

Namratha W.N

PhD Scholar- Nanostructures group, Dept. Physics & Astronomy

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EDUCATION

Masters in Physics Christ Deemed to be University, Bengaluru. Material Science Specialization <i>Project Guide: Dr. Manoj Balachandran.</i>	<i>Year</i> 2020 -2022
Bachelors in Science Alva's College, Moodbidri. In Physics, Chemistry, and Mathematics.	2017-2020
Pre-University St. Joseph's PU College, Madikeri. In Physics, Chemistry, Mathematics, and Biology.	2015-2017

TECHNICAL SKILLS

- EXAFS analysis using Demeter, Athena, and Artemis software.
- SEM, TEM image analysis using Image J software
- XPS, XRD, Raman, PL, and UV analysis using Origin software.
- PEM and Solid oxide fuel cell operation and test station handling.
- In-situ diagnosis of fuel cell using Electrochemical Impedance Spectroscopy (EIS).
- Brunauer-Emmett-Teller (BET) surface area analysis and operation.

SCHOLARSHIP AND AWARDS

INSPIRE(SHE)Scholarship

Awarded by the Department of Science & Technology (DST), Govt. of India, for the top 2% meritorious students undertaking bachelor's and master's in Natural and basic sciences.

2018

PROFESSIONAL EXPERIENCE

Project Research Assistant

Combustion, Gasification and Propulsion Laboratory (CGPL),
Indian Institute of Science (IISc), Bengaluru.

October 2022 –

August 2023

RESEARCH EXPERIENCE

Research project under Dr. Manoj B.

September 2021-

Professor, Dpt. of Physics, Christ Deemed to be University

August 2022

Project Title: “Synthesis of Carbon Nanomaterials from Biomass and study of its optical and electrochemical properties”

Research Internship under Dr. Richard Pinto,

Head R&D cell, AIET, Moodbidri.

2019

Project Mentor- Dr. Jayram A., AIET Moodbidri.

Project Title- “Role of Catalyst and catalytic activity in hydrogen fuel cell”

Research Internship under Dr. Richard Pinto,

Head R&D cell, AIET, Moodbidri.

2019

Project Mentor- Dr. Jayram A. AIET Moodbidri

Project Title- “Synthesis and characterization of furan-based Chalcone derivatives”

PATENTS

Namratha W. N., Dr. Richard Pinto, Dr. Sarveshwara Hegde, Dr. Sruthi, Dr. Jayram A, Dr. Shashidhara. Shashikumar Kumar Swamy, Dr. Sriganesh Prabhu, “A *process of synthesizing novel methyl substituted chalcone molecules-the potential cancer inhibitors,*” India Patent, No. 201941046359

2019

PUBLICATIONS AND CONFERENCE PROCEEDINGS

Namratha, W. N., Joseph, N., Varghese, N., Varghese, M., Sreehari, K. S., Joy, F., Nair, Y., & Manoj, B. (2024). *Titania-doped CDs as effective CT-DNA binders: A novel fluorescent probe via green synthesis.* Particle & Particle Systems Characterization. <https://doi.org/10.1002/ppsc.202400127>.

2024

Sreehari, K. S., **Namratha, W. N.**, Joseph, N., & Balachandran, M. (2022). *Toxic heavy metal ion detection by fluorescent nanocarbon sensor derived from a medicinal plant.* Results in Chemistry, 100720.

2022

Satheeshchandra, S; **Namratha, W.N.**; Haleshappa, D.; Jayarama, A.; Shetty, Nandakumar; Pinto, Richard (2020). *Novel methyl furan-based chalcone material for potential nonlinear optical applications.* Materials Today: Proceedings, (), S221478532031573X-. doi: 10.1016/j.matpr.2020.02.78

2020

Satheeshchandra, S.; **Namratha, W.N.**; Haleshappa, D.; Jayarama, A.; Shetty, Nandakumar; Pinto, Richard (2020). *Third-order nonlinear optical properties of novel furan-based organic crystal.* Materials Today: Proceedings, (), S2214785320316576-. doi: 10.1016/j.matpr.2020.02.867

2020

CONFERENCE

Best paper award in the '*International Conference on Recent Trends in Science, Engineering & Technology*' (ICRTSET-2022) organized by PSG College of Arts & Science, Coimbatore, India. 2022

Short Invited Lecture at the '*International Online Conference on Nanomaterials*' organized by Mahathma Gandhi University, Kottayam, Kerala, India. 2022

Poster presentation in the *National Conference on 'Recent Novel Approaches in Chemical Sciences'*, Field Marshal KM Cariappa college, Madikeri. 2020

Poster presentation in the '*International conference on Laser Deposition*' (*i COLD-2019*) organized by AIET, Mijar. 2019

OTHER

Recognition as a **research volunteer at the Centre for Academic and Professional Support** at Christ (Deemed to be University), Bengaluru. 2020

'**Understanding Research Methods**' an online non-credit course authorized by the University of London and SOAS University of London offered through Coursera. 2020

Awarded **grade C in the Business English Certificate (BEC) Vantage**, certified by Cambridge English. 2019

Presented a project in the 18th state-level Children Science Congress, organized by KVPY, Bengaluru. 2011

Karnataka music -Junior Grade Vocal and Bharatanatyam - Junior Grade, Karnataka Secondary Education Examination Board. 2010- 2011