



P.S.R. ENGINEERING COLLEGE

An Autonomous Institution, Affiliated to Anna University, Chennai
Approved by AICTE, New Delhi & Accredited by National Board of Accreditation (NBA)
Accredited by NAAC with "A+" Grade, Recognized under 12(B) of the UGC Act, 1956.
An ISO 9001: 2015 Certified Institution
Sevalpatti (P.O), Sivakasi – 626 140, Tamil Nadu.



FACULTY PROFILE

Name of the Department : CHEMISTRY

Name of the faculty member : Dr.M.Samuel

Present Designation : Assistant Professor of Chemistry

Date of Joining : 18.1.23

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Particulars of Educational Qualification*:

Name of the Degree	Specialization	Year of Passing	Name of the College	Name of the University
Ph.D	(Chemistry)	2018-2022	VHNSN College Virudhunagar	Madurai Kamaraj University- Madurai
PG	(Chemistry)	2011-2013	Devanga Arts College, Aruppukottai	Madurai Kamaraj University
UG	(Chemistry)	2007-2010	SBK College Aruppukottai	Madurai Kamaraj University

Total Research Experience (in Years&Months) : 4 Years.

FDP/ Seminar/ Workshop attended:

1. Presented a paper entitled, "Synthesis, characterization and biological activities of Cu(II) and Zn(II) complexes with benzothiazol-2-yl-(4-methylbenzylidene) amine", in the International Conference on Recent Advances in Materials for Energy and Environmental Remediation (RAMEER - 2018), organized by the Department of Chemistry, VHNSN College(Autonomous), Virudhunagar, June 28-29, 2018.
2. Presented a paper entitled, "Synthesis and characterization of Cu(II) complex having 2-amino-6-nitrobenzothiazol-(4-chlorophenyl)-(6-nitrobenzothiazole-2yl)methanimine in the International Seminar on Interdisciplinary Science Studies, organized by the Department of Chemistry, The Standard Fireworks Rajaratnam College for Women, Sivakasi, September 3, 2018.
3. Presented a paper entitled, "Hydrothermal synthesis of novel MoS₂ nanosheets and their superior catalytic reduction of 4-nitrophenol", in the International Conference on Innovative Trends in Chemical Science (ITCS -2019), organized by Department of Chemistry, Devanga Arts College, Aruppukottai, February 4-5, 2019.
4. Presented a paper entitled, "Synthesis and characterization of metal complexes having N-(5-nitrobenzo[D]thiazole -2-yl-1-(pyrene-4-yl)methanimine" in the National Seminar on Emerging Trends in Bioinorganic and Pharmaceutical Chemistry(ETBPC-2019), sponsored by the Science and Engineering Research Board (SERB), New Delhi, organized by the Department of Chemistry VHNSN College (Auronomous) Virudhunagar, February 27-28, 2019.
5. Presented a paper entitled, "Synthesis and characterization of metal complexes having E-N-(4-bromobenzylidene)-5-methylbenzo[d]thiazol-2-amine", in the International Conference on Recent Trends in Chemistry and Biosciences (ICRTCB-2019)", organized by the Department of Inorganic Chemistry, School of Chemistry, Madurai Kamaraj University, Madurai-21, May 16 17, 2019.
6. Presented a paper entitled, "Cytotoxic, antimicrobial activity and pharmacological evaluation of Knoevenagel condensate of β -diketone Schiff base nitroaniline Cu(II) and Zn(II) complexes" in the International Seminar on Recent Trends in 224 Interdisciplinary Science (RTIS-2019), organized by Department of Chemistry, The Standard Fireworks Rajaratnam College for Women, Sivakasi, September-2019.
7. Presented a paper entitled, "Synthesis and Characterization of metal complexes having E-N-(4-bromobenzylidene)-5-methylbenzo[d]thiazol-2-amine", in the "International Conference on Recent Advances in Applied Chemical Sciences (ICRAACS-2019)", organized by Department of Chemistry, SREE Sevugan Annamalai College, Devakottai, 6 September-2019.
8. Presented a paper entitled, "Pharmacological Evaluation of Knoevenagel Condensate β -Diketimine Schiff B Cu(II) and Zn(II) Complexes", in the National seminar on Recent Trends in Biological Nanochemistry(RTBNC-2020)", sponsored by Tamilnadu State Council for Science and Technology((TNSCST), Chennai, organized by the Department of Chemistry, Dr.Zakir Husain College, Ilayankudi, 22-23, January, 2020
9. Presented a paper entitled " Synthesis and Characterization of metal complexes having 3-(2-mercaptorthylidene)pentane-2,4-dione", in the National Conference on Current Innovations of Chemistry to Solve Social and Industrial Problems". Organized by Department of Chemistry, Saiva Bhanu Kshatraya College, Aruppukottai, 21, Febraury, 2020.

Publications(International/National journals):

PUBLICATIONS

1. Comprehensive biological evaluation (DNA binding, cleavage and anti-microbial activity) of β -diketimines Schiff base ligands and their Cu (II) and Zn (II) complexes. **J. Coord. Chem.**, 74 (12), (2021) 2069-2091. <https://doi.org/10.1080/00958972.2021.1931848>
2. DNA interaction perspectives of sulphur containing Knoevenagel condensed copper(II) complexes: Molecular docking, DFT, anti-biogram and in-silico assessment, **Inorg. Chim. Acta.**, 533 (2022) 120783. <https://doi.org/10.1016/j.ica.2021.120783>
3. Synthesis, characterization, in vitro, and in vivo studies of mixed ligand metal complexes from a curcumin Schiff base and lawsone, Nucleosides, **Nucleotides & Nucleic Acids**, 40 (3), (2021) 242-263. <https://doi.org/10.1080/15257770.2020.1867865>
4. Synthesis, characterization, in vitro, in silico and in vivo investigations and biological assessment of Knoevenagel condensate β -diketone Schiff base transition metal complexes, **J. Biomol. Struct. Dynam**, (2022): 1-21. <https://doi.org/10.1080/07391102.2022.2056509>
5. "Synthesis, spectroscopic, in vitro, in silico, and in vivo studies of binuclear Cu (II), Ni (II), Ru (II), and Zn (II) complexes with tetradentate Schiff base ligand." **Appl. Organomet. Chem**, 2022;e6704. <https://doi.org/10.1002/aoc.6704>
6. Sustainable synthesis of silver nanoparticles using *Alstonia scholaris* for enhanced catalytic degradation of methylene blue. **J. Mol. Struct.**, 1246, (15) (2021) 131208. <https://doi.org/10.1016/j.molstruc.2021.131208>
7. Eco-friendly green synthesis of silver nanoparticles using *Luffa acutangula*: synthesis, characterisation and catalytic degradation of methylene blue and malachite green dyes. **Int. J. Environ. Anal. Chem.** (2022) 1-13. <https://doi.org/10.1080/03067319.2022.2060089>
8. Ecofriendly synthesis of silver nanoparticles using *Heterotheca subaxillaris* flower and its catalytic performance on reduction of methyl orange. **Biochem. Eng. J.** (2022) 108447. <https://doi.org/10.1016/j.bej.2022.108447>.
9. Transition metal complexes incorporating lawsone: a review. *Journal of Coordination Chemistry* <https://doi.org/10.1080/00958972.2022.2142908>

10. Influence of electron density on the biological activity of aniline substituted Schiffbase: in silico, in vivo and in vitro authentication. Journal of Molecular Structure 1279 (2023) 134987.

<https://doi.org/10.1016/j.molstruc.2023.134987>

11. In silico and biological exploration of greenly synthesized curcumin-incorporated isoniazid Schiff base and its ruthenium complexes. Structural Chemistry. <https://doi.org/10.1007/s11224-022-02065-0>

12. Virtual and in vitro, in vivo Screening of Transition Metal Complexes of N,N-Chelating Ligand: Experimental and Theoretical Investigations. Asian Journal of Chemistry; Vol. 35, No. 3 (2023), 639-648

<https://doi.org/10.14233/ajchem.2023.27565>

13. Preliminary anticancer and antitumor examination of Knoevenagel condensed transition metal complexes of (E)-4-(phenylimino)-3-((E)-1-(phenylimino)ethyl)pent-2-ene-thiol derivatives. (Molecular Structure (Under Review)

14. Virtual Screening, DNA straping and antimicrobial investigation of Transition mixed ligand metal complexes from OPD

Publications (National/InternationalConferences) :13

Books Publications :Nil

Research Area : Bio-Inorganic Chemistry,
CatalyticActivityandCorrosion.