# CURRICULUM VITAE


## Sadhana Katlakunta

M.Sc., Ph.D (Physics)


## Contact


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## Personal Information

Date of Birth : 16.01.1982
Marital Status : Married
Nationality : India

## Summary & Objective


Dedicated and enthusiastic individual with 8+ years of teaching and 3+ years of Postdoctoral research experience with good administrative skills and expertise in building new Academic/research collaborations. Objective is to develop and promote Science & Technology (S&T) in society through bringing awareness and providing the opportunities to learn, involve and understand S&T for the benefit of the society.


## Skill Highlights

- Team work
- Critical thinking
- Leadership
- Planning and scheduling
- Time Management
- Design & developing Curriculum
- Adaptability & Flexibility

## Professional Experience

**Assistant Professor** (11 years 3 months)
*Department of Physics, University College of Science, Saifabad, Osmania University, Hyderabad,Telangana, India.*
**September 2013 to till date**
**Responsibilities**

- Developing curriculum for Master and Graduate students.
- Guiding Ph.D students towards their degree.
- Conducting research and implementing research projects.
- Participating in conferences and collaborating with others in the field.
- Participating in faculty meetings and academic counselling sessions.

**2. Lecturer**
*Sidhartha P.G College, Vanasthalipuram, Affliated to OsmaniaUniversity, Hyderabad, Telangana, India.*
**June 2005 to April 2007**
**Responsibilities**

- Developing curriculum for Master (M.Sc Physics) students.
- Participating in faculty meetings and academic counselling sessions.

**3. Lecturer**
*Avanthi P.G College, Dilsukhnagar, Affliated to OsmaniaUniversity, Hyderabad, Telangana, India.*
**June 2004 to April 2005Responsibilities**

- Developing curriculum for Master (M.Sc Physics) students.
- Participating in faculty meetings and academic counselling sessions.

## Research Experience

**1. Raman Postdoctoral Fellow**
*Division of Materials Science and Center for Nanoscale Materials,Argonne National Laboratory (ANL), Illinois, USA.*
**August 2016 to March 2017**
**Supervisor:** Dr. Anand Bhattacharya

**Research Experience**:
Worked on experimentation of Molecular Beam Epitaxy (MBE), growth of manganite thin films using MBEand its characterization using Physical Property measurement system (PPMS), X-ray reflectivity (XRR).

**2. TWAS - CAS Postdoctoral Fellow (Third World Academy of Sciences- Chinese Academy of Sciences)**
*Ningbo Institute of Materials Technology & Engineering (NIMTE), Chinese Academy of Sciences, Ningbo, China.*
**March 2012 to September 2013**
**Supervisor**:Prof..Runwei Li
**Research Experience**:
Worked on the growth of various magnetoelectric, ferroelectric and ferromagnetic materials using Pulsedlaser deposition and RF sputtering. The main focus is on the electric field control of magnetization and coupling between ferroelectric and ferromagnetic metal and oxide materials.

**3. CSIR - Research Associate**
*Materials Research Centre, Indian Institute of Science (IISc), Bangalore -560012, Karnataka, India.*
**July 2011 to March 2012**
**Supervisor**: Prof. K.B.R.Varma.
**Research Experience**:
Worked on the development of lead free piezoelectric ceramics (solid solutions) based on perovskite typestructures. The measurements techniques used are impedance, dielectric constant with temperature, strain & hysteresis measurements and piezoelectric measurements.

**4. Dr.D.S.Kothari Postdoctoral Fellow**
*School of Physics, University of Hyderabad, Central University, Hyderabad -500 046, Telangana, India.*
**Feb 2010 to July 2011**
**Supervisor**: Prof. Rajender Singh
**Research Experience**:
Worked on preparation of hexaferrite materials using chemical synthesis routes. The thin film deposition of thesematerials has been done using pulsed laser deposition (PLD) and R.F.sputtering methods. The characterization of hexaferrite nanoparticles and thin films were carried out using XRD, TEM, FE-SEM, FTIR, TG-DTA,UV-Vis spectrometer and VSM.

## Academic Qualifications

1. **Doctor of Philosophy (Ph.D) in Physics** (**October 2005 - May 2010**) from Osmania University,Hyderabad, Telangana, India.
**Thesis title**: "*Preparation of Nanocomposites for High frequency applications".*
**Supervisor**: Prof. S.Ramana Murthy (Late).
2. **Master of Science** (M.Sc.) (**2002-2004**) in Physics with Specialization **Materials Science** from OsmaniaUniversity, Hyderabad, Telangana, India with 74% (**Distinction)**.
3. **Bachelor of Science** (B.Sc.) (**1999-2002**) from S.N.Vanita Maha Vidhyalaya, Exhibition Grounds,Nampally, Hyderabad, Telangana, India with 59%.
4. **Intermediate** (10+2) (**1997 - 1999**) from J.M.J. College for Women, Peddapendyala, Warangal Dt., Telangana, India with 71%.
5. **Secondary School** (S.S.C) (**1997**) from Carmel Giri Convent High School, Devapur, Adilabad Dt., Telangana, Indiawith 82%.

## Awards

1. *Research Fellowships in Science for Meritorious Students- UGC, New Delhi, India* (2007-2009).
2. Council of Scientific and Industrial Research (CSIR)'s *Senior Research Fellow* (SRF), New Delhi, India (2010).
3. University Grants Commission's *Dr.D.S.Kothari Postdoctoral Fellowship* (2010).

4. Council of Scientific and Industrial Research (CSIR)'s *Research Associate* (RA) (2011).
5. *TWAS-CAS Postdoctoral fellowship* (2012).
6. Indian National Science Association (INSA)- *Summer Research Fellowship, Indian Institute of Science (IISc),Bangalore, India* (2014).
7. *UGC-Raman Postdoctoral Fellow*, Argonne national Laboratory, Illinois, USA (2016).
8. *Summer Faculty Research Fellow*, IIT Delhi, India (2019).

## Research Projects

1. DST-SERB sponsored project on " *Development of RF/microwave tunable devices using multiferroic heterostrcuture thin films*" worth Rs. 30,98,480/- for Three years (2018-2021).
2. IUAC-UGC sponsored project on "Development of rare earth free permanent magnetic materials using transition metal co doped M type hexaferrites" for three years from 2019-2022.
3. Telangana State Council of Science & Technology (TSCOST) sponsored project on "Development of electromagnetic absorbing materials for electronic industry" for one year i.e 2022-2023.

## Reviewer

1. Journal of Materials Science: Materials in Electronics (Springer)
2. Journal of Alloys and Compounds (Elsevier)
3. Journal of Magnetism and Magnetic Materials (Elsevier)
4. Journal of Polymer Science (Wiley)
5. Journal of Materials Research (Springer)
6. Journal of Electronic Materials (Springer)

## Memberships with Professional and Scientific bodies

1. Life Member for Materials Research Society of India (MRSI).
2. Life member (ID No: 225)- Neutron Scattering Society of India (NSSI), India.
3. Associate Member for Telangana Academy of Sciences, Hyderabad, India.
4. Full Member (ID: 6577) for Organization for women in Science for the Developing World (OWSDW)
5. Life member (R-218) for Hyderabad Gymkhana Club, Hyderabad.

## Administrative Positions

1. **Additional Controller of Examinations** (Law & Education; Center for Distance Education), Examination Branch, Osmania University, Hyderabad, India from 2023-2025.
2. **Head,** Department of Physics, University College of Science, Saifabad, Osmania University from 2024 to 2025.
3. **Head**, Department of Physics, University College of Science, Saifabad, Osmania University from 2022 to 2023.
4. **Coordinator** for Internal Quality Assurance Cell (**IQAC**) at University College of Science, Saifabad, Osmania University from 2022 to 2025.
5. **Joint Director**, Directorate of Admission, Osmania University, Hyderabad, India from 2022 – 2023.
6. **Head**, Department of Physics, University College of Science, Saifabad, Osmania University from 2021 to 2022.
7. **Coordinator** for Internal Quality Assurance Cell (**IQAC**) at University College of Science, Saifabad, Osmania University from 2022 to 2023.
8. **NSS Programme Officer** at University College of Science, Saifabad, Osmania University from 2022 to 2023.
9. **Coordinator** for Internal Quality Assurance Cell (**IQAC**) at University College of Science, Saifabad, Osmania University from 2017 to 2019.
10. **Mess Warden** for Ladies Hostel, Osmania University, Hyderabad from 2018 to 2019.

11. **Academic Coordinator** at University College of Science, Saifabad, Osmania University from 2014 to 2016.
12. **Member** for Committee Against Sexual Harrasment (CASH) at University College of Science, Saifabad, Osmania University from 2014 to 2016.
13. **Member** in Anti-Ragging committee at University College of Science, Saifabad, Osmania University from 2014 to 2016.

## Guest lectures/Talks

1. A guest lecture on "*Solid State Physics*" at Andhra Mahila Sabha on 2nd February 2007.
2. Delivered a lecture on "*Nanomaterials and Technology-An Introduction to Engineering Students*" at VNR VignanaJyothi Institute of Technology (VJIT) at Bachupalli, Hyderabad on 30th May 2015.
3. Delivered an Expert talk on " *Nanomaterials and its Understanding*" at Department of Physics, JNTUH College of Engineering Sultanpur, on the occassion of *National Level Workshop on Role of Physics in Engineering Education* jointly with Indian Association of Physics Teachers (IAPT), held on 16-03-2019.
4. Delivered a talk on " *Nanomaterials and its applications in Automobile Industry*" at Department of Mechanical Engineering on the occassion of Decennial Celebrations of the Methodist College of Engineering & Technology, Gun Foundry, Hyderabad on 28-02-2019.
5. Delivered a talk as part of *"Orientation program for Science Teachers"* as part of INSPIRE National Children Science Congress and other science activities at Keys High School, Secunderabad on 29-08-2017.
6. Delivered a talk as part of *"Orientation program for Science Teachers"* as part of INSPIRE National Children Science Congress and other science activities at St Theresa High School, Ameerpet, Hyderabad on 30-08-2017.
7. Delivered a talk as part of *"Orientation program for Science Teachers"* as part of INSPIRE National Children Science Congress and other science activities at Progressive High School, Bandlaguda, Hyderabad on 31-08-2017.
8. Mentoring Session for TSCOST - 27th National Level Children Science Congress (NCSC) - 2019 team at Aranya Bhavan, Forest Department, Hyderabad on 20-11-2019.

## Television Shows

1. Participated in discussion on "Mangalyaan" in Sakshi News TV channel on 24-08-2015.
2. Participated in discussion on "Science *and Technology*" in Gemini News TV channel on 05-11-2015.

## Resource Person/Guest Lectures

1. Chair Person for One Day State Level Science Seminar on " Promoting the Culture of Scienceto make Country Delf Reliant" to Teachers organized by SCERT, Hyderabad, India on 28-02-2023.
2. Delivered TWO talks on "Transition metal doped Hexaferrites for EMI applications PART-2 and 3" to the participants of the ONLINE FACULTY INDUCTION PROGRAMME organized by the UGC-HRDC, Osmania University, Hyderabad from 6.9.2022 to 4.10.2022 on 7 September, 2022.
3. Delivered a talk on "Transition metal doped Hexaferrites for EMI applications PART - I" to the participants of the ONLINE FACULTY INDUCTION PROGRAMME organized by the UGC-HRDC, Osmania University, Hyderabad from 03.01.2022 to 02.02.2022 on 25 January, 2022.
4. Resource Person to deliver a talk on : Role of Science in Technology Development" at Methodist Engineering College, Abids, Hyderabad, Idnai on 28-02-2019.

## Workshops/Webinars

1. Participated in the International Workshop on "Recent Advancements in Magnetism and Magnetic Materials (IReAd MAGMA - 24) - 2024" organized by the Department of Physics, School of Advanced Sciences, VIT-AP University, Amaravati, Andhra Pradesh - 522237, India, held during 26 – 30 November, 2024.
2. A Two day workshop on "Qualitative and Quantitative X-ray Diffraction data analysis using Rietveld

Refinement" organized by Centre for Nanociecne and Nanotechnology & Centre of Excellence for Energy Research, Sathyabhama Institute of Sciecne and Technology, Chennai, India on 25 & 26 September 2024.

3. Attended "LaTeX Basic to Advance: A Workshop with an emphasis on Academic Writing" (Online), organized by Janardhan Singh Foundation with Assiociation of India Physicists (AIP) on 21-22 September 2024.
4. Attended INUP-i2i (Indian Nanoelectronics Users' Programme-Idea to Innovation) On-line Familiarization Workshop on Nanofabrication and Characterization, held at IIT Kharagpur during 22-24 April, 2024.
5. Attended 5 days International Workshop on "Modelling and Characterization of 3D printing" organized by GITAM, Bengaluru, India from 06 - 10 March 2023.
6. Attended two days hands-on Online training workshop on "Nanomaterial & Nanodevice simulation using Nanodcal software from NanoAcademic Technology, India on 17 & 18 February, 2023.
7. Attended two days hands-on Online training workshop on "Nanoelectronics material and Nanodevice (DFT+NEGF) simulation using Nanodcal software" from NanoAcademic Technologies, India on 27 & 28 December, 2022.
8. Participated in NPTEL Online Workshop on "Short Term Course on Surface Engineering of Nano-Materials from 8 –10 December 2022.
9. Completed online 20$^{th}$ International Workshop on "Computational Physics and Materials Science: Total Energy and Force Methods" organized by The Abdus Salam International Centre for Theoretical Physics, Italy from 23 - 25 February, 2021.
10. Completed the Trainng Programme titled" Nanophotonics: Materials, Devices and Applications" organized by Central Institute of Petrochemical engineering & Technology, Bhubaneshwar, Odissa on 6 & 7 February, 2021.
11. Attended a webinar on : Advances in Electron Beam Lithography: Fundamentals to Applications" organized by School of Applied and Interdisciplinary Sciences, Indian Association for the Cultivation of Science, Jadhavpur, Kolkota-32, West Bengal on 20 January, 2022.
12. Attended International Winter School on "Frontiers in Materials Science" held at Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bengaluru, India during 07-11 December, 2020.
13. Participated in International School and Conference on Functional Materials held at Harish Chandra Research Institute, Allahabad, India during 28 March - 3 April, 2011.

## Orientation/Refresher /Short Term Courses

1. Attended NEP-2020 Orientation & sensitization Programmer-10 under Malviya Mission Teacher Training Centre, Jawaharlal Nehru Technological University, Hyderabad, India from 07-17 May, 2024.
2. Participated in the Inter-disciplinary Refresher Course entitled "Contemporary Issues of Nano-science and Nano-technology" organized by UGC-HRDC, Jadavpur University, Kolkata, India from 9 -24 January, 2023.
3. Participated in the Faculty Development Programme on "Quantum transition from Ions to Cosmos "organized by Department of Physics, Odisha University of Technology and Research, Bhubaneswar from 5 - 9 December, 2022.
4. Participated in One-week Online STC on "Principles, Synthesis and Characterization of Nanomaterials - Current and Future Approaches" organized by UGC-HRDC, Jawaharlal Nehru Technological University (JNTU)-Hyderabad, India from 22 -27 November 2021.
5. Participated in Online STTP on "Advanced Methods of Material Characterization and Surface Analysis (AMCSA 2021)" at Maulana Azad National Institute of Technology, Bhopal, Madhya Pradesh, India from 27 February – 3 March, 2021.
6. Participated in One week Online STC "Nanomaterial Characterization Techniques" organized by UGC-HRDC, Jawaharlal Nehru Technological University (JNTU)-Hyderabad, India from 04-09 January, 2021.
7. Participated in Online Two-week Interdisciplinary Refresher Course on "Materials Physics and Materials Science" organized by UGC-HRDC, Jawaharlal Nehru Technological University (JNTU)-

Hyderabad, India from 07 – 21 December 2020.

8. Online Faculty Development Program on "Modern Characterization Techniques for Scientific and Engineering Applications (MCTSEA-2020)" organized by Department of Physical Sciences, Kakatiya Institute of Technology and Sciences, Warangal during 4 - 8 August, 2020.

## Invitations

1. Jury member for Online State level exhibition and Project Competetion -2020-21 organized by SCERT, Hyderabad, India on 27 January, 2024.
2. Jury member for Online State level Bal Vaigyanik Pradarshini organized by SCERT, Hyderabad, India on 23 January, 2024.
3. Jury member for Science Fair 2023 organized by Kendriya Vidhyalaya AFS, Begumpet on 14 September, 2023.
4. Jury member for Jignasa 2023 Student Study Projects – 2023 organized by Commissionerate of Collegiate Education, Government of Telangana, Hyderabad, India on 3 April, 2024.
5. Jury member for Jignasa 2022 Student Study Projects – 2022 organized by Commissionerate of Collegiate Education, Government of Telangana, Hyderabad, India on 3 May, 2023.
6. Jury member for Jignasa 2021 Student Study Projects – 2021 organized by Commissionerate of Collegiate Education, Government of Telangana, Hyderabad, India on 3 April, 2022.
7. Evaluator for Telangana State Level Children's Sciecen Congress-2019 at Harvest Public School, Khammam,Telangana from 14$^{th}$ to 16$^{th}$ September, 2019.
8. Jury member for State level Science, Mathematics and Environment Exhibition - 2019 at K.B.School,Bramhanpally Road, Thurka Yamjal, Abdullapurmet Mandal, Ranga Reddy on 31-12-2019.
9. Jury member for District Level Science Seminar at Nrupatunga High School, Lingampally, Kachiguda,Hyderabad on 28-09-2018.
10. Jury member for Science Project Presentation at Defence Laboratories School, RCI, Hyderabad in connectionwith Dr.APJ Abdul Kalam Memorial Science Exhibition on 27-10-2017.
11. Jury member for District Level Science Seminar at Keshav Memorial High School, Narayanguda, Hyderabadon 16-09-2017.
12. Chief Guest for "Civil Services Week" at Ravindra Bharathi School, Vijayanagar Colony, Hyderabad on 22-07-2016.
13. Guest of Honour for 137$^{th}$ Birth Anniversary Celebrations of Smt. Sarojini Naidu at SN Vanita MahaVidyalaya, Nampally, Hyderabad on 13-02-2016.
14. Judge for 43$^{rd}$ Jawaharlala Nehru National Science, Mathematics Environment Exhibition at KendriyaVidhyalaya No-I, Langer House, Golkonda, Hyderabad on 18-12-2015.
15. Judge for State level Bala Ratna/Bala Surya in "Scientific Innovations" by Jawahar Bal Bhavan, Hyderabadon 04-11-2015.
16. Judge for State level Bala Ratna/Bala Surya in "Creative Innovation Science" by Jawahar Bal Bhavan,Hyderabad on 04-11-2015.
17. Judge for State level Bala Shree selections in "Creative Scientific Innovation" conducted by Jawahar BalBhavan, Hyderabad on 01-11-2015.
18. Jury member for District level INSPIRE awards Science exhibition-2015 at SPR E/M High School, Nagunoor,Karimnagar from 25 - 27$^{th}$ August 2015.
19. Jury member for District Level INSPIRE Science Fair-2015 at Progress Global High School, Bahadurpura,Hyderabad on 18-08-2015.
20. Jury member for District Level INSPIRE Science Fair-2015 at St.Piou's Girls High School, Ramnagar,Hyderabad on 13-08-2015.
21. Jury member for INSPIRE awards Science Exhibition-2014 at Mount Carmel High School, Dharoor, Jagityal,Karimnagar Dt., Hyderabad from 22 -24$^{th}$ August 2014.

## National/International Conferences

1. Oral presentation entitled "Influence of Yttrium doping on Structural, morphological, optical and electrochemical properties of $ZnAl_2O_4$"delivered in 2nd International conference on "Materials for Sustainable Development and Technologies (ICMSDT)" at the Department of Nano Science and Materials, Central University of Jammu, UT-J&K, India on 1-3 May, 2024.
2. Attended a Conference "Magnetism 2022" organized by IOP Institute of Physics, UK on 28 & 29 March, 2022.
3. Participated in the International Conference on "Contemporary Researches in Engineering,
4. Science, Management & Arts (ICCRESMA 2022)"organized by Centre for Research and Training (CRT), National Foundation for Entrepreneurship Development (NFED), Coimbatore, Tamil Nadu, India on 27-29 January, 2022.
5. Participated in the International Conference on "Multifunctional Electronic Materials and Processing (MEMP-2021)" conducted by C-MET Pune during 8-10 March, 2021.
6. Participated in an International Hybrid Meeting on "Physics and Chemistry of Advanced Materials" organized by Indian Institute of Technology, Delhi from 24-27 October, 2021.
7. Participated in International Conference on "Advanced Functional Materials and Devices" organized by National Institute of Technology (NIT), Warangal, India from 26-28 February 2019.
8. Participated in Materials of the Future: Smart Applications in Science and Engineering conference online during29-31 March 2021 organized by Qatar University, Qatar.
9. Participated in International Conference on Multifunctional Electronic Materials and Processing (MEMP-2021)online organized by C-MET, Pune during 8-10 March 2021.
10. Participated and acted as a Reviewer for International conference on Multifunctional Materials at GeetanjaliCollege of Engineering and Technology, Kesara, Telangana during 19-21 December 2019.
11. Participated in Oxfords Instruments Nanotechnology Seminar (BTNT 2019) at NISER, Bhubaneshwar during 5-6 December 2019.
11. Participated in Women Scientist and Entrepreneur Conclave (WSE) as part of International Science Festival(IISF)-2018 at MARS Hall of Indira Gandhi Pratishthan, Lucknow, India during 7-8 October 2018.
12. Oral presentation on "Conduction mechanism and magnetic properties of AG doped Strontium Hexaferrites" in 2nd International Conference on Nanoscience & Engineering Applications-2018 organized byJNTU, Kukatpally, Hyderabad during 4-6 October 2018.
13. Oral Presentation on "Effect of NiO particles on the Magnetic and Dielectric properties of $NiZnFe_2O_4$-Polyaniline" in International Conference on Recent Advances in Nano Sciecne and Technology (RAINSAT-2015) held at Sathyabhama University, Chennai, Tamil Nadu, India during 8-10 July 2015.
14. Participated in National Conference on Advanced Materials for Energy Applications (NCAMEA-2014) held atDepartment of Physics, Osmania University, Hyderabad, India during 31st January to 1at February 2014.
15. Oral presentation in International Conference on Nano, Bio & Material Sciences (ICONBMS-2014) held at Department of Physics, Nizam College, Basheerbagh, Osmania University, Hyderabad during 8-10 January2014.
16. Oral presentation in National Seminar on Physics& Quality of Life held at Department of Physics Electronics, Koti Women's College, Osmania University, Hyderabad, India during 24-25 February 2014.
17. Invited paper presentation in International Conference on Advanced Polymeric Materials (ICAPM-2013) heldat Mahatma Gandhi University, Kottayam, Kerala, India during 11-13 October 2013.
18. Presented a Poster in International Conference on Magnetic Materials and Applications (MagMa-2013) at IITGuwahati, India during 5-7 December 2013.
19. Participated in International School and Conference on Functional Materials at Harish Chandra Research Institute, Allahabad, India during March 28 to 3 April 2011.
20. Presented a paper in 2nd International Conference on Advanced Nanomaterials and Nanotechnology (ICANN)-2011 organized by Department of Physics and Centre for Nanotechnology, Indian Institute of Technology, Guwahati, India during 8-10 December 2011.
21. Presented a paper in 56th DAE-Solid State Physics Symposium" held at SRM University, Kattankulathur, Tamil Nadu during 19-23 December 2011.

22. Presented a paper (Oral) in International Conference on Applications of Renewable and Sustainable Energy for Industry and Society held at Department of Physics, Osmania University, Hyderabad, India during 16-18December 2010.
23. Participated in UGC-SAP National Seminar on Recent Trends in Solid State Materials"held at Department ofPhysics, Osmania University, Hyderabad, India on 26th February 2010.
24. Oral presentation on "Electromagnetic properties of $NiCuZnFe_2O_4$-$BaTiO_3$ Nanocomposites for EMI applications" in International Seminar on High Temperature Materials held at Department of Mechanical Engineering, Institute of Technology, Banaras Hindu University, Varanasi-221 005, India during 23-25 February, 2009.
25. Presented a paper on "Structural and dielectric properties of $BaTiO_3$+$NiCuZnFe_2O_4$ Nanocomposites" at National Seminar on Recent Trends in Multifunctional Oxide Materials held at Department of Physics, Osmania University, Hyderabad during 17-18 July, 2009.
26. Participated in International Conference on Electroceramics held at Department of Physics and Astrophysics, University f Delhi, India during 13-17 December 2009.
27. Participated in 38th National Seminar on Crystallography organized by Department of Geology, University ofMysore, Mysore, Karnataka, India during 11-13 February 2009.
28. Presented a paper in National Symposium on Acoustics (NSA 2009) held at Research Centre Imarat (RCI), Hyderabad, India during 26-28 November 2009.
29. Participated in International Conference on Magnetic Materials & their Applications (MMA21) held at National Physical laboratory, New Delhi, India during 21-23 October, 2008.
30. Presented a paper in International Conference on recent Trends in Nanostructured Materials and Their Applications (ICRNM-2008) held at Department of Physics, Osmania University, Hyderabad, India during 19-20 December 2008.
31. Presented a Poster in Indo Australia Symposium on Multifunctional Nanomaterials, Nanostructures and Applications (MNNA 2007) held at Department of Physics and Astrophysics, University f Delhi, India during19-21 December 2007.
32. Participated in Two day National Seminar on Recent Challenges in Physics organized by Department of Physics & Electronics, Koti Women's College, Osmania University, Hyderabad, India during 19-20 February2007.

## Publications

**2024**

- John Steven Wesley, K; Shireesha, K; Divya, V; Rakesh, D; Shilpa Chakra, CH; Sree Chandana, K; Sai Vamsi Ganesh Reddy, S; Deepti, K; Bala Narsaiah, T; Sadhana, K. Impact of surfactant on specific capacitance of nickel oxide nanoparticles for supercapacitor application. *Bulletin of Materials Science*. 2024, 47, 1, 30.
- Koneti, Bangari Babu; Chidurala, Shilpa Chakra; Katlakunta, Sadhana; Kumar, Rakesh; Butreddy, Ravinder Reddy. Enhanced Structural and Electrochemical properties of Vanadium doped $NiCo_2O_4$ nanoparticles synthesized by microwave hydrothermal method. 2024 (Accepted).
- Kumar, K Kiran; Kumar, T Suresh; Reddy, B Ravinder; Chakra, Ch Shilpa; Praveena, K; Katlakunta, S. Structural, morphological, spectroscopic, and electrochemical properties of Cr doped $ZnAl_2O_4$. *Journal of Sol-Gel Science and Technology*. 2024, 111, 3, 794-805.
- Neelam, Sathyanarayana; Chidurala, Shilpa Chakra; Katlakunta, Sadhana; Lal, Babu; Baddam, Sudhakar Reddy; Butreddy, Ravinder Reddy. Improved Structural and Electrochemical Properties of Mg-Doped Nickel Cobaltite Nanoparticles Synthesized Using Low-Temperature Microwave Hydrothermal Method. *Electrochemical Society Meeting Abstracts 245*. 2024, 1, 171-171.
- Neelam, Sathyanarayana; Koneti, Bangari babu; Chidurala, Shilpa chakra; Katlakunta, Sadhana; Lal, Babu; Butreddy, Ravinder Reddy. Low-temperature microwave hydrothermally synthesized Mn-doped $NiCo_2O_4$ nanoparticles: enhanced structural and electrochemical properties. *Journal of Sol-Gel Science and Technology*. 2024, 110, 1, 246-255.

- Ramesh, T; Ashok, K; Usha, P; Kumar, N Pavan; Sadhana, K; Praveena, K. Tunable Magnetic and Dielectric Properties of $BaMg_{0.4}Al_{0.4}Fe_{11.2}O_{19}$ and $SiO_2$ Composites for High-Frequency Applications. *ECS Journal of Solid State Science and Technology*. 2024, 13, 7, 73008.
- Ramesh, T; Usha, P; Venkatesh, D; Sadhana, K; Praveena, K; Ashok, K. Preparation, Structural, and Magnetic Properties of Soft ($Ni_{0.6}Zn_{0.4}Fe_2O_4$) and Hard ($BaFe_{12}O_{19}$) Ferrite Composites. *Journal of Superconductivity and Novel Magnetism*. 2024, 37, 1617- 1628.
- Rodney, John D; Joshi, Sindhur; Ray, Subhasmita; Rao, Lavanya; Deepapriya, S; Carva, Karel; Bhat, Badekai Ramachandra; Udayashankar, NK; Perumal, Suresh; Katlakunta, Sadhana. Electrocatalytic synergies of melt-quenched Ni-Sn-Se-Te nanoalloy for direct seawater electrolysis. *Chemical Engineering Journal*. 2024, 499, 155775.
- Sriramulu, G; Verma, Rahul; Singh, Kshitij RB; Singh, Pooja; Chakra, Ch Shilpa; Mallick, Sadhucharan; Singh, Ravindra Pratap; Sadhana, K; Singh, Jay. Self-assembled copper oxide nanoflakes for highly sensitive electrochemical xanthine detection in fish-freshness biosensors. *Journal of Molecular Structure*. 2024, 1304, 137640.
- Suresh, Muthiah; Singh, Raj Bahadur; Katlakunta, Sadhana; Patra, Snigdha Rani; Tanwer, Yogesh Bhaskar Singh; Mallick, Sadhucharan; Bhunia, Sabyasachi; Das, Debjit. Starch-supported cuprous iodide nanoparticles catalysed C–C bond cleavage: use of carbon-based leaving groups for bisindolylmethane synthesis. *Monatshefte für Chemie-Chemical Monthly*. 2024, 155, 739-745.

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