

Thiruvalluvar Government Arts College, Rasipuram

DEPARTMENT OF CHEMISTRY

STAFF PROFILE

ABSTRACT



1. Name : Dr.P.VENNILA
2. Designation : Associate Professor
3. Education Qualification : M.Sc., M.Phil., Ph.D.,SET
4. Teaching Experience : 20 Years
5. Research Experience : 15 Years
6. Area of Research : Computational Chemistry,
Physical Chemistry
7. University Guideship
Approval No : Periyar University, Salem-11
(Ref. No: P/P/R4/0312/2010)
(PU/R/RD/(P)/Ph.D/Guide
approval/052982/2020/16.09.2020
8. Fellowship Awarded : Nil
9. Minor/Major Research Project : Nil
10. Research Paper Published : International - 56
11. Seminar/Conference/Workshops: Attended - 20
12. Journals Review : International: 7- National: Nil

13. Books Published

: Nil

BIO - DATA

Name : **Dr.P.Vennila**
 Designation : Associate Professor
 Father's Name : M.Palanismy
 Date of Birth : 21.05.1983
 Permanent Address : 1/96, Adikarai (P.O), Eri Road
 Panamarathu patty (via)
 Salem District, Tamilnadu
 PIN:636204
 Phone No : Res : Off : 04287 – 231802
 Cell : 9788593970
 E-Mail ID : vennilaindhu84@gmail.com
 Languages Known to Read / Write: Tamil/English/Telugu

EDUCATIONAL QUALIFICATION:

Degree	University	Month & Year of Passing	Class/ Grade
UG	Periyar University	May 2003	First Class
PG	Periyar University	April 2005	First Class
M.Phil	University of Madras	August 2006	First Class
Ph.D	Bharathiyar university,Coimbatore	Feb-20.02.2018	awarded
SET	Bharathiyar university,Coimbatore	March 2006	-

Whether qualified for UGC/CSIR-NET/JRF or SET if so give details: SET**Subject:** Chemical Science **Regn.No:** 010204113 **Year of passing:** 2006**Date of Joining** : 01.12.2006

Date of Joining in Govt Service : 13.10.2008

Teaching Experience : 18 Years

S. No	From DD/MM/YY	To DD/MM/YY	Name of the Institution	Total Years
1	09/07/2009	Till date	Thiruvalluvar Government Arts College, Rasipuram	13 years 4 Months
2	13/10/2008	08/07/2009	N.K.R. Government Arts College (W), Namakkal	8 Months
3	04/06/2007	12/10/2008	Mahendra Arts & Science college, Kalipatty, Namakkal	1year 4 Months
4	01/12/2006	31/05/2007	A.V.S Arts & Science college, Salem	5Months

Research Experience : 15 Years

Topic of Research : Computational chemistry

Research Guidance : M.Phil - Awarded : 6
PhD - Ongoing : 4

Courses Attended :

Name of the Course	Subject	Academic Staff College, University	Duration	Date
Orientation Course	Chemistry	UGC - Academic Staff College, University of Madras, Chennai	28 days	13.10.2008- 08.11.2008
Refresher Course	Chemistry	UGC-HRDC, Bharathidasan University, Thiruchirappalli	21 days	20.11.2012 -10.12.2012
	Nano Science	UGC-HRDC, Bharathidasan University, Thiruchirappalli	21 days	20.12.2017 -09.01.2018
	Chemistry	UGC-HRDC, Bharathidasan University, Thiruchirappalli	14 Days	20.09.2019 – 03.10.2019
	Chemistry	UGC-HRDC, Pondicherry University, pondicherry	14 Days	15.07.2021 – 28.07.2021
Faculty development Program (FDP)	Design Develop and Deliver online Course Through MOODLE Platform	Tamil Nadu State Council for Higher Education (TANSCH), Chennai	2 Days	15.05.2020 – 16.05.2020

Short Term Faculty development Program (STFDP)	Chemistry	Payyanur College, Kerala State Higher Education Council	6 Days	23.05.2020 – 28.05.2020
Faculty development Program (FDP)	E-Content Development Program	MHRD, Sanatan Dharma College Ambala Cant.	5 Days	27.07.2020 – 31.07.2020
Faculty development Program (FDP)	Managing Online Classes & Co-creating MOOCS 5.0''	Teaching Learning Centre, Ramanujan College, University of Delhi	15 Days	11.05.2021 - 25.05.2021
Swayam-ARPIT Online Course	Chemistry	S.G.T.B Khalsa college, university of Delhi		01.12.2020 -31.03.2021

Member in Academic/ Editorial Board/ Reviewer in Journals: 5

Reviewer:

1. Journal of Molecular Graphics and Modelling
2. Journal of Molecular Structure
3. Journal of Molecular Liquids
4. Egyptain journal of Chemistry
5. Alexandria Engineering Journal''

Research Experience:

No. of M.Phil awarded under my supervision: 06

S.No	Register Number	Name of the Student	Topic	Year of Completion
1	12CAF 1051	G.Sankar	Corrosion inhibition and adsorption behaviour of mild steel by extract of catharanthus roseus in H_3PO_4 solution	2013
2	13CAF1041	A.Kohila	Crystal growth and characterization of nonlinear optical urea l-alanine doped nickel sulphate and cobalt nitrate single crystal	2015
3	12CAF8013	S.Kavitha	Experimental and theoretical investigation of rosmarinus officinalis leaves extracts as the corrosion inhibitor	2015

			for mild steel in h3po4 solution; synergistic effect	
4	P15CAF8057	I.Parvin	Synthesis, characterization and inhibition effect of an azo dye derivative on mild steel corrosion in acidic solution: DFT study	2017
5	P16CAF8048	R.Karthika	Synthesis, characterization of 1-(4-ethylpiperazin-1-yl (anisyl) methyl naphthalen-2-ol and quantum chemical calculations	2018
6	P17CAF8051	N.Thangadurai	Crystal growth and computational chemistry	2020

No. of PhD under my supervision:04

S.No	Register Number	Name of the Student	Topic	Year of Joining	Year of Completion
1	C22PPH130CHE001	SWETHA S	Metal complexes	July 2021	On going
2	C22PPH130CHE002	PRAVEENA A	Metal complexes	July 2021	On going
3	C22PPH130CHE003	VIDHYA V	Corrosion	July 2021	On going
4		ELENTHEENDRAL	Solar cell	Feb-2022	On going

Research Metrics

Citations : 1823

h-index :26

i10-index :42

Google

Scholar

Link:

https://scholar.google.com/citations?view_op=list_works&hl=en&hl=en&user=QGV8QQogAAAAJ&sortby=pubdate

List of Publication : 56

- [1] G.Venkatesh, **P.Vennila**, Synthesis and the structural elucidation of 2-thio picolinamide (TPA) and 2-N-benzyl TPA, *Elixir Appl. Chem.* 41A (2011) 6084-6087.
- [2] G.Venkatesh, **P.Vennila**, Characterisation of the complexes of Nickel II and Copper II of TPA and 2-N-benzyl TPA, *Elixir Appl. Chem.* 45A (2012) 8043-8047.
- [3] **P. Vennila**, M. Govindaraju, G. Venkatesh, Scaled Quantum Chemical Studies of the Structure, Vibrational Spectra, Force Constants and First-Order Hyperpolarizability of 3,5-Dimethylpyridine, *Elixir Vib. Spec.* 65B (2013) 20204-20211.
- [4] **P. Vennila**, M. Govindaraju, G. Venkatesh, Vibrational analysis of 2-chloro-1-fluoro-4-nitrobenzene a joint FT-IR, FT-Raman and Scaled Quantum Chemical Study, *Elixir Org. Chem.* 73A (2014) 26581-26588.
- [5] G. Venkatesh, M. Govindaraju, **P. Vennila**, Scaled Quantum Chemical Studies on the Vibrational Spectra of 2-bromo-mxylene, *Elixir Org. Chem.* 67A (2014) 21921-21928.
- [6] G. Venkatesh, M. Govindaraju, **P. Vennila**, FT-IR and Raman Spectra Vibrational Assignments and Density Functional Calculations of 2-methoxynaphthalene, *Elixir Vib. Spec.* 71A (2014) 25178-25187.
- [7] **P.Vennila**, G.Venkatesh, M.Govindaraju, P.Madhu, G.Sankar, Corrosion Inhibition and Adsorption Behaviour of Mild Steel by Extract Of Catharanthus Roseus in H₃PO₄ Solution, *International Journal of Current Innovation Research*, 1 (2014) 31-38.
- [8] G. Venkatesh, M. Govindaraju, **P. Vennila**, FT-IR, FT-Raman Spectra and Scaled Quantum Mechanical Study of 5-bromo2-chlorotoluene, *Elixir Materials Sci.* 81A (2015) 32073-32079
- [9] M.Murugaiyan, P.Madhu, **P.Vennila**, G.Venkatesh, Investigation of Schiff Base N, N'-bis (Salicylidene-1, 2 Diaminoethane (Salen) as corrosion inhibitor for Mild Steel in H₃PO₄ Solution, *Int. J. Chem.Tech.Res.*, 7 (2015) 2489-2498.
- [10] S.P.Palanisamy, G.Maheswaran, M.G.L.Annaamalai, **P.Vennila**, Steel Slag to Improve the High Strength of Concrete, *Int. J. Chem.Tech.Res.*, 7 (2015) 2499-2505.
- [11] **P.Vennila**, S.Kavitha, G.Venkatesh, P.Madhu, Experimental and theoretical investigation of Rosmarinus officinalis leaves extracts as the corrosion inhibitor

- for mild steel in H_3PO_4 solution; synergistic effect, *Der Pharma Chemica*, 7 (2015) 275-283.
- [12] L.Gobinathan, K.Boopathy, **P.Vennila**, G.Venkatesh Growth and characterization of pure and L-alanine doped urea cobalt chloride NLO materials, *Der Pharma Chemica*, , 7 (2015) 163-167.
- [13] G. Venkatesh, M. Govindaraju, **P. Vennila**, C. Kamal, Molecular structure, vibrational spectral assignments (FT-IR and FT-RAMAN), NMR, NBO, HOMO–LUMO and NLO properties of 2-nitroacetophenone based on DFT calculations, *Theor. Comp. Chem.* 15 (2016) 1650007.
- [14] **P. Vennila**, M. Govindaraju, G. Venkatesh, C. Kamal, Molecular structure, vibrational spectral assignments (FT-IR and FT-RAMAN), NMR, NBO, HOMO-LUMO and NLO properties of O-methoxybenzaldehyde based on DFT calculations, *J. Mol. Struct.* 1111 (2016) 151-156.
- [15] G. Venkatesh, M. Govindaraju, **P. Vennila**, Experimental and theoretical spectral investigations of. 5-chloro-ortho-methoxyaniline using FT-IR, FT-Raman and DFT analysis, *Indian. J. Chem.* 55 (2016) 413-422.
- [16] G. Venkatesh, M. Govindaraju, **P.Vennila**, Vibrational Spectra and Potential Energy Distributions for 5-Chloro-2-nitroanisoie by Density Functional Theory and Normal Coordinate Calculations, *Asian. J. Chem.* 28 (2016) 675.
- [17] G. Venkatesh, M. Govindaraju, C. Kamal, **P. Vennila**, S. kaya, Structural, electronic and optical properties of 2, 5-dichloro-p-xylene: experimental and theoretical calculations using DFT method, *RSC Adv.* 7 (2017) 140.
- [18] M. Muthukkumar, R. Rajavel, G. Venkatesh, **P. Vennila**, Macrocyclic Schiff Base Metal Complexes Derived from Isatin: Structural Activity Relationship and DFT Calculations, *Tenside Surf. Det.*, 54 (2017) 3.
- [19] M. Muthukkumar, C. Kamal, G. Venkatesh, C. Kaya, S. Kaya, Israel V.M.V. Enoch **P. Vennila**, R. Rajavel, Structural, spectral, DFT and biological studies on macrocyclic mononuclear ruthenium (II) complexes, *J. Mol. Struct.* : <https://doi.org/10.1016/j.molstruc.2017.06.132>
- [20] M.G.L. Annaamalail, G. Maheswaran, N. Ramesh, C. Kamal, G. Venkatesh, **P. Vennila**., Investigation of Corrosion Inhibition of Welan Gum and Neem Gum on Reinforcing Steel Embedded in Concrete. *Int. J. Electrochem. Sci.*, 13 (2018) 9981 – 9998, doi: 10.20964/2018.10.41
- [21] M. Muthukkumar, T. Bhuvaneswari, G. Venkatesh, C. Kamal, **P. Vennila**, Stevan Armaković, Sanja J. Armaković, Y. Sheena Mary, C. Yohannan Panicker.,

Synthesis, characterization and computational studies of semicarbazide derivative. Journal of Molecular Liquids **272** (2018) 481- 495

- [22] G.Venkatesh., C.Kamal., **P.Vennila.**, M.Govindaraju.,Y. SheenaMary., StevanArmakovic., Sanja J.Armakovic., S.Kaya., C. YohannanPanicker ., Molecular dynamic simulations, ALIE surface, Fukui functions geometrical, molecular docking and vibrational spectra studies of tetra chloro p and m-xylene., [Journal of Molecular Structure.](#),**1171**, **5** (2018) 253-26
- [23] P.Vennila., M.Govindaraju, G.Venkatesh , C.Kamal ,Y. SheenaMary , C.YohannanPanicker , S.Kaya, StevanArmaković, Sanja J.Armaković , A complete computational and spectroscopic study of 2-bromo-1, 4-dichlorobenzene – A frequently used benzene derivative., [Journal of Molecular Structure](#), **5** (2018)245-255.
- [24] T.Saravanakumaran, A.Prakasam G.Venkatesh, C.Kamal **P.Vennila**, S. Parveen Banu,Removal of crystal violet dye using activated carbon of Cyperous Pangorel, International Conference on **Research Initiatives in chemistry for Sustainable Development**, ISBN 978-93-86712-63-9.(2019).
- [25] T.Saravanakumaran, A.Prakasam , **P.Vennila** S. Parveen Banu G.Venkatesh, New Carbazole-Based Organic Dyes with Various Acceptors for Dye-SensitizedSolar Cells: Synthesis, Characterization, DSSCs Fabrications and DFT Study, **Asian Journal of Chemistry.**,Vol.33.No.7(2021), 1541-1550.
- [26] P.Aravindan, K.Sivaraj , C.Kamal, **P.Vennila** , G.Venkatesh, Synthesis, Molecular structure, Spectral Characterization, Molecular docking and biological activities of (E)-N-(2-methoxy benzylidene) anthracene-2-amine and Co(II), Cu(II) and Zn(II) complexes, **J. Mol. Struct.**, 19 (2020) 129488 (**Impact Factor: 2.463**).
- [27] T.Saravanakumaran, A.Prakasam G.Venkatesh, C.Kamal Y. Sheena Mary, S. Parveen Banu, **P.Vennila** and Y. Shyma Mary., Synthesis, spectral characterizations, molecular geometries and electronic properties of phenothiazine based organic dyes for dye-sensitized solar cells, **Zeitschrift für Physikalische Chemie** ,DOI: <https://doi.org/10.1515/zpch-2020-1732> (2020) (**Impact Factor: 2.263**)
- [28] R.V. Sakthivel, P. Sankudevan, **P. Vennila**, G. Venkatesh, S. Kaya , G. Serdaroglu Experimental and theoretical analysis of molecular structure, vibrational spectra and biological properties of the new Co(II), Ni(II)and Cu(II) Schiff base metal complexes, **J. Mol. Struct.**, 1233 (2021) 130097(**Impact Factor: 2.463**).

- [29] K.Periyasamy, P. Sakthivel, **P. Vennila**, P.M. Anbarasan, G. Venkatesh, Y. Sheena Mary, Novel D- π -A phenothiazine and dibenzofuran organic dyes with simple structures for efficient dye-sensitized solar cells, **J. Photochem. Photobiol. A**, 413 (2021) 113269 (**Impact Factor: 2.463**).
- [30] T. Saravana Kumaran, A. Prakasam, P.M. Anbarasan, **P. Vennila**, G. Venkatesh, S. Parveen Banu, Y. Sheena Mary, New phenoxazine-based organic dyes with various acceptors for dye-sensitized solar cells: Synthesis, characterization, DSSCs fabrications and DFT study, **Journal of Computational Biophysics and Chemistry**, 20, No. 05, pp. 465-476 (2021), <https://doi.org/10.1142/S2737416521500253> (**Impact Factor: 0.82**).
- [31] **P. Vennila**, G. Venkatesh , Yudibeth Sixto-López , C. Kamal, S. Kaya , G. Serdaroglu, Bruno Landeros-Rivera, Synthesis, spectroscopic characterization, molecular docking studies and DFT calculation of novel Mannich base 1-((4-ethylpiperazin-1-yl)(2-hydroxyphenyl)methyl) naphthalen-2-ol., **J. Mol. Struct.**, 1246 (2021) 131164 (**Impact Factor: 2.463**).
- [32] Periyasamy, K., Sakthivel, P., Venkatesh, G. et al. Synthesis, photophysical, electrochemical, and DFT examinations of two new organic dye molecules based on phenothiazine and dibenzofuran. *J Mol Model* 28, 34 (2022). <https://doi.org/10.1007/s00894-022-05026-w>
- [33] G. Venkatesh, Yudibeth Sixto-López, P. Vennila, Y. Sheena Mary, José Correa-Basurto, Y. Shyma Mary, A. Manikandan, An investigation on the molecular structure, interaction with metal clusters, anti-Covid-19 ability of 2-deoxy-D-glucose: DFT calculations, MD and docking simulations, *Journal of Molecular Structure*, Volume 1258, 2022, 132678, ISSN 0022-2860, <https://doi.org/10.1016/j.molstruc.2022.132678>
- [34] G. Venkatesh, C. Kamal, P. Vennila, S. Kaya, M.G.L. Annaamalai, Brahim El Ibrahim, Sustainable corrosion inhibitor for steel embedded in concrete by Guar Gum: Electrochemical and theoretical analyses, *Applied Surface Science Advances*, Volume 12, 2022, 100328, ISSN 2666-5239, <https://doi.org/10.1016/j.apsadv.2022.100328>.
- [35] G. Raja, G. Venkatesh, Jamelah S. Al-Otaibi, P. Vennila, Y. Sheena Mary, Y. Sixto-López, Synthesis, characterization, molecular docking and molecular dynamics simulations of benzamide derivatives as potential anti-ovarian cancer agents, *Journal of Molecular Structure*, Volume 1269, 2022, 133785, ISSN 0022-2860, <https://doi.org/10.1016/j.molstruc.2022.133785>.
- [36] G. Venkatesh, S. Haseena, Jamelah S. Al-Otaibi, Y. Sheena Mary, P. Vennila, Y. Shyma Mary, S. AbulKalam Azad, Observations into the reactivity, docking, DFT, and MD simulations of fludarabine and clofarabine in various solvents, *Journal of Molecular Liquids*, Volume 383, 2023, 122076, ISSN 0167-7322, <https://doi.org/10.1016/j.molliq.2023.122076>.

- [37] Saravana Kumaran, T., Prakasam, A., Venkatesh, G. et al. Design and Synthesis of Phenylacridine-Based on Organic Dyes and Its Applications in Dye-Sensitized Solar Cells. *Russ. J. Phys. Chem.* 97, 2607–2623 (2023).
<https://doi.org/10.1134/S0036024423110298>
- [38] Periyasamy, K., Sakthivel, P., Venkatesh, G. *et al.* Synthesis and design of carbazole-based organic sensitizers for DSSCs applications: experimental and theoretical approaches. *Chem. Pap.* 78, 447–461 (2024).
<https://doi.org/10.1007/s11696-023-03101-x>
- [39] G. Venkatesh, G. Serdaroglu, E. Üstün, D. Haripriya, P. Vennila, V. Siva, S. Haseena, V. Sowmiya, A. Pradhiksha, Green synthesis, characterization, anti-cancer and antimicrobial activity of AuNPs extracted from *Euphorbia antiquorum* stem and flower: Experimental and theoretical calculations, *Journal of Drug Delivery Science and Technology*, Volume 95, 2024, 105583, ISSN 1773-2247, <https://doi.org/10.1016/j.jddst.2024.105583>.
- [40] G. Venkatesh, P. Vennila, S. Balasubramaniyan, Solvent effects, chemical reactivity, docking and antimicrobial activity of silver and gold nanocages glimepiride: Experimental and theoretical calculations, *Chemical Physics Impact*, Volume 8, 2024, 100498, ISSN 2667-0224, <https://doi.org/10.1016/j.chphi.2024.100498>.
- [41] G. Venkatesh, S. Haseena, P. Vennila, Yudibeth Sixto-López, V. Siva, J.N. Cheerlin Mishma, S. Abul Kalam Azad, Y. Sheena Mary, Solvation effects, structural, vibrational analysis, chemical reactivity, nanocages, ELF, LOL, docking and MD simulation on Sitagliptin, *Chemical Physics Impact*, Volume 8, 2024, 100481, ISSN 2667-0224, <https://doi.org/10.1016/j.chphi.2024.100481>.
- [42] P. Durairaju, G. Venkatesh, A. Pradhiksha, P. Vennila, Y. Sheena Mary, Samer Hasan Hussein-Al-Ali, Suha Mujahed Abudoleh, Synthesis, antiproliferative, antibacterial activity of acridone derivatives: Experimental and theoretical calculations, *Journal of Molecular Structure*, Volume 1316, 2024, 138841, ISSN 0022-2860, <https://doi.org/10.1016/j.molstruc.2024.138841>
- [43] Periyasamy, K., Sakthivel, P., Venkatesh, G., Vennila, P., Mary, Y. S., & Haseena, S. (2024). Structural and Photophysical Studies of Triphenylamine-Based Organic Dyes for Applications in DSSCs: Experimental and DFT Analysis. *Polycyclic Aromatic Compounds*, 44(8), 5314–5337 .
<https://doi.org/10.1080/10406638.2023.2264450>
- [44] Ganesan Venkatesh, Palanisamy Vennila, Savas Kaya, Samia Ben Ahmed, Paramasivam Sumathi, Vadivel Siva, Premkumar Rajendran, and Chennapan Kamal., Synthesis and Spectroscopic Characterization of Schiff Base Metal Complexes, Biological Activity, and Molecular Docking Studies, *ACS Omega* 2024 9 (7), 8123–8138 ,DOI: 10.1021/acsomega.3c08526.
- [45] G. Venkatesh, Yudibeth Sixto-López, P. Vennila, V. Siva, P. Sumathi, Synthesis, Solvent effects, Chemical reactivity, Molecular Docking and Molecular Dynamic Studies of Triazole derivative, *Journal of Molecular Structure*, Volume

- [46] Durairaju, P., Raja, G., Venkatesh, G., Govindasamy, C., S. El Newehy, A., Haseena, S., Vennila, P., & Balasubramaniyan, S. (2024). Green synthesis, characterization, antimicrobial and anti-cancer activity of silver nanoparticles using *Aristolochia bracteolata* plant leaf extract: experimental and theoretical calculations. *Bulletin of the Chemical Society of Ethiopia*, 39(2), 271–286. <https://doi.org/10.4314/bcse.v39i2.7>
- [47] G. Venkatesh, P. Vennila, C. Govindasamy, Ahmed S. El Newehy, Khayala Mammadova, J.N. Cheerlin Mishma, A. Manikandan, S. Balasubramaniyan, Synthesis, characterization, antiproliferative, antibacterial activity, RDG, ELF, LOL Molecular docking and physico chemical properties of novel benzodiazepine derivatives, *Journal of Molecular Structure*, Volume 1322, Part 3, 2025, 140519, ISSN 0022-2860, <https://doi.org/10.1016/j.molstruc.2024.140519>.
- [48] G. Venkatesh, Khayala Mammadova, P. Vennila, J.N. Cheerlin Mishma, R. Premkumar, S. Kaya, Green synthesis of novel amino acid-coupled 1, 2, 4-triazoles derivatives using lemon juice as a green catalyst: Potential antiproliferative, antimicrobial, DFT computation and molecular docking analysis, *Journal of Molecular Structure*, Volume 1351, Part 1, 2026, 144187, ISSN 0022-2860, <https://doi.org/10.1016/j.molstruc.2025.144187>.
- [49] G. Venkatesh, K. Mammadova, M. Ayyar, et al. "Synthesis, Spectroscopic Characterization, Drug-Likeness, and Antibacterial Activity of a Novel Triazole Derivative." *ChemistrySelect* 10, no. 37 (2025): e02570. <https://doi.org/10.1002/slct.202502570>
- [50] G. Venkatesh, Khayala Mammadova, Manikandan Ayyar, J.N. Cheerlin Mishma, Lalitha Gnanasekaran, M. Santhamoorthy, P. Vennila, Synthesis, characterization, antimicrobial and antiproliferative activities, molecular docking, and physicochemical properties of novel hydrazinecarbothioamide derivatives, *Journal of Molecular Structure*, Volume 1343, 2025, 142774, ISSN 0022-2860, <https://doi.org/10.1016/j.molstruc.2025.142774>.
- [51] Venkatesh, G., Mammadova, K., Manikandan, A., Gnanasekaran, L., Santhamoorthy, M., & Vennila, P. (2025). Green synthesis of iron oxide nanoparticles using *Euphorbia hirta* leaf extract: Characterization, anti-cancer and antimicrobial activity. *Bulletin of the Chemical Society of Ethiopia*, 39(12), 2509–2522. <https://doi.org/10.4314/bcse.v39i12.11>
- [52] G. Venkatesh, Khayala Mammadova, Manikandan Ayyar, J.N. Cheerlin Mishma, Lalitha Gnanasekaran, M. Santhamoorthy, P. Vennila, Synthesis, characterization, antimicrobial and antiproliferative activities, molecular docking, and physicochemical properties of novel hydrazinecarbothioamide derivatives, *Journal of Molecular Structure*, Volume 1343, 2025, 142774, ISSN 0022-2860, <https://doi.org/10.1016/j.molstruc.2025.142774>.
- [53] M. Elanthendral, P. Vennila, G. Venkatesh, A. Manikandan, Lalitha Gnanasekaran, M. Santhamoorthy, Synthesis, photophysical characterization and DSSCs application of heterocyclic carbazole dyes: Experimental and theoretical study, *Inorganic Chemistry Communications*, Volume 184, 2026, 115970, ISSN 1387-7003, <https://doi.org/10.1016/j.inoche.2025.115970>.

- [54] M. Elanthendral, P. Vennila, G. Venkatesh, Design, synthesis, and photo physical characterization of Phenyl-(Benzo) phenothiazine-based organic photosensitizers for dye-sensitized solar cells, *Journal of Physics and Chemistry of Solids*, Volume 208, Part 1, 2026, 113010, ISSN 0022-3697, <https://doi.org/10.1016/j.jpcs.2025.113010>.
- [55] G. Venkatesh, Khayala Mammadova, Alvina Sadigova, S. Balasubramanian, A. Manikandan, M. Santhamoorthy, D. Shanmugapriya, P. Vennila, Design, synthesis, and biological evaluation of novel benzhydrazide derivatives: Antibacterial, antioxidant and docking studies, *Chemical Data Collections*, Volume 62, 2026, 101227, ISSN 2405-8300, <https://doi.org/10.1016/j.cdc.2026.101227>.
- [56] G. Venkatesh, Khayala Mammadova, Manikandan Ayyar, Lalitha Gnanasekaran, M. Santhamoorthy, Elvan Üstün, P. Vennila, Synthesis, molecular docking, antibacterial and anticancer activity of benzodioxine-coupled schiff base and metal complexes, *Journal of Molecular Structure*, Volume 1362, 2026, 145637, ISSN 0022-2860, <https://doi.org/10.1016/j.molstruc.2026.145637>.

Papers Presented in Seminars/ Conferences/National/ International: 7

1. Density functional theory study of FT-IR FT-Raman spectra of O – cresol, P.Vennila, M. Govindaraju, G.Venkatesh, National conference on application of nanotechnology and electrochemistry (ANTEC--2015) organized by Department of chemistry Salvamm Arts and science college Namakkal during 3^{0th} December 2015.
2. Molecular structure, Vibrational spectroscopic (FT-IR, FT-Raman), NBO analysis, HOMO and LUMO analysis of 1-bromo 3, 5 Dichloro Benzene by Density Functional Method., P.Vennila, M. Govindaraju, G.Venkatesh, D.Valarmathy, New trends in Chemistry (NTC-2016) organized by Department of chemistry, Annamalai university, Chidambaram during 21st and 22nd october 2016.
3. Scaled Quantum Chemical Studies Of The Structure, Vibrational Spectra Of 3, 5-Dimethylpyridine., M.Govindaraju, P.Vennila, D.Valarmathy, G.Venkatesh, New trends in Chemistry (NTC-2016) organized by Department of chemistry, Annamalai university, Chidambaram during 21st and 22nd october 2016.
4. A structural study of 4-chloro-o-anisidine by DFT calculations, NMR, FT-IR and FT-Raman spectroscopy, G.Venkatesh, M.Govindaraju, P.Vennila, D.Valarmathy, New trends in Chemistry (NTC-2016) organized by Department of chemistry, Annamalai university, Chidambaram during 21st and 22nd october 2016.
5. Molecular structure, NBO and Ft-IR and FT-Raman analysis of 4-ethoxy benzaldehyde derivative using DFT method, P.Vennila, M. Govindaraju, G.Venkatesh., Recent trends in materials science -2017 organized by Department of physics, Thiruvalluvar govt.Arts college, Rasipuram ., during 25th January 2017

6. Vibrational spectral study of Trifluoromethyl benzoyl chloride (TFMBC) using DFT approach P.Vennila, M.Govindaraju, G.Venkatesh, D.Valarmathy, C.Kamal, M.Asaithambi International conference on Recent Trends in synthetic methods and material chemistry (RTSMC-2018) organized by Department of chemistry, Annamalai university, Chidambaram during 2nd and 3rd February 2018.

Seminar and Work shop organized :01

1. Organizing committee member One day National seminar on “Recent research trends in chemistry ” organized by Department of Chemistry, Thiruvalluvar Govt. Arts college, Rasipuram on 10.02.2017.

Special and Guest Lectures Delivered : 06

Academic Year	Details (Enclose copies of relevant certificates / documents)
2020-2021	1. Delivered a Guest lecture on” Innovative Ideas for Future Opportunities in chemistry organized by Department of chemistry AVS College of Arts & Science, Salem through Google meet on 24.02.2021. 2. Delivered a Guest lecture on ” Success of our Future” organized by Department of chemistry AVS College of Arts & Science , Salem through Google meet (11.00 am -1.00 pm)on 24.04.2021. 3. Delivered a Guest lecture on” Success of our Future” organized by Department of chemistry Sri Kailash Women’s college, Thalaivasal through Google meet (3.00 pm -4.00 pm) on 24.04.2021. 4. Delivered a Special lecture in One day IQAC in Association with PG Students State level webinar on ” Tips & Tricks to clear UGC-NET/CSIR/SET Examination in First Attempt” organized by Department of chemistry Trinty college for Women’s (Arts & Science), Namakkal through Google meet (Sunday) on 25.07.2021. 5. Delivered a Guest lecture in Student Induction Programme (SIP)-2021-2022on” Success of our Life” organized by Department of Computer Science Thiruvalluvar Govt. Arts College, Rasipuram on 05.10.2021. 6. Delivered a Guest lecture in Student Induction Programme(SIP)-2021-2022 on” Lecture on Gender Sensitization Anti-Women Harassment and Counselling organized by Department of chemistry Thiruvalluvar Govt. Arts College, Rasipuram on 06.10.2021.

Participation in Seminars/ Conferences/ Workshop: 20

Papers Presented/Participated in Seminars/ Conferences/ Workshop/ symposium:	
2004-2005	1. State level seminar on More and sono chemistry Sponsoring Agency UGC organized by Vellalar college for women, Erode. 15th sep 2004 2. State level seminar on Environmental pollution heading for a catastrophe organized by Central law college ,Salem 5th March 2005
2010	3. National conference on Global terrorism and international co-operation Sponsoring Agency UGC organized by Department of political science, Thiruvalluvar govt.Arts college, Rasipuram 21 st and 22 nd january 2010
2012	4. National level seminar on Recent trends in corrosion inhibition by nano materials Sponsoring Agency AICTE organized by Muthayammal Technical campus Rasipuram 14th and 15th june 2012
2013-2014	5. Participated CSIR sponsored two-day workshop on “Application of Remote sensing and GIS for water management held on 25 and 26.09.2013 at organized by Department of civil engineering VSA Educational and Charitable Trust group of Institutions, Salem -10.
2015-2016	6. Attended /Presented a paper entitled ”Density functional theory study of FT-IR FT-Raman spectra of o-cresol, P.Vennila, M. Govindaraju, G.Venkatesh, National conference on application of nanotechnology and electrochemistry (ANTEC--2015) organized by Department of chemistry Selvamm Arts and science college Namakkal during 30th December 2015. 7. Attended UGC sponsored one day State level seminar in Chemistry” organized by the Department of chemistry, Govt. Arts College, Salem-7 on 19.02.2016.
2016-2017	8. Attended /Presented a paper entitled ”Molecular structure, Vibrational spectroscopic (FT-IR, FT-Raman), NBO analysis, HOMO and LUMO analysis of 1-bromo 3, 5 Dichloro Benzene by Density Functional Method., P.Vennila, M. Govindaraju, G.Venkatesh, D.Valarmathy, New trends in Chemistry (NTC-2016) organized by Department of chemistry, Annamalai university , Chidambaram during 21st and 22nd october 2016. 9. Attended One day National seminar on “Green chemistry in organic synthesis” organized by Department of Chemistry, Namakkal Kavignar Ramalingam Government Arts college for women, Namakkal on 28.9.2016. 10. Attended One day National seminar on “The Progress of carbon Nanomaterials research ”organized by Department of Physics, Thiruvalluvar Govt. Arts college, Rasipuram on 20.10.2016. 11. Attended /Presented a paper entitled ”Molecular structure, NBO and Ft-IR and FT-Raman analysis of 4-ethoxy benzaldehyde derivative using DFT method, P.Vennila, M. Govindaraju, G.Venkatesh., National conference on Recent trends in materials science -2017 organized by Department of

	physics, Thiruvalluvar Govt. Arts college, Rasipuram ., during 25th January 2017. 12. Organizing committee member & Attended One day National seminar on “Recent research trends in chemistry ” organized by Department of Chemistry, Thiruvalluvar Govt. Arts college, Rasipuram on 10.02.2017.
2017-2018	13. Participated in One day National symposium on “Nanotechnology-Aleap in materials Science” organized by Department of Chemistry, Sri Saradha College for women (A), Salem on 09.01.2018. 14. Participated in One day State level seminar on “Recent Development in Chemistry and Nanoscience” organized by Department of Chemistry, Arignar Anna Government Arts college, Namakkal on 05.01.2018. 15. Attended /Presented a paper entitled” Vibrational spectral study of Trifluoromethyl benzoyl chloride (TFMBC) using DFT approach P.Vennila, M.Govindaraju, G.Venkatesh, D.Valarmathy, C.Kamal, M.Asaithambi International conference on Recent Trends in synthetic methods and material chemistry (RTSMC-2018) organized by Department of chemistry, Annamalai university , Chidambaram during 2nd and 3rd February 2018.
2018-2019	16. Participated in DST-SERB sponsored two days National level seminar on Geopolymer Technology-The Current State of the Art organized by Department of civil engineering VSA group a. of Institutions, Salem -10 during 19 , 20July 2018.
2019-2020	17. participated in the WEBINAR titled “Gene and Drug Delivery Systems for Therapeutic Applications” organised by School of Chemical and Biotechnology, SASTRA Deemed to be University on 29-05-2020. 18. Participated in the National level webinar o Economic Demands in Higher Education organized by Dharmamurthi Rao Bahadur Calavala Cunnan chettys Hindu College Chennai on 31.05.2020.
2020-2021	19. Participated in the Webinar Series on Chemistry organized by the PG and Research Department of Chemistry, Queen Mary’s College, Chennai-04 from 10.06.2020 to 13.06.2020. 20. Participated in the International Webinar series on WOMEN EMPOWERMENT organised by the Women Development Cells Thiruvalluvar Govt Arts College, Rasipuram from 15.07.2020 to 19.07.2020.

Dr.P.Vennila

