

M.Sc. (Physics) 2021-2023

Research Project List

| Roll No. | Name of Student | Research Project Title | Name of Research Supervisor |
|----------|-----------------|---|-----------------------------|
| 1940836 | AYUSHI TIWARI | Synthesis and Characterization of AgI-SiO ₂ Solid State Ceramic Electrolyte | Dr. Shikha Shukla |
| 1940843 | ANJALI VERMA | Ionic Conductivity of Polymer ceramic electrolyte of all solid state super capacitor | Dr. Awanish Kumar Bajpeyi |
| 1940858 | SHREYA UMRAO | Synthesis and Characterization of Solid State Ceramic Electrolyte | Dr. Awanish Kumar Bajpeyi |
| 1940862 | JYOTI SINGH | Study of preparation and characterization of ceramic inorganic oxides | Dr. V K Kashyap |
| 1940889 | NAHID NISHA | Preparation and Characterization of transition metal carbides for fuel cell application | Dr. Anju dixit |

Anju Dixit

Dr. Anju Dixit

Deputy Director

School of Basic Sciences

School of Basic Science
C.S.J.M. University Kanpur

Synthesis and Characterization of AgI-SiO₂ Solid-State Ceramic Electrolyte

A Dissertation

Submitted

To



The Department of Physics,

School of Basic Sciences, CSJM University, Kanpur

In partial fulfillment of requirements for the award of the degree

Of

Master of Science

In

Physics

Submitted by

Ayushi Tiwari

(Roll no: 1940836)

Under the guidance of

Dr. SHIKHA SHUKLA

Assistant professor

Department of Physics

June 2023

IONIC CONDUCTIVITY OF POLYMER CERAMIC ELECTROLYTE OF ALL SOLID- STATE SUPERCAPACITOR

A dissertation submitted in partial fulfilment of requirements
for the award of degree
of

Master of Science

in

Physics

Submitted by

Anjali Verma

(Roll no: 1940843)

Department of Physics



**DEPARTMENT OF PHYSICS,
SCHOOL OF BASIC SCIENCES,
CHHATRAPATI SHAHU JI MAHARAJ UNIVERSITY,
KANPUR-208024,
UTTAR PRADESH
INDIA**

Under the guidance of
Dr. AWANISH KUMAR BAJPEYI
Assistant Professor
Department of Physics

2023

Synthesis and Characterization of Solid-State Ceramic Electrolyte

**A Dissertation submitted in partial fulfillment of
requirements for the award of the degree
of**

Master of Science

in

Physics

Submitted by

Shreya Umrao

(Roll no:1940858)

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**DEPARTMENT OF PHYSICS, SCHOOL OF BASIC
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CHHATRAPATI SHAHU JI MAHARAJ UNIVERSITY,
KANPUR-208024, UTTAR PRADESH,
INDIA**

**Under the guidance of
Dr. AWANISH KUMAR BAJPEYI
Assistant Professor
Department of Physics**

2023

**Study of preparation and characterization of ceramic
inorganic oxides**



**Dissertation submitted in the partial fulfillment of the
requirements for the degree of**

Master of Science

In

Physics

Submitted by

Jyoti Singh

(Roll no. 1940862)

Department of physics

School of basic sciences

Chhatrapati Shahu Ji Maharaj University, Kanpur-

208024, Uttar Pradesh,

India

Under the guidance of

Dr. V.K.Kashyap

Assistant professor

Department of physics

June 2023

**PREPERATION AND CHARACTERIZATION OF TRANSITION
METAL CARBIDES FOR FUEL CELL APPLICATION**



Dessertation_Submitted in partial fulfillment of the requirements for
the award of the degree of

Master of science

In

physics

Submitted by

NAHID NISHA

(Roll no. 1940889)

DEPARTMENT OF PHYSICS

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Chhatrapati Shahu Ji Maharaj University,

Kanpur-208024, Uttar Pradesh, India

Under the guidance of

Dr. Anju Dixit

Assistant professor

Department of physics

June 2023

M.Sc. (Physics) 2022-2024

Research Project List

| Roll No. | Name of Student | Research Project Title | Name of Research Supervisor |
|-------------|-----------------------|---|-----------------------------|
| 22186000001 | ARUN SINGH | Transmittance of electromagnetic wave in periodic structure containing lossy media. | Dr. Prabal Pratap Singh |
| 22186000002 | KESHAV BHASIN | Removal of Dye from water and water waste using adsorption method | Dr. Awanish Kumar Bajpeyi |
| 22186000003 | MANJULA DEVI | Study of Semiconductor devices | Dr. Anju dixit |
| 22186000004 | PALAK | Study of Ferroelectric Material | Dr. Anju dixit |
| 22186000005 | PREETI YADAV | Purification of waste water by metal oxide nanoparticles | Dr. Awanish Kumar Bajpeyi |
| 22186000006 | PRIYANK MISHRA | Study of Metal-Semiconductor Junctions: Enhancing Electronic Devices for Next-Generation Technologies | Dr. Anju dixit |
| 22186000007 | SANDEEP BHARAT YADAV | Neutrino properties and it's influence on solar neutrino and atmospheric neutrino problems | Dr. Saswati Sarkar |
| 22186000008 | SHIVAM NARAYAN SHUKLA | Preparation and Characterization Techniques of Chalcogenide Materials | Dr. Shikha Shukla |
| 22186000010 | TUSHAR SHARMA | Study of Ferromagnetic Material | Dr. Anju dixit |

Anju Dixit

Dr. Anju Dixit

Cordinator, Department of Physics

**CHHATRAPATI SHAHUJI MAHARAJ UNIVERSITY
KANPUR-208024 (U.P), INDIA**



**Transmission characteristics of electromagnetic wave
in
Periodic Structure Containing Lossy Media**

Synopsis Submitted for M. Sc. Research project

Submitted by:
Arun Singh

Under Supervision of:
Dr. Prabal P. Singh

**DEPARTMENT OF PHYSICS
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KANPUR-208024 (U.P), INDIA**

Regt. No.: CSJMA22000000551

**CHHATRAPATI SHAHUJI MAHARAJ UNIVERSITY,
Kanpur**



**REMOVAL OF DYE FROM WATER AND
WATERWASTE USING ADSORPTION METHOD**

SYNOPSIS SUBMITTED FOR M.Sc RESEARCH PROJECT

SUBMITTED BY:
KESHAV BHASIN

SUPERVISED BY:
Dr. AWANISH
KUMAR

DEPARTMENT OF PHYSICS,
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Regt. No.- CSJMA22000031537

Chhatrapati Shahu Ji Maharaj University Kanpur



TO STUDY OF SEMICONDUCTOR DEVICES

SYNOPSIS SUMMITTED FOR M.SC RESEARCH PROJECT

SUBMITTED BY:

Manjula Devi

M.sc Physics

1yr year/ 2nd Sem

SUPERVISED BY:

Dr. Anju Dixit

Deputy director

School of basic sciences

DEPARTMENT OF PHYSICS,
SCHOOL OF BASIC SCIENCES, C.S.J.M. UNIVERSITY
KANPUR

Enrollment no. CSJMA22000034285

**CHHATRAPATI SHAHUJI MAHARAJ UNIVERSITY,
Kanpur**



Study and preparation of ferroelectric material.

SYNOPSIS SUBMITTED FOR M.Sc RESEARCH PROJECT

SUBMITTED BY:

Palak

SUPERVISED BY:

Dr. Anju Dixit Dobal

DEPARTMENT OF PHYSICS,
SCHOOL OF BASIC SCIENCES, C.S.J.M. UNIVERSITY,
KANPUR-208024

Regt. No.- CSJMA22000031544

PURIFICATION OF WASTE WATER BY METAL OXIDE NANOPARTICLES

***PREETI YADAV
M.SC (PHYSICS)
SEMESTER FIRST***

Date – 14 June 2023

Synopsis Of

**Study of Metal-Semiconductor Junctions: Enhancing Electronic
Devices for Next-Generation Technologies**

*Submitted in partial fulfillment of the
requirements for the award of the degree
of*

Master of Science
by

PRIYANK MISHRA

Roll No. 2218600006

Enrollment Number – CSJMA 22000033778

Under Supervision of

Dr. Anju Dixit Ma'am



Discipline of M.Sc. Physics
DEPARTMENT OF PHYSICS
CHHATRAPATI SHAHU JI MAHARAJ UNIVERSITY
KANPUR

**CHHATRAPATI SHAHUJI MAHARAJ UNIVERSITY,
Kanpur**



**Neutrino properties and its influence on solar
neutrino and atmospheric neutrino problems**

SYNOPSIS SUBMITTED FOR M.Sc RESEARCH PROJECT

SUBMITTED BY:

Sandeep Yadav

SUPERVISED BY:

Dr. Saswati Sarkar

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**DEPARTMENT OF PHYSICS,
SCHOOL OF BASIC SCIENCES,
CHHATRAPATI SHAHUJI MAHARAJ UNIVERSITY,
KANPUR**



**SYNOPSIS SUBMITTED FOR
M.Sc. RESEARCH PROJECT IN PHYSICS**

On The Topic-

**Preparation and Characterization Techniques of
Chalcogenide Materials**

SUBMITTED

BY-

**Shivam Narayan Shukla
(Reg. No.: CSJMA22000034292)**

SUPERVISED BY-

**Dr. Shikha Shukla
Department of Physics
S.B.S., C.S.J. M. University, Kanpur.**

CO-SUPERVISED BY-

**Dr. Anjani Kumar
Department of Physics,
BSH, M.P.G.I, Kanpur.**

**CHHATRAPATI SHAHUJI MAHARAJ UNIVERSITY,
Kanpur**



Study and preparation of ferromagnetic material.

SYNOPSIS SUBMITTED FOR M.Sc RESEARCH PROJECT

SUBMITTED BY:

Tushar Sharma

SUPERVISED BY

Dr. Anju Dixit Dobal

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