

**GROWTH AND CHARACTERIZATION OF LITHIUM AMMONIUM
SULPHATE INORGANIC NONLINEAR OPTICAL SINGLE CRYSTALS**

Project submitted to

A.V.V.M. SRI PUSHPAM COLLEGE (AUTONOMOUS)

Affiliated to **BHARATHIDASAN UNIVERSITY, Tiruchirappalli.**

In partial fulfillment of requirements for

The award of the degree of

MASTER OF PHILOSOPHY

**IN
PHYSICS**

Submitted by

N. GANAPATHY SUBRAMANIAN

Reg.No: 18 PHB 701

Under the Guidance of

Dr. R. MANIMEKALAI, M.Sc., M.Phil., Ph.D.,

ASSOCIATE PROFESSOR OF PHYSICS



P.G & RESEARCH DEPARTMENT OF PHYSICS,

A.V.V.M. SRI PUSHPAM COLLEGE (AUTONOMOUS),

POONDI – 613503,

THANJAVUR.

DECEMBER 2020

**EMBEDDED SYSTEM BASED (ATMEGA64) INFRA-
RED LIGHT RADIATION DETECTION OF OBJECT
USING MOTION SENSOR (PIR)**

Dissertation submitted to the BHARATHIDASAN UNIVERSITY,
THIRUCHIRAPPALLI
in partial fulfillment of the requirements for the award of the degree of

MASTER OF PHILOSOPHY IN PHYSICS

By

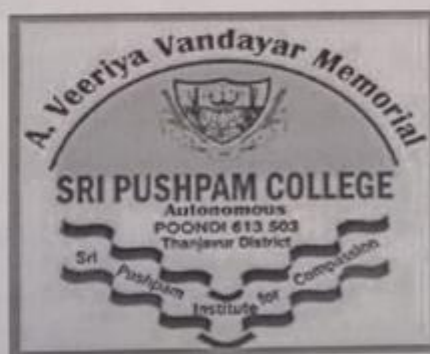
S.AROCKIA RAJKUMAR

Reg. No.18PHB702

Research Supervisor and Guide

Dr. K. MURUGANANTHAN, M.Sc., M.Phil., Ph.D.,

Assistant Professor of Physics



**A.V.V.M SRI PUSHPAM COLLEGE (AUTONOMOUS),
POONDI-613 503, THANJAVUR DT.**

DECEMBER-2020

**PHOTOCATALYTIC DEGRADATION OF MB DYE USING SnO₂
NANOPOWDERS**

Dissertation submitted to the
BHARATHIDASAN UNIVERSITY, THIRUCHIRAPPALLI

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

MASTER OF PHILOSOPHY IN PHYSICS

Submitted

By

B. ELAVARASAN

Reg. No: 18PHE703

Under the guidance of

Dr. K. RAVICHANDRAN, M.Sc., M.Ed., M.Phil., PGDCA, PGDEA, Ph.D.,
Associate Professor and Head



**PG & RESEARCH DEPARTMENT OF PHYSICS
A.V.V.M SRI PUSHPAM COLLEGE (AUTONOMOUS)**

POONDI-613 503

DECEMBER-2020

**PHOTOCATALYTIC DYE DECOMPOSITION OF MG DYE
USING TiO_2 : EFFECT OF MO DOPING**

Dissertation submitted to the
BHARATHIDASAN UNIVERSITY, THIRUCHIRAPPALLI
In partial fulfilment of the requirements
for the award of the degree of

MASTER OF PHILOSOPHY IN PHYSICS

Submitted

By

G. MARIMUTHU

Reg. No: 18PHB704

Under the guidance of

Dr. B. SAKTHIVEL, M.Sc., M.Phil., PGDCA., Ph.D.,

Associate Professor of Physics



**PG & RESEARCH DEPARTMENT OF PHYSICS
A.V.V.M SRI PUSHPAM COLLEGE (AUTONOMOUS)**

POONDI-613 503

DECEMBER-2020

**STUDIES ON THE GROWTH AND CHARACTERIZATION OF L-ASPARTIC
DOPED MAGNESIUM SULPHATE SINGLE CRYSTALS**

A Dissertation Submitted to
A.V.V.M. Sri Pushpam College (Autonomous) Poondi,
Affiliated to Bharathidasan University, Tiruchirappalli
in partial fulfillment of the requirements for the award of the Degree of

MASTER OF PHILOSOPHY IN PHYSICS

Submitted by

S. AYYANAN

Reg. No: 18PHB705

Under the guidance of

Dr. G.PASUPATHI, M.Sc., M.Phil., Ph.D.,

Assistant Professor of Physics



PG AND RESEARCH DEPARTMENT OF PHYSICS

A.V.V.M. SRI PUSHPAM COLLEGE (AUTONOMOUS)

POONDI, THANJAVUR DISTRICT-613 503.



Shot on Y15

Vivo AI camera November - 2020

2021.04.22 11:46

**“STRUCTURAL, MORPHOLOGICAL AND OPTICAL PROPERTIES OF
PURE AND NiO COUPLED TIN DISULFIDE NANOPARTICLES”**

Dissertation submitted to
A.V.V.M. Sri Puspham College (Autonomous), Poondi
Affiliated to Bharathidasan University, Thiruchirapalli
in partial fulfillment of the requirements
for the award of the Degree of

MASTER OF PHILOSOPHY IN PHYSICS

Submitted
By

RELAYAKUMAR
REG.NO. 18PHB706

Under The Guidance of

Dr. V.S. NAGARETHINAM, M.Sc., MPhil., Ph.D.,

and

Co-Guidance of

Dr. A.R. BALU, M.Sc., MPhil., Ph.D.,



**P.G. AND RESEARCH DEPARTMENT OF PHYSICS
A.V.V.M. SRI PUSHPAM COLLEGE (AUTONOMOUS)
POONDI – 613503
THANJAVUR DISTRICT**

DECEMBER – 2020

**"STUDIES ON THE STRUCTURAL, MORPHOLOGICAL AND LUMINESCENT
PROPERTIES OF $\text{SnS}_2\text{-CdS}$ AND $\text{SnS}_2\text{-ZnS}$ NANOCOMPOSITE "**

Dissertation submitted to
A.V.V.M. Sri Puspham College (Autonomous), Poondi
Affiliated to Bharathidasan University, Thiruchirapalli
in partial fulfillment of the requirements
for the award of the Degree of

MASTER OF PHILOSOPHY IN PHYSICS

Submitted
By

S. KAVINILAVAN
REG.NO. 18PHB707

Under The Guidance of

Dr. A.R. BALU, M.Sc., M.Phil., Ph.D.,



**P.G. AND RESEARCH DEPARTMENT OF PHYSICS
A.V.V.M. SRI PUSHPAM COLLEGE (AUTONOMOUS)
POONDI – 613503
THANJAVUR DISTRICT**

DECEMBER – 2020

**“GROWTH AND CHARACTERIZATION OF POTASSIUM TRIS
THIOUREA SULPHATE DOPED L- LEUCINE SINGLE CRYSTALS”**

Project submitted to
A.V.V.M, SRI PUSHPAM COLLEGE (AUTONOMOUS)
Affiliated to BHARATHIDASAN UNIVERSITY, Tiruchirappalli.

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

MASTER OF PHILOSOPHY
IN
PHYSICS

Submitted by

R.RAJU

Reg.No: 18 PHB 708

Under the Guidance of

Dr. R. MANIMEKALAI, M.Sc., M.Phil., Ph.D.,
ASSOCIATE PROFESSOR OF PHYSICS



P.G & RESEARCH DEPARTMENT OF PHYSICS,

A.V.V.M SRI PUSHPAM COLLEGE (AUTONOMOUS),

POONDI – 613503,

THANJAVUR.

2018-2020

Dr. R. MANIMEKALAI, M.Sc., M.Phil., Ph.D.,
ASSOCIATE PROFESSOR OF PHYSICS,
A.V.V.M. SRI PUSHPAM COLLEGE (AUTONOMOUS),
POONDI-613503, THANJAVUR DT.

**TITANIUM OXIDE NANOSTRUCTURES FOR EFFECTIVE
DEGRADATION OF TOXIC ORGANIC DYES**

Dissertation submitted to the
BHARATHIDASAN UNIVERSITY, THIRUCHIRAPPALLI
In partial fulfilment of the requirements
for the award of the degree of

MASTER OF PHILOSOPHY IN PHYSICS

Submitted

By

S. ANITHA

Reg. No: 18PHB751

Under the guidance of

Dr. K. RAVICHANDRAN, M.Sc., M.Ed., M.Phil., Ph.D.,

Co-ordinator & Associate Professor



**PG & RESEARCH DEPARTMENT OF PHYSICS
A.V.V.M SRI PUSHPAM COLLEGE (AUTONOMOUS)**

**POONDI-613 503
DECEMBER-2020**

**EFFECT OF MO DOPING ON THE PHOTOCATALYTIC
ACTIVITY OF TINOXIDE NANOPOWDERS**

Dissertation submitted to the
BHARATHIDASAN UNIVERSITY, THIRUCHIRAPPALLI

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

MASTER OF PHILOSOPHY IN PHYSICS

Submitted

By

M. SELVALAKSHMI

Reg. No: 18PHB752

Under the guidance of

Dr. B. SAKTHIVEL, M.Sc., M.Phil, PGDCA, Ph.D.



PG & RESEARCH DEPARTMENT OF PHYSICS
A.V.V.M SRI PUSHPAM COLLEGE (AUTONOMOUS)

POONDI-613 503

DECEMBER 2020

**SYNTHESIS, GROWTH AND CHARACTERIZATION OF L-ASCORBIC
AMMONIUM BROMIDE NONLINEAR OPTICAL SINGLE CRYSTAL**

A Dissertation Submitted to

A.V.V.M. Sri Pushpam College (Autonomous) Poondi,

Affiliated to Bharathidasan University, Tiruchirappalli

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

MASTER OF PHILOSOPHY IN PHYSICS

Submitted by

S.P. AMALA

Reg. No: 18PHB753

Under the guidance of

Dr. G.PASUPATHI, M.Sc.,M.Phil.,Ph.D.,

Associate professor in Physics



PG AND RESEARCH DEPARTMENT OF PHYSICS

A.V.V.M. SRI PUSHPAM COLLEGE (AUTONOMOUS)

POONDI, THANJAVUR DISTRICT-613 503.

November – 2020

**“SYNTHESIS AND CHARACTERIZATION OF PURE AND MAGNETITE
COUPLED CdO NANOPARTICLES”**

Dissertation submitted to
A.V.V.M. Sri Puspham College (Autonomous), Poondi
Affiliated to Bharathidasan University, Thiruchirapalli
in partial fulfillment of the requirements
for the award of the Degree of

MASTER OF PHILOSOPHY IN PHYSICS

Submitted
By

P. AYESHANILOFER
REG.NO. 18PHB754

Under The Guidance of

Dr. V.S. NAGARETHINAM, M.Sc., MPhil., Ph.D.,(Rtd)

and

Co-Guide of

Dr. A.R. BALU, M.Sc., MPhil., Ph.D.,



P.G. AND RESEARCH DEPARTMENT OF PHYSICS
A.V.V.M. SRI PUSHPAM COLLEGE (AUTONOMOUS)
POONDI – 613503
THANJAVUR DISTRICT

**“SYNTHESIS AND CHARACTERIZATION OF CdO-TiO₂-CuO
TERNARY NANOCOMPOSITE ”**

Dissertation submitted to
A.V.V.M. Sri Puspham College (Autonomous), Poondi
Affiliated to Bharathidasan University, Thiruchirapalli
in partial fulfillment of the requirements
for the award of the Degree of

MASTER OF PHILOSOPHY IN PHYSICS

Submitted
By

R. JOSEPHINE JENIFER
REG.NO. 18PHB755

Under The Guidance of

Dr. A.R. BALU, M.Sc., M.Phil., Ph.D.,



P.G. AND RESEARCH DEPARTMENT OF PHYSICS
A.V.V.M. SRI PUSHPAM COLLEGE (AUTONOMOUS)
POONDI – 613503
THANJAVUR DISTRICT

DECEMBER – 2020