



Name: **Dr. M. Vasuki**

Designation: **Self Finance incharge,  
Associate Professor & Head**

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

Sl.no.	Degree	University/ College	Year of passing
1.	B.Sc.	Madras University	1983
2.	M.Sc.	Bharathidasan University	1985
3.	M.Phil.	Bharathidasan University	1987
4.	Ph.D.	Bharathidasan University	2000

Experience:

UG: **29**years

PG: **24**years

M.Phil.:**16**years

Area of Specialization:**Physical, organic chemistry and Environmental chemistry**

Guided: M. Phil.:**7**

Ph.D.: 1 (Guiding)

Research Papers Presented:**35**

Title of the seminar	Title of the paper	Level	Sponsor	Date & Venue
17 <sup>th</sup> National conference of Indian council of chemists	Oxidative hydrolysis of alicyclic oximes and semicarbazones by PMS	National	ICC	26.11.1998 to 28.11.1998 Madras University, Chennai
8 <sup>th</sup> International conference on correlation analysis in chemistry	Correlation studies on the N-bromosuccinimide oxidation of some aromatic ketoximes	International	IGCAC – Indian Chapter	10.01.1999 to 14.01.1999 Anna University, Chennai.
18 <sup>th</sup> National	Kinetics and mechanism of	National	ICC	27.11.1999 to

conference of Indian council of chemists	oxidation of aliphatic ketoximes by NBS and NCS- A comparative study			29.11.1999 Jalgaon.
4 <sup>th</sup> National symposium on student's projects on Correlation Analysis	Kinetics and mechanism of oxidation of oximes by pyridiniumchlorochromate	National	IGCAC – Indian Chapter	12.03.2000, BHC, Trichy-17.
National seminar on chemistry education and research	Effect of e-learning on school children from standard I to VIII.	National	UGC	30.09.2004 to 2.10.2004, Erode arts college, Erode.
National Seminar on Recent Trends in Applied Chemistry	Kinetics and mechanism of oxidation of benzaldoximes by PCC in aqueous acetic acid	National	UGC	10.01.2005 to 11.01.2005 St.Joseph's College, Trichy-2.
Conference on 'Life through Chemistry'	Kinetics and mechanism of oxidation of acetophenoneoxime by Quinoliniumfluorochromate in aqueous acetic acid medium	International	P.R. Engineering College Thanjavur	25.02.2006 & 26.02.2006 P.R. Engineering College Thanjavur
International Conference on 'Life through Chemistry'	A comparative study of kinetics of oxidation of DMG by QDC and QFC.	International	P.R. Engineering College Thanjavur	25.02.2006 & 26.02.2006 P.R. Engineering College Thanjavur
International Conference on 'Life through Chemistry'	Phase transfer catalysis and kinetics of oxidation of some substituted-4-piperidones by permanganate in organic media	International	P.R. Engineering College Thanjavur	25.02.2006 & 26.02.2006 P.R. Engineering College Thanjavur
International Conference on 'Life through Chemistry'	Kinetics and mechanism of oxidation of acetophenoneoxime by quinoliniumchlorochromate in aqueous acetic acid medium.	International	P.R. Engineering College Thanjavur	25.02.2006 & 26.02.2006 P.R. Engineering College Thanjavur
International Conference on 'Life through Chemistry'	Permanganate oxidation of acetophenoneoximes under phase transfer catalysis-A kinetic and mechanistic study.	International	P.R. Engineering College Thanjavur	25.02.2006 & 26.02.2006 P.R. Engineering College Thanjavur
National Seminar on Ensuring environmental sustainability	Adsorption of Orange – Using agricultural waste	National	--	7 <sup>th</sup> & 8 <sup>th</sup> March, 2007 Bishop Heber College,

				Tiruchirappalli–17
National Seminar on Ensuring environmental sustainability	Biosorption of industrial effluent using sago waste	National	--	7 <sup>th</sup> & 8 <sup>th</sup> March, 2007, Bishop Heber College, Tiruchirappalli–17
National Seminar on “Recent Trends in Hetero atom chemistry”	Kinetics and mechanism of oxidation of dimethylglyoxime by Cr(VI) oxidizing agents–A comparative study.	National	UGC and CSIR	28.03.2007 & 29.03.2007 Annamalai university, Annamalai Nagar, Chidambaram
National Seminar on “Recent Trends in Chemistry”	Biosorption of Naphthol blue black B from aqueous solution using agricultural waste	National	CSIR	09.08.2007 & 10.08.2007 JayarajAnnapackiam College for Women, Periakulam
National conference on “Recent advances in Chemistry”	Study of sorption of Congo Red from aqueous solution using sago waste	National	UGC	18.09.2009 Bishop Heber College Trichy.
National conference on “Recent advances in Chemistry”	Biodegradation of Alizarin Red and Naphthol Blue Black-B by white rot fungus <i>phanerochaetechrysosporium</i>	National	UGC	18.09.2009 Bishop Heber College Trichy.
International conference on ‘Bioresource technology’ ICBRT-2010	Biodegradation of Crystal Violet, Methylene Blue, Erythrosine and dye effluent by using white rot fungus <i>phanerochaetechrysosporium</i>	International	DST, UGC, CSIR, DRDO, INSA, TNSCST, TNSCHE	07.10.2010 & 08.10.2010 Nirmala College Coimbatore
International conference on ‘Bioresource technology’	Biosorption of Alizarin Red, Malachite Green and Methylene Blue from aqueous solution using sago waste	International	DST, UGC, CSIR, DRDO, INSA, TNSCST, TNSCHE	07.10.2010 & 08.10.2010 Nirmala College Coimbatore
National seminar on Quality management in higher education- Role of IQAC	Quality management in higher education	National	NAAC, Bangalore	11.11. 2010 and 12.11. 2010, KristhuJayanthi College, Bangalore.
Role of IQAC in	Motivation as a bench mark	National	NAAC,	24.02.2011 and

enhancing quality in higher educational institutions in post accreditation period	for quality sustenance and enhancement		Bangalore	25.02.2011 SrimadAnadavan Arts and Science College, Trichy.
New vistas in chemistry (NVC-2012),	Biodegradation of malachite green, alizarin red and methylene blue by white rot fungus phanerochaete chrysosporium	State level	UGC	Jamal Mohamed College, Trichy 04.1.2012
Recent trends in polymer and green chemistry	Biodegradation of Naphthol Blue Black B, Congo red and Rhotamine B by white rot fungus phanerochaete chrysosporium	National	--	Rajah Serfoji Govt. College, Thanjavur. 2.2.2012 & 3.2.2012
World Conference on Infectious Diseases	Presented a paper on synthesis, characterization and anti-microbial activity of 2,2'-bipyridinium 5-(5-chloro-2,4-dinitrophenyl)-2,6-dioxo-1,2,3,6-tetrahydropyrimidin-4-olate.	International	WHO, DST, DBT, ICMR, PNSCST, UNAIDS	18.12.2013 to 22.12.2013 Chennai Trade Convention Centre, Chennai
Evolutionary trends in biological and pharmaceutical chemistry	Presented, a paper on adsorption and biodegradation of Metanil Yellow from aqueous solution.	National	DBT	10.1.2014 – 11.1.2014 Bishop Heber College, Trichy
Evolutionary trends in biological and pharmaceutical chemistry	Presented, a paper on adsorption of Rhotamine B from aqueous solution by activated carbon derived from coconut shell.	National	DBT	10.1.2014 – 11.1.2014 Bishop Heber College, Trichy
“International conference on materials and drugs chemistry MDC-14”	Adsorption of Amaranth dye from aqueous solution using sago waste and biodegradation by white rot fungus phanerochaete chrysosporium	Sarah Tucker College	International	27.08.2014 Sarah Tucker College, Tirunelveli -627007
“International conference on materials and drugs chemistry MDC-14”	Synthesis, spectral characterization, crystal structure and anticonvulsant / acute toxicity of 1,4-diazabicyclo[2.2.2]octan-1-ium 4,6-dioxo-2-	Sarah Tucker College	International	27.08.2014 Sarah Tucker College, Tirunelveli -627007

	thioxohexahydro pyrimidin-5-ide			
“International conference on materials and drugs chemistry MDC-14”	2,2’-Bipyridinium 3-hydroxy-2,4,6-trinitrophenolate as insensitive high energy density material-synthesis, spectral/thermal characterization and crystal studies	Sarah Tucker College	International	27.08.2014 Sarah Tucker College, Tirunelveli -627007
Recent Trends in X-ray Crystallography	Synthesis, Spectral characterization and Single crystal X-ray diffraction studies of 5-chloro-N-methyl-2,4-dinitro-N-phenyl aniline	National level	UGC	08.10.2014 & 09.10.2014 Seethalakshmi Ramaswami College, Trichy-2.
Recent trends in X-ray crystallography	Synthesis, spectral characterisation and x – ray crystal structure of 1,4-diazabicyclo[2.2.2]octan-1-ium 5-(2,4,6-trinitrophenyl) barbiturate	National	UGC	08.10.2014 and 09.10.2014 Seethalakshmi Ramaswami College, Tiruchirappalli-2.
Chemical and Environmental Research	A comparative study of adsorption of Acid Blue 9 and Brilliant Green from aqueous solution by activated carbon derived from coconut shell and palmyra fruit shell	International Level	UGC Autonomous grant	Jamal Mohamed College, Trichy-20. 7.1.2017
Chemical and Environmental Research	A study of adsorption of safranine and activated carbon prepared from coconut shell and Palmyra fruit nut shell- A comparative view.	International Level	UGC Autonomous grant	Jamal Mohamed College, Trichy-20. 7.1.2017
Innovative Textiles	Adsorption characteristics of Naphthol Blue Black-B on activated carbon derived from coconut shell and palmyra fruit nut shell - A comparative study	National level	UGC	Dept. of Chemistry, Seethalakshmi Ramaswami College, Trichy-2. 28.01.2017
National Conference on Nanomaterials	Adsorption of naphthol blue black-b dye from aqueous solution by low-cost agricultural byproduct sago	National level	BRNS	Aringar Anna Govt. Arts College, Namakkal. 20,21 July 2017

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### Research Papers Published:13

- **M. VASUKI**, T.S. JANIBAI, Kinetics and Mechanism of oxidation of AcPO& substituted AcPO, Indian Council of chemists Vol.21, 2004, 60, ISSN: 0971-5037.
- S.LALITHA, D.KALAIVANI, **M. VASUKI**, D.BRINDHA AND N. MADHUBALA, Noise level studies at residential apartments in Tiruchirappalli, Journal of Environmental protection, No. 4, Vol.29, 2009, 351-358, ISSN:0253-7141.
- S.LALITHA, D.KALAIVANI, **M. VASUKI**, N.A.DEEPA, S.KARPAGAM, Enviromental studies at hospitals in Tiruchirappalli, Journal of Environmental protection, No.4, Vol.30, (2010), 265-268, ISSN:0253-7141.
- D.KALAIVANI,**M.VASUKI**,S.SANTHI, Mechanism and linear free energy relationships in the kinetics of formation of bicycle[3.3.1]nonane derivatives from 1,3,5-trinitrobenzene, phenyl-substituted 1-benzyl-1-(ethoxycarbonyl)-2-propanones and triethylamine, International Journal of Chemical Kinetics, 43(9), 467-473, 2011,ISSN:1097-4601, I.F:1.517.
- **M.VASUKI**, Neutron Activation Analysis – Determination of Elemental Abundance in Meteorite, Cosmo Chemistry, 117-122, 2013, 978-81-909490-6-4.
- **M.VASUKI**, Role of chemistry in water Quality Assessment, Art in Everyday life, pp. 2013, ISBN: 978-81-92288-2-9-1.
- D.KALAIVANI, **M. VASUKI**, P.POORNIMA DEVI, Synthesis,Spectral Characterization, Crystal Structure and anticonvulsant/acute toxicity of 1,4-diazabicyclo[2.2.2]octan-1-ium 4,6-dioxo-2-thioxohydropyrimidin-5-ide, The International Journal of Science and Technoledge, Vol.2, Issue (10), October 2014, 214-218, ISSN 2321 919X.
- K.BANUMATHY, **M.VASUKI**& M.KARTHIKA, Adsorption of Amaranth Dye from Aqueous Solution using Sago Waste and Biodegradation by White Rot Fungus *PhanerochaeteChrysosporium*, The International Journal of Science & Technoledge,Volume-2,Issue-10, 2014,64-68,ISSN no : 2321 919X, Impact factor – 0.615.
- V. MANICKKAM, M.KARTHIKA, **M.VASUKI**&D.KALAIVANI, Synthesis, spectral characterisation and single crystal x-ray diffraction studies of 5-chloro-n-methyl-2,4-

dinitro-n-phenylaniline, Recent trends in X-ray crystallography, pp. 177-186, 2014, ISBN No.: 978-81-909490-0-2.

- P. POORNIMA DEVI, M. BHUVANESHWARI, **M.VASUKI**&D.KALAIVANI, Synthesis, spectral characterisation and x – ray crystal structure of 1,4-diazabicyclo[2.2.2]octan-1-ium 5-(2,4,6-trinitrophenyl) barbiturate, Recent trends in X-ray crystallography, pp. 243-254, ISBN No.: 978-81-909490-0-2.
- M.KARTHIKA, **Dr.M.VASUKI** & S.PUNITHA, A comparative study of adsorption of Acid Blue 9 and Brilliant Green from aqueous solution by activated carbon derived from coconut shell and palmyra fruit shell, Journal of Advanced Applied Scientific Research, ISSN : 2454-3225, Volume1 No.7, 2017(1),H- index = 1
- K.R.Nandhine Deve, **Dr.M.VASUKI** & T.Elamathi, A study of adsorption of safranine and activated carbon prepared from coconut shell and Palmyra fruit nut shell- A comparative view, Journal of Advanced Applied Scientific Research, ISSN : 2454-3225, Volume1 No.7, 2017(1),H- index = 1
- M.KARTHIKA, **Dr.M.VASUKI** & N.REVATHY, Adsorption characteristics of Naphthol Blue Black-B on activated carbon derived from coconut shell and palmyra fruit nut shell - A comparative study, Shanlax International Journal of Arts, Science and Humanities, ISSN : 2321-788X, Volume 4, Special issue 1, January 2017, Page No : 336-338, IF - 2.95

## Research Projects: 2

### Major Project

<b>P. investigator/ co-investigator</b>	<b>Title</b>	<b>Sponsor</b>	<b>Duration</b>	<b>Amount</b>
Co- investigator	Synthesis, Spectral/thermal analysis and crystal structure studies of some new nitro compounds as insensitive high energy density materials, dyes and sensors	UGC	2012-2015	Rs.9,81,800/-
Co-investigator	Novel molecular salts of pyrimidine derivatives (barbituric acids) and imidazole derivatives (hydantoins)- Synthesis, Characterisation, antiepileptic, sedative-hypnotic and toxicity studies'	DST	2013-2016	Rs.21,78,000/-

### Minor Project-2

<b>P.investigator/ co-investigator</b>	<b>Title</b>	<b>Sponsor</b>	<b>Duration</b>	<b>Amount</b>
P. investigator	Investigation of Pharmacological Activity of Oximes and Semicarbazones of biologically important carbonyl compounds.	UGC	2007-2009	Rs.40,000/-
co-investigator	Biodegradation of dyes in textile effluents using white rot fungi.	UGC	2007-2009	Rs.55,000/-

External experts: (board members, chairman, research external examiners, selection committee members, Inspection committee member, etc )

- Resource person - 2
- Referee-1
- Doctoral Committee member 1
- Coordinator – DST-FIST project (College level) category 1
- University Representative to Board of Studies in Chemistry (UG & PG)-Jamal Mohammed College, Trichy, Kunthavai Nachiyar Govt.Arts College,Thanjavur.
- Board of Studies member Sri AVVM Pushpam College, Poondi, Thanjavur.

Other positions held in the college:

- Member- CDI (Campus Diversity Initiative Project)
- College Union Vice-President.
- Coordinator for FAEA scholarship holders.
- Staff Secretary- Staff Club
- Organised one-week mega workshop for FAEA scholarship holders on “self discovery to self development”.
- Coordinator for FAEA (Foundation for Academic Excellence and Access) Scholarships Holders under Pathway Project.
- Vice President of Chemistry Club.
- College Retirement Committee Member.
- IQAC coordinator.