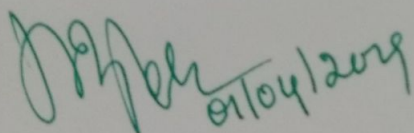
Research Supervisor & Guide

(Mr. R. RAMESH)

  
16/4/19  
Examiner-2

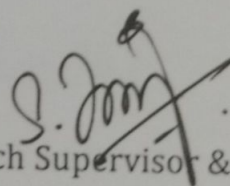
## CERTIFICATE

This is certify that the dissertation, entitled "GREEN SYNTHESIS OF NICKEL OXIDE NANOPARTICLES USING CASSIA AURICULATA LEAF EXTRACT FOR ANTIBACTERIAL APPLICATION" submitted to the Sacred Heart College (Autonomous), Tirupattur in the partial fulfilment of the requirement for the award of the degree of Master of Science in Physics is a record of original research work done by NITHIYAVATHI.R (Reg.No.BP170316) during the academic year 2018-2019 under my supervision and guidance, the dissertation has not formed the basis for the award of any degree or other similar title to any candidate of any college and university.



Signature of the HOD

Dr. M. Jose,  
PG Head & Assistant professor  
Department of Physics  
Tirupattur-635601.



Research Supervisor & Guide

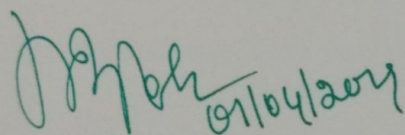
Dr. S. John Sundaram,  
Assistant professor  
Department of Physics  
Tirupattur-635601.

Place:

Date :

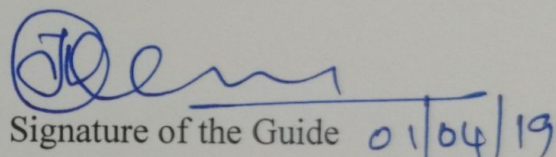
## CERTIFICATE

This is to certify that the dissertation, entitled “EFFECT OF Sr DOPING ON STRUCTURAL, MAGNETIC AND ELECTRICAL PROPERTIES OF PEROVSKITE LANTHANUM MANGANITE NANOPARTICLES” submitted to the Sacred Heart College (Autonomous) Tirupattur, in partial fulfillment of the requirement for the award of the degree of Master of Science in Physics is a record of original research work done by **D.S. POOMAGAL (Reg. No. BP170317)** during the academic year 2018-2019 of her study in the Department of Physics at Sacred Heart College (Autonomous) Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any degree or other similar title to any candidate of any colleges and universities.



Signature of the Head

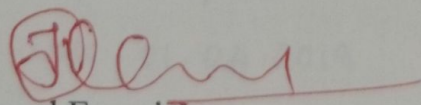
(Dr. M. Jose)



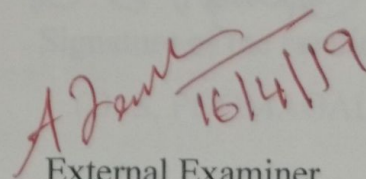
Signature of the Guide

(Mr. G. Jayakumar)

Submitted to Sacred Heart College (Autonomous) Tirupattur, at the viva-voice examination held on



Internal Examiner



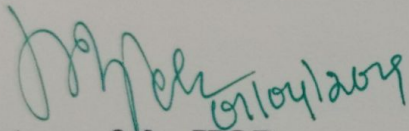
External Examiner

Place : Tirupattur

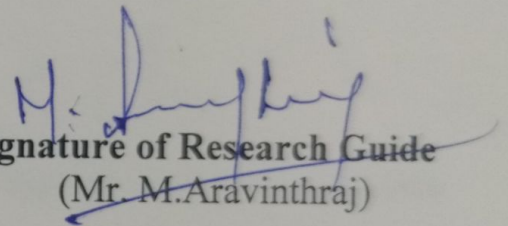
Date : 16/4/19

## CERTIFICATE

This is to certify that the dissertation, entitled “**GROWTH AND CHARACTERIZATION OF L-GLUTAMIC ACID DOPED L-ASARAGINE (LALG) CRYSTAL**”, submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by **S.Chiranjeevi, (Reg. No:BP170318)** during the period of 2017-2018 of her study in the Department of Physics at Sacred Heart College (Autonomous), Tirupattur, under my guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.



**Signature of the HOD**  
(Dr. M. Jose)



**Signature of Research Guide**  
(Mr. M. Aravinthraj)

Examiner 1

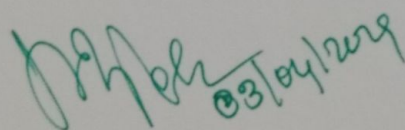
*A. S. S.*  
16/4/19  
Examiner 2

Place: Tirupattur,

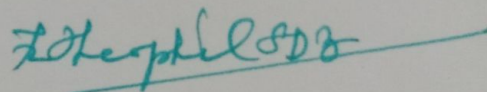
Date:

## BONAFIDE CERTIFICATE

This is to certify that the dissertation, entitled "GREEN SYNTHESIS OF COPPER OXIDE NANOPARTICLES FROM TERMINALIA CHEBULA FOR ANTIMICROBIAL ACTIVITY" submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfilment of the requirement for the Degree of Master of Science in Physics is a record of original research work done by **M. Sowmiya**, **Reg.No. BP170319** during the period 2018-2019 of her study in the department of physics, Sacred Heart College (Autonomous), Tirupattur under my supervision and guidance. The dissertation has not formed the basis for the award of any degree of similar title to any candidate of my College or University.

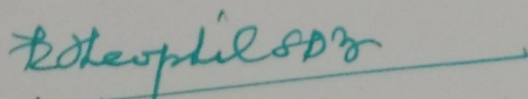
  
03/04/2019

Dr. M. Jose  
Head of the Department (PG),  
Sacred Heart College (Autonomous),  
Tirupattur-635 601

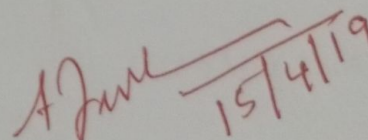


Rev. Dr. G. Theophil Anand,  
Assistant Professor,  
Sacred Heart College (Autonomous),  
Tirupattur-635601

Submitted to **Sacred Heart College (Autonomous), Tirupattur** at the Viva-voce examination held on

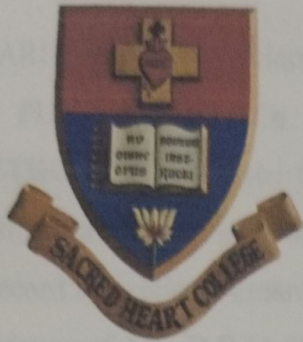


Examiner-1

  
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Examiner-2

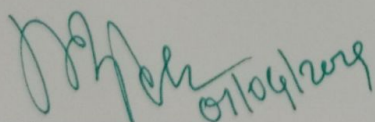
**Rev. Dr. G. Theophil Anand, M.Sc., Ph.D.**  
**Asst. Professor & Supervisor**  
**PG & Research Dept. of Physics**  
**Sacred Heart College (Autonomous),**  
**Tirupattur - 635 601**  
**Vellore District, Tamil Nadu.**



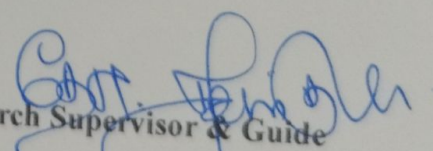
Mr. D. RAJ KUMAR, M.Sc., M.Phil.,  
Assistant Professor of Physics,  
Sacred Heart College (Autonomous),  
Tirupattur - 635 601.

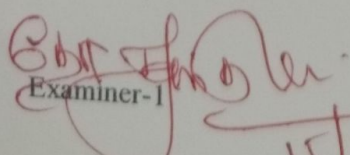
### CERTIFICATE

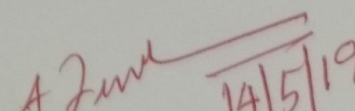
This to certify that the dissertation, entitled "**SYNTHESIS AND CHARACTERIZATION OF PURE, Ni AND Co DOPED YTTRIUM OXIDE NANOPARTICLES BY SOL-GEL METHOD**" submitted to the Sacred Heart college, Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by **S. SARITHA (Reg. No: BP170320)** during the period of 2018-2019 of her study in the Department of physics at Sacred Heart College, Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

  
Signature of the Head

(Dr. M. JOSE)

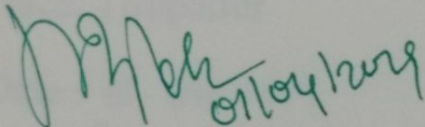
  
Research Supervisor & Guide  
(Mr. D. RAJ KUMAR)

  
Examiner-1  
15/5/19.

  
Examiner-2  
14/5/19

## CERTIFICATE

This is to certify the dissertation entitled “SYNTHESIS AND CHARECTERIZATION OF BaO AND (BaFe<sub>12</sub>O<sub>19</sub>) Barium Hexa Ferrite NANOPARTICLES BY CO-PRECIPITATION METHOD” submitted to the sacred heart college (autonomous), Tirupattur in partial fulfillment of the requirement for the award of the degree of Master of Science in Physics is a record of original research work done by SURUTHI.C (Reg. No. BP170321) during the academic year 2018 -2019 under my supervision and guidance,.The dissertation has not formed the basis for the award of any degree or other similar title to any candidate of any college and university.



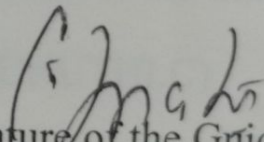
Signature of HOD

Dr .M. Jose

Department of physics (P.G)

Tirupattur -635601

Examiner -1

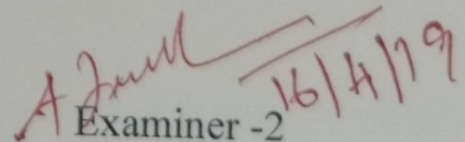


Signature of the Guide

Prof.C.Thirupathy

Department of physics

Tirupattur -635601



Examiner -2



Mr. R. RAMESH, M.Sc., M.Phil., B.Ed.,(Ph.D)

Assistant Professor of Physics,

Sacred Heart College (Autonomous),

Tirupattur - 635 601.

### CERTIFICATE

This to certify that the dissertation, entitled "PEANUT CAKE MEDIATED BIO SYNTHESIS OF ZINC OXIDE COMPLEX AND ITS EFFECT IN THE AGRONOMICAL TRAITS OF CATHARANTHAS ROSEUS" submitted to the Sacred Heart college, Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by Miss. K.NIVEDHA (Reg. No: BP170322) during the period of 2018-2019 of her study in the Department of physics at Sacred Heart College, Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.'

Signature of the Head

(Dr. M. JOSE)

Examiner-1

Research Supervisor & Guide

(Mr. R. RAMESH)

Examiner-2





Dr . S.A. Martin Britto Dhas  
Assistant Professor of Physics, Department of  
Physics, Sacred Heart College (Autonomous),  
Tirupattur-635 601.

### CERTIFICATE

This is to certify that the dissertation, entitled "Enhancement of Optical Transparency of L-Threonine and Copper Sulphate Crystals by Shock Wave Loading Technique" submitted to the Sacred Heart College, Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by **Sarumathi. M (Reg. No: BP170323)** during the period of 2018-2019 of her study in the Department of Physics at Sacred Heart College, Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

Signature of the Head

(Dr. M. Jose)

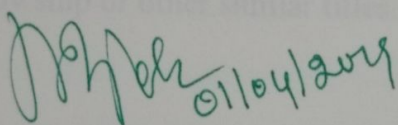
Research Supervisor & Guide

(Dr. S.A. Martin Britto Dhas)

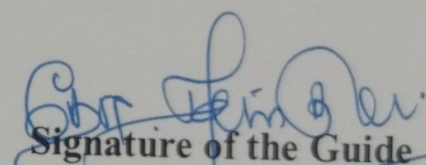
**Dr. S.A. Martin Britto Dhas,**  
Assistant Professor,  
PG & Research Dept. of Physics,  
Sacred Heart College,  
Tirupattur-635 601. Vellore District.

## CERTIFICATE

This is to certify that this report entitled “Investigation on Dysprosium substituted highly porous Zinc Ferrite Nanocrystals for the application of Photo Fenton activity” is a bonafide record of the project work done by **R. SYLVIA REENA, Reg.No: BP170325** during the academic year 2018-2019 in the partial fulfillment of the award of degree of **Master of Science in Physics.**

  
Signature of HOD

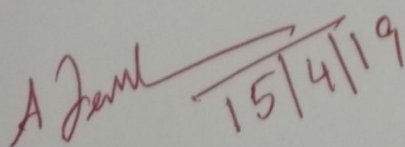
**Dr. M. Jose**  
Head (PG)  
Department of Physics  
Sacred Heart College  
Tirupattur-635 601

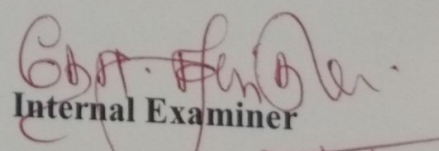
  
Signature of the Guide

**Mr. D. Rajkumar**  
Assistant Professor  
Department of Physics  
Sacred Heart College  
Tirupattur-635 601

Submitted to the SACRED HEART COLLEGE, Tirupattur at the viva-voce examination held on

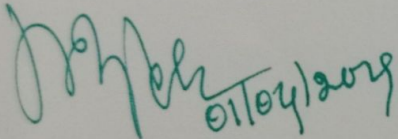
.....15/4/19.

  
External Examiner

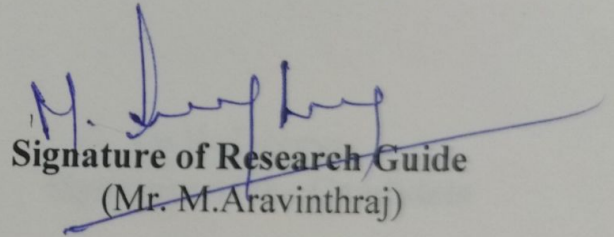
  
Internal Examiner  
15/4/19

## CERTIFICATE

This is to certify that the dissertation, entitled “SYNTHESIS AND CHARACTERIZATION OF PURE AND NI DOPED ZNS NANOPARTICLES”, submitted to the Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by E.DELHIDONA (Reg. No: BP170326) during the period of 2018-2019 of her study in the Department of Physics at Sacred Heart College (Autonomous), Tirupattur, under my guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

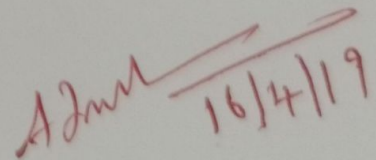


Signature of the HOD  
(Dr. M. Jose)



Signature of Research Guide  
(Mr. M. Aravinthraj)

Examiner 1



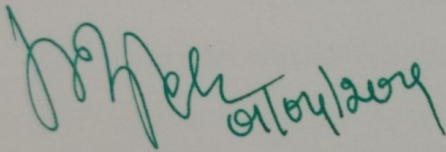
Examiner 2

Place: Tirupattur,

Date:

## CERTIFICATE

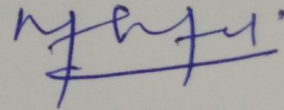
This is to certify that the dissertation entitled "Effect of precursor on the properties of CuO Nanoparticles" submitted to Sacred Heart College (Autonomous), Tirupattur in partial fulfillment of the requirements for the award of the degree of Master of Science in Physics is a bonafide record of the project work done by **S. Selva Kumaran (Reg. No. BP170327)** under my guidance and supervision during 2018-2019 in the department of Physics, Sacred Heart College (Autonomous), Tirupattur and this dissertation has not formed the basis for the award of any Degree/ Diploma/ Fellowship or other similar title to any candidate in any university.



Signature of Head of Department (PG)

**Dr. M. Jose M.Sc.,M.Phil.,Ph.D.**

**Assistant Professor**

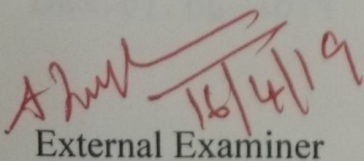


Research supervisor and Guide

**Mr. D. Magimai Antoni Raj M.Sc., M.Phil. B.Ed.,(P.hD)**

**Assistant Professor**

Submitted to Sacred Heart College (Autonomous), Tirupattur at the viva-voce examination held on 16/4/19



External Examiner

Internal Examiner



Mr. R. RAMESH, M.Sc., M.Phil., B.Ed.,(Ph.D)

Assistant Professor of Physics,

Sacred Heart College (Autonomous),

Tirupattur - 635 601.

### CERTIFICATE

This to certify that the dissertation, entitled “BIO SYNTHESIS OF NPK ADDED IRON OXIDE COMPLEX USING NEEM CAKE EXTRACT AND ITS INFLUENCE IN THE AGRONOMICAL TRAITS OF *VIGNA MUNGO*” submitted to the Sacred Heart College, Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done By **Miss. D. LAKSHMI (Reg. No: BP170328)** during the period of 2018-2019 of her study in the Department of physics at Sacred Heart College, Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

Signature of the Head

(Dr. M. JOSE)

Research Supervisor & Guide

(Mr. R. RAMESH)

Examiner-1

Examiner-2



Mr.L.ANANDARAJ, M.Sc., M.Phil., B.Ed.,(Ph.D)  
Assistant Professor of Physics, Sacred Heart College  
(Autonomous), Tirupattur-635 601.

### CERTIFICATE

This to certify that the dissertation, entitled "**Growth and characterization of Sulphamic acid with Cadmium chloride monohydrate crystal**" submitted to the Sacred Heart college, Tirupattur in partial fulfillment of the requirements for the award of the Degree of Master of Science in Physics is a record of original research work done by **Miss. M.Priyadharshini (Reg.No:BP170329)** during the period of 2018-2019 of her study in the Department of physics at Sacred Heart College, Tirupattur, under my supervision and guidance and the dissertation has not formed the basis for the award of any Degree or other similar title to any candidate of any colleges and Universities.

Signature of the Head

(Dr. M. JOSE)

Examiner-1

Research Supervisor & Guide

(Prof. L. Anandaraj)

Examiner-2