

STAFF PROFILE



1) Name: Dr.A.Manivel

2) Designation: Associate Professor

3) Department: Chemistry

4) Qualifications:

Academic: M.Sc., M.Phil., PGDCA., Ph.D

Additional:

5) Experience (in years): Teaching: 13 years Research: 18 years

6) Area of Specialization: Nanoelectrochemisrty

7) Contact: E-mail: amanivel@gmail.com Mobile Number: 9842097246

8) Grants Received (Conference/Workshop/Seminar/any other): Nil

Event Title	Agency	Fund Received	Date

9) Project Completed: Nil

Project Title	Agency	Fund Received	Duration

10) Project ongoing: Nil

Project Title	Agency	Fund Received	Duration

11) Research Guidance:

Programme	No. of Scholars	
	Completed	Pursuing
Ph. D.		3
M. Phil.		

12) Research Publications:

	International	National
Total Number of Publications	26	5

List of International Publications: 26

1. Synthesis and Photophysical Properties of Bipolar Compound: Triphenylamine/Diazafluorene-Carbazole, Radhakrishnan Sivakumar, Rajamohan Satheesh, Arumugam Manivel, David Contreras, Manidurai Paulraj, Journal of Fluorescence xx(2024)xxx-xxx.

2. Carbazole-diazafluorene bipolar fluorophores: Synthesis, thermal stability, optical and electrochemical properties, R.Sivakumar, A.Manivel, D.Contreras, M. Paulraj, *Journal of Luminescence* 236 (2021) 118145-118153.
3. Spectral investigation of aminoacid modified DNA self-assembled magnetite Fe₃O₄ nanoparticles, N. Kalaimani, A. Manivel, N.Prabakaran, *J. Funct. Mater. Biomol.* 4(2) (2020) 416 – 421.
4. Synthesis, Growth and Characterization of L-Phenylalaninium Methanesulfonate Nonlinear Optical Single Crystal, K.Mangaiyarkarasi, A.T.Ravichandran, K.Anitha, A.Manivel. *Journal of Molecular Structure* 1155 (2018) 758–764.
5. Spectral, Thermal, Electrical and Mechanical Properties of Potassium Fumarate Dihydrate (PFD) Single Crystals, A.T. Ravichandran, K. Mangaiyarkarasi, A. Manivel, *International Journal of Advance Engineering and Research Development*, 3(2018) 1-10.
6. Ruthenium (II) Complexes incorporating Carbazole-Diazafluorene based bipolar ligands for Dye sensitized solar cell applications. R.Sivakumar, R. Recabarren , S. Ramkumar, A.Manivel, J.Alzate-Moralesb, D.Contrerasd, M.Paulraj, *New Journal of Chemistry* 51 (2017) 5605-5612.
7. A highly selective and simultaneous determination of ascorbic acid, uric acid and nitrite based on novel Poly-N-acetyl-L-methionine (Poly-NALM) thin film. A. Kannan, A.Sivanesan, G.Kalaivani, A. Manivel, R. Sevvell *RSC Advances.*, 06 (2016) 96898-96907.
8. Synthesis of MoO₃ Nanoparticles for Azo Dye Degradation by Catalytic Ozonation, A. Manivel, Gang-Juan Lee, Chin-Yi Chen, Jing-Heng Chen, Shi-Shin Ma, Tzzy-Leng Horng, Jerry J. Wu, *Materials Research Bulletin* 62 (2015) 184-191.
9. Novel heteroleptic ruthenium sensitizers containing carbazole linked 4,5-diazafluorene ligand for dye sensitized solar cells, R. Sivakumar, A. Manivel, P. Manidurai, *Polyhedron* 87 (2015) 135-140.
10. Synthesis of PANi-PMo₁₂ hybrid material: An attempt via interfacial polymerization and their electrochemical applications. A.Manivel, A.M. Asiri, K.A.Alamry, T. Lana-Villarreal, S.Anandan, *Bulletin of Materials Science* 37 (2014) 861-869.
11. Exploration of (S)-4,5,6,7-Tetrahydrobenzo[d]thiazole-2,6-diamine as Feasible Corrosion Inhibitor for Mild Steel in Hydrochloric Acid: Experimental and Theoretical Study. A.Manivel, S. Ramkumar, J.J. Wu, A.M.Asiri, S. Anandan, *J. Environ. Chem. Eng.* 2 (2014) 463–470.
12. Mesoporous Microsphere of ZnS Photocatalysts Loaded with CuO or Mn₃O₄ for the Visible-Light-Assisted Photocatalytic Degradation of Orange II Dye. G-J. Lee, A. Manivel, V. Batalova, G. Mokrousov, S. Masten, and J.J. Wu. *Industrial & Engineering Chemistry Research* 52 (2013) 11904-11912.
13. Synthesis of Mesoporous Bi₂O₃/CeO₂ Microsphere for Photocatalytic Degradation of Orange II Dye. S.H. Hsieh, A. Manivel, G.J. Lee, J.J. Wu, *Materials Research Bulletin* 48 (2013) 4174-4180.
14. Studies on inclusion complexation between 4,4'-dihydroxybiphenyl and b-cyclodextrin by experimental and theoretical approach.K. Paramasivaganesh, K. Srinivasan, A.

Manivel, S. Anandan, K. Sivakumar, S. Radhakrishnan, T. Stalin, *Journal of Molecular Structure* 1048 (2013) 399–409.

15. One step sonochemical synthesis of reduced graphene oxide/Pt/Sn hybrid materials and their electrochemical properties. S. Anandan, A. Manivel, M. Ashokumar, *Fuel Cells* 12 (2012) 956-962.
16. Spectral interaction between silica coated silver nanoparticles and serum albumin. A. Manivel, S. Anandan *Colloids and Surfaces A: Physicochem. Eng. Aspects* 395 (2012) 38-45.
17. Ultrasound assisted synthesis of hybrid phosphomolybdate-polybenzidine containing silver nanoparticles for electrochemical detection of chlorate, bromate and iodate ions in aqueous solutions, A. Manivel, R. Sivakumar, S. Anandan, M. Ashokkumar *Electrocatalysis* 3 (2012) 22-29.
18. The influence of tetra-n-butylammonium nonaflate as ionic liquid and supporting electrolyte in aprotic solvents towards interfacial electron transfer and related processes A. Manivel, D. Velayutham and M. Noel *Journal of Electroanalytical Chemistry* 655 (2011) 79-86.
19. Silver nanoparticles embedded phosphomolybdate-polyaniline hybrid electrode for electrocatalytic reduction of H₂O₂ A. Manivel, S. Anandan *Journal of Solid State Electrochemistry* 15 (2011) 153-160.
20. CuO-TiO₂ Nanocatalyst for UV-photodegradation of Acid Red 88 in aqueous solution A. Manivel, S. Naveenraj, P. Sathish Kumar, S. Anandan, *Science of Advanced materials.*, 2 (2010) 51-57.
21. Voltammetric behaviour of perfluorocarboxylic acids and their corresponding ethyl esters on glassy carbon electrode; Surface effects. A. Manivel, D. Velayutham and M. Noel. *Ionics* 16 (2010) 153.
22. Sonochemical Synthesis and Characterization of Gold-Ruthenium Bimetallic Nanoparticles, P. Sathish Kumar, A. Manivel, S. Anandan, M. Zhou, F. Grieser, M. *Colloids and Surfaces A: Physicochem. Eng. Aspects* 356 (2010) 140–144.
23. Synthesis of Ag-ZnO nanorod for enhanced photocatalytic degradation of Acid Red 88 in aqueous environment. P. Sathish Kumar, A. Manivel, S. Anandan, *Water Science & Technology*, 59 (2009) 1423-1439.
24. Effect of alkyl chain length on the electrochemical perfluorination of n-alkane (C₆–C₁₀) carboxylic acid chlorides, N. Ilayaraja, A. Manivel, D. Velayutham, M. Noel *Journal of Applied Electrochemistry* 38 (2008) 175-186.
25. The effect of substituents and operating conditions on the electrochemical fluorination of alkylphenyl acetates in Et₃N.4HF medium. N. Ilayaraja, A. Manivel, D. Velayutham, and M. Noel *Journal of Fluorine Chemistry* 129 (2008) 185-192.
26. Medium effects on the electro-deposition of MnO₂ on glassy carbon electrode. A comparative study in alkane, perfluoro alkane carboxylic acids and methanesulphonic acid, A. Manivel, N. Ilayaraja, D. Velayutham and M. Noel, *Electrochimica Acta* 52 (2007) 7841–7848.

1. In Vitro Antioxidant Activity and Elemental Analysis of Edible Mushroom *Agaricus Campestris*, M.Vijayalakshmi, A.Manivel, Journal of Advanced Scientific Research, 11(1) (2020) 269-273.
2. Bose, R., M.S. Kumar, A.Manivel and S.C. Mohan. Chemical constituents of *Sauropus androgynus* and evaluation of its antioxidant activity. Res. J. Phytochem., 12(2018)7-13.
3. Hemalatha, O.K., A.Manivel, M.S. Kumar and S.C. Mohan, Synthesis and characterization of Sn/ZnO nanoparticles for removal of organic dye and heavy metal. Int. J. Biol. Chem., 12 (2018) 1-7.
4. Kumar, P.M.R., M.S.Kumar, A. Manivel and S.C. Mohan, Structural characterization and anti-diabetic activity of polysaccharides from *Agaricus bisporus* mushroom. Res. J. Phytochem., 12 (2018) 14-20.
5. Vathsala Devi, G., A. Manivel, M.S. Kumar and S.C. Mohan, Biotransformation of insoluble lead compound into the non-toxic form by soil fungus. Eur. J. Biomed. Pharmaceut. Sci., 5 (2018) 658-662.

13) Chapters in Books: Nil

14) Other Publications (Proceedings):

15) Books Published: Nil

16) Presentation in Seminar / Conference:

International: 4

1. A comparative study of electrochemical oxidation of Mn(II) in acetic acid, butyric acid and their perfluorinated analogues. A.Manivel, D.Velayutham and M.Noel. Presented at the 8th International Symposium on Advances in Electrochemical Science and Technology held at NIO, Goa during November 28- 30, 2006.
2. Silver nanoparticles embedded phosphomolybdate-polyaniline hybrid electrode for Electrocatalytic Reduction of H₂O₂ A.Manivel, S. Anandan, Poster presented at 46th Annual Convention of Chemists 2009 and International Conference on Recent Research Trends in Chemical Sciences (ICRRTCS-09), VIT, Vellore.
3. Synthesis and electrocatalytic application of metal nanoparticles embedded phosphomolybdate-conducting polymer hybrid material A.Manivel and S. Anandan, Poster presented at Third International Conference on Frontiers in Nanoscience and Nanotechnology (Cochin Nano2011), 14-17th August -2011.
4. Single crystal growth and spectral characterization of L-phenylalaninium methane sulfonate crystal, Poster presented at International conference on Modern Trends in Chemistry (MTC-25) held at Vivekananda College, Tiruvedakam west. 23th February 2018.

National: 8

1. Voltammetric behaviour of 1-nitronaphthalene in non-aqueous and aqueous-organic media. A.Manivel, N.Ilayaraja, D.Velayutham and M.Noel. Oral presentation presented at the National Seminar on Recent advances in textile and Electrochemical sciences, held at Alagappa University, Karaikudi. During 1st and 2nd June 2007.
2. Electrochemical studies of simple electron transfer processes in Tetra-n-butyl ammonium nonaflate, ionic liquid and related solvent supporting electrolyte systems. A.Manivel, D.Velayutham and M.Noel. Poster presented at the 14th National Convention of Electrochemists (NCE –14), IGCAR, Kalpakkam, during 6,7th Dec2007.
3. Silver nanoparticles embedded phosphomolybdate-polyaniline hybrid electrode for Electrocatalytic Reduction of H₂O₂ A.Manivel, S. Anandan, Oral presentation presented at National Conference on Recent Advances in Electroanalytical Techniques during February 25-26th, 2010.
4. Spectral Interaction Studies of Silicate Coated Hybrid Metal Nanoparticles with Serum Albumins A.Manivel, S. Anandan, Selected for Oral and Poster presentation in Research Scholars' Day 2011 Trivandrum, Kerala December, 2011. (One among 33 participants of diverse disciplines selected for the presentation)
5. One Pot Synthesis of Silicate Coated Silver Nanoparticles Using a Hydrolyzed EDAS as Reductant and Stabilizer, A. Kalaiyarasi, R. Gunavathi and A. Manivel, UGC sponsored National Seminar on Modern Trends in Chemistry (MTC-20) held at Vivekananda College, Tiruvedakam west. 20th Jan 2015.
6. Structural and Spectral Properties of Potassium Fumarate Single Crystals by Conventional Method, K. Mangaiyarkarasi, A. Judith Jeyarani, A. Manivel and A.T. Ravichandran, UGC sponsored National Seminar on Modern Trends in Chemistry (MTC-20) held at Vivekananda College, Tiruvedakam west. 20th Jan 2015.
7. Antibacterial and Sensor Applications of One Pot Synthesized Silicate Coated Silver Nanoparticles A.Manivel, S.Thangaroja and M. Saravanakumar, UGC sponsored two day National Seminar on Recent Trends in Chemistry(RTC-7) held at Jeyaraj Annapackiam College for Women on 11th and 12th January 2017.
8. Synthesis, Structural characterization and biological activity of 2-Acetylthiophene-N(4)-cyclohexylthiosemicarbazone, M. Saravana Kumar, T. Pavalamuthu and A.Manivel, UGC sponsored two day National Seminar on Recent Trends in Chemistry(RTC-7) held at Jeyaraj Annapackiam College for Women on 11th and 12th January 2017.

17) Participation in Conference: Nil

18) Participation in Seminar: Nil

19) Participation in Workshop: 2

1. Participated in the "Science Academies' Lecture Workshop on Recent Trends in Advanced Material Science" during 01 - 02, September 2017, sponsored by Indian Academy of Sciences (IASc) Bangalore, Indian National Science Academy (INSA) New Delhi & The National Academy of Sciences (NASI) Allahabad, Govt. of India, organized by the

Department of Physics, Arulmigu Palaniandavar College of Arts and Culture, Palani – 624 601.

2. Participated in the “National level workshop on computational physics using Gaussian” held during 13 February 2015. Organized by PG& Research Department of Physics, Nadar Mahajana Sangam S Vellaichamy Nadar College, Madurai-625019

20) Participation in Orientation Programme/ Induction Programme/ Short term Courses: 1

1. Participated in the 28 days Orientation programme conducted by University Grants Commission, Bharathiyar University, from 06-05-2015 to 02-06-2015

21) Participation in Faculty Development Programme: 4

1. Participated in the 21 days Refresher Course in Chemistry conducted by University Grants Commission, Bharathiyar University, from 15-07-2016 to 04-08-2016
2. Participated in the 21 days Refresher Course in Chemistry conducted by University Grants Commission, Madurai Kamaraj University, 16-11-2018 to 06-12-2018
3. Participated in the 14 days Refresher Course on Advanced Research Methodology, conducted by Ramanujan College, University of Delhi from 22-01-2022 to 05-02-2022
4. Participated in the 14 days Refresher Course in Chemistry, conducted by Ramanujan College, University of Delhi from 30 June 2023 to 14 July, 2023

22) Conference/ Seminar/ Workshop Organized: 3

1. Organized One Day International Seminar on Emerging Trends in Chemistry and Energy Science during 7 February 2020.
2. Organized One Day International Conference on Emerging Trends in Materials Science (ETMS-2024) on 23 February 2024.
3. Organized One Day International Conference on Recent Trends in Chemistry and Energy Science (ETMS-2024) on 13 September 2024.

23) Invited Speaker/ Session Chair – Conference/ Seminar/ Workshop: 2

1. Delivered an invited talk on Hybrid nanomaterials and Electrochemical Applications in One day National Seminar on Modern Trends in Chemistry (MTC-19) Organized by Department of Chemistry, Vivekananda College, Madurai during 22nd March 2014.
2. Delivered an invited talk on Nanomaterials and their Applications, in the Intercollegiate Seminar Organized by Department of Chemistry, Nagarathinam Angalammal Arts and Science College, Madurai, during 22nd December 2022.

24) Other Co-curricular / Administrative Responsibilities:

1. Coordinator for Cyber Security Awareness Club 2023-2024
2. Coordinator for Students Attendance 2022-2024
3. College Nodal officer for AISHE survey 2021-2022.
4. Coordinator for College Website Maintenance 2022-2024

25) Member in Board of Studies: Nil

26) Editorial/ Review Board Member: Nil

27) Membership in Professional Bodies: Nil

28) Awards received: Nil

29) Consultancy: Nil

30) Patents: Nil

31) Any other information: Nil

* Note: Please provide the total Numbers and details for each metrics