

FACULTY PROFILE

1. Name : Dr. S. Deepapriya
2. Designation : Assistant Professor
3. Qualification : M.Sc., Ph.D.
4. Mobile number : 9790220207
5. E-mail id : deepaphy@auxiliumcollege.edu.in
6. Teaching Experience : 2 Years
7. Area of specialization : Gas Sensors, Biosensors, Water Splitting,
Photo Catalysis, Super Capacitors.
8. Research Experience and Guidance : 6 Years
9. No. of Papers Published : 32
10. No. of Papers Presented in the National/ International/ Seminars/ Workshops/ Conferences :28
11. No. of Seminars/Workshops/Conferences organized: 1
12. Responsibilities held : Innovation In-charge.
13. Current Responsibilities : Innovation In-charge, Coordinator for Association Activity
14. Membership in professional bodies (Descriptive): Natural Science Foundation
- 15. Honors & awards received (Descriptive):**

1. Received a Best Research Scholar award in Loyola College, Chennai in the year 2020.
2. M.Sc. Rank holder in Quantum Mechanics subject in Women's Christian College, Chennai in the year 2017.

16. Any Other (Descriptive) :

Reviewer- Scopus/WOS indexed journals

- Journal of Alloys and compounds- Elsevier
- International Journal of Hydrogen Energy – Elsevier
- Journal of Materials science-Materials in Electronics -Springer
- Chemical Engineering Journal – Elsevier

Publications in Journals

1. [Deepapriya.S](#), John.D.Rodney, Jofel Flora John, Sindhur Joshi, N.K. Udayashankar, S.Lakshmi Devi, S. Jerome Das “ A Novel effective immobilization of glucose oxidase on $\text{Ni}_{0.25}\text{Zn}_{0.25}\text{Cu}_{0.25}\text{Co}_{0.25}\text{La}_{0.06}\text{Fe}_{1.94}$ –Chitosan nanocomposite as enzymatic glucose biosensor” *Inorganic Chemistry Communication*, ISSN 1387-7003 July 2023, Vol. 153, pp 110822.
2. [Deepapriya S](#), John.D.Rodney, N.K Udayashankar “Structural, dielectric and impedance functionalities of $\text{La}_{0.01}\text{Cu}_{0.99}\text{O}$ nanocrystals” *Journal of Material Science and Material in Electronics* , ISSN 0957-4522, September 2023, Vol.34, Issue 26, pp 1824
3. John.D.Rodney, [Deepapriya.S](#), Jerome Das.S, M. Cyril Robinson, Suresh Perumal, Sadhana Katlakunta, Periyasamy Sivakumar, Hyun Jung, C.Justin Raj, “ Boosing overall electrochemical water splitting via rare earth doped cupric oxide nanoparticles obtained by co-precipitation technique” *Journal of Alloys and Compounds*, ISSN 0925-8388, September 2023, Vol.921 Issue 26, pp 0925-8388.
4. S. Grace Infantiya, A. Aslinjensipriya, R.Sylvia Reena, [Deepapriya.S.](#), John.D.Rodney, S.Jerome Das, C.Justin Raj, Calcium copper titanate

a perovskite oxide structure: effect of fabrication techniques and doping on electrical properties – a review, *Journal of material science and material in electronics*, ISSN 0957-4522, June 2022: Vol.33, pp15992 – 16028.

5. Deepapriya, S., John. D. Rodney, S. Jerome Das, S. Lakshmi Devi, P. Nagaraju, J. R. Anusha, J. Suresh Perumal, Ermine Jose, C. Justin Raj, “Synergetic effects of lanthanum substituted Ni-Zn-Cu-Co ferrite nanocomposite with enhanced NH₃ sensing performance.” *Journal of Environmental Chemical Engineering*, ISSN 2213-3437., December 2021: Vol.09, Issue.06, pp 106829.
6. Rodney, John D., Deepapriya, S, M. Cyril Robinson, S. Jerome Das, Suresh Perumal, Byung Chul Kim, C. Justin Raj, “Cu_{1-x}RE_xO (RE = La, Dy) decorated dendritic CuS nanoarrays for highly efficient splitting of seawater into hydrogen and oxygen fuels.” *Applied Materials Today*, ISSN 2352-9407, September 2021: Vol.24, pp 101079.
7. Rodney, John D., Deepapriya, S, M. Cyril Robinson, C. Justin Raj, Suresh Perumal, Byung Chul Kim, S. Jerome Das, “Dysprosium doped copper oxide (Cu_{1-x}Dy_xO) nanoparticles enabled bifunctional electrode for overall water splitting”, *International Journal of Hydrogen Energy*, ISSN 0360-3199, August 2021: Vol.46, Issue 54, pp 27585-27596.
8. Rodney, John D, Deepapriya, S, M. Cyril Robinson, C. Justin Raj, Suresh Perumal, Byung Chul Kim, S. Jerome Das, “Lanthanum doped copper oxide nanoparticles enabled proficient bi-functional electrocatalyst for overall water splitting.” *International Journal of Hydrogen Energy*, ISSN 0360-3199, September 2020: Vol.45, Issue 46, pp 24684-24696
9. Rodney, John D., Deepapriya, S, P. Annie Vinosha, M. Cyril Robinson, S. Krishnan, S. A. Martin Britto Dhas, and S. Jerome Das. "Impact of Synthesis Technique on Lanthanum Doped Copper Oxide Nanocrystals, an Alternative Counter Electrode for Pt-Free Dye-Sensitized Solar Cells." *Journal of Nanoscience and Nanotechnology* ISSN 24235911, December 2019: Vol.19, Issue 20, pp 4023-4034.
10. Deepapriya, S., P. Annie Vinosha, John. D. Rodney, M. Jose, S. Krishnan, J. Ermine Jose, S. Jerome Das, “Investigation on Lanthanum substitution in magnetic and structural properties of group IV elements.” *Vacuum*, ISSN 0042-207X, March 2019: Vol.161, Issue 20, pp 5-13.

11. Deepapriya, S., S. Lakshmi Devi, P. Annie Vinosha, John. D. Rodney, C. Justin Raj, J. Ermine Jose, S. Jerome Das, "Estimating the ionicity of an inverse spinel ferrite and the cation distribution of La doped NiFe₂O₄ nanocrystals for gas sensing properties." *Journal of Applied Physics A Materials Science & Processing*, ISSN 0947-8396, January 2019: Vol.125, Issue 10, pp 683.
12. Deepapriya, S., P. Annie Vinosha, John. D. Rodney, S. Krishnan, J. Ermine Jose, S. Jerome Das, "Effect of rare earth (Lanthanum) substitution on Copper ferrite Nanoparticles." *Journal of Functional Materials and Biomolecules*, ISSN 2456-9429, June 2019: Vol.3, Issue 1, pp 1-4.
13. Rodney, John D., Deepapriya, S., P. Annie Vinosha, S. Krishnan, M. Cyril Robinson, S. Jerome Das, "Optical studies on Dysprosium doped copper oxide nanoparticles synthesized by combustion technique." *Journal of Functional Materials and Biomolecules*, ISSN 2456-9429, June 2019: Vol.3, Issue 1, pp 8 - 19.
14. Deepapriya, S., P. Annie Vinosha, John. D. Rodney, S. Krishnan, J. Erime Jose, S. Jerome Das, "Effect of Lanthanum substitution on magnetic and structural properties of nickel ferrite." *Journal of Nanoscience and Nanotechnology*, ISSN 24235911, October 2018: Vol.18, Issue 10, pp 6987-6994.
15. Deepapriya, S., P. Annie Vinosha, John. D. Rodney, S. Krishnan, J. Ermine Jose, S. Jerome Das, "Influence of rare-earth (La³⁺) substitution on zinc ferrite nanocrystals." *Journal of functional materials and biomolecules*, ISSN 2456-9429, June 2018: Vol.2, Issue 1, pp 25 - 30.
16. Rodney, John D., Deepapriya, S., P. Annie Vinosha, S. Krishnan, S. Janet Priscilla, R. Daniel, and S. Jerome Das. "Photo-Fenton degradation of nano-structured La doped CuO nanoparticles synthesized by combustion technique." *Optik*, ISSN 0030-4026., May 2018: Vol.161, Issue78, pp 204-216.
17. Rodney, John D., Deepapriya, S., P. Annie Vinosha, S. Jerome Das. "Investigation on the effect of lanthanum substituted copper oxide nanoparticles synthesized by co-precipitation method." *Journal of Functional Materials and Biomolecules*, ISSN 2456-9429, December 2018: Vol.2, Issue 2, pp 53 - 57.

18. Vinosha, P. Annie, [Deepapriya, S.,](#) John. D. Rodney, S. Krishnan, S. Jerome Das, “Investigation of spinel $\text{Ni}_{0.5}\text{Dy}_{0.5}\text{Fe}_2\text{O}_4$ nanoparticles by Facile co-precipitation route and their influence on the degradation of organic compound.” *Journal of functional materials and biomolecules*, ISSN 2456-9429, December 2018: Vol.2, Issue 1, pp 1 - 9.
19. [Deepapriya, S.,](#) L. Ansel Mely, P. Annie Vinosha, John. D. Rodney, S. Lakshmi Devi, S. Jerome Das, “Investigations on the Properties of Copper Sulphide Nanoparticles.” *International Research Journal of Engineering and Technology (IRJET)*, ISSN 2395-0072, January 2017: Vol.4, Issue 9, pp 156-158.
20. Rodney, John D., K. Raja, [Deepapriya, S.,](#) P. Annie Vinosha, L. Ansel Mely, S. Janet Priscilla, R. Daniel, S. Jerome Das, “Investigation on the properties of Copper Oxide by Solution Combustion Synthesis.” *International Research Journal of Engineering and Technology (IRJET)*, ISSN 2395-0072, January 2017: Vol.4, Issue 9, pp 378-380.
21. Vinosha, P. Annie, D. Anceila, L. Ansel Mely, [Deepapriya, S.,](#) John. D. Rodney, S. Jerome Das, “Studies on Structural, Optical and Magnetic Properties of Zinc Ferrite Nanoparticles.” *International Research Journal of Engineering and Technology (IRJET)*, ISSN 2395-0072, January 2017: Vol.4, Issue 9, pp 342-344.
22. Mely, L. Ansel, P. Annie Vinosha, [Deepapriya, S.,](#) John. D. Rodney, S. Jerome Das, “Hydrothermal Synthesis of Ternary Chalcopyrite CuFeS_2 Nanoparticles.” *International Research Journal of Engineering and Technology (IRJET)*, ISSN 2395-0072, January 2017: Vol.4, Issue 9, pp 338-341.

Publications in Proceedings

1. Deepapriya, S., P. Annie Vinosha, John. D. Rodney, S. Jerome Das, “Effect of pH on Structural, Morphological, Photoacoustic and Magnetic Properties of NiLaFe₂O₄ Ferrite Nanocomposites for Gas Sensing Applications.” *American Institute of Physics: Conference proceedings*, ISSN 1551-7616 , 2020: Vol.2244, pp 070016.
 2. Deepapriya, S., John. D. Rodney, S. Jerome Das, “Progression in structural, morphological, photoacoustic and magnetic properties of lanthanum doped group IV elements.” *American Institute of Physics: Conference proceedings*, ISSN 1551-7616, 2020: Vol.2265, pp 030112.
 3. Rodney, John D., Deepapriya, S., M. Cyril Robinson, S. Jerome Das, “Impact of synthesis technique on dysprosium doped CuO for supercapacitor applications.” *American Institute of Physics: Conference proceedings*, ISSN 1551-7616, 2020: Vol.2265, pp 030635.
 4. Rodney, John D., Deepapriya, S., M. Cyril Robinson, M. Jose and S. Jerome Das. “Co-precipitation Synthesized Lanthanum Doped Copper Oxide Nanoparticles for Super capacitor Applications.” *American Institute of Physics: Conference proceedings*, ISSN 1551-7616, 2020: Vol. 2244, pp 070018.
 5. Chamundeeswari, A., S. Jerome Das, P. Latha Magheshwari, Deepapriya, S., John. D. Rodney, S. Grace Infantiya, A. AslinJensipriya, R. Sylvia Reena, R. Rathikha, “Structural, Non-Linear Optical Property Analysis of ZnO-CdO Nanocomposite.” *American Institute of Physics: Conference proceedings*, ISSN 1551-7616, 2020: Vol. 2244, pp 060001.
 6. Infantiya, S. Grace, Vinola, Deepapriya, S., John. D. Rodney, A. Aslinjensipriya, R. Sylvia Reena, A. Chamundeeswari, S. Jerome Das, “Synthesis and characterization of nickel oxide nanoparticles by sol-gel technique.” *American Institute of Physics: Conference proceedings*, ISSN 1551-7616, 2020: Vol. 2244, pp 070017.
 7. Aslinjensipriya, A., Narmadha, Deepapriya, S., John. D. Rodney, S. Grace Infantiya, R. Sylvia Reena, A. Chamundeeswari, S. Jerome Das, “Synthesis and Characterization of ZnO Nanoparticles By Novel Solgel Technique.” *American Institute of Physics: Conference proceedings*, ISSN 1551-7616, 2020: Vol.2244, pp 070013.
- Reena, R. Sylvia, P. Judy Freeda, Deepapriya, S., John. D. Rodney, S. Grace Infantiya, A. Aslinjensipriya, A. Chamundeeswari, M. Jose, S. Jerome Das, “Synthesis of CuO nanoparticles: Structural and Optical properties by Sol-gel method.” *American Institute of Physics: Conference proceedings*, ISSN 1551-7616, 2020: Vol.2244, pp 070035.

8. Deepapriya, S., P. Annie Vinosha, John. D. Rodney, S. Jerome Das, “Effect of pH on structural, morphological, photoacoustic and magnetic properties of lanthanum doped nickel ferrite nanocomposites.” *American Institute of Physics: Conference proceedings*, ISSN 1551-7616, 2018: Vol.2115, pp 030068.
9. Deepapriya, S., P. Annie Vinosha, John. D. Rodney, S. Jerome Das, “Progression in structural, magnetic and electrical properties of lanthanum doped group IV elements.” *American Institute of Physics: Conference proceedings*. ISSN 1551-7616, 2018: Vol.1942, pp 050071.
10. Vinosha, P. Annie, Deepapriya, S., John. D. Rodney, S. Jerome Das, “Investigation on structural, optical and magnetic properties of Dy doped zinc ferrite nanoparticles.” *American Institute of Physics: Conference proceedings*, ISSN 1551-7616, 2018: Vol.1942, pp 050001.

FDP's/ Seminars/ Workshops/Webinars

- International Conference on Nanotechnology: Ideas, Innovations and Initiatives 6th – 8th December 2017, ICN, Roorkee.
- 62nd DAE Solid state physics symposium 26th – 30th December 2017, BARC, Mumbai.
- 22nd National Seminar on Crystal Growth and Applications 29th – 30th January 2018, NSCGA, Tirupattur.
- National Conference on Recent Trends in physics of materials 9th – 10th February 2018, NCRTPM, Chennai.
- 2nd national seminar on vibrant trends in physics, Department of Physics (SFS), Madras Christian College, 26th February 2018.
- National conference on “Intellectual property rights and plagiarism”, Department of Physics, Sacred Heart College, Tirupattur, 22nd March 2018.
- National conference on energy materials – 2018 (NCEM-2018), Department of physics, Manonmaniam Sundaranar University, Tirunelveli. 28th – 29th June 2018.
- 2nd International Conference on Recent Trends in Applied Science and Technology (ICRTAST 2018) Periyar University, Salem 23rd – 25th August 2018.

- 63rd DAE Solid State Physics symposium, Guru Jambheshwar University of Science and Technology, Hisar, Haryana 18th – 22nd December 2018.
- 23rd National Seminar on Crystal Growth and Applications (NSCGA-2019), Bharathiyar University, Coimbatore, 28th – 30th January 2019.
- International Conference on Advances in Materials Research (ICAMR'19), Sacred Heart College, Tirupattur, 12th February 2019.
- National Level Technical Seminar on X-Ray Photoelectron Spectroscopy for nanomaterials Characterization, Karunya Institute of Technology and Sciences, Coimbatore 19th February 2019.
- International conference on Physics of materials & nanotechnology (ICPN – 2019), Mangalore University, 19th – 21st September 2019.
- 64th DAE Solid state physics symposium 18th – 22nd December 2017, Indian Institute of technology, Jodhpur.
- National Conference on material science 9th January 2020, Loyola College, Chennai.
- Workshop on Research Methodology, 25th – 30th November 2017, organized by Dean of Research, Loyola Institute of Social Science Training and Research (LISSTAR) and Loyola Research Institute of Mathematics and Computing Sciences (LIMCOS), Loyola College.
- Workshop on Characterization & Modelling of Magnetic materials (CMMM 2018), Department of Physics, Birla Institute of Technology & Science (BITS), Pilani Hyderabad Campus, 13th – 14th July 2018.
- Workshop on Analytical Instrumentation Techniques 2019 (WAIT 2019), St.Peter's Institute of Higher Education and Research (SPIHER) 4th March 2019.
- Protective Coatings: low – friction, wear and corrosion workshop, Malaviya National Institute of Technology, Jaipur, 1st – 5th July 2019.
- History of Nuclear Fission, V.O Chidambaram College 5th May 2020
- Quiz - Quiz on Amazing Facts in Physics, Bharath Institute of Science and Technology 19th May 2020
- Taking research forward during the pandemic, Loyola Institute of Frontier Energy (LIFE) Chennai 20th May 2020
- Micro, Nano and Atomic scale approaches in Electronic applications, Erode Arts and science college 21st May 2020
- Energy, Energy Everywhere, How to harness it? V.O.Chidambaram College 21st May 2020

- International webinar on Energy, Environment and Healthcare applications The Gandhigram Rural Institute 22nd May 2020.
- Shock waves – A potential tool for tailoring material's property, Kumaraguru College of Technology 22nd May 2020
- Solar Eruptions, Karpagam Institute of Technology 23rd May 2020
- Quiz - Science Technology and Development 2020, Kamaraj College 25th May 2020
- Opportunities and Challenges on Hydrogen Energy and Fuel Cell Technologies, Annai Vailankanni College of Engineering 26th May 2020
- International webinar on Passive and Active Hyperbolic Metamaterials and their Applications, SRM Institute of Science and Technology 26th May 2020
- Influence on Climate Change on Biodiversity Resources, V.O.Chidambaram College , 26th May 2020
- Quiz - Play with Physics, Arulmigu Palaniandavar College of Arts and Culture 27th May 2020
- Electroanalytical Techniques for Water Splitting: Dos and Dont's, Saveetha Engineering College 27th May 2020
- Talent Physics Quiz, Noorul Islam Centre for Higher Education, 29th May 2020
- Global Nanotech for future advancements, Department of Physics, Loyola College 29th May 2020
- Effective Role of Nano materials in super Capacitors, Pioneer Kumaraswamy College 29th May 2020
- Fight against Covid with the Power of Emotional Intelligence, St. Peter's Institute of Higher Education and Research 30th May 2020.
- International Webinar on "Cyclic and Linear Sweep Voltammetry - Fundamentals & Applications, Bhaktavatsalam Memorial College for Women 31st May 2020
- Webinar on Graphene based Nanocomposites for Energy Storage, V.O Chidambaram College 1st June 2020
- Introduction to Geographic Information System, ST. Mary's College 2nd June 2020
- Webinar on Nuturing Graduates on Industry Readlines, V.O Chidambaram College 3rd June 2020
- National Webinar on Creative Writing of Research Proposals & Articles, Adikavi Nannaya University 4th June 2020
- Emerging trends in Nano-materials for Microwave, Integrated electronics and cancer applications, GMR Institute of Technology 4th June

2020

- Lecture Series on spectroscopy and its perspectives, Sacred Heart College 5th June 2020
- National webinar on Nanostructured Materials for controlling the flow of light, SRI YN College 5th June 2020
- Understanding of Nonlinear Dynamics in natural and Engineering, PSNA College of Engineering and Technology 6th June 2020
- Nanoscience - Future perspective, Muthayammal College of Arts and Science 8th June 2020
- Terahertz spectroscopy: Forbidden gap transforming into an advanced application, Holy Cross College 9th June 2020
- Webinar on Nano Composite Ion- Conducting Solid Polymer Electrolyte materials, Vignan's Institute of management and technology for women 10th June 2020
- Covid19 Online Awareness Quiz, Dr. NGP Institute of Technology 11th June 2020
- National Webinar on Research Methodology, Loyola College Chennai 12th June 2020
- Webinar on Design of Fuel Cell Emulator in MATLAB, SCAD College of Engineering 13th June 2020
- Webinar on Introduction to metal oxide Nano Structure for sensing applications, Sathyabama Institute of Science and Technology 15th June 2020
- Summer Online Training Programme on LATEX, Jamal Mohamed College 15th June 2020
- Webinar on Advance in Crystal Growth and Nano materials, Kamaraj College 18th June 2020
- Webinar on Recent Trends in Advanced Material Science, The American College 19th June 2020
- International webinar on Flexible Energy Storage Device, Centre of Nano Science and Technology 20th June 2020
- Nanomaterials for environmental applications, Kings Engineering College 20th June 2020
- International virtual Conference on High- Performance Materials for Energy, Environment & Healthcare in the Digital Era Vellore Institute of technology, 30th June – 1st July 2020
- Webinar on Future generation solar cell, Nehru Institute of Technology. 4th July 2020

- Webinar on Nanoscale Nonlinear Optics –An Exciting Glimpse, Vellore Institute of technology 7th July 2020
- Webinar on Writing a Scientific Manuscript – Key Points to Remember & Key Factors for writing a Scientific proposal, JP College of Arts and Science 8th July 2020
- International webinar on The Journey of Supramolecular Chemistry from an Accidental Discovery to Advanced Materials, RMK College of Engineering and Technology 9th July 2020
- Time Resolved RAMAN Spectroscopy of Dynamically, Annai Vailankanni College of Engineering 10th July 2020
- National Webinar on Recent Trends in Crystal Growth, St. Xavier's College 10th July 2020
- Webinar on Advance in the synthesis of Biopolymer- Ceramic Composites for Biological Applications, Saveetha Engineering College 10th July 2020
- E-Lecture Series Four: Application of Radiation in Material Science, ST. John's College, 11th July 2020
- International webinar on Research Evolution Towards Current Scenario, Periyar EVR College 13th – 14th July 2020
- National webinar on Knowledge Updation in Multi-functional Materials, Lekshmipuram College of Arts and Science 16th July 2020
- Infrared Spectroscopy of Transient Chemical Species in Helium Nanodroplets, Sacred Heart College Thirupattur 17th July 2020
- IP Awareness/ Training Program under Intellectual Property Awareness Mission 16th April 2022.
- 2nd National Conference on Advanced Materials and Applications, Auxilium College (Autonomous) Vellore 13th – 14th October 2022.
- National Webinar on Applications of Physics in Medicine, Auxilium College (Autonomous) Vellore, 22nd August 2023.
- National Webinar on “Publish and Progress” Auxilium College (Autonomous) Vellore 26th August 2023.
- National Webinar Series 2023- (Event-1): Astronomy from Ground and Space, St Joseph's College (Autonomous), Tiruchirappali 29th August 2023.