

J. Dhanalakshmi

24-IV, Main road Sawyerpuram Tuticorin-628251 Tamil Nadu India **E-mail:** <u>dhanam0610@gmail.com</u> **Mobile:** +91-8056441432, +91-8903322530



Objectives

To execute my expertise in a challenging environment for the development of science as well as find new innovations in research through my hard work and dedication.

Personal

Date of Birth	: June 06, 1989
Gender	: Female
Marital Status	: Single
Nationality	: Indian

Educational Details

PhD	Department of Physics, Manonmaniam Sundaranar University, Tirunelveli, 2014-17 (Thesis Submitted)
Thesis title	Synthesis, characterization and photocatalytic properties of lanthanides included TiO_2 nanoparticles
M.Phil	Department of Physics (68%), Lady Doak College, Madurai, 2012
M.Sc	Department of Physics (73%), Pope's College, Tuticorin, 2011
B.Sc	Department of Physics (74%), Pope's College, Tuticorin, 2009
HSC	St. Mary's Girls Higher Secondary School, Sawyerpuram, Tuticorin, 2006, (77%)
SSLC	St. Mary's Girls Higher Secondary School, Sawyerpuram, Tuticorin, 2004, (84.4%)

Fields of Research Interest

- Materials Science
- > Nanomaterials
- > Photocatalysis

Professional Experience

> Assistant Professor, Department of Physics, Francis Xavier Engineering College, Tirunelveli, (February 2013 – December 2013).

Computer Knowledge

> Diploma in Office Automation (DOA).

Awards

> Awarded the UGC-BSR Fellowship (2014-2018) to carry out Ph.D at Manonmaniam Sundaranar University, Tirunelveli in the Department of Physics.

Extracurricular

- National Social Service
- Red Cross Society
- > Volleyball

Volunteer Experience

- Participated in ten days N.S.S camp "Prospering India and the Youth" in Mullanvilai village conducted by Pope's College, Sawyerpuram, Tamilnadu, India during 2 - 11th March 2007.
- Participated in the "University Level One day Leadership Training Programme" on 29th March 2008 organised by NSS cell, Manonmaniam Sundaranar University and Pope's college, Sawyerpuram, Tamilnadu, India.
- Participated in various concurrent programmes under N.S.S during 2006 2008 in Pope's College, Sawyerpuram, Tamilnadu, India.
- Participated in "First Aid & Emergency Care (Basic Life Support)" held on 29th February 2008 conducted by Indian Red Cross Society (IRCS) at Pope's College, Sawyerpuram, Tamilnadu, India.

Sports Activities

- Represented the state of Tamilnadu in the South Zone Senior National Volleyball Tournament 2-6th May 2012 held at Madurai, Tamilnadu, India.
- Represented the Madurai Kamaraj University in the Inter-University volleyball Tournament in the year 2011-12 held at Mahatma Gandhi University, Kerala, India.
- Got Runner-up position in the Women Inter-Collegiate Tournaments 2011-12, Madurai Kamaraj University, Madurai.
- Represented the Manonmaniam Sundaranar University in the Inter-University Tournament in the year 2010-11 held at Lakshmibai National University of Physical Education, Gwalior, Madhya Pradesh, India.
- Secured winner position in Inter- Collegiate Tournaments for Girls in the year 2010-11, Madurai District Volleyball Association, Madurai.
- Participated and won in various Intramural, Inter-collegiate and state level volleyball tournaments.

List of Publications

Number of papers published in SCI journals : 8 (Cumulative Impact factor: 14.746) Number of papers published in Edited volumes : 2 Number of papers presented in conferences : 8 Google scholar citation: https://scholar.google.co.in/citations?user=Vr6f_lcAAAAJ&hl

SCI journal Papers

- "Electrochemical analysis of graphene/Mo₉Se₁₁ nanocomposites towards energy storage application", V. Balasubramanian, J. Celina Selvakumari, J. Dhanalakshmi, M. Ahila and D. Pathinettam Padiyan, Journal of Materials Science: Materials in Electronics, Accepted manuscript. Impact Factor: 2.019.
- "Bio-active synthesis of tin oxide nanoparticles using eggshell membrane for energy storage application", J. Celina Selvakumari, S.T. Nishanthi, J. Dhanalakshmi, M. Ahila and D. Pathinettam Padiyan, Applied Surface Science, In Press, DOI: <u>10.1016/j.apsusc.2018.02.043</u>. Impact Factor: 3.387.
- "Photocatalytic degradation of methyl orange and bromophenol blue dyes in water using sol-gel synthesized TiO₂ nanoparticles", J. Dhanalakshmi and D. Pathinettam Padiyan, Material Research Express, 4(9) 2017, 095020. Impact Factor: 1.068.

- "Improved photo-induced charge carriers separation through the addition of erbium on TiO₂ nanoparticles and its effect on photocatalytic degradation of rhodamine B", J. Dhanalakshmi, J. Celina Selvakumari and D. Pathinettam Padiyan Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 190 (2018) 524. Impact Factor: 2.536.
- "Impact of structural, morphological and electrical properties of Gd_xTi_{1-x}O₂ nanocomposites on the photocatalytic degradation of Rhodamine B dye", J. Dhanalakshmi, M. Ahila, J. Celina Selvakumari and D. Pathinettam Padiyan, Journal of Materials Science: Materials in Electronics, 28 (2017) 16384. Impact Factor: 2.019.
- "Invesitgation of oxygen vacancies in Ce coupled TiO₂ nanocomposites by Raman and PL spectra", J. Dhanalakshmi, S. Iyyapushpam, S.T. Nishanthi, M. Malligavathy and D. Pathinettam Padiyan, Advances in Natural Sciences: Nanoscience and Nanotechnology 8 (2017) 015150. Impact Factor: 1.581.
- "Heat treatment effect on crystal structure and design of highly sensitive room temperature CO₂ gas sensors using anodic Bi₂O₃ nanoporous formed in a citric acid electrolyte", M. Ahila, J. Dhanalakshmi, J. Celina Selvakumari and D. Pathinettam Padiyan, Materials Research Express, 3 (2016) 105025. Impact Factor: 1.068.
- "Effect of hydrogen peroxide and camellia sinensis extract on reduction of oxygen level in graphene oxide", J. Celina Selvakumari, J. Dhanalakshmi and D. Pathinettam Padiyan, Materials Research Express, 3 (2016) 105011. Impact Factor: 1.068.

Papers in Edited Volumes

- "Corroboration of structural properties of Dy₂O₃-TiO₂ nanocomposites through X-Ray diffraction and Raman spectroscopy", J. Dhanalakshmi and D. Pathinettam Padiyan, Nano hybrids and composites, 17 (2017)127.(ISBN-13:978-3-0357-1038-0)
- "Effect of gadolinium inclusion on the raman spectra and photoluminescence of TiO₂ nanoparticles", J. Dhanalakshmi and D. Pathinettam Padiyan, Advanced Materials Proceedings, 1(2) (2016) 195 (ISBN- 2002-4428)

List of Conference Papers

 "Optical properties of Dy_xTi_{1-x}O₂ nanocomposites" National Symposium on Advances in Functional and Exotic Materials, MRSI Trichy chapter & Centre for High Pressure Research, Barathidasan University, Tiruchirappalli during 14th-16th, February 2018.

- "Structural and optical properties of Dy₂O₃-TiO₂ nanocomposites" Fourth International Conference on Nanostructured Materials and Nanocomposites, Mahatma Gandhi University, Kottayam during 10 - 12 February 2017.
- 3. "Adsorption of congo red dye using Ce coupled TiO₂ nanocomposites" International Workshop on Advanced Functional Materials and Devices, Manonmaniam Sundaranar University, Tirunelveli during 8 - 12 January 2017.
- "Synthesis of graphene tin oxalate nanoparticles and its characterization", 6th National Seminar on Advances in Materials Science, Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu during 2nd & 3rd January 2017.
- "Corroboration of structural properties of Dy₂O₃-TiO₂ nanocomposites through X-Ray Diffraction and Raman spectroscopy" International Conference on Nanoscience and Nanotechnology for Energy Applications (EAPP-2016) during 27 - 29th June, 2016, at Sathyabama University, Chennai, Tamil Nadu, India.
- "Effect of gadolinium inclusion on the Raman spectra and photoluminescence of TiO₂ nanoparticles" International Conference on Materials Science & Technology during 01 - 04th March, 2016, at the Conference Centre, University of Delhi, Delhi, India.
- "Photocatalytic degradation of RhB dye in water by visible light-irradiated TiO₂ nanoparticles" International Conference on Nanoscience, Nanotechnology & Advanced Materials at GITAM University, Visakhapatnam, Andra Predesh, India during 14-17th, December 2015.
- 8. "Preparation, characterization and Photocatalytic application of TiO₂ nanoparticles", National Seminar on Advances in Materials Science, Manonmaniam Sundaranar University, Tirunelveli, Tamil Nadu during 29 30th September 2014.

Conference/ Seminar/ Workshop Attended

- 1. International Seminar on Advanced Materials INSAM 2018 on 27th February 2018, Department of Physics, Pope's College, Sawyerpuram, Tamilnadu, India.
- 2. International Workshop on Improving Skills on Publishing in Reviewed and Indexed Journals (IWISPRIJ)- during 28th March 2014, Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu, India.
- 3. International Workshop on Advanced Materials (IWAM-2014) during 20 & 21st March 2014, School of Physics, Alagappa University, Karaikudi, India.

- Lecture workshop on "Applications of Nonlinearity in Physics" during 25 & 26th August 2011, Department of Physics, Fatima College, Madurai, Tamilnadu, India.
- 5. The Science Exhibition and Awareness workshop- during 26 28th February 2011, Equatorial Geophysical Research laboratory, Indian Institute of Geomagnetism, Krishnapuram, Tirunelveli, Tamilnadu, India.
- 6. One day state level seminar on **Recent Trends in Advances in Physics** on 7th October 2010, M.D.T Hindu College, Tirunelveli, Tamilnadu, India.

Station: Sawyerpuram

Date : 21.03.2018

yours faithfully

J. Dhanalaushmi

(J. Dhanalakshmi)

Reference

- Dr. D. Pathinettam Padiyan Formerly Professor Department of Physics Manonmaniam Sundaranar University Tirunelveli- 627012 Tamil Nadu India E-mail: dppadiyan@gmail.com
- Dr. B Sundarakannan Professor Department of Physics Manonmaniam Sundaranar University Tirunelveli- 627012 Tamil Nadu India E-mail: Sundarakannan@msuniv.ac.in