

# DR. M. KALANITHI

*Designation* : Associate Professor  
*Department* : Chemistry  
*Date of Birth* : 23.05.1968  
*Date of Appointment* : 17.08.1992



## Academic

S. No.	Degree	University / Institution	Year of Completion
1.	B.Sc	Fatima College, Madurai	1988
2.	M.Sc	St.Joseph's College, Trichy	1990
3.	M.Phil	St. Joseph's College, Trichy	1991
4.	B.Ed	Madurai Kamaraj University, Madurai	1992
5.	PGDCA	Jayaraj Annapackiam College for Women, Periyakulam	1995
6.	Ph.D	Madurai Kamaraj University, Madurai	2013

## Total Experience

- UG : 33 Years
- PG : 14 Years
- M.Phil : 06 Years

## Area of Specialization/Interest

- Coordination chemistry, Spectral techniques and biomolecular interaction

## Professional Affiliation

2011-2012 : Member in Placement cell  
2012-2013 : Member in IQAC and Placement cell  
2013-2014 : Member in IQAC, Press and Notice Board  
2014-2018 : Member Secretary for Academic Council, Member in Research Committee and Curriculum Committee  
2014-2016 : Discipline Committee Member  
2015-2016 : Eco Club Coordinator, Discipline Committee Member, Curriculum Committee Member  
2016-2018 : NSS Programme Officer  
2018-2019 : NSS Programme Officer, Member in Magazine Committee, Member in Golden Jubilee Committee  
2019-2020 : Member in Curriculum Committee and Golden Jubilee Committee  
2020-2021 : Project Development officer  
2021-2024 : Dean of Research  
2024- till date : Head of the department

## Member in Other Bodies

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- Question setter
- Examiner for M.Phil project
- Reviewer for Inorganic Chemistry Communications and European Journal of Chemistry
- Reviewer and Associate Editor for International Journal of Agricultural Sciences
- Reviewer for Journal of Molecular Structure
- Inorganic and nanometal Chemistry
- ACS-Applied materials and Interfaces and Journal of Chilean Chemical society

## Awards Received

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- A.P.J. Abdul Kalam Life time Achievement National award for Teaching and Research from KRIST Foundation ®, Bangalore
- Best Teacher of the Year 2023 by Global Management Council, Ahmedabad

## Patents Received

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Patent Title	Name of Applicants	Agency/Country	Status
Nanofiber Coated Lab Table	Dr. M. Kalanithi	India	Granted No. 361324-001

## Research Publications (**International Publications**)

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1. Inhibition of corrosion of carbon steel in a dam water by sodium molybdate–Zn<sup>2+</sup> system, *Arabian Journal for Science and Engineering*, 34, 2009, 49-60.
2. **M. Kalanithi**, M. Rajarajan, P. Tharmaraj, Synthesis, Spectral and biological Studies of transition metal chelates of N-[1-(3-aminopropyl)imidazole]-salicyaldimine, *Journal of Coordination Chemistry*, 64, 2011, 842-850. Impact Factor : 1.
3. **M. Kalanithi**, M. Rajarajan, P. Tharmaraj, Spectral, biological screening, and DNA studies of metal chelates of 4-[N,N-bis-(3,5-dimethyl-pyrazolyl-1-methyl)] aminoantipyrine, *Journal of Coordination Chemistry*, 64, 2011, 1436-1445. Impact Factor : 1.8.
4. **M. Kalanithi**, M. Kodimunthiri, M. Rajarajan, P. Tharmaraj, Synthesis, characterization and biological activity of some new VO(IV), Co(II), Ni(II), Cu(II) and Zn(II) complexes of chromone based NNO Schiff base derived from 2-aminothiazole, *Spectrochim. Acta Part A, Molecular and Biomolecular spectroscopy*, 82, 2011, 290-298. Impact Factor: 2.0.

5. **M. Kalanithi**, M. Rajarajan, P. Tharmaraj, C.D. Sheela, Spectral, biological screening of metal chelates of chalcone based Schiff bases of N-(3- aminopropyl) imidazole, *Spectrochim. Acta Part A, Molecular and Biomolecular spectroscopy*, 87, 2012, 155-162 Impact Factor: 2.0.
6. **M. Kalanithi**, Synthesis,spectroscopic characterization, analgesic, and antimicrobial activities of Co(II), Ni(II), and Cu(II) complexes of 2-[N,N-bis-(3,5-dimethyl- pyrazolyl-1-methyl)]aminothiazole, Springer Link, Medicinal Chemistry Research, ISSN Number 1054-2523 Impact Factor: 1.6.
7. **M. Kalanithi**, Estimation of fluoride ion in ground water of some areas of Theni district by spectrophotometric method, *International Journal of Environmental Sciences*, 0976-4402, 252-259
8. **M. Kalanithi**, Spectral, NLO and antimicrobial studies of Co(II), Ni(II) and Cu(II) complexes of Schiff base ligands of 2-amino-6-nitrobenzothiazole. *Journal of the Serbian Chemical Society*, Vol. 84 (3) 267–275 (2019) Impact Factor: 0.897
9. **M. Kalanithi**, Synthesis, spectral, DFT calculation, sensor, antimicrobial and DNA binding studies of Co(II), Cu(II) and Zn(II) metal complexes with 2-amino benzimidazole Schiff base, *Journal of Molecular structure*, 1206 127725, (2020) Impact factor: 2.120.
10. **Dr. M. Kalanithi** and G. Saraswathy (M.Phil 2017-18) published a paper titled "Synthesis, Spectral, Electrochemical, Antimicrobial and DNA Binding/Cleavage Studies of Metal Complexes with Schiff Base of Fluoro Substituted Aniline" in *Asian Journal of Chemistry*. Vol. 32, No. 11 (2020), 2911-2916
11. **M. Kalanithi**, Investigation of photocatalytic and antimicrobial activities of BaWO<sub>4</sub>-MoS<sub>2</sub> nanoflowers, *Journal of Science: Advanced Materials and Devices*, 6 (2021) 65 – 74.
12. **M. Kalanithi**, Synthesis and characterization of phytochemical fabricated Ag doped ZnO nanoparticles with Ficus benghalensis and their enhanced antibacterial and photocatalytic applications, *Research Journal of Chemistry and Environment*, Vol. 27 (3) March (2023) 34-36.
13. **M. Kalanithi**, Computational, Spectroscopic, Sensor and biological Studies of Cu (II) complex of fluoro Substituted Schiff base, *Chemical Physics Impact*, Volume: 8 :100582, ISSN: 2667-0224, March, 2024.
14. **M. Kalanithi**, Novel azo based benzimidazole Schiff base ligand and its Co(II), Ni(II), Cu(II) complexes: Computational and biological studies, *Journal of Coordination Chemistry*, 78:5, 521-537, March 2025.

## Research Publications (**National Publications**)

1. **M. Kalanithi**, V. Shanmuga priya, M. Geetha Studies on transition metal complexes of 3-(salicyl)-pentane-2-4-diketimine Schiff bases, *Journal of Science, Humanities and management* vol.1 No15 (December 2013) ISSN 2347-9868.
2. **M. Kalanithi**, M. Rajarajan, P. Tharmaraj Synthesis , Characterization and Biological Screening Of metal Complexes Of Schiff Base Derived From 2-Amino-1,3,4 Thiadiazole-5-Thiol, *Journal of Science, Humanities and management* vol.1 No15 (December 2014) ISSN 2347-9868.
3. **M. Kalanithi**, **S. Poornalakshmi**, Comparison of Photo Catalytic Degradation of Methylene blue Using Nano-Sized CdO and PbO Catalysts, *Journal of Science*,

Humanities and management vol.1 No15 (June 2015) ISSN 2347-9868.

4. **M. Kalanithi**, Analytical and Antimicrobial studies of metal chelates of 1-(4- methyl phenyl) Azo- 4 hydroxy acetophenone Journal of Science, Humanities and management vol.1 No15 (December 2016) ISSN 2347-9868 146 – 151.

5. **M. Kalanithi**, Synthesis, Characterization and Biological Studies of Cu(II) and Zn(II) complexes of Schiff bases 2-amino 6-nitro benzo thiozole and mixed ligands with 3,5-dimethyl pyrazole JAC JOSHAM Vol 4(2), June 2017, pp.27-36.
6. **M. Kalanithi**, Synthesis, Spectral Characterization and Pharmaceutical Activity of Schiff base metal [Cu(II) & Zn(II)] complexes derived from Benzaldehyde derivatives, JAC JOSHAM Vol 5(2), June 2018, pp.13-21.
7. **M. Kalanithi** C. GowriShankari, B. Kavitha, Ecofriendly synthesis of Ag doped ZnO nanoparticles using *Ficus benghalensis* leaf extract: Characterization and antibacterial activity, JAC JOSHAM Vol 08(2), June 2021 pp.01-10.
8. **M. Kalanithi**, M. Kaviya , B. Kavitha, Assessment of Open Well Water Quality In Theni District, JAC JOSHAM Vol 10(1), December 2022 pp.58-68.
9. **Dr. M. Kalanithi**, Head and Associate Professor of Chemistry, Synthesis, characterization and biological studies of chalcone based ligand and its Co (II), Ni (II) and Cu (II) Complexes in Journal of Science, Humanities and Management, Vol. 12.No. 1. December, 2024

## Research Seminars/Conferences/Workshops Participated (Last seven Years)

S. No.	Theme of Seminar / Workshop / Conference	Date & Place
1.	IAS sponsored Lecture-Workshop on Recent Trends in Chemistry (RTC-5)	15 <sup>th</sup> & 16 <sup>th</sup> December 2011 Jayaraj Annapackiam College for Women, (Autonomous), Periyakulam.
2.	UGC sponsored National Seminar on Recent Trends in Chemistry	15 <sup>th</sup> & 16 <sup>th</sup> March 2012, H.K.R.H. College, Uthamapalayam.
3.	UGC,CSIR,DST & TNSCST sponsored National Seminar on Emerging Trends in Chemistry	4 <sup>th</sup> & 5 <sup>th</sup> October 2012, C.P.A. College, Bodinayakkanur.
4.	CSIR sponsored National Seminar on Advanced Materials	5 <sup>th</sup> & 6 <sup>th</sup> February 2013, Jayaraj Annapackiam College for Women, (Autonomous), Periyakulam.
5.	UBCHEA sponsored National consultation programme on Promoting Environment Education in Higher Education Institutions	7 <sup>th</sup> & 8 <sup>th</sup> February 2013, Lady Doak College, Madurai
6.	Workshop on State Action plan-Agro climate Zone of UNFCCC	19 <sup>th</sup> March, Literates Welfare Association, Theni Dt
7.	“e- Content Development of Indigenous Teaching practices in Humanities and Social Sciences”	15 <sup>th</sup> – 17 <sup>th</sup> May 2014, Christ University, Bangalore.
8.	Workshop on E- Content Development for effective teaching and learning	Physics Department & IQAC –JAC . 11 <sup>th</sup> to 13 <sup>th</sup> September, 2014
9.	DST & UGC Sponsored National Seminar on Emerging Trends in Chemistry (ETC- 05)	18 <sup>th</sup> &19 <sup>th</sup> September, 2014 PG and Research Department, CPA College, Bodi,

10.	UGC sponsored National Seminar Recent Trends In Chemistry	13 <sup>th</sup> March, 2015.Recent Trends in Chemistry H.K.R.H College, Uthamapalam.
11.	National Seminar on nvironmental Issues and Challenges for Sustainable Development	J.A. College and YLSDP 15 <sup>th</sup> – 17 <sup>th</sup> February 2016
12.	National Seminar on “Recent Trends in Chemistry” (RTC-7)	Jayaraj Annapackiam College For Women, Periyakulam, 11.01.2017 and 12.01.2017
13.	Orientation Training for NSS PO	Empanelled Training Institution- NSS, Avinashalingam University, Coimbatore. 3 <sup>rd</sup> to 9 <sup>th</sup> August 2016
14.	NAAC sponsored National conference on Quality Assurance and Quality Sustenance in Higher Educational Institutions: challenges and solutions	29 <sup>th</sup> and 30 <sup>th</sup> September 2016 JAC, PKM
15.	National Seminar on Recent Trends in Chemistry	23.01.2018 Jayaraj Annapackiam College For Women, Periyakulam
16.	National Seminar on Recent Trends in Chemistry	Jayaraj Annapackiam College For Women, Periyakulam. 10.12.2019

### Conference Presentations (Last seven Years)

Year	Title of the Paper	Seminar	Place & Date
2011 - 2012	Studies of metal complexes of chalcones	UGC sponsored National Seminar on Recent Trends in Chemistry	15 <sup>th</sup> & 16 <sup>th</sup> March 2012, H.K.R.H. College, Uthamapalayam
2012 - 2013	Studies of metal complexes of 2- [N,N-bis-(3,5-dimethyl- pyrazolyl-1- methyl)]aminothiazole	UGC,CSIR,DST & TNSCST sponsored National Seminar on Emerging Trends in Chemistry	4 <sup>th</sup> & 5 <sup>th</sup> October 2012, C.P.A. College, Bodinayakkanur
2013 - 2014	Spectral, NLO, fluorescence and biological screening of metal chelates of chalcone based Schiff bases of N-(3- aminopropyl) imidazole	CSIR sponsored National Seminar on Advanced Materials	5 <sup>th</sup> & 6 <sup>th</sup> February 2013, Jayaraj Annapackiam College for Women, Periyakulam.
	Studies of metal complexes of chromone based NNO Schiff base derived from 2-amino-1,3,4 thiadiazole-5-thiol	International Conference on Chemistry in synergy with Materials and Biology	10-11 January 2014, Bishop Heber College, Trichy

2014 - 2015	Photo Degradation of Methylene Blue by using Nano sized PbO and CdO Catalyst”	DST & UGC Sponsored National Seminar on Emerging Trends in Chemistry (ETC-05)	CPA College, Bodi. 18 <sup>th</sup> and 19 <sup>th</sup> September, 2014
	Synthesis, Characterisation, Antimicrobial Activity and NLO Property of Copper(II) Complexes of AZO Benzene Derivatives	UGC sponsored National Seminar on Recent Trends in Chemistry (RTC-6)	JAC, PKM. 8 <sup>th</sup> and 9 <sup>th</sup> Jan.2015
	Synthesis, Characterisation, Anti – microbial activity and NLO property of azo derivative.	Recent Trends In Chemistry	H.K.R.H College, Uthamapalam.13 <sup>th</sup> March, 2015.
2015 - 2016	Synthesis, Spectral Studies and NLO property of metal Complexes of Azo derivatives of phenolic compounds	UGC sponsored International Conference on Recent Advances in Materials and Chemical Sciences	Gandhigram Rural Institute (DU), Dindigul 14 <sup>th</sup> Dec.2015
2016 - 2017	Biosynthesis of Copper nanoparticles using Vitex Negundo leaf Extract	Saiva Bhanu Kshatriya College, Aruppukottai on 30 <sup>th</sup> September 2016.	ICMR, DBT, INSA sponsored International Conference on Cancer Biology: Drug Discovery and Novel Therapeutics
	Studies on Zn (II) and Cu(II) Complexes of Schiff Bases of 5-Amino 1,3,4,Thiadiazole 2-Thiol	St.Anne’s Auditorium, JAC. 11 <sup>th</sup> and 12 <sup>th</sup> Jan.2017	UGC sponsored National Seminar on Recent Trends in Chemistry (RTC-7), ISBN No: 978-81-922846-4-4
2017 - 2018	Production And Characterization Of A Milk Clotting Enzyme From <i>Moringa Oleifera</i> Seed Extract	National Seminar on Recent Trends in Chemistry	Jayaraj Annapackiam College for Women, Periyakulam, 23.01.2018
2019 - 2020	Synthesis, Spectral, UV Sensor, Electrochemical Study and Antimicrobial Activity of Fe(III), Co(II), Ni(II), Cu(II), Zn(II) Complexes Derived from Schiff Bases of 2-Thiophene Carboxaldehyde	National Seminar on Recent Trends in Chemistry	Jayaraj Annapackiam College for Women, Periyakulam, 10.12.2019
2019 - 2020	Synthesis, Characterization and Photocatalytic Activity of BaWO <sub>4</sub> Nanoparticles	National Seminar on Recent Trends in Chemistry	Jayaraj Annapackiam College for Women, Periyakulam, 10.12.2019



## Books Published (List)

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1. Allied Chemistry I -ISBN : 978-81-2344-024-9, November, 2020, New Century Book House
2. Allied Chemistry II -ISBN : 978-81-2344-109-2, August, 2021, New Century Book House
3. Allied Chemistry III and IV : 978-93-94899-90-2, August 2022, Shanlax publications
4. Applied Chemistry : 978-620-8-42954-6, March 2025, Lambert Academic Publishing

## Served as Research Person

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1. Served as judge for competition **Veetuku Oru Vingnani** organized by Puthiya Thalaimurai Media.
2. Delivered a talk on **Environmental Issues in Today's Context** in the seminar on Environmental Education organized by JAC-ECO club, Jayaraj Annapackiam College for women.
3. Delivered a guest lecture on **Spectroscopy** at Thassim Beevi Abdul Kader College for Women, Kilakarai.
4. Delivered guest lecture in the seminar on **Group Theory Concepts & Applications and Quantum Theory I & II respectively** at Mother Teresa Womens University, Kodaikanal.
5. Delivered a lecture on **Water pollution in the National Seminar on Environmental Issues and Challenges for Sustainable Development** organized by J.A. College and YLSDP.
6. Delivered a talk on **Activities of Red Ribbon Club** for NSS students.
7. Served as Judge for the Intercollegiate Programme EPISTEME-2017 organised by Thiravium College of Arts and Science, Periyakulam.
8. Demonstrated the **Preparation of Phenyl, Ink and Candle** to the Entrepreneur cell members.
9. Delivered a talk on **Serendipity in Science** in Chemistry Association.
10. Delivered motivation and orientation talks for NSS volunteers at J.A. College Women, Periyakulam.
11. Delivered a lecture on **Nanoscience** at Mary Matha college, Periyakulam.
12. Delivered a lecture on **Climate change and energy innovations** in Physics association, J.A. College, Periyakulam.
13. Delivered a lecture on **Serendipity in Science** in the state level seminar at Mary Matha College.
14. Delivered a lecture on **Ozone for life** in the Eco Club, Mary Matha College, Periyakulam



## Research Experience

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- **Funded Research Projects Undertaken – 1**
- **Minor Research Project**
  - Period : From 1-2-2007 to 28-2-2009
  - Title : Corrosion Inhibition by Oxyanions
- **Guideship** - Approved guide for Mother Teresa Women's University, Kodaikanal  
Number of Ph.D scholars pursuing : 03
- **Projects Guided**
  - M. Phil Projects Completed : 08
  - M.Sc Projects Completed : 10
  - B.Sc Projects Completed : 06

## Contact Details

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**Present Address** : 3-1-14, Jei Illam, Oppo. To E.B,  
Mullai Nager, P.C. Patty,  
Theni-625531,  
Tamil Nadu

**Permanent Address** : --- do --

**Mobile** : 09488177617

**Email** : kalacharle@gmail.com,  
kalachem@annejac.ac.in