Dr. Ambedkar College Deekshabhoomi Nagpur

Research center: **Physics**

The Physics department of DACN has been recognized as Higher and research learning center from Jan. 2017 by RTM Nagpur University and is actively progressing in research and publishing research articles in journals of international repute. The center has state-of-the art laboratories for respective ongoing research fields.

List of Major Instruments

Sr. No.	Name of Article
1	BH Loop Tracer (Marine India)
2	Automatic PE Loop Tracer (Marine India)
3	Precision Impedance Analyser (Wayne Kerr)
4	LCR Q Meter (Aplab 4912)
5	Surface Area analyser (Smart instruments co. pvt ltd)
6	Ultrasonic interferometers (solids and Liquids) (Mittal Enterprises)
7	Guoy's Balance Method
8	Vacuum Oven (1200 ^{o}C)
9	Microwave oven with outlet
10	Palletization machine
11	SR method for single crystal growth

Dr. Ambedkar College Deekshabhoomi, Nagpur

Department of Physics

Recognised Research Centre

Affiliated to RTM Nagpur University

NAME OF COLLEGE :- **DR. AMBEDKAR COLLEGE, DEEKSHABHOOMI, NAGPUR**

SUBJECT / BOARD :- **Physics**

FACULTY :- **SCIENCE**

Date of approval of
Ph. D. Supervisor :-

Sr.No	**Name of Ph. D Supervisor**	**Date of approval**
1	Dr. K. G. Rewatkar	21/04/1999
2	Dr. A. N. Wazalwar	16/12/2014
3	Dr. N. S. Meshram	02/03//2019

P.G Teacher Approval :-

Sr.No	**Name of Ph. D Supervisor**	**Yes / No**
1	Dr. K. G. Rewatkar	Yes
2	Dr. A. N. Wazalwar	Yes
3	Dr. N. S. Meshram	Yes
4	Dr. A. R. Bansod	Yes

List of Research Students Awarded Ph.D

Supervisor: Dr. K. G. Rewatkar

Total no of students awarded : 25

Total no of students Registered : 17

Sr. No	Name of student	Title of Ph. D. thesis	Year	Status
1	Pranay B. Wasnik	Effect of transition Metal ions Subsitution on structural , magnetic absorption propertise of Ni-Cu mixed nano size spinel ferrite	2020	Registered
2	Yograj D. Choudhari	Development of Bi substituted Calcium lead hexaferrite nanocomposite and study of their magnetic and microwave absorption property	2020	Registered
3	Smita C. Tolani	Magnetic, Microwave, Absorption and Structural Properties of Nano-sized Substituted Ca-Hexaferrite	2019	Registered
4	Priti J. Chaware	Synthesis, electrical and optical studies of rare earth ions doped aluminate and silicate phospers	2017	Registered
5	Dayal J. Roy	Magnetic-Electric and Structural Behaviors of Co-Zr Substituted Nano Sized Hexaferrites.	2016	Registered
6	Pushplata Hedau	Compositional dependence of morphological, magnetic and Electric behavior of Nanostructure ferrite	2016	Submitted
7	Suresh B. Bankar	Synthesis and characterization of Co-Li substituted Y-type nano size calcium hexaferrite using sol-gel auto combustion method.	2015	Submitted
8	Dwarpal L. Choudhary	Synthesis and Functional properties of nanosized substituted NiZn ferrites	2015	Registered
9	Pranali K. Tembhurne	Development of low coercive micro and nano structure ferrites for bio-medical application.	2015	Registered
10	Mrs. Dipti C. Bisht	Synthesis of Substituted Iron Oxide Nanoparticles and Compositional Dependence of their Morphological and Electric- Magnetic Behaviors.	2015	Registered
11	Sandip S. Vairagade	Synthesis of Nano Ferrites for Microwave Absorber at High Frequency Application	2015	Registered
12	Priti K. Nagpure	Design and Development of Nano Size Ferrites for Microelectronic Devices.	2015	Registered

13	Mohan Borikar	Effect of Partial Substitution of some Transition Metal Ions on Electro-Magnetic Properties of Nanosize Spinel Ferric Oxide	2014	Registered
14	Sheshrao A. Tirpude	Morphological, Electrical and Magnetic Behavior of Substituted Nanosize Nickel Ferrites by Sol-Gel-Auto Combustion Technique	2014	Registered
15	Sunil Kamdi	Influence of substitution structural, Magnetic and Electrical properties of strontium nanosized hexagonal ferrite	2014	Registered
16	Amar K. Nandanwar	Stidy of magnetic, electric and optical properties of some transition metals substituted nanosized ferrites synthesized by chemical route.	2019	Awarded
17	Halim S. Ahmad	Synthesis and Electric-Magnetic Behaviour of Nanostructured Superparamagnetic Ferrites	2019	Submitted
18	Vaishali D. Maske	Growth and characterization of Alanine doped KDP crystal as a non-linear optical material	2019	Submitted
19	Nittu Christy	Electrical and magnetic behavior of substituted Calcium Nanostructure Hexaferrite	2019	Awarded
20	Naresh N. Sarkar	Synthesis and Electric-Magnetic study on Super[paramagnetic Iron Oxide Nanoparticle	2019	Awarded
21	Anup A. Bhat	Development of smart instrumentation technology for nanostructure antenna and solar cell	2018	Awarded
22	Buddhghosh Shingade	Structural, Optical and electrical properties pure and leucine doped ammonium dihydrogen phosphate	2016	Awarded
23	Ms. Shuriti K. Patle.	Growth and characterization of Semiorganic nonlinear optical single crystal ADP Doped with L-Lysine and L-Histaidine	2015	Awarded
24	Ms. Arsala A. Sheikh	Effect of Glycine Doped on Growth and Characterization of Amonium di-hydeogen Phosphate (ADP). A non linear Optical Crystal	2015	Awarded
25	Ms. Ekta Chaturvedi	Synthesis of Ni-Ir Substituted Strontium Nanohexaferrite and Compositional dependence of their Electric- Magnetic behaviour.	2015	Thesis Submitted
26	Uddal B. Hatwar	Study of Co-Zr substituted nanosized Strontium-Aluminium hexaferrite prepared by sol-gel synthesis	2015	Awarded

27	Balram S. Satone	Morphological, Electric and Magnetic Behavior of Substituted Nano sized Calcium Hexaferrite	2015	Awarded
28	Vijay Raghorte	Effect of Amino Acid Doping on Growth And Characterization of the non liner optical crystal of KDP	2015	Awarded
29	Anand S. Kakde	Synthesis and Characterization of Sn-Zr substituted calcium Nanohexaferrite by sol –Gel Auto Combustion method	2015	Awarded
30	Nomdeo M. Gahane	Effect of amino acid additives on crystal growth parameters and properties of Ammonium Dihydrogen Phosphate crystals.	2015	Awarded
31	Ms. Asmita D. Deshpande	Synthesis of substituted calcium nanohexaferrites by sol-gel method and compositional dependence of their electric-magnetic properties	2015	Awarded
32	Nandakishor S.Meshram	Influence of Gallium ions on growth and Characteristic of Potassium di-hydrogen Phosphate Nonlinear Optical single crystal	2015	Awarded
33	Narendra V. Shiwarkar	PC based switch- Mode assisted linear Amplifier Design sample	2015	Awarded
34	Pandurang R. Moharkar	Electric – Magnetic study of Nanosize substituted calcium hexaferrite, Synthesised by Autocombustion technique	2014	Awarded
35	Sheela A. Pawde	Synthesis and Characterization of substituted strontium Hexaferrite Nano particle	2013	Awarded
36	Rajmohamad R. Kherani	Study of Magneto-Electric effect in substituted zinc ferrite-lead titanate composite materials	2013	Awarded
37	Vandana D. Badwaik	Magnetic And Electriacla Study on Copper and Zinc Substituted Sn-Co Ferrite	2013	Awarded
38	Sanjay R. Gawali	Properties of Al-substituted calcium hexaferrite nanoparticles prepared by sol-gel combustion process.	2012	Awarded
39	Sharad N. Sable	Synthesis and Electric-Magnetic Behavior of Nanocrystalline Co-Sn Substituted Calcium Hexaferrite	2012	Awarded
40	Debashis S. Bhowmic	Temperature dependence of Magnetic and Electric Studies of Gallium Substituted Calcium ferrite	2011	Awarded
41	Mohan N. Griya	Study of Synthesis Thermo –Electric and Magnetic Properties of M-Type Quarternary Ion Doped Mixed Ferrites.	2010	Awarded
42	Chandrakant L. Khobaragade	Study of structure and Temperature Dependence of elastic Moduli of Mn-Zn substituted ferrites in saturation magnetic field	2009	Awarded

Supervisor: Dr. A. N. Wazalwar

Total no of students Registered : 01

Sr. No	Name of student	Title of Ph. D. thesis	Year	Status
1	Mr. J. N. Shah	Study of compositional dependence of electric and magnetic behaviour of nanosize barium hexaferrite	2018	Registered

Supervisor: Dr. N. S. Meshram

Total no of students Registered : 02

Sr. No	Name of student	Title of Ph. D. thesis	Year	Status
1	Dnyneshwar D. Mathankar	Influence of La 3+ substitution on structure , magnetic and microwave absorbing properties of nanocrystalline Ni-Bi. Spinel ferrites	2019	Registered
2	Uttara B. Tagade	Influence of inorganic compound on growth and NLO behaviour of gamma Glycine single crystal.	2019	Registered