** Dr. K. NAGARAJ, M.Sc., M.Phil., Ph.D.,**

**Assistant Professor cum Research**

Email: [k.nagaraj@upluniversity.ac.in](mailto:k.nagaraj@upluniversity.ac.in)

Mobile: 9944418072

**EDUCATIONAL QUALIFICATIONS**

|  |  |
| --- | --- |
| 2022-(At Present) | Assistant Professor (Regular Position), Department of Chemistry, UPL University of Sustainable Technology, Ankleshwar, Vataria, Gujarat. |
| 2021-2022 | Assistant Professor, St.Peter’s Engineering College, Hyderabad, Telangana. |
| 2020-2021 | Assistant Professor, VSM Institutions, Ramachandrapuram, Andra Pradesh. |
| 2018-2020 | Assistant Professor, Department of Chemistry at St. Eugene University, Zambia |
| 2017-2018 | Assistant Professor, Department of Chemistry at IISER, Tiravendrum, Kerala. |
| 2015-2017 | Assistant Professor, Department of Chemistry, Vivekananda College, Tamilnadu. |
| 2014-2015 | Assistant Professor, Department of Chemistry, ANNA University, Tamilnadu. |
| 2011-2014 | Ph.D., Chemistry at Bharathidasan University, Tiruchirapalli, Tamilnadu. |
| 2009- 2010 | M.Phil. Chemistry (78 %) at Madurai Kamaraj University, Tamilnadu. |
| 2007-2009 | M.Sc., Chemistry (71 %) at SBK College, Aruppukottai, Tamilnadu. |
| 2004-2007 | B.Sc., Chemistry (70 %) at Devanga Arts College, Aruppukottai, Tamilnadu. |

**MEMBERS, AWARDS AND DISTINCTION**

* Qualified for Graduate Aptitude Test For Engineering Exam (GATE)-2009
* Awarded University Research Fellowship for during 2010-2012.
* UGC – Research Fellowship in Science for Meritorious Research Student (RFSMS) for during 2013-2015
* Dr. A P J. Abdulkalam award for YOUNG SCINTISTS 2016.
* Summer Research Fellow Award (SRF) by Indian Institute of Science and Education (IISC), Kerala-2017
* InSc Research Excellency Award-2022 certified under Ministry of MSME & Corporate affairs, Govt.of India.
* Life Member of InSc certified under Ministry of MSME & Corporate affairs, Govt.of India.
* Life time Fellow Member of Eudoxia Research University, USA
* Life time Fellow Member of Eudoxia Research Centre, India
* Editorial Board Member of IIP (Iterative International Publisher)
* Editorial Board Member of JCHEM (Journal of Chemical Science)
* Editorial Board Member of JOBS (Journal of Organic and Biomolecular Simulations)
* Editorial Board Member of WJARR (World Journal of Advanced Research and Reviews)
* Editorial Board Member of AGE (Academia Green Energy)
* Editorial Board Member of IJSET (International Journal of Science, Engineering and Technology)
* Editorial Board Member of Himalayan Journals
* Editorial Board Member of Frontiers Journal
* Editorial Board Member of Science Publishing Group
* Editorial Board Member of PeerJ’s

**RESEARCH EXPERIENCE**

**MASTER OF PHILOSOPHY PROJECT**

“**Isolation and characterization of secondary metabolites from natural resources”** Worked under the guidance of Dr. K. Pitchumani, School of Chemistry, Natural Products Chemistry, Madurai Kamaraj University, and Madurai

**SRF PROJECT**

‘**’Efficient Light Driven Generation of Hydrogen Using Earth Abundant Metal Ions’’** Worked under the guidance of Dr. H. Mahesh Hariharan, Head and School of Chemistry, Photo catalytic Chemistry, **IISER, Tiravendrum, Kerala.**

**DOCTORATE PROJECT**

‘‘**Synthesis and studies involving some surfactant cobalt(III) complexes-kinetics of electron transfer in microheterogeneous media, binding interaction with nucleic acids and antitumor properties’’** Under the guidance of DR. S. Arunachalam, School of chemistry ,Bharathidasan University, Tamilnadu India.

**RESEARCH PROJECTS (MAJOR/MINOR)**

1. **TITLE:** INVESTIGATION OF ELECTRONIC AND BIOMEDICAL APPLICATION OF SURFACTANT MODIFIED RUTHENIUM (II)/ LANTHANOIDE COMPLEXES**: (Submitted – DST SERB).**
2. **TITLE:** ADVANCES AND FUTURE PERSPECTIVES OF SMART MULTIFUNCTIONAL CARBON BASED NANOCOMPOSITE COATINGS FOR ANTI-CORROSION APPLICATIONS **( Submitted – DST SERB -SURE)**
3. **TITLE: FUNCTIONALIZED SELF-ASSEMBLING OF THIOL SCAFFOLDS ON METALLIC SURFACES FOR CORROSION INHIBITION: ELECTROCHEMICAL AND COMPUTATIONAL INVESTIGATIONS.**

**(Submitted – DST-GUJCOST)**

**TEXT BOOKS (PUBLISHED)**

1. Basic Concepts of Inorganic Chemistry
2. Fundamentals of Physical and Organic Chemistry
3. Basics of Environmental Chemistry
4. Text book of Semi-micro Inorganic Qualitative Analysis

**RESEARCH INTEREST**

* Chemical Kinetics
* Photo and electro-catalysis
* Green Synthesis of Nanoparticles using secondary metabolites from natural resources
* Surfactant /Polymer metal complexes interaction with Biomolecules
* Anticancer Drug synthesis, design and develop

**RESEARCH GUIDANCE**

* M.Phil., Student - 02 (Completed)
* M.Sc., Students - 16 (Completed )
* PhD., Students - 04 (Pursuing)

POSTGRADUATE DIPLOMA COURSES

1. Postgraduate Diploma in Computer Applications (PGDCA)
2. Postgraduate Diploma in Analytical Chemistry (PGDAC)
3. Postgraduate Diploma in Industrial Chemistry (PGDAC)

NATIONAL PROGRAMME ON TECHNOLOGY ENHANCED LEARNING (NPTEL) COURSES

1. Biological Inorganic Chemistry
2. Metals in Biology
3. Bio Inorganic Chemistry
4. Industrial Inorganic Chemistry
5. Basics in Inorganic Chemistry

INSTRUMENT HANDLED

* UV-Visible spectra photometer, (UV-VIS-NIR Spectrophotometer (Varian)
* Fluorescence spectroscopy,(JASCO FP 770)
* IR spectroscopy, ( JASCO 460 PLUS)
* Cyclic Voltammetry,(Princeton EG and G-PARC model potentiostate)
* Gas Chromatography
* NMR (400 MHz)
* Circular Dichroism
* LCMS (Liquid chromatography mass spectroscopy)
* HPLC (High pressure liquid chromatography)

**CONFERENCE PAPER/POSTER PRESENTATIONS/SEMINARS/WORKSHOPS/NPTEL ATTENDED:**

1. K. Nagaraj, Participated in Workshop on “Patent Awareness Program” organized by School of Chemistry, Madurai Kamaraj University, Madurai held on 2009.
2. K. Nagaraj, Participated Poster presentation in “Annual Meeting of the Indian Biophysical Society” organized by Centre of Advanced Study in Crystallography and Biophysics University of Madras held on 2012.
3. K. Nagaraj, Participated Poster presentation in National Conference on “Recent advances in inorganic Chemistry” organized by School of Chemistry, Bharathidasan University, Tiruchirapalli held on 2012.
4. K. Nagaraj, Participated in Seminar on “Role of Chemistry Environmental Protection” organized by Department of Chemistry, V.V.V. College for Women held on 2009.
5. K. Nagaraj, Participated in Seminar on “Emerging Trends in Chemistry” organized by Department of Chemistry, Devanga Arts College, Aruppukottai held on 2008.
6. K. Nagaraj, Participated in Seminar on “Emerging Trends in Chemistry” organized by Department of Chemistry, Devanga Artts College, Aruppukottai held on 2005.
7. K. Nagaraj, Paper presentation in “Annual Meeting of the Indian Biophysical Society” organized by Centre of Advanced Study in Crystallography and Biophysics University of Madras held on 2012.
8. K. Nagaraj, Participated Paper presentation in National Conference on “Recent advances in inorganic Chemistry” organized by School of Chemistry, Bharathidasan University, and Tiruchirapalli held on 2012.
9. K. Nagaraj Participated paper presentation on “DNA binding and nuclease activity of new acyclic mono and binuclear copper (II) complexes” –at 15thCRSI National Symposium in chemistry, held at Banaras Hindu University, Varanasi. February 1-3, 2013.
10. K. Nagaraj, Participated the Oral presentation on “New acyclic mono and binuclear copper(II) complexes; DNA binding and nuclease activity”- at International conference on biological inorganic chemistry (ICBIC-2013), Department of chemistry, Periyar University, Salem-636 011. February 20-22, 2013.
11. K. Nagaraj, Participated in the Workshop on Chromatographic Techniques on Department of Analytical Chemistry, University of Madras, Chennai-25. February 25th, 2013.
12. K. Nagaraj, Participated the Oral presentation on “Synthesis, Characterization, DNA/BSA Interaction Studies of Copper(II) Complexes” –at ICAN – 2014, held at University of Madras, Chennai during 20th and 21st June 2014.
13. K. Nagaraj presented a paper on “Synthesis, Characterization, DNA and Protein Interaction Studies of Copper(II) Complexes” –at ICAN – 2014, held at University of Madras, Chennai during 20th and 21st June 2014.
14. K. Nagaraj, presented a paper on “Synthesis and characterization of end-off mono and binuclear copper(II) complexes: DNA/BSA binding and nuclease activity”– at 16thCRSI National Symposium in chemistry, held at Indian Institute of Technology Bombay, Powai, Mumbai during February 7-9, 2014.
15. K. Nagaraj, presented a paper on “Binuclear Copper(II) Complexes: DNA / Protein binding and cleavage activities.” –at NCNRCR– 2015, held at SRM Institute of Science and Technology, Chennai during 28th and 29st August 2015.
16. K. Nagaraj, presented a paper on “DNA / BSA binding, DNA cleavage and electrochemical properties of new copper(II) complexes.” –at ICORTAC– 2015, held at Department of Analytical Chemistry, University of Madras, Chennai-25.December 28-30, 2015.
17. K. Nagaraj, presented a paper on “Synthesis, Characterization and Electrochemical Properties of Binuclear Copper(II) Complexes: DNA/Protein Binding and DNA Cleavage Studies.” at ICRAMC– 2017, held at SRM Institute of Science and Technology, Chennai during 15th -17 February 2017.
18. K. Nagaraj, presented a title “A comparative study of DNA binding potential of different Cu(II) complexes”- Invited Talk on ICAN – 2018, held at University of Madras, Chennai during 8th and 9th June 2018
19. K. Nagaraj, Participated in International Conference on Advances in New materials (ICAN) – 2014 - University of Madras, Chennai.
20. K. Nagaraj, Participated in 16th CRSI National Symposium in chemistry - IIT Bombay.
21. K. Nagaraj, Participated in ICBIC-2013 Periyar University, Salem-636 011.
22. K. Nagaraj, Participated in 15th CRSI National Symposium in chemistry, Banaras Hindu University, Varanasi.
23. K. Nagaraj, “Evaluation of DNA binding, Cleavage and Cytotoxic activity of a new Mannich base and its metal complexes” International Conference on Advances in New Materials (ICAN), held on 20th and 21st June 2014, at Department of Inorganic Chemistry, University of Madras.
24. K. Nagaraj, A Workshop on Principles and applications of Analytical Instruments for Bio analysis, organized by Department of Bio-Technology, SRM Institute of Science and Technology (formerly known as SRM University), 18th-19th December,2015.
25. K. Nagaraj, Participated in International Conference on Advances in New Materials (ICAN), held on 20th and 21st June 2014, at Department of Inorganic Chemistry, University of Madras.
26. K. Nagaraj, Participated in International Conference on Advances in Civil Engineering and Chemistry of Innovative Materials, Ramapuram, SRM Institute of Science and Technology (formerly known as SRM University), 13-14th March 2014.
27. K. Nagaraj, Participated in Short Term Training Course on Corrosion and Its Control, organized by NACE, SRM Institute of Science and Technology (formerly known as SRM University), 30-31 January 2014
28. K. Nagaraj, Participated in National Conference on Chemistry Solutions, Chemistry Departments in Association with Indian Council of Chemists, SRM Institute of Science and Technology (formerly known as SRM University), 21-22nd February 2013
29. K. Nagaraj, Participated in A Two Day Workshop on Advanced Analytical Techniques for Materials Characterization, Department of Chemistry in Association with CLRI, 19-20th July 2011.
30. K. Nagaraj, Participated Online workshop on ‘‘Manuscript Writing and Publishing’’ under Madras Christian College, Chennai on September 16, 2022
31. K. Nagaraj, Participated in One Week FDP on ‘‘Advanced Characterization Techniques (ACT-2022)’’ organised by Indian Chemical Society, Kolkata in collaboration with Chandigarh University 25th July to 30th July 2022
32. Dr. K. Nagaraj, received certificate of Recognition for Research Excellence Award 2022 from InSc Scholars certified & Registered under Ministry of MSME & Corporate affairs, Govt.of India.
33. Dr. K. Nagaraj, received certificate of Recognition ‘‘InSc Reviewer’’ for Journal of Basic and Applied Sciences from InSc Scholars certified & Registered under Ministry of MSME & Corporate affairs, Govt.of India.
34. Dr. K. Nagaraj, successfully participated in IP Awareness/Training program under NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION on August 03, 2022
35. Dr. K. Nagaraj, successfully participated in the Five days ONLINE FDP on ‘‘DATA SCIENCE’’ organized by Department of Computer Science and Engineering in association with IEEE Madras section from 01.08.2022 to 05.08.2022 at Care College of Engineering, Trichy, Tamilnadu.
36. Dr. K. Nagaraj successfully participated in online workshop on Writing for Research under Genesin of Educational Impressions, Roorkee, Uttarakhand, India on October 15, 2022.
37. Dr. K. Nagaraj successfully participated in International Webinar on Chemical Science for Sustainability Organized by PG Department of Chemistry, Gonzaga College, Kathampallam, Krishnagiri, India on October 19, 2022
38. Dr. K. Nagaraj successfully participated in International Online FDP on ‘‘Current Scenario in Advanced Materials Research and Nanotechnology’’ organized by Internal Quality Assurance Cell (IQAC), Rajapalayam Rajus’ College from 14 to 18 Nov, 2022, Tamilnadu, India.
39. Dr. K. Nagaraj successfully participated in International Online FDP on ‘‘Recent Research in Materials Physics and Nano Devices’’ organized by Department of Physics, Rajapalayam Rajus’ College from 21 to 25 Nov, 2022, Tamilnadu, India.
40. Dr. K. Nagaraj successfully completed NPTEL course Biological Inorganic Chemistry By Prof. Debashis Ray, IIT Kharagpur on 29.10.2022
41. Dr. K. Nagaraj successfully completed FDP (8 weeks) course Biological Inorganic Chemistry By Prof. Debashis Ray, IIT Kharagpur on 29.10.2022
42. Dr. K. Nagaraj successfully completed NPTEL course Metals in Biology By Prof. D. Maiti, IIT Bombay on 25.09.2022.
43. Dr. K. Nagaraj successfully completed FDP (12 weeks) course Metals in Biology By Prof. D. Maiti, IIT Bombay on 25.09.2022.
44. I have successfully completed industrial training at UPL Ltd., (Unit-3), Ankleshwar from 16 to 22 January 2023.
45. Dr. K. Nagaraj successfully participated in the webinar on ‘‘Nanomaterials for Novel Applications’’ organized by Department of Physics, Ramco Institute of Technology, Rajapalayam Tamilnadu on 13.01.2023.
46. I have successfully completed Online Quiz: Republic of India at Janardan Rai Nagar Rajasthan Vidyapeeth, Udaipur from 26 to 27 January 2023.
47. Dr. K. Nagaraj successfully participated in International Online FDP on ‘‘Nanomaterials for Sustainable Future’’organized by Department of Physics, Department of Basic Science and Humanities, GMR Institute of Technology ’ College from 12th to 16th Dec, 2022, Tamilnadu, India.
48. Dr. K. Nagaraj successfully participated in Webinar Series on Materials for Energy and Environment (WSMEE 22-23)-Event 4 (Topic. Advancements in Graphene based 2D Materials on 30th January organized by Department of Physics, St-Joseph College, Tiruchirapalli, Tamilnadu, India.
49. Dr. K. Nagaraj successfully participated in International Online FDP on ‘‘Applications of Mathematics in Applied Sciences and Engineering’’jointlyorganized by Department of Physics, Department of Basic Science and Humanities, GMR Institute of Technology-Rajam & NIT-Warangal’ from 30th January to 03rd February, 2023.
50. Dr. K. Nagaraj successfully completed the course on Energy Literacy Training ( 12 Modules) organized by Energy Swaraj Foundation from 03rd December to 30th February, 2023.
51. Dr. K. Nagaraj successfully participated in ‘‘A three Day Virtual International Science Talk onNobel Prize 2022 Topics’’organized by Department of Physics, SRM Institute of Science & Technology, Tamilnadu from 04th April to 06th April, 2023.
52. Dr. K. Nagaraj successfully completed FDP course (4 weeks) Bioinorganic Chemistry By Prof. Debashis Ray, IIT Kharagpur on 28.03.2023.
53. Dr. K. Nagaraj successfully completed FDP course (4 weeks) Basics in Inorganic Chemistry By Prof. D. Maiti, IIT Bombay on 25.03.2023.
54. Dr. K. Nagaraj successfully participated in ‘‘International Advanced Faculty Development Program on Effective Manuscript Drafting and Application of Research Software’’ ICNMR-2023 organized by Eudoxia Research University, USA from 3rd April to 10th April, 2023.
55. Dr. K. Nagaraj successfully completed NPTEL course Basics in Inorganic Chemistry By Prof. D. Maiti, IIT Bombay on 25.03.2023.
56. Dr. K. Nagaraj successfully completed NPTEL course Bioinorganic Chemistry By Prof. Debashis Ray, IIT Kharagpur on 28.03.2023.
57. Dr. K. Nagaraj successfully participated in Course Work on “International Advanced Faculty Development Program on Effective Manuscript Drafting and Application of Research Software" organized by Eudoxia Research University, New Castle, USA
58. Dr. K. Nagaraj successfully participated in National Webinar on Women’s day lecture series on An Overview of Indian Nanoelectronics User's Programme - Idea to Innovationheld on 08th March, 2023 organized by the Department of Physics, SRM TRP Engineering College, Tiruchirappalli, Tamilnadu, India.
59. Dr. K. Nagaraj successfully participated in International Webinar on “Smart Nanosensor Technology for Medical Diagnostics” Organized the Department of Nano Science and Technology, Sri Ramakrishna Engineering College, Vattamalaipalayam, Coimbatore, India, on 24th March, 2023.
60. Dr. K. Nagaraj successfully participated in National Webinar on Research Funding Opportunities held on 07th March, 2023 organized by the Department of Physics, SRM TRP Engineering College, Tiruchirappalli, Tamilnadu, India.
61. Dr. K. Nagaraj successfully participated in one week International Faculty Development Programme on Advanced Functional Materials: Energy, Environment and Sustainable Development from 28th February to 09th March, 2023 organized by the Department of Physics, SRM TRP Engineering College, Tiruchirappalli, Tamilnadu, India.
62. Dr. K. Nagaraj successfully participated in International Webinar on Zn Stannate Modified Graphitic carbon nitride for photocatalytic removal of Cr in H2O held on 06th March, 2023 organized by the Department of Physics, SRM TRP Engineering College, Tiruchirappalli, Tamilnadu, India.
63. Dr. K. Nagaraj successfully completed NPTEL course Industrial Inorganic Chemistry By Prof. Debashis Ray, IIT Kharagpur on 28.04.2023.
64. Dr. K. Nagaraj successfully completed FDP course (12 weeks) Industrial Inorganic Chemistry By Prof. D. Maiti, IIT Bombay on 25.03.2023.
65. Dr. K. Nagaraj successfully participated in one day National Seminar on “Application of Statistics in Research” organized by Department of Chemistry, St. Joseph University, Chumukedima, Nagaland-797115 held on 21th April , 2023
66. Dr. K. Nagaraj Participated in Short Term Training Course on Energy and Environment Conservation, organized by Raj Rishi Govt. Autonoumous College from , 18-24 April, 2023.
67. Dr. K. Nagaraj participated as an Organizing Committee Member in two days “International Conference on New Frontiers in Global stage of Multidiscipilinary Research” organized by Eudoxia Research University, New Castle, USA ON 23rd 24th May, 2023.
68. Dr. K. Nagaraj Participated in Short Term Training Course on ‘‘Environment Pollution: A threat to life below water & World Environment Day Celebration Week’’, organized by Raj Rishi Govt. Autonoumous College from , 5th -11th June, 2023.
69. Dr. K. Nagaraj has attended the webinar on ‘‘Trends in Physical Chemistry on Friday’’, June 9, 2023.
70. Dr. K. Nagaraj received a Guest of Honor Award FDP MMDP-2023 in International Advanced Faculty Development Program on mechanics of manuscript drafting and publication process organized by Eudoxia Research University, New Castle, USA, on 12th June, 2023.
71. Dr. K. Nagaraj participated in International FDP program on Teaching, Learning and Assessing in 2030’’ held on 06th March-23rd March, 2023 organized by Department of Physics, SRM Institute of Science and Technology, Ramapuram Campus, Chennai.
72. Dr. K. Nagaraj participated in a Five Day FDP program on ‘‘Theoretical & Experimental held on 29th May-2nd June, 2023 organized by School of Advanced Sciences, VIT, Chennai.
73. Dr. K. Nagaraj has successfully completed Workshop on Academic Writing (Mode : Online) organized by Udaan Educational Services held on 21-23 June, 2023.
74. Dr. K. Nagaraj participated in two days “International Conference on Advaced Research in Social sciences and Humanities” organized by Eudoxia Research University, New Castle, USA on 27th and 28th June, 2023.
75. Dr. K. Nagaraj successfully participated in the webinar on ‘‘Voltammetric Techniques for (Bio) sensing and energy storage applications’’ organized by Department of Physics, VIT, Tamilnadu on 24.06.2023.

**LIST OF PUBLICATIONS**

**As a Corresponding Author: 26 As a First Author: 42**

1. **Karuppiah Nagaraj,** Sankaralingam Arunachalam\*, Synthesis, Micellization Behavior and Binding analysis of Surfactant–Copper(II) Complex Containing dipyrido[3,2-d:2’-3’-f]quinoxaline with nucleic acid and its Antimicrobial and Antifungal Activity. **J. Biomol. Str. Dyn. 57 (2014) 735-442**. **(IMPACT FACTOR: 4.9).**
2. **Karuppiah Nagaraj,** Gunasekaran Velmurugan, Subramanian Sakthinathan, Ponnambalam Venuvanalingam, Sankaralingam Arunachalam\*, Influence of self-assembly on intercalative DNA binding interaction of double-chain surfactant Co(III) complexes containing imidazo[4,5-f][1,10]phenanthroline and dipyrido[3,2-d:2′-3′-f]quinoxaline ligands: experimental and theoretical study. ***Dalton Trans.,* 43 (2014) 18074-18086**. **(IMPACT FACTOR: 4.4).**
3. **Karuppiah Nagaraj,** Subramanian Sakthinathan, Subramanian Ambika, Shanmuganathan Rajasri, Sankaralingam Arunachalam\*, Synthesis, micellization behavior, antimicrobial and intercalative DNA binding of some novel surfactant copper(II) complexes containing modified phenanthroline ligands. **Colloids and Surfaces B: Biointerfaces,** 122 (2014)151–157. **(IMPACT FACTOR: 5.3).**
4. **Karuppiah Nagaraj\*,** Microheterogeneous Mediated Electron Transfer Reaction of Surfactant Cobalt(III) Complexes by Fe2+: Effect of Pyridine Substituent as co Ligand. **Arabian J. Chem**., <http://dx.doi.org/10.1016/j.arabjc.2014.11.062>. **(IMPACT FACTOR: 6.2).**
5. **Karuppiah Nagaraj\*,** Subramanian Sakthinathan, Nucleic acid binding study of surfactant copper(II) complex containing dipyrido[3,2-a:2′-3′-c]phenazine ligand as an intercalator: in vitro antitumor activity of complex in human liver carcinoma (HepG2) cancer cells. ***RSC Adv*.,** 4, (2014) 56084-56094.**(IMPACT FACTOR: 4.1).**
6. **Karuppiah Nagaraj\*,** Thermodynamics and kinetic investigation of electron transfer reactions of surfactant cobalt(III) complexes containing diimine ligands with iron(II) in the presence of liposome vesicles and amphiphilic salt media**. *RSC Adv*.,** 4 (2014) 56068-56073. **(IMPACT FACTOR: 4.1).**
7. **Karuppiah Nagaraj\*,** Kannan Sugumar, Krishnan Senthil Murugan, Pilavadi Thangamuniyandi, Subramanian Sakthinathan, Pakkiri Vijayakumar, A Comparative study on Electron Transfer Reaction (ETR) of Surfactant Cobalt(III) Complexes of Aliphatic/Aromatic ligand in micro heterogeneous media: Thermodynamic approach **RSC Adv.,** 2015, 5, 48079-48085. **(IMPACT FACTOR: 4.1).**
8. **Karuppiah Nagaraj,** Sankaralingam Arunachalam\*, Synthesis, CMC determination, nucleic acid binding and cytotoxicity of a surfactant–cobalt(III) complex: effect of ionic liquid additive. **New J. Chem.,** 38 (2014) 366-375. **(IMPACT FACTOR: 3.6).**
9. **Karuppiah Nagaraj,** Sankaralingam Arunachalam\*, Binding of double-chain Surfactant-Cobalt(III) complex to CT DNA: Effect of β-Cyclodextrin in the medium. **Inter. J. Biol. Macro. Mol.,** 62 (2013) 273-280. **(IMPACT FACTOR: 8.0).**
10. **Karuppiah Nagaraj,** Sankaralingam Arunachalam\*, Synthesis, CMC determination, and Outer Sphere Electron Transfer Reaction of the Surfactant Complex Ion, cis-[Co(en)2(4CNP)(DA)]3+ with [Fe(CN)6]4- in Micelles, β-Cyclodextrin and Liposome (dipalmidoylphosphotidylcholine) Vesicles. Aust. J. Chem. 66 (2013) 930-937.**(IMPACT FACTOR: 2.3).**
11. **Karuppiah Nagaraj\*,** Synthesis, Micellization Behaviour, DNA/RNA Binding and Biological Studies of A Surfactant Cobalt(III) Complex With dipyrido[3,2-a:2’,4’-c](6,7,8,9-tetrahydro)phenazine. J. Fluor. 24 (2014) 1701-1714. **(IMPACT FACTOR: 2.2).**
12. **Karuppiah Nagaraj,** Subramanian Sakthinathan, Sankaralingam Arunachalam\*, Synthesis, CMC Determination, Nucleic acid Binding and Antimicrobial Activity of A Surfactant Copper(II) complex Containing Phenanthroline and Amino acid- Schiff Base Ligand. **J. Fluorescence**. 75 (2014) 61-69.**(IMPACT FACTOR: 2.2).**
13. **Karuppiah Nagaraj\*,** Krishnan Senthil Murugan, Pilavadi Thangamuniyandi, Subramanian Sakthinathan, Electron-Transfer Reactions of Cobalt(III) Complexes. 1. The Kinetic Investigation of the Reduction of various Surfactant Cobalt(III) Complexes by Iron (II) in Surface Active Ionic Liquids. **Spectrochim Acta A.** 143, (2015) 101-106. **(IMPACT FACTOR: 4.0).**
14. **Karuppiah Nagaraj,** Subramanian Sakthinathan, Sankaralingam Arunachalam\*, Biophysical Insights into the Intercalative Interaction of Surfactant Cobalt(III) Complexes of Certain diimine Ligands Bound to Yeast tRNA: Effects of Hydrophobicity. **Spectrochim Acta A.** 147 (2015) 93-98. **(IMPACT FACTOR: 4.0).**
15. **Karuppiah Nagaraj,** Subramanian Sakthinathan, Sankaralingam Arunachalam\*, Synthesis, CMC Determination, Nucleic acid Binding and Antimicrobial Activity of A Surfactant Copper(II) complex Containing Phenanthroline and Amino acid- Schiff Base Ligand**. J. Fluorescence.** 75 (2014) 61-69.**(IMPACT FACTOR: 2.2).**
16. **Karuppiah Nagaraj\*,** Synthesis, Micellization Behaviour, DNA/RNA Binding and Biological Studies of A Surfactant Cobalt(III) Complex With dipyrido[3,2-a:2’,4’-c](6,7,8,9-tetrahydro)phenazine. **J. Fluor.** 24 (2014) 1701-1714. **(IMPACT FACTOR: 2.2).**
17. **Karuppiah Nagaraj,** Sankaralingam Arunachalam\*, Synthesis, Micellization behavior, and Outer Sphere Electron Transfer Reaction of the Surfactant Complex Ion, cis-[Co(trien)(4AMP)(DA)]3+ with [Fe(CN)6]4- in Micelles, β-Cyclodextrin, Ionic liquids and Liposome (dipalmidoylphosphotidylcholine) Vesicles. J. Inclu. Phenom. Macro. Chem. 79 (2014) 425–435. **(IMPACT FACTOR: 1.9).**
18. **Karuppiah Nagaraj,** Subramanian Sakthinathan, Sankaralingam Arunachalam\*, Synthesis, CMC Determination, Nucleic acid Binding and Antimicrobial Activity of A Surfactant Copper(II) complex Containing Amino acid- Schiff Base Ligand: [Cu(sal-ala)(bpy)(DA)]. J. Iran. Chem. Soc*.* 12 (2015) 267-275. **(IMPACT FACTOR: 1.7).**
19. **Karuppiah Nagaraj\*,** Malaikolunthu Ragu, Muttiah Ganesan, Kinetics and thermodynamics study on electron transfer in microheterogeneous media: a comparative study. Journal of the Iranian Chemical Society, 2015, 13(3), 575–582. **(IMPACT FACTOR: 1.7)**
20. **Karuppiah Nagaraj\*,** Krishnan Senthil Murugan, Pilavadi Thangamuniyandi, Subramanian Sakthinathan, Kinetics and Thermodynamics of Formation and Electron-Transfer Reactions of Surfactant Cobalt(III) Complexes Containing Polypyridyl Ligands With Fe(CN)64- in Microheterogeneous Environment. Int. J. Chem. Kinet. (2015). DOI: 10.1002/kin.20901. **(IMPACT FACTOR: 1.7)**
21. **Karuppiah Nagaraj\*,** Electron-Transfer Reactions: 1. Reductions of Various Double-Chain Surfactant Cobalt (III) Complexes by Hexacyanoferrate(II) in Microheterogeneous Media. Monatsh Chem., 242 (2015) 2692-2702. **(IMPACT FACTOR: 1.3).**
22. **Karuppiah Nagaraj,** Subramanian Sakthinathan, Sankaralingam Arunachalam\*, Effects of Hydrophobicity on the Intercalative Binding of Some Surfactant Copper(II) Complexes With tRNA. Monatsh Chem. 145 (2014) 1897-1902. **(IMPACT FACTOR: 1.3)**
23. **Karuppiah Nagaraj,** Sankaralingam Arunachalam\*, Kinetics of Reduction of Cis Bis (dodecylamine) bis (1,10-phenanthroline) cobalt (III) perchlorate and Cis Bis (dodecylamine) bis (2,2’-bipyridine) cobalt (III) perchlorate by Fe(II) in Liposome (dipalmitoyl phosphotidylcholine) vesicles. Monatsh. Chem. 24 (2013) 48-55. **(IMPACT FACTOR: 1.3).**
24. **Karuppiah Nagaraj\*,** Krishnan Senthil Murugan, Pilavadi Thangamuniyandi Electron Transfer Reaction of Ion pairs: 1. Surfactant Cobalt(III) Complexes by Fe(CN)6 4- in Microheterogeneous Media. Z. Phys. Chem. DOI: 10.1515/zpch-2014-0581. **(IMPACT FACTOR: 1.1)**
25. **Karuppiah Nagaraj,** Sankaralingam Arunachalam\*, Studies on DNA Binding of a Double-chain Surfactant Cobalt(III) Complex Containing 2,2’-Bipyridine Ligand. Z. Phys. Chem. 227 (2013) 1-19. **(IMPACT FACTOR: 1.1)**
26. **Karuppiah Nagaraj\*,** Krishnan Senthil Murugan, Pilavadi Thangamuniyandi, Kinetics and Mechanism of Electron Transfer Reaction of Single and Double Chain Surfactant Cobalt(III) Complex by Fe2+ ions in liposome (dipalmitoyl phosphotidylcholine) vesicles: Effects of phase transition. J. Phase Trans. DOI: 10.1080/01411594.2014.981265. **(IMPACT FACTOR: 1.0)**
27. **Karuppiah Nagaraj,** Sankaralingam Arunachalam\*, Synthesis and Electron Transfer Kinetics of a Surfactant–Cobalt(III) Complex: Effects of Micelles, β-Cyclodextrin, and Ionic liquids. Trans. Met. Chem. 38 (2013) 649-657.**(IMPACT FACTOR: 1.0).**
28. **Karuppiah Nagaraj,** Sankaralingam Arunachalam\*, Studies on Outer-Sphere Electron Transfer Reactions of Surfactant–Cobalt(III) Complexes With iron(II) in Liposome (dipalmitoylphosphotidylcholine) Vesicles. Trans. Met. Chem. 37 (2012) 423–429. **(IMPACT FACTOR: 1.0).**
29. **Karuppiah Nagaraj\*,** Pakkirisamy Muthukumaran, Gunasekaran Gladwin, Surfactant Complex Binding to DNA Interaction Study: Controlling Hydrophobicity in β-Cyclodextrin–DNA Binding Reactions. International Journal of Agricultural and Life Sciences. IJALS (2020), Volume 6 (4) pp.318-332, ISSN: 2454-6127.
30. **Karuppiah Nagaraj\*,** Pakkirisamy Muthukumaran, Gunasekaran Gladwin, Kinetic study of surfactant cobalt (III) complexes by [Fe(CN)64-]: Outer-Sphere Electron-Transfer in Ionic liquids and Liposome Vesicle. International Journal of Agricultural and Life Sciences. IJALS (2020), Volume 6 (4) pp.300-317. ISSN: 2454-6127.
31. **Karuppiah Nagaraj\*** Subramaniam Kamalesu, Snehal Lokhandwala, Nikhil M Parekh Subramanian Sakthinathan, Te-Wei Chiu (2022). ‘On and Off’ intercalative binding behaviour of Double chain surfactant cobalt(III) complex containing 2, 2’-bipyridyl ligand in β-Cyclodextrin: A detail approach on Host-guest inclusion of surfactant cobalt(III) complex and CT-DNA binding in micro-heterogeneous medium. *Spectrochim. Acta A: Spectr.,* **(IMPACT FACTOR: 4.9).**
32. **Karuppiah Nagaraj\*** Subramaniyam Kamalesu, Snehal Lokhandwala, Nikhil M Parekh, Subramanian Sakthinathan, Te-Wei Chiu, (2022). States of Aggregation and Phase Transformation Behavior of Metallosurfactant Complexes by Hexacyanoferrate(II): Thermodynamic and Kinetic Investigation of ETR in Ionic Liquids and Liposome Vesicles. **Biomimetics, 7, 221, 2022** **(IMPACT FACTOR: 3.7).**
33. Subramanian Sakthinathan, Te-Wei Chiu, **Karuppiah Nagaraj,** Subramaniyam Kamalesu, Snehal Lokhandwala, (2022). Graphitic carbon nitride incorporated europium molybdate composite as an enhanced sensing platform for electrochemical detection of carbendazim in agricultural products. **J. Electro. Chem. Soc., 2022, 169, 127504. (IMPACT FACTOR: 4.3).**
34. **Subramanian Sakthinathan\*,** Arjunan Karthi keyan, Dhanabal Vasudevan, Sivaramakrhishnan Vinothini, **Karuppiah Nagaraj** and Te-Wei Chiu\***,** (2021). Modification of Electrospun CeO2 Nanofibers with CuCrO2 Particles Applied to Hydrogen Harvest from Steam Reforming of Methanol. **Materials 2022, 15, 8770. (IMPACT FACTOR: 3.7).**
35. **Subramanian Sakthinathan\*,** Arjunan Karthi keyan, Dhanabal Vasudevan, Sivaramakrhishnan Vinothini, **Karuppiah Nagaraj** and Te-Wei Chiu\***,** (2021). Fabrication of CuYO2 Nanofibers by Electrospinning Method and Applied to Hydrogen Harvest. **Materials (ACCEPTED MANUSCRIPT). (IMPACT FACTOR: 3.7).**
36. **Karuppiah Nagaraj\*** Pilavadi Thankamuniyandi, Subramaniam Kamalesu, Snehal Lokhandwala, Nikhil M Parekh, Subramanian Sakthinathan, Te-Wei Chiu (2021). Green synthesis, characterization and efficient photocatalytic study of hydrothermal-assisted Ag@TiO2 nanocomposites. *Inorganic Chemistry Communications. 148 (2023) 110362.* **(IMPACT FACTOR: 3.4).**
37. **Karuppiah Nagaraj\*,** Jitendrabhai Naman, Manojkumar Dixitkumar, Jigeshkumar Priyanshi, Pilavadi Thangamuniyandi, Subramaniam Kamalesu, Snehal Lokhandwala, Nikhil M Parekh, Swapna Rekha Panda, Subramanian Sakthinathan, Te-Wei Chiu, Chelladurai Karuppiah Ammasai Karthikeyan, Iruthaya Kalai Selvam, (20121). Green synthesis of Ag@ZnO nanocomposites using Cassia Alata leaf extract and surfactant complex for photodegradation of Rhodamin6G *(2023). Inorganic Chemistry Communications.* **(IMPACT FACTOR: 3.7).**
38. H. Kerina, **Karuppiah** **Nagarajb**, S. Kamalesua\* Aquatic toxicity of metal oxide nanoparticles- a detailed review. Materials Today: Proceedings. (Accepted Manuscript).
39. **Karuppiah Nagaraj\*,** Karuppiah Nagaraj\*, Pilavadi Thangamuniyandi, Subramaniam Kamalesu, Snehal Lokhandwala, Nikhil M Parekh, Swapna Rekha Panda, Subramanian Sakthinathan, Te-Wei Chiu, Karuppiah Chelladurai, Ammasai Karthikeyan, Iruthaya Kalai Selvam (2023). Metallo-Surfactant Assisted Silver Nanoparticles: Metallo-Surfactant Assisted Silver Nanoparticles: A New Approach for the Colorimetric Detection of Amino acids. *Spectro. Chim. Acta A; Mol. Bimol. Specta.* **(IMPACT FACTOR: 4.9).**
40. **Karuppiah Nagaraj\*,** Jigeshkumar Priyanshia, Jitendrabhai Namana, Manojkumar Dixitkumara, Snehal Lokhandwalab, Nikhil M Parekha and Supramanium Kamalesuc (2023). Effect of Hydrophobicity and size of the ligands on the Intercalative Binding Interactions of Some Metallo-surfactants containing π-Conjugated Systems with yeast tRNA. *J. Biomol. Str. Dyn.* **(IMPACT FACTOR: 4.9).**
41. Suriyan Radha1\* Paul Christygnanatheeba2, **Karuppiah Nagaraj3** and Chelladurai Karuppiah4\*\* Titanium (III) oxide doped with meta-aminophenol formaldehyde magnetic microspheres: Enhancing dye adsorption towards methyl violet. Journal of Processes. **(IMPACT FACTOR: 3.5).**
42. **Karuppiah Nagaraj\*,** Manojkumar Dixitkumar, Jitendrabhai Naman, Jigeshkumar Priyanshi, Pilavadi Thangamuniyandi, Subramaniam Kamalesu, Snehal Lokhandwala, Nikhil M Parekh, Subramanian Sakthinathan, Te-Wei Chiu, Chelladurai Karuppiah,, (2023). A Novel Green synthesis, Characterization of silver nanoparticles and its catalytic action in reduction of Rhodamine6G, Methyl Orange and Methylene Blue. Inorganic Chemistry Communications . **(IMPACT FACTOR: 3.4).**
43. **Karuppiah Nagaraj\*,** Ganesh Abinaya Meenakshib, Subramaniam Kamalesuc, Snehal Lokhandwalad, Nikhil M Parekha, Subramanian Sakthinathane, Te-Wei Chiue, Iruthaya Kalai Selvamf, Ammasai Karthikeyang and Chelladurai Karuppiahh (2023). Kinetics and outer sphere mechanism of reduction of cobalt(III) metallosurfactants by Fe(CN)64- in microheterogenous medium: a detailed thermodynamic approach. Results in Chemistry. (Under Minor Revision). **(IMPACT FACTOR: 2.4).**
44. **Karuppiah Nagaraj\*** Subramaniam Kamalesu, Snehal Lokhandwala, Nikhil M Parekh, Ammasai Karthikeyan, Iruthaya Kalai Selvam, Chandrabose Uthra, (2021). Biophysical studies of surfactant cobalt(III) complexes in presence of ionic liquids as additive on its binding to calf thymus DNA,Inorganic Chemistry Communications . (Under Review).
45. **Karuppiah Nagaraj\*,** Karuppiah Nagaraja\*, Pilavadi Thangamuniyandib, Subramaniam Kamalesuc Snehal Lokhandwalad, Nikhil M Parekha, Swapna Rekha Pandae, Subramanian Sakthinathanf, Te-Wei Chiuf, Chelladurai Karuppiahg, (2023). A new approach for biogenically designed Eosin-Y-coated AgNPs based highly sensitive and selective fluorometric and colorimetric probe for detection of L-dopa. Spectro Chim Acta A: Mol. Bimol. Spectra.(Under Review).
46. **Karuppiah Nagaraj\*,** Karuppiah Nagaraja\*, Pilavadi Thangamuniyandib, Subramaniam Kamalesuc Snehal Lokhandwalad, Nikhil M Parekha, Swapna Rekha Pandae, Subramanian Sakthinathanf, Te-Wei Chiuf, Chelladurai Karuppiahg, (2023). Biomimetic synthesis of metallo-surfactant complex assisted silver nanoparticles and its relativistic effect in catalytic and sensing applications. Journal of Catalysis.(Under Review).

PERSONAL PROFILE

|  |  |  |
| --- | --- | --- |
| Father’s Name | : | A. Karuppiah |
| Date of Birth | : | 12/06/1986 |
| Sex | : | Male |
| Languages known | : | Tamil and English |
| Address | : | 14, Amman Kovil Street, Pandalkudi Road, Aruppukottai-626101, Viruthunagar District, Tamilnadu, India. |
| Mobile | : | +91 9944418072 |

REFERENCES

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  | Prof. S. Arunachalam | | Prof. R. Ranganathan Prof. P. Kannan |  |
|  |  | School of chemistry | | School of chemistry Department of chemistry |  |
|  |  | Bharathidasan University | Bharathidasan University Anna University | |  |
|  |  | Tiruchirappalli | Tiruchirappalli Chennai | |  |
|  |  | Tamilnadu,India | Tamilnadu,India Tamilnadu,India | |  |
|  |  | e-mail:  [arunasurf@yahoo.com](mailto:arunasurf@yahoo.com) | e-mail: e-mail:  [rrengas55@yahoo.com](mailto:rrengas55@yahoo.com) [pakannan@annauniv.edu](file:///D:\VIVEKANANDA%20COLLEGE\ramakrishna%20mission%20application\pakannan@annauniv.edu ) | |  |

**DECLARATION**

I hereby declare that the all above information are true to the best of my Knowledge and belief.

Date: 17, July, 2023 yours truly,

Place: UPL University of Sustainable Technology Dr. K. Nagaraj