

**Dr. S. MAHALAKSHMI**

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Akhilandeswari Nagar,  
Behind Park Town 6<sup>th</sup> street,  
P & T Nagar extension,  
Madurai- 625 017.  
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**Educational Qualification**

Degree	College	Regular/ Part time	Year of Passing	Percentage
B.Sc.	S.I.E.S College of Science, Arts and Commerce, Mumbai.	Regular	1999	78.87
M.Sc.	Lady Doak college, Madurai	Regular	2006	83.00
M.Phil.	Lady Doak college, Madurai	Regular	2008	84.00
CSIR NET	Passed CSIR-NET (Lectureship) examination held in June 2011 (Rank: 37/970 in the subject CHEMICAL SCIENCES)			
Ph.D	Department of Chemistry, Lady Doak college, Madurai.	Part time	2021 Title: <i>Synthesis, Characterization and Properties of polyaniline based binary nanocomposites for sensor and supercapacitor applications</i>	

**Teaching Experience:** 13 years

- Working in the Department of Chemistry, Lady Doak College, Madurai from August, 2008 till date *under self-financed stream*

**Research Experience:** 11 years (2011-2022)

**Research Interests:** Design and development of novel nanocomposites for sensor and supercapacitor applications

**Publications**

- **S. Mahalakshmi and V. Sridevi**, Tailoring the synergy between polyaniline and reduced graphene oxide using organic acid dopant, pTSA for enhanced performance as

- electrode material for supercapacitor applications, Journal of Physics and Chemistry of Solids, 2022, 165, 110673 [**Impact Factor: 3.995**]
- **S. Mahalakshmi** and V. Sridevi, In Situ Electrodeposited Gold Nanoparticles on Polyaniline-Modified Electrode Surface for the Detection of Dopamine in Presence of Ascorbic Acid and Uric Acid, Electrocatalysis, 2021, 12, 415-435 [**Impact Factor: 2.743**]
  - **S. Mahalakshmi** and V. Sridevi, Conducting, crystalline and electroactive polyaniline-Au nanocomposites through combined acid and oxidative doping pathways for biosensing applications: Detection of dopamine, Materials Chemistry and Physics, 2019, 235, 121728-121741 [**Impact Factor: 4.094**]

### **Papers Presented in National/International Conferences**

- Presented a paper on “Enhanced thermal stability and conductivity of pTSA doped polyaniline/reduced graphene oxide/Au ternary nanocomposite through a one-pot synthesis approach” in 6<sup>th</sup> International Conference on Recent Advances in Material Chemistry (ICRAMC – 2022) organized by the Department of Chemistry, SRM Institute of Science and Technology in association with Alternate Energies and Atomic Energy Commission (CEA) & Universite Gustave Eiffel, France, during 17-19 February, 2022
- Presented a paper on “Tuning the electrical conductivity of polyaniline/gold nanocomposites by altering the charge-transfer mechanism in the polymer chain” in the National Conference on Emerging Trends in Smart Materials NCETSM’-2018 organized by the DEPARTMENT OF CHEMISTRY, SSN College of Engineering, Kalavakkam, Chennai on 19<sup>th</sup> January, 2018
- Presented a paper on “Chemical and Electrochemical modification of GCE/PANI surface using metallic Au towards dopamine detection” in the National Conference on Recent advances in the applications of macromolecular materials RAAMM -2017 organized by the DEPARTMENT OF CHEMISTRY, THE GANDHIGRAM RURAL INSTITUTE – DEEMED to be UNIVERSITY on 2<sup>nd</sup> & 3<sup>rd</sup> March, 2017
- Presented a paper on “Selective determination of Dopamine in presence of Uric acid using nano-Gold clusters embedded PANI modified electrode “in the International

Conference on Electrochemical Science & technology (ICONEST-2014) at Indian Institute of Science, Bengaluru on 7-9<sup>th</sup> July, 2014

- Presented a paper on “Photophysics of Curcumin” in the 10<sup>th</sup> State Level Technical Seminar in Physical Sciences for PG and M. Phil students organized by the Department of Physics, Meenakshi College for Women, Chennai and Indian Spectro Physics Association on 15-16 February, 2008
- Presented a paper on “**LIGHT POLLUTION**” in the national seminar on New Perspectives on Eco-friendly chemical Technology organized by the Department of Chemistry, V. V. Vanniaperumal College for Women, Virudhunagar

### **Project Grants**

- Co-Investigator of Institutional Project on “Development of Bog-Standard Products for College Community” 2021-2022 funded by Lady Doak College, Madurai

### **Invited talks as Resource Person**

- Webinar on “Explore, Create and Analyse Chemical Data using Cheminformatics tools” on 10-06-2020 via zoom platform
- Workshop on “Cheminformatics” for Faculty members of the Department of Chemistry, SFR College, Sivakasi on 11.09.2014
- “Usage of Schrodinger software for chemistry applications” at School of Science and Humanities, Karunya University, Coimbatore on 26-09-2012 and 27-09-2012

### **Conference organized**

- Workshop on “Environmental Risk Assessment”, Centre for Environmental Studies, from 21<sup>st</sup> to 23<sup>rd</sup> July, 2016 at Lady Doak College, Madurai
- Academy-Industry interaction meet 2019, Department of Chemistry, on 13<sup>th</sup> December, 2019 at Lady Doak College, Madurai

### **Seminars, Conferences, Workshops attended**

#### ***In the field of Chemistry***

- International Webinar on Chemistry towards Sustainable Development in Health, Energy and Environment under Prof. Evelyn Rhine Endowment Lecture Series organized by the Department of Chemistry, Lady Doak College, Madurai, on 15<sup>th</sup> March 2022
- National Seminar on Electrode-Electrolyte Interfaces, Prof. Evelyn Rhine Endowment Lecture Series organized by the Department of Chemistry, Lady Doak College, Madurai, on 26<sup>th</sup> March 2021

- Prof. Evelyn Rhine Lecture Series “Academy Industry Interaction meet- 2019” organized by the Department of Chemistry, Lady Doak College, Madurai, on 13<sup>th</sup> December, 2019
- State Level Lecture Programme on “Emerging Novel and Functional Materials” Prof. Evelyn Rhine Endowment Lecture Series organized by the Department of Chemistry, Lady Doak College, Madurai, on 22<sup>nd</sup> February 2019
- National Level Advanced Lecture Series Programme on “Organic Spectroscopy, Stereochemistry and Reaction Mechanism”, Prof. Evelyn Rhine Endowment Lecture Series organized by the Department of Chemistry, Lady Doak College, Madurai, on 21<sup>st</sup> February 2018
- Two days’ workshop on “Impedance Spectroscopy and its application”, Materials Research Centre, Subramanian Thangathai Educational Trust, Coimbatore on Jan 22-24, 2016
- Second National Conference on Advanced Functional Materials and Applications – 2013 organized by Department of Chemistry & Centre for Nanotechnology, Kalasalingam University on 22<sup>nd</sup>-23<sup>rd</sup> March 2013.
- Prof. Evelyn Rhine Lecture Series “Academy Industry Interaction meet- 2013” organized by the Department of Chemistry, Lady Doak College, Madurai, on 23<sup>rd</sup> February, 2013.
- Two days’ workshop on “Nanosurf AFM/STM” organized by Sinsil International in collaboration with Nanosurf AG on January 31<sup>st</sup> and February 1<sup>st</sup> 2013, at Sinsil International, Bangalore.
- Workshop on “Data Handling” organized by Lady Doak College, Madurai from January 16-19, 2013.
- One day workshop on “Drinking water quality assessment” organized by the Department of Chemistry, Yadava College, Madurai on 10<sup>th</sup> February, 2012
- Prof. Evelyn Rhine Endowment Lecture Series “Science Promotion and Research Kindling–SPARK 2012” organized by the Department of Chemistry, Lady Doak College, Madurai, on 1<sup>st</sup> February 2012
- Prof. Evelyn Rhine Lecture Series 2011 “**Introduction to Organic Synthesis**”, organized by the Department of Chemistry, Lady Doak College, Madurai, on 15<sup>th</sup> March, 2011.
- A One-day workshop on “**Gaussian 03**” organized by the Department of Chemistry, Lady Doak College, Madurai, on 10<sup>th</sup> February, 2011.

- One day International Conference on “**Drug Design and Development**” organized by Nadar Saraswathi College of Arts & Science, Theni on 21<sup>st</sup> January, 2011.
- One day seminar on “**Drug Design and Discovery**” organized by the Department of Chemistry, Lady Doak College, Madurai
- Two days seminar on “**Quantum Mechanics**” organized by the Department of Chemistry, Lady Doak College, Madurai
- **National Conference on “Computational Applications in Chemistry**” organized by the Department of Chemistry, Vinayaka Mission’s Kirupananda Variyar Engineering College, Salem on 4<sup>th</sup> and 5<sup>th</sup> February, 2010.
- **Asian Conference on Recent Advances in Polymer Science** organized by the Department of Chemistry, SASTRA University, Thanjavur on 22<sup>nd</sup> and 23<sup>rd</sup> January, 2010.
- Prof. Evelyn Rhine Lecture Series 2010 “**Recent Advances in Spectroscopy: Theory, Instrumentation and applications**”, organized by the Department of Chemistry, Lady Doak College, Madurai, sponsored by the Indian Academy of Sciences, Bangalore, Indian National Science Academy, New Delhi, National Academy of Sciences, India, Allahabad, on 18<sup>th</sup> and 19<sup>th</sup> January, 2010
- One day workshop on “**Nuclear chemistry**” organized by Thiagarajar College, Madurai, under the UGC innovative programme, held on 19<sup>th</sup> September, 2009
- Prof. Evelyn Rhine Lecture Series 2009 “**Current Trends in Chemistry**”, organized by the Department of Chemistry, Lady Doak College, Madurai, on 25<sup>th</sup> March, 2009
- Workshop on “**Cheminformatics**” organized by the Department of Chemistry, Lady Doak College, Madurai, on 29<sup>th</sup> and 30<sup>th</sup> September, 2008.
- Prof. Evelyn Rhine Lecture Series on Current Trends in Chemistry organized by Department of Chemistry, Lady Doak College, Madurai on 19<sup>th</sup> February, 2008
- A state level seminar on “**Physical Sciences for PG and M.Phil. students**” organized by the department of Physics, Meenakshi College for Women, Chennai, in association with Indian Spectrophysics Association on 15-16 February, 2008
- Seminar on “**Recent Trends in Chemistry**” organized by the Department of Chemistry, Jayaraj Annapackiam College for Women, Periyakulam on 9<sup>th</sup> and 10<sup>th</sup> August, 2007.
- Prof. Evelyn Rhine Lecture Series 2005 “**Recent Trends in Chemistry**”, organized by the Department of Chemistry, Lady Doak College, Madurai, on 24<sup>th</sup> February, 2005.

### ***Others***

- Three days virtual training programme on Psychosocial care during Covid-19 held from 6<sup>th</sup> to 8<sup>th</sup> May 2020 organized by the National Service Scheme, Lady Doak College, Madurai in collaboration with Madurai Kamaraj University and M. S. Chellamuthu Trust and Research Foundation, Madurai
- UBCHEA sponsored training Programme on “Environment Impact Assessment from 9<sup>th</sup> to 12<sup>th</sup> July, 2014, organized by the Centre for Environmental Studies, Lady Doak college, Madurai.
- Two-day UBCHEA sponsored programme on “Enriching Environmental Education: A National Consultation on Promoting Environmental Education in Higher Education Institutions” on February 7<sup>th</sup> and 8<sup>th</sup>, 2013 organized by the Centre for Environmental Studies, Lady Doak college, Madurai.
- Four days workshop on “**Being an effective Teacher**” organized by Lady Doak College, Madurai, between 7<sup>th</sup> to 10<sup>th</sup> June, 2011
- Workshop on “**Curriculum designing on Peace Education**” organized by the Centre for Religion and Inter-Faith Relations, Lady Doak College, Madurai, on 14<sup>th</sup> and 15<sup>th</sup> March, 2011
- Orientation program on “**Peace Education**”, sponsored by UBCHEA, organized by the Centre for Religion and Inter-Faith Relations, Lady Doak College, Madurai, on 21<sup>st</sup> February, 2011
- Five days’ workshop on “**Being an effective Teacher**” organized by Lady Doak College, Madurai, between 9<sup>th</sup> to 13<sup>th</sup> June, 2008
- “**Gender Discriminatory Practices- Son Preference**” organized by the Center for Women’s Studies, Lady Doak College, Madurai, on 2<sup>nd</sup> and 3<sup>rd</sup> February 2005

### **Faculty Training programs attended**

- Two days faculty development programme on “Nanomaterials and its applications” organized by the School of Chemistry and Biotechnology, SASTRA, Thanjavur on 21<sup>st</sup> and 22<sup>nd</sup> December, 2011
- A three days programme on “**Faculty Training and Motivation**” organized by CECRI, Karaikudi, from 28<sup>th</sup> March to 30<sup>th</sup> March, 2011
- Two days’ training programme on “**Water Management**” organized by the Ministry of Water Resources, Central Ground Water Board at PWD campus, Madurai on 6<sup>th</sup> and 7<sup>th</sup> January, 2011

- A modular course on “**Cheminformatics**” at **Institute of Bioinformatics and Applied Biotechnology**, Bangalore from 2<sup>nd</sup> August to 12<sup>th</sup> August, 2010
- A three days training course on “**Schrodinger software**” organized by the Department of Biotechnology, Lady Doak college, Madurai from 28<sup>th</sup> July to 30<sup>th</sup> July, 2010.
- A one-day training programme on “**Cheminformatics**” organized by the Department of Chemistry, Lady Doak College, Madurai, on 26<sup>th</sup> March, 2010
- A one-day training programme on “**Chemical Databases and Data Mining**” organized by the Department of Chemistry, Lady Doak College, Madurai, on 12<sup>th</sup> March, 2010

### **Refresher Course attended**

- **All-India Refresher Course on Advanced Topics in Chemistry** organized by the Department of Chemistry, Lady Doak College, Madurai, sponsored by the **Indian Academy of Sciences**, Bangalore from 7<sup>th</sup> to 20<sup>th</sup> November 2006.

### **Prizes Won and Awards Achieved**

- Ms. Kalaneethy Christopher Prize for the best outgoing student in M. Phil. Chemistry
- First Prize for proficiency in Major theory in M.Sc. Chemistry.
- Second Prize for proficiency in Experimental Chemistry
- Personal Meritorious Achievement
- Certificate of Academic Merit with Distinction

### **Served the Institution as**

- Boards of studies member (PG)
- exam committee member
- academic Certificate member
- a faculty member in Service-Learning Program
- an active member in Centre for Environmental Studies
- convener of Eco-Initiatives on Campus
- a member in NSS
- alumna coordinator for the department

S. Mahalakshmi, 04-04-2022