

STUDY OF CO-ZN BASED FERRITE

PROGRESS REPORT



DEVI AHILYA VISHWAVIDYALAYA, INDORE

SCHOOL OF PHYSICS

SESSION 2017-18

Submitted To:

Prof. (Dr.) Shashank N Kane

School Of Physics ,DAVV ,Indore

Submitted By:

Aakanksha Pandey

School Of Physics , DAVV, Indore

Potovoltaics of silicon solar cell

A dissertation submitted to

SCHOOL OF PHYSICS
DEVI AHILYA VISHWAVIDYALAYA
INDORE

Towards the partial fulfillment of the

Degree of

MASTER OF SCIENCE

In

PHYSICS (2016-2018)

By

Aayushi solanki

Under the supervision of

Dr. Pratima Sen

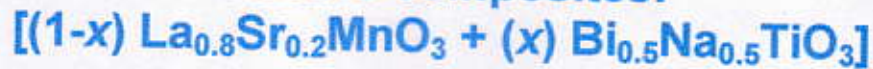
Professor

School Of Physics

Devi Ahilya Vishwavidyalaya

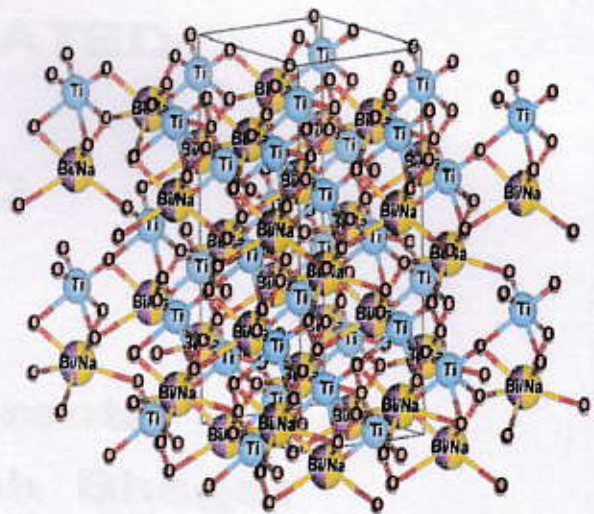
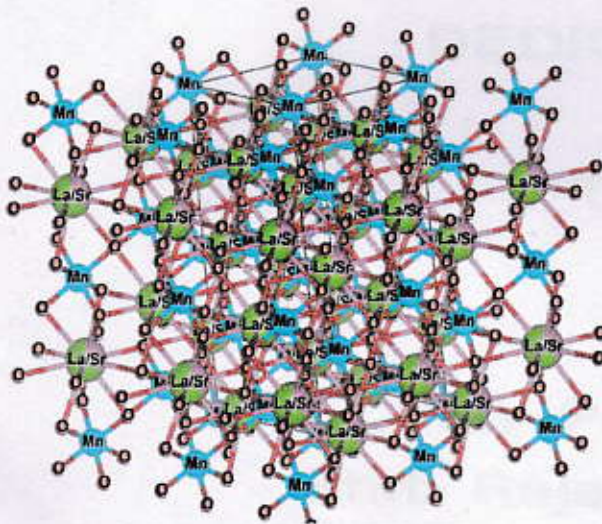
Indore

**Dielectric properties of homo-structured magneto –
electric composites:**



A dissertation submitted in partial fulfillment of the
requirements for the degree of

Master of Physics



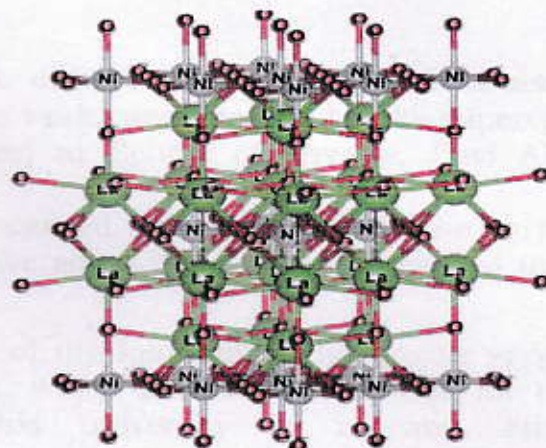
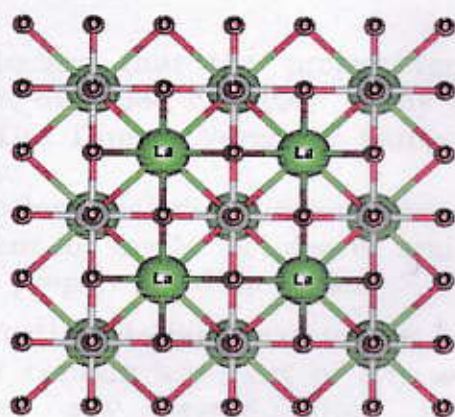
Submitted by:
Brajesh Rajesh Bhagat

Supervisor
Dr. Dinesh Varshney
Professor
School of Physics
Devi Ahilya University, Indore

Mentor
Dr. Ashutosh Mishra
Head of Department
School of Physics
Devi Ahilya University, Indore

May 2018

Structural and transport properties of doped La_2NiO_4



A dissertation submitted in partial fulfillment of the requirement for the degree of

Master of Science in Physics

By

Diksha

Supervisor

Dr. Dinesh Varshney

Professor,

School of Physics

Devi Ahilya University, Indore

Mentor

Dr. Ashutosh Mishra

Head of Department

School of Physics

Devi Ahilya University, Indore

May 2018

**Effect of Doping Copper Nitrate on the
Microstructure and optical properties of
PVDF**

**A dissertation submitted to
SCHOOL OF PHYSICS,
DEVI AHILYA VISHWAVIDYALAYA
INDORE**

**Towards partial fulfillment of the
Degree of**

MASTER OF SCIENCE

IN

PHYSICS (2016-2018)

BY

DIVYA SONANIYA

UNDER SUPERVISION OF

Dr. Mandira Banerjee

Professor

School of Physics,

DEVI AHILYA VISHWAVIDYALAYA

INDORE (M.P.)

A
Project Report
On

REACTIVE NITROGEN SPUTTERING OF SILVER

Submitted for the partial fulfillment
Of
Master of Science in Physics

Submitted by
Garima Patidar
School of Physics,
Devi Ahilya Vishwavidhyalaya, Indore

Under the supervision of

Dr. Mukul Gupta
Scientist-F

UGC-DAE Consortium for Scientific Research, Indore

Study of Mg-Ca based ferrites

PROGRESS REPORT



DEVI AHILYA VISHWAVIDYALAYA, INDORE

SCHOOL OF PHYSICS

SESSION 2017-18

Submitted To: Prof (Dr.) Shashank N. Kane

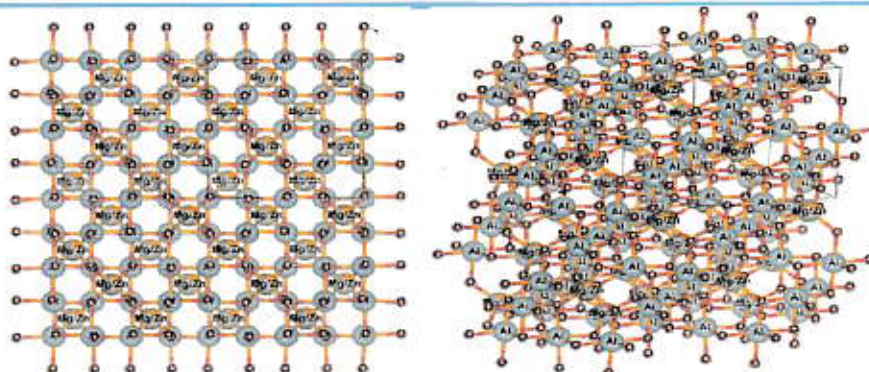
Submitted By: Himani Patel

School Of Physics, DAVV, Indore.

School Of Physics, DAVV, Indore.

M.Sc.(Physics) 4th(Sem.)

Effect of doping on structure and microstructure of Mg-Zn aluminates



A dissertation submitted for partial fulfillment of the requirements of the degree of

Master of Science in Physics

Madhuri Padole

Supervisor

Dr. Dinesh Varshney

Professor
School of Physics
Devi Ahilya University,
Indore

Mentor

Dr. Ashutosh Mishra

Head of Department
School of Physics
Devi Ahilya University,
Indore

May 2018

Preparation and Characterization of Thin films

A dissertation submitted to

SCHOOL OF PHYSICS
DEVI AHILYA VISHWAVIDYALAYA
INDORE

Towards the partial fulfillment of the

Degree of

MASTER OF SCIENCE

In

PHYSICS (2016-2018)

By

Mini jain

Under the supervision of

Dr. Pratima Sen

Professor

School Of Physics

Devi Ahilya Vishwavidyalaya

Indore

Calibration studies on pulsed wire magnetic measurement
system for undulators.

Saif Mohd Khan, 2016-2018

Enrollment No. DS1312446

School of Physics

DAVV, Indore

Submitted to :

School of Physics

Devi Ahilya Vishwavidyalaya

Indore – 452001

Date : 19-05-18

**Resistivity and Magneto-Resistance study of $(R,Y)Co_2$
($R=Gd, Tb$) Inter-metallic Compounds**

A Dissertation

Submitted in partial fulfillment of the requirement for the award of the
degree of

**Master of Science
In
Physics**

Submitted by

Saurabh Chourdiya (Roll no. M.Sc.Phy/16/37)

Under the supervision of

**Dr. Rajeev Rawat
Scientist F**

**UGC-DAE Consortium for Scientific Research
Indore**



Project Report



School of Physics
Devi Ahilya VishwaVidhyalaya
Indore (M.P.), India
Date of Submission: 19 May 2018

**Preparation and Characterization of pure PVA
and $\text{Fe}(\text{NO}_3)_3$ doped PVA films**

A dissertation submitted to

**SCHOOL OF PHYSICS
DEVI AHILYA VISHWAVIDYALAYA
INDORE**

Towards the partial fulfillment of the

Degree of

MASTER OF SCIENCE

In

PHYSICS (2016-2018)

By

Shivangi Sharma

Under the supervision of

Dr. Mandira Banerjee

Professor

School Of Physics

Devi Ahilya Vishwavidyalaya

Indore

Nanostructuring of Silicon Substrates by Silver Metal Assisted Chemical Etching Process

A project report submitted
in partial fulfilment of requirement for the degree of
Master of Science
In
Physics

Shivangi Verma
M.Sc. Student
School of Physics,



Devi Ahilya Vishwavidyalaya, Indore

Under the guidance of
Dr B.Tirumala Rao

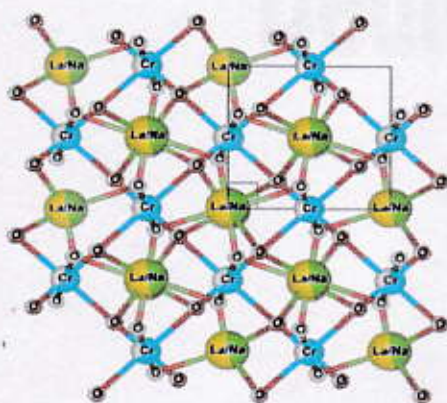
(2018)



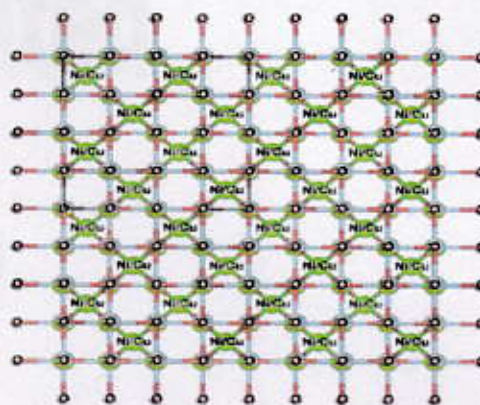
Laser Materials Processing Division
Raja Ramanna Centre for Advance Technology, Indore

Studies on the structure, microstructure and composition of heterostructured composites

of $\text{La}_{0.9}\text{Na}_{0.1}\text{CrO}_3$ and $\text{Ni}_{0.5}\text{Cu}_{0.5}\text{Fe}_2\text{O}_4$



LNCO



NCFO

A dissertation submitted in partial fulfillment for the requirement of the degree of

Master of Science in Physics

Shivani Chouhan

Supervisor

Dr. Dinesh Varshney

Professor
School of Physics
DAVV, Indore

Mentor

Dr. Ashuthosh Mishra

Professor
School of Physics
DAVV, Indore

May 2018



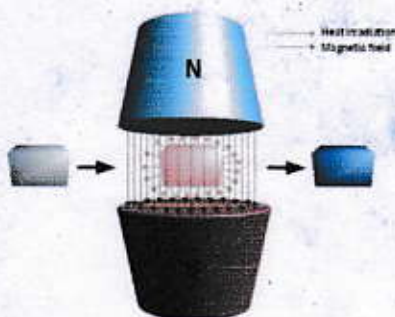
Project Report



Study of Magneto-transport properties in $\text{Gd}[\text{Fe}_{1-x}\text{Al}_x]_2$ ($x=0.5, 0.7, 0.8, 0.9, 1$)

A Dissertation

Submitted in partial fulfilment of the requirement
for the award of the degree of
**MASTER OF SCIENCE IN
PHYSICS**



Submitted by
SHUBHAM SHARMA
(Roll No. M.Sc. Phy/16/45)
DAVV INDORE (M.P.)

under the supervision of
Dr. RAJEEV RAWAT
Scientist F
UGC-DAE-Consortium
for Scientific Research
Indore

Date of Submission: 19 May 2018

**Preparation and Characterization of pure
PMMA and Cobalt Acetate doped PMMA films**

A dissertation submitted to

**SCHOOL OF PHYSICS
DEVI AHILYA VISHWAVIDYALAYA
*INDORE***

Towards the partial fulfillment of the

Degree of

MASTER OF SCIENCE

In

PHYSICS (2016-2018)

By

Sudipta Sen

Under the supervision of

Dr. Mandira Banerjee

Professor

School Of Physics

Devi Ahilya Vishwavidyalaya

Indore

DEVELOPMENT OF SYMMETRIC AND ASYMMETRIC WAVEGUIDE LASER DIODE ARRAYS

MASTER'S THESIS

Submitted to

School of Physics

Devi Ahilya Vishwavidyalaya

Indore-452001.



In Partial fulfillment of requirement for the Award of the Degree of

Master Of Technology

In

Laser Science and Applications

SUBMITTED BY

Aarathy E R

Under the Guidance of

Dr. Vijay Kumar Dixit

Scientific Officer 'G'

Semiconductor Materials Lab, Materials Science Division.



Raja Ramanna Centre for Advanced Technology

Department of Atomic Energy, Indore (M.P), India

2: M.Tech. | 16 | 02

2016-2018 P.R

**Growth of Gallium Nitride Epitaxial Layers
using Metal Organic Vapor Phase Epitaxy
(MOVPE) Techniques**

A Project Report

Submitted by

Miss. Hemendra Chouhan

For partial fulfillment of the requirements for the degree of

Master of Technology

In

Laser Science and Applications

From

School of Physics

Devi Ahilya Vishwavidyalaya, Indore-452001



Under the Guidance of

Dr. Tarun Kumar Sharma

**Head, Semiconductor Materials Lab,
Scientific Officer/H, RRCAT**

Sh. Abhishek Chatterjee

Scientific Officer/D, RRCAT

Semiconductor Laser Section division

**Raja Ramanna Centre for Advanced Technology Indore, M.P.,
India- 452013**

Synthesis and application of plasmonic nanoparticles and their composites with semiconductor nanostructures

A project report submitted
in partial fulfilment of requirement for the degree of
Master of Technology
in
Laser Science and Applications

Ritika Agrawal
M. Tech. Student
School of Physics,



Devi Ahilya Vishwavidyalaya, Indore

Under the guidance of
Dr B. Tirumala Rao



Laser Materials Processing Division
Raja Ramanna Centre for Advance Technology, Indore

Development and characterization of narrow linewidth all-fiber amplifier

A dissertation submitted to School of Physics, DAVV
In partial fulfillment of the requirement of Degree of Master of Technology
(Final semester)
(Laser Science & Application)

to be submitted by

Sudhanshu Bhushan Sharma

Under the Guidance of

Dr. P.K. Mukhopadhyay & Dr. C.P. Singh



**Laser Development and Industrial Applications Division
Raja Ramanna Centre for Advanced Technology
Department of Atomic Energy
Indore, India**

Submitted to



School of Physics DAVV (Indore)

**Synthesis and Structural, Optical and Electrical
Investigations of Chromium doped Barium Titanate
via Sol-Gel Auto Combustion Technique.**

A project report submitted to

Devi Ahilya Vishwavidyalaya, Indore

In partial fulfilment for the requirement of the degree of Master of
Philosophy (M.Phil.) in Physics



Supervised by:

Dr. Ashutosh Mishra

Professor & Head, School of Physics

DAVV, Indore (M.P.)

Submitted by:

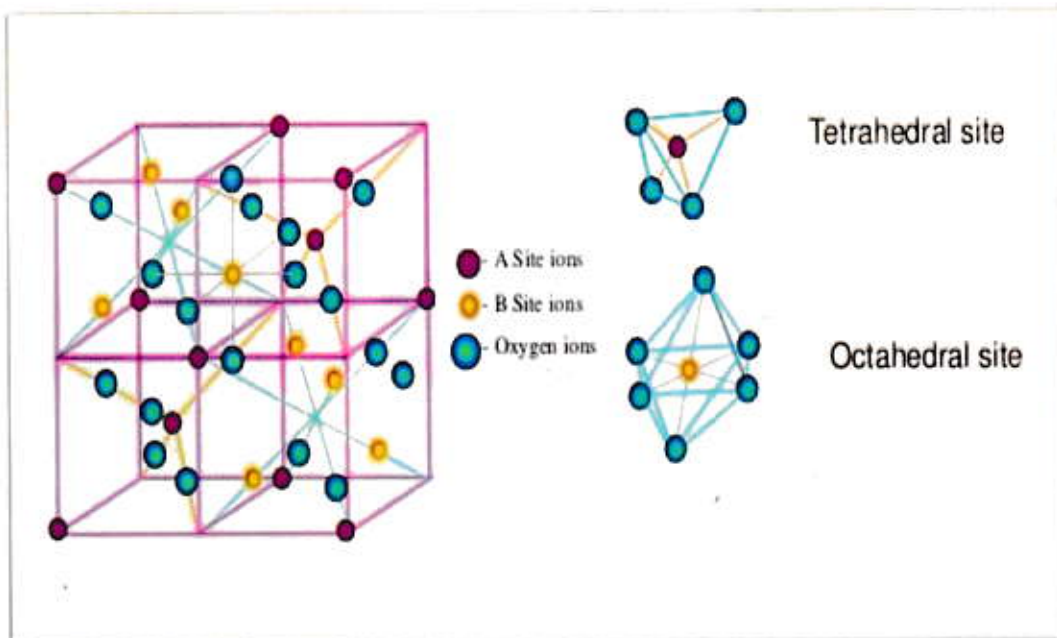
Anshu Shrivastava

M.Sc. (Physics)

2018

**Investigation of structural and optical properties of
 $\text{Co}_{1-x}\text{M}_x\text{Al}_2\text{O}_4$ (M = Cu, Zn; x = 0.0, 0.5)**

**THESIS FOR THE DEGREE OF
MASTER OF PHILOSOPHY
IN PHYSICS**



SUBMITTED BY

BHARGAV PATHAK

SUPERVISOR:

PROF. (DR.) ASHUTOSH MISHRA

SCHOOL OF PHYSICS

DEVI AHILYA VISHWAVIDYALAYA,

INDORE - 452001, INDIA.

2018

**STRUCTURAL, OPTICAL & ELECTRICAL STUDIES
OF BARIUM ZIRCONATE TITANATE ($\text{BaZr}_x\text{Ti}_{1-x}\text{O}_3$)
PREPARED THROUGH SOL – GEL AUTO
COMBUSTION METHOD**

A

**THESIS SUBMITTED IN PARTIAL FULFILMENT OF
THE REQUIREMENT FOR THE DEGREE OF**

MASTER OF PHILOSOPHY

in

MATERIALS SCIENCE

By

Jyoti Shukla

Under Guidance of

Prof. (Dr.) Ashutosh Mishra



School of Physics

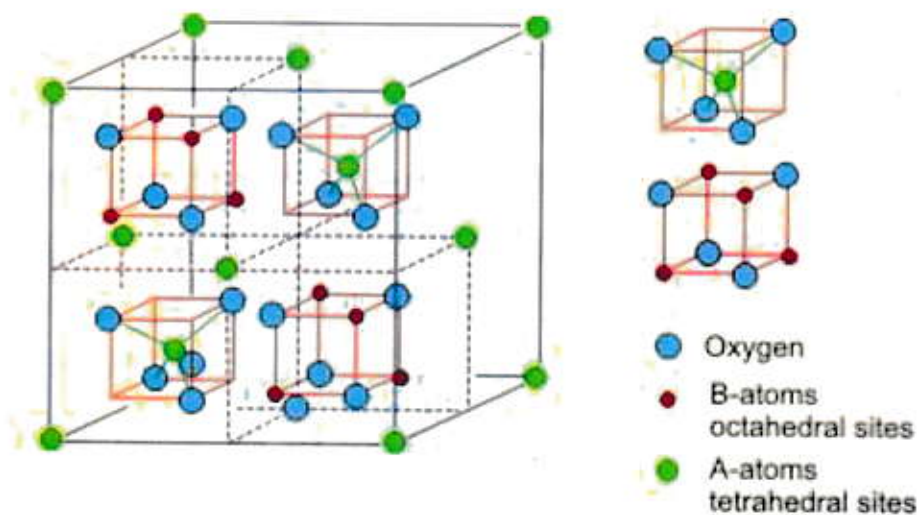
Devi Ahilya Vishwavidyalaya

Indore (M.P.) – 452001

2018

"Analysis of Structural, Optical and Dielectric Properties of Pristine and Doped Chromites"

**THESIS FOR THE DEGREE OF
MASTER OF PHILOSOPHY
IN PHYSICS**



AB₂O₄ spinel The red cubes are also contained in the back half of the unit cell.

SUBMITTED BY

PRACHI JOSHI

SUPERVISOR:

PROF. (Dr.) ASHUTOSH MISHRA

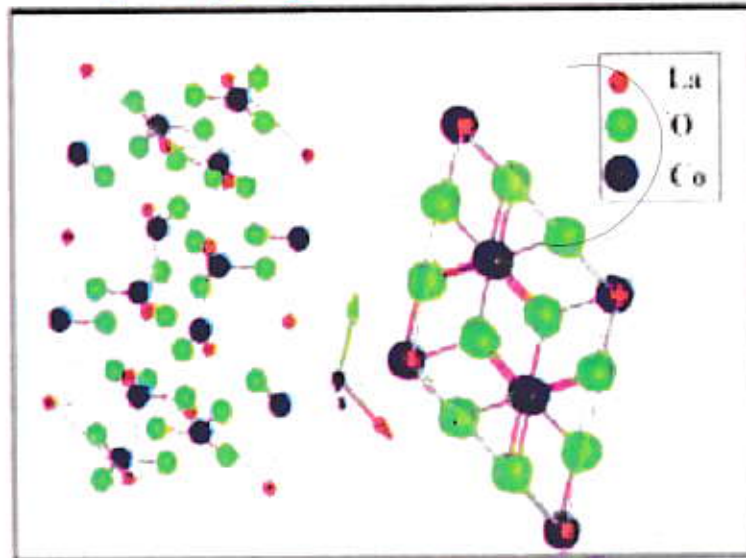
SCHOOL OF PHYSICS

DEVI AHILYA VISHWAVIDYALAYA,

INDORE - 452001, INDIA.

2018

**Influence of transition metal doping on the structural
and transport properties of LaCoO_3 cobaltite**



**A dissertation submitted in partial fulfillment of the
requirements for the degree of
Master of Philosophy in Physics**

By

Shivendra Kumar Tiwari

Under the Supervision of

Dr. Ashutosh Mishra

Professor & Head

**School of Physics Devi Ahilya University,
Indore**

2017 - 2018

**SPONTANEOUS RADIATION OF HIGH-ORDER
MAGNETIC FIELD UNDULATOR**

A PROJECT REPORT

Submitted by
AKSHEY RAJORIYA

Minor project report

M.Sc. PHYSICS

SCHOOL OF PHYSICS DAVV

DECEMBER 2018

Reactive Sputtering of Cobalt Nitride

A Short

Project Report

Submitted for the partial fulfillment

Of

Master of Science in Physics

2017-2019



School Of Physics

Submitted by:

GEETESH GUPTA

School of physics

DAVV Indore



Under the guidance of:

Dr. Mukul Gupta

UGC-DAE Consortium for Scientific Research, Indore

A
Project report
On
Study of MARX Generator

Submitted By

Harshita Aagiwal

M.SC IIIrd Semester, 2018

School of physics,

Devi Ahilya University

Under the supervision of

Dr. Y. Choyal

Professor

Devi Ahilya University

Khandwa road campus, Indore

A
Project report
On
Study of MARX Generator

Submitted By

Harshita Aagiwal

M.SC IIIrd Semester, 2018

School of physics,

Devi Ahilya University

Under the supervision of

Dr. Y. Choyal

Professor

Devi Ahilya University

Khandwa road campus, Indore

BASICS OF X-RAY DIFFRACTION AND PULSED LASER DEPOSITION

A Minor Project Report

Presented to

School of Physics

Devi Ahilya University, Indore



SUBMITTED TO:

Prof. (Dr.) Ashutosh Mishra

(Prof. & Head

Department of Physics)

SUBMITTED BY:

Suraj Tiwari

M .Sc.III Semester

(Physics)

School of physics, Vigyan Bhawan,

Devi Ahilya University

Khandwa road campus, Indore



M.SC IIIrd Semester

Project Report

“Study of relativistic laser plasma interaction
phenomenon”

Supervisor :

Dr.Meenu Varshney

Submitted by :

Surbhi Bidawat

Session (2018)

**STUDY AND SYNTHESIS OF SPINEL FERRITES BY
SOL GEL AUTO-COMBUSTION METHOD**

Project Report

2017-2019



School Of Physics

Submitted by:

Swarnima Joshi

School of physics

DAVV Indore

Under the guidance of:

Dr. S.N. Kane

Professor, School of physics

DAVV, INDORE