

Name: Dr. P. Kavitha

Designation: Assistant Professor

Department: Chemistry

Qualification: M.Sc., M.Phil, Ph.D

Experience:

Teaching: 9.3 Years **Research:** 5 Years

Area of Specialization(s): Solid State Chemistry

Email (Official ID): p.kavitha@drngpasc.ac.in

Email (Personal): saikavi.88@gmail.com



Academic Qualifications

Degree	Branch	Institution / University Name	Year of Graduation
Ph. D.	Chemistry	Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore.	2024
M. Phil.	Chemistry	Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore.	2013
M.Sc.	Chemistry	Avinashilingam University for Women, Coimbatore.	2011
B.Sc.	Chemistry and Physics	Avinashilingam University for Women, Coimbatore.	2009

Additional Qualifications

Diploma / Vocational / Certification	Area of Specialization	Institution / University / Agency Name	Year
Certificate Course	The Cycle: Management of Successful Arts and Cultural Organization	Coursera	2024
Certificate Course	Drug Discovery	Coursera	2022
NPTEL	Chemical Crystallography	Indian Institute of Science Education and Research Mohali	2018
NPTEL	Metal mediated Synthesis – I	Indian Institute of Technology, Bombay	2018

NPTEL	Outcome based pedagogic principles for effective teaching	Indian Institute of Technology, Kharagpur	2017
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Projects

Ongoing

Project Title	Agency	Amount	Duration
An Exploratory Study into Public Awareness of the Environmental Impact of Menstrual Products Waste Disposal in the Coimbatore District	Indian Council of Social Science Research	Rs. 3,67,500	12 months

Completed

Project Title	Agency	Amount	Duration
Formulation and Preparation Process of Phenyl and Detergent Powder	In house project – Dr.N.G.P ASC (2022-23)	Rs.20,000	3 months
Tailoring the tpa towards the development of Dssc for photovoltaic energy conversion	TNSCST - Student Project Scheme (2021-22)	Rs.7,500	3 Months
Synthesis of TPA based DSSCs for photovoltaic energy conversion	In house project – Dr.N.G.P ASC (2021-22)	Rs.5,000	6 months

Publications: International / National Journals

1. R. Menaka, V. Nijarubini, K. Sakthivel, **P. Kavitha** and M. Jannathul Firdhouse, Electrochemical investigation and surface interaction of thiophene based Chitosan Schiff base on mild steel surface in 1 M HCl, *Materials Today: Proceedings* (2024), (Elsevier).
2. **Kavitha Ponnusamy**, Rajkumar Madhu, and Muthusamy Athianna, Supramolecular assembly in 2-amino-5-bromo-3-methylpyridinium-2,4-dihydroxybenzoate monohydrate mediated by hydrogen bonding interactions: Experimental and Theoretical Approach, *Chemical Papers*, (2024). (Springer). <https://doi.org/10.1007/s11696-023-03260-x>

3. **Kavitha Ponnusamy**, Rajkumar Madhu, and Muthusamy Athianna, Crystal Structure, Quantum Chemical, Hirshfeld Surface and Molecular Docking of Organic Molecular Salt: 2-Amino-5-Chloropyridinium-2,4-Dihydroxybenzoate, *Cryst. Res. Technol.* (2023), 2300169. (WILEY). <https://doi.org/10.1002/crat.202300169>
4. **Kavitha Ponnusamy**, Sathya Krishna, and Muthusamy Athianna, Synthesis, spectral, structural and biological evaluation of 2-amino-2-ethylpyridinium picrate crystal, *Materials Today: Proceedings* (2023). (Elsevier). <https://doi.org/10.1016/j.matpr.2023.10.103>.
5. Hemanth, Narendrakumar, Santhosh, Gopalakrishnan, Menaka and **Kavitha**, Identification of Food Adulterants present in turmeric, coriander, chilli powder using low cost laboratory methods, J. Research and Development, ISSN: 2230-9578,15,111-113.
6. P. Chitra, **P. Kavitha**, A. Muthusamy , S. Dineshkumar, Picric Acid Doped Trimer of O-Phenylenediamine, *J. Environ. Nanotechnol*, 2013, 2, 57-61. ISSN (Online): 2319-5541.

Book Publications

1. Extraction and characterization of lignin from biomass, Scholars' Press, ISBN: 978-620-6-76875-3
2. Synthesis and Antimicrobial Evaluation of Benzimidazolium Salicylate, Lambert Academic Publishing, ISBN: 978-620-6-14421-2.
3. Swelling Behaviour of Chitosan Based Hydrogels: Effect of crosslinkers, Publisher: Lambert Academic Publishing, ISBN: 978-6-206-143901.
4. Handbook of Allied Chemistry, Dr.N.G.P. Arts and Science College Press, ISBN: 978-81-955112-5-9.
5. Essential Chemistry, Dr.N.G.P. Arts and Science College Press, ISBN: 978-81-956823-2-4.
6. Inorganic Analysis- Lab Manual for UG Students, Dr.N.G.P. Arts and Science College Press, ISBN: 978- 81-960554-9-3.
7. Allied Chemistry- Lab Manual for UG Students, Dr.N.G.P. Arts and Science College Press, ISBN: 978- 81-960554-1-7.

Book Chapters

1. P. V. Rithuparna, **P. Kavitha**, R.Menaka and P. Divya, A Facile Synthesis of Naphthyl Chitosan based composite Hydrogels and their Swelling Applications, Futuristic Trends in Chemical, Material Sciences & Nano Technology, e-ISBN: 978-93-5747-459-7, IIP Series, Volume 3, Book 11, Part 2, Chapter 10.
2. S Varshini, C Kanishkar Raja, **P. Kavitha**, R Menaka, Preparation and Characterisation of PVA Based Composite Film and Evaluation of its Antimicrobial Activity, Futuristic Trends in

Presentations in Conference

1. Phyto- Fabrication, Characterization and investigation of antioxidant potential of Nickel oxide nanoparticles using root extract of *Withania Somnifera*, An international conference on Recent Advancement and Multidisciplinary Research in Science and Humanities (ICMRSH)- 2004, SNS College of Technology, Coimbatore, 23rd Feb 2024.
2. “Synthesis, Characterization, biological evaluation and molecular docking of Acridinium-2,5-dichlorobenzoate crystal”, XVI Louis Pasteur National seminar on Novel diagnostic and drug development strategies for infection diseases, Dr.N.G.P. Arts and Science College, Coimbatore, 22nd Feb 2024.
3. “Structural investigation, DFT calculation, Hirshfeld analysis and biological evaluation of acridinium-2,4-dihydroxybenzoate”- International Conference on Advanced Materials For Clean Energy and Health Applications (AMCEHA 2023), Coimbatore Institute of Technology, 19 & 20th, Sep 2023.
4. “Synthesis, growth, characterization and DFT calculations of organic molecular salt: 2-amino-5-chloropyridinium 2,4 dihydroxybenzoate”- 3rd International Symposium on Modeling of Crystal Growth Processes and Devices Modeling of Crystal Growth Processes and Devices (MCGPD - 2023), SSN Institutions, 06-08 March 2023.
5. “Synthesis characterization and *invitro* antimicrobial study of benzimidazolium sulphosalicylate” - International Conference on Multidisciplinary Aspects in Chemistry (ICMAC-2023), Sri Ramakrishna College of Arts & Science, 9-10 Feb-2023.
6. “Synthesis, spectral, structural and biological evaluation of 2-amino-2-ethyl pyridinium picrate crystal”- Indo-South Korea-Thailand 2nd International e-Conference on Nanoscience & Nanotechnology for Energy, Environment and Biomedical Applications (iNEEBA-2022), Vinayaka Mission's Kirupananda Variyar Arts and Science College, 24th to 25th Nov 2022.
7. “Synthesis and In vitro Antimicrobial Studies of charge transfer of benzimidazole with sulphosalicylic acid and salicylic acid” - A Two day International Virtual Conference on Advanced Materials for Emerging Technologies (ICAMET-21), Sri Ramakrishna Mission Vidyalaya College of Arts and Science, 26th to 27th April 2021.
8. “Magnetic and electrical properties of manganese cobalt ferrite *o*-phenylenediamine nanocomposites”, Recent Trends in Chemistry-2019 (RTC'19), Sri Ramakrishna Vidyalaya College of Arts and Science, Coimbatore, 1st to 2nd Feb-2019.

Participation in Orientation Programme / Short Term Courses

1. “In Silico Molecular Design and Engineering” Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore, 25-27 March, 2022.
2. “UGC Stride Sponsored Training Programme on Environmental Sustainability and Research Ethics”, Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, 14th to 18th March 2022.
3. “Smart advanced Materials (SAM)”, Coimbatore institute of Technology, Coimbatore, 8-14 Nov-2017.

Participation in Faculty Development Programme

1. Recent Research in Material Physics, Rajapalayam Raju’s College, Rajapalayam, November 21 to 25, 2022.
2. Spoken Tutorial Free Open Source Software (FOSS), Dr. N.G.P. Arts and Science College, Coimbatore, May 04 to 10, 2020
3. RECENT INNOVATIONS IN HERBAL COSMETICS, Nallamuthu Gounder Mahalingam College, 12.05.2020.
3. Quality Initiatives in Higher Education, Dr. N.G.P. Arts and Science College, Coimbatore, Sri Ramakrishna College of Arts and Science, Coimbatore, Gobi Arts & Science College, Gobichettipalayam, Vellalar College for Women, Erode, April 13-20, 2020
4. Quality Initiatives in Higher Education, Dr. N.G.P. Arts and Science College, Coimbatore, 3-Dec-18 to 9-Dec-18.
5. “Foundation programme in ICT for Education”, Indian Institute of Technology Bombay, 3 Aug – 7 Sep 2017.

Invited Speaker / Session Chair / Member Organizing Committee - Conference / Seminar / Workshop

Resource Person - Guest lecture on Chemistry in Everyday Life, Sri Ranganathar Institute of Polytechnic College, Coimbatore on 24.09.2022.

Resource Person - Guest lecture on Exploration of organic dyes for dye sensitized solar application, Sri Ranganathar Institute of Polytechnic College, Coimbatore on 28.03.2024.

Member in BoS/Professional bodies

Board of studies- Internal member, Department of Chemistry, Dr. N. G. P. Arts and Science College, Coimbatore.

Life member in Indian Academic Research Association

Awards / Honors

Nature of Recognition	Organization / Institution	Year
BEST MENTOR	Dr.N.G.P Arts and Science College	2021
BEST FACULTY	Dr.N.G.P Arts and Science College	2021