

RESEARCH INTEREST

Major Field: Polymer Composites, Electrochemical Sensors & Photo-catalytic Applications

Field of Interest:

- Synthesis of carbon and/or metal oxides-based materials for sensors, photocatalysis
- Solid-state Li-ion/Ni-ion batteries, Anode-free/Anode-less Li metal batteries.
- Environmental Chemistry – Treatment of Wastewater
- Removal of hazardous pollutants & crystal growth
- Adsorption studies for metal / dye removal

ACADEMIC EXPERIENCES (~16 years)

20.01.2016 – Present:

Assistant Professor

Sourashtra College (Autonomous),

Affiliated to Madurai Kamaraj University

Madurai – 625 004.

Mar 2012 - Dec 2015:

Associate Professor

Feb 2008 - Feb 2012:

Assistant Professor

Department of Chemistry

K.L.N.College of Engineering,

Pottapalayam -630 612.

Aug 2007 – Jan 2008:

Lecturer

K.L.N.Polytechnic College, Madurai-625 009.

RESEARCH PUBLICATIONS (Published:10; Communicated: 02)

1. Adsorption of Rhodamine-B and Congo red dye from Aqueous Solution using Activated Carbon: Kinetics, Isotherms and Thermodynamics M. Ilayaraja, **N.P. Krishnan**, R. Sayee Kannan *IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT)* e-ISSN: 2319-2402, p- ISSN: 2319-2399. Volume 5, Issue 5 (Sep. - Oct. 2013), 79-89.
2. Spectroscopic analysis of Crystal violet dye removal by *Sida rhombifolia*: Kinetic, Equilibrium, Thermodynamic studies **N.P.Krishnan**, M.Ilayaraja, R. Sayee Kannan *World J. Pharm. Pharma. Chem.* 10 (2014) 713 -732.
3. Modeling Studies on adsorption of Pb(II) and Hg(II) by using *Acalypha indica* **N.P.Krishnan**, M.Ilayaraja ,R.Sayee Kannan *Int.J.Applied chem.*1 Oct.(2014) 12-28.
4. Convenient Synthesis of Micron-sized Macro Porous Polymers with Silica on their Surfaces and Excellent Adsorption Performance for Pb(II) Ion. Kannan RS, Kavitha K, Muthukrishnan P, **Krishnan NP** and Ilayaraja M *J Environ Anal Toxicol Volume 5, Issue 4*, 291, April 2015.
5. Preparation and application of β -Cyclodextrin polymerized with phenol -formaldehyde as an adsorbent for the removal of Pb(II) and Hg(II) form aqueous media, **N.P.Krishnan**, M.Ilayaraja, R.Sayee Kannan, *International Journal of Current Research*, Vol.7, issue 7,17829-17838, July2015.

(Research Publications & After Ph.D.,)

6. Chitosan functionalized gold nanoparticles assembled on sulphur doped graphitic carbon nitride as a new platform for colorimetric detection of trace Hg²⁺ Baishnisha Amanulla, **Krishnan Nattamai Perumal**, Sayee Kannan Ramaraj, **Sensors & Actuators: B. Chemical 281 (2019) 281-28.**
7. Photocatalytic degradation of tetracycline under visible light using TiO₂@sulfur doped carbon nitride nanocomposite synthesized via in-situ method, **Krishnan Nattamai Perumal**, Vellaichamy Balakumar, Ramaraj Sayee Kannan, **Journal of Environmental Chemical Engineering 9 (2021) 105560.**
8. Synthesis of highly efficient g-CN@CuO nanocomposite for photocatalytic degradation of phenol under visible light, **Krishnan Nattamai Perumal**, Vellaichamy Balakumar, Ramaraj Sayee Kannan, **Journal of Alloys and Compounds 886 (2021) 16116.**
9. Fabrication of wurtzite ZnO embedded functionalized carbon black as sustainable electrocatalyst for detecting endocrine disruptor trichlorophenol, Balamurugan Arumugam, **Krishnan Nattamai Perumal**, Sayee Kannan Ramaraj, **Microchemical Journal 175 (2022) 107202.**
10. SrMnO₃/Functionalized h-BN Composite Modified Disposable Sensor for the Voltammetric Determination of Furaltadone Antibiotic Drug, Krishnan Venkatesh, **Krishnan Nattamai Perumal**, Sayee Kannan Ramaraj, **Catalysts 2022, 12, 1494.**

SEMINAR / WEBINAR CONDUCTED

- ❖ Organized A One Day International Student's Webinar on "Structural Biology and Chemistry of SARS-CoV-2" on 20-02-2021.
- ❖ Organized A One Day International Seminar on "Recent Trends in Frontier Areas of Materials and Macromolecules" on 24-03-2023

CONFERENCES/SEMINARS

Presented - International Conference - **08** National Conference - **03**
National Seminar- **01**

Participated - National Conference - **02** National Seminar - **03**
State / National Level Workshop - **03**

1. Presented a paper in Two days International Conference on Frontiers in Chemistry and Material Science (ICFCMS-22) on 19.12.2022 & 20.12.2022 at Mannar Thirumalai Naicker College, Madurai.
2. Presented a paper in Two days International Conference on Frontiers in Chemistry and Material Science (ICFCMS-21) on 21.12.2021 & 22.12.2021 at Mannar Thirumalai Naicker College, Madurai.
3. Presented a paper on the title "Novel Au-Co Alloy Nanoparticles Decorated g-C₃N₄ Nanosheets with Enhanced Photocatalytic Activity for Degradation of Organic Pollutants" in *International Conference on Advanced Functional Materials for Energy, Environment and Bio medical applications (AFMEEB'2017)* held on 11th & 12th December 2017 organized by Department of Chemistry and Energy Science, Madurai Kamaraj University, Madurai -625021.

4. Participated in “UGC sponsored National Level Seminar on Expanding Frontiers in Chemistry (EFC-17)” held on 8th December 2017 organized by the PG Department of Chemistry, Arulanandar College, Karumathur-625514.
5. Participated in “State level *Workshop on Chromatography Techniques*” held on 23rd September 2017 organized by the Department of Chemistry, K.L.N. College of Engineering, Pottapalayam-630612.
6. Presented a paper on the title “A facile synthesis of Copper particle decorated on reduced Graphene oxide composites for enhanced detecting of Nitrite” in DST–SERB Sponsored *International conference* on Functional Materials (ICFM’2017) held on 7th & 8th September 2017 organized by Department of Chemistry, Thiagarajar College, Madurai-625009.
7. Presented a poster on the title “Bio-molecule assisted one-pot green, rapid synthesis of graphene oxide nanosheets decorated with Au nanoparticles for selective & effective removal of Cd(II) ”in *International conference* on “Nanomaterials for Energy, Environment, Catalysis and Sensors (ICNEECS - 15) held on 11th & 12th December 2015 organized by Department of Physical Chemistry, School of Chemistry Madurai Kamaraj University, Madurai -625021.
8. Presented a paper on the title “*Ecofriendly Biodegradation and Detoxification of Crystal violet textile dye using developed Microbial Nannochloropsis algae*” in *International conference* on Chemistry & Materials (ICCM’2014) held on 14th & 15th November 2014 organized by Dept.of Chemistry, Bharathidasan Institute of Tech.(BIT)campus, Anna University, Tiruchirappalli -620 024.
9. Presented a paper on the title “*Spectroscopic analysis of Crystal violet dye removal by Sida rhombifolia: Kinetic, Equilibrium, Thermodynamic studies*” in *National Seminar* on Modern Trends in Chemistry – MTC-II “Newer Perspectives in Nano and Green Chemistry” held on 24th & 25th July 2014 organized by Department of Chemistry, PSNA College of Engineering and Technology, Dindigul -624 622.
10. Participated in the *National Lecture Workshop* on “*Current Trends in Chemistry*” held on 26th & 27th February 2014 organized by Department of Chemistry, Arul Anandar College, Karumathur -625 514.
11. Participated in the *National Seminar* on “*Innovative Green Technologies for Geologic Sequestration of Carbon dioxide (CO₂) and to protect atmosphere*” held on 7th & 8th January 2014 organized by Department of Chemical Engineering, Erode Sengunthar Engineering College, Erode-638 057.

12. Participated in the *National Seminar on “Modern Trends in Chemistry (MTC-2013)”* held on 17th & 18th December 2013 organized by Department of Chemistry, Bharathidasan Institute of Technology (BIT) campus, Anna University, Tiruchirappalli -620 024.
13. Presented a paper on the title “Algal Fuels - A Sustainable Energy for Future in *National Conference on “Recent development in Nano Materials –2013 (RDNM – 2013)”* held on 11th April 2013 organized by Department of Chemistry, Mohamed Sathak Engineering College, Kilakarai -623 806.
14. Presented a paper on the title “A new approach for Biofuel Production from Microalgae” in *International Conference on Recent Advances in Textile & Electrochemical Sciences-2013* held on 21st to 23rd March 2013 organized by Dept of Industrial Chem., Alagappa University, Karaikudi-630 003.
15. Presented a paper on the title “Synthesis and Characterization of Biofuel Production from Microalgae” in *International Conference on Biological Inorganic Chemistry (ICBIC-2013)* held on 20th-22nd February 2013 organized by Department of Chemistry, Periyar University, Salem-630 611.
16. Participated in the *National Conference on “Recent Advances in Chemical Sciences-2013 (RACS-2013)”* held on 20th February 2013 organized by Department of Chemistry, University College of Engineering, Dindigul-624 622.
17. Participated in the *National Seminar on “Expanding Frontiers in Chemistry”* held on 14th & 15th February 2013 organized by Department of Chemistry, Arul Anandar College, Karumathur -625 514.
18. Presented a paper on the title “Synthesis and Characterization of Biofuel Production from Microalgae” in *National Conference on New Vistas and Challenges in Chemistry, (NEVACC-2013)* held on 23rd to 25th January 2013 organized by Department of Chemistry, Sathyabama University, Chennai.
19. Presented a paper on the title “Production & Evaluation study of Biodiesel from *Jatropha* and Algae” in *International Workshop & Conference on “Renewable Energy and Climate change – Exploring Opportunities for Sustainable Development”* held on 5th-7th April 2012 organized by School of Energy, Environment & Natural Resources, Madurai Kamaraj University, Madurai-625 021.
20. Presented a paper on the title “Optimisation studies on the removal of metal ions using new modified cation exchange resins” in *National Seminar on Modern Trends in Chemistry “Green Chemistry”* held on 23rd & 24th February 2012 organized by Dept.of Chemistry, PSNA College of Engg. and Tech. Dindigul-22.

21. Participated in the *National Conference on “Emerging Trends in Chemistry”* held on 14th & 15th February 2013 organized by Dept. of Chemistry, Bishop Heber College, Tiruchirappalli -620 017.

PUBLICATIONS - BOOKS

- ❖ MKU - DDE – B.Sc., Chemistry III year Physical Chemistry study material contribution – 5 units – 2018.
- ❖ MKU - DDE – B.Sc., Chemistry I Year - I Semester “Sugar & Paper Industries” – 2021.
- ❖ MKU - DDE – B.Sc., Chemistry I Year – II Semester “Perfumes & Cosmetics” – 2022.
- ❖ MKU – DDE – B.Sc., Chemistry II Year – III Semester “Physical Chemistry-I” – 2023.

GUEST LECTURE / INVITED LECTURE

- ❖ Delivered a Guest Lecture on the topic “**Food Adulteration**” at Mannar Thirumalai Naicker College, Madurai on 06-07-2018.
- ❖ Delivered a Guest Lecture on the topic “**Chemical Kinetics**” at E.M.G.Yadava Women’s College, Madurai on 20-02-2023.

SOCIAL ACTIVITIES

- ❖ Eco Club – Co Convener at Sourashtra College from 2021 to till date.
- ❖ NSS Programme Officer at Sourashtra College from 2019 to 2022.
- ❖ Rotaract Club Coordinator at K.L.N College of Engineering, Pottapalayam from 2012 to 2015.

ORIENTATION / REFRESHER / FDP / OTHER PROGRAMME

- ❖ Participated One Day Faculty Development Programme on Redefined Role of Teachers held on 05/03/2016 organized by Sourashtra College, Madurai.
- ❖ Participated One day Faculty Development Programme on Management of Self- A Holistic approach organized by SCAAN & IQAC held on 29/08/2017 at Sourashtra College, Madurai.
- ❖ Completed AICTE / ISTE approved Refresher programme from 07.05.2018 to 12.05.2018 at K.L.N. College of Information Technology, Pottapalayam, Sivagangai
- ❖ Completed Orientation programme from 08.11.2018 to 05.12.2018 at UGC HRDC, Bharathidasan University, Tiruchirappalli.
- ❖ Participated in National Level Training on “Evaluation Reforms in Higher Education” on 18th & 19th July 2019 organized by UGC, Southern Eastern Regional Office, Hyderabad.
- ❖ Completed Online Refresher Course in Chemistry for Higher Education organized by SWAYAM ARPIT on 16.2.2020.
- ❖ Completed UGC - Sponsored Refresher Course in Chemistry from 28/09/2020 to 11/10/2020 conducted by The Human Resource Development Centre, Gujarat University, Ahmedabad.

- ❖ Completed 15-day Online Refresher Programme “Emerging Best Practices in Higher Education” on 22.6.21 to 6.7.21 organized by Smt. Radhadevi Goenka College for Women and Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) of Ministry of Education.
- ❖ Attended Two days In Service Teacher Training Programme on 05.05.2022 & 06.05.2022 at Meenakshi College. Madurai organized by the Government of Tamilnadu.

PERSONAL DETAILS

Name : Dr.N.P.Krishnan
Father Name : Mr.N.R.Perumal
Mother Name : Mrs.N.P.Muthumani
Date of Birth : 30.04.1982 **Age** : 41 yrs
Sex : Male **Marital status:** Married
Religion : Hindu
Nationality : Indian
Languages Known : Tamil and English
Postal Address : 14/9 Srinivasanagar 8th street,
Thirunagar, Madurai, Tamil Nadu, India. Pin Code – 625 004.

REFERENCES

- 1) **Dr. R. SAYEE KANNAN**
Associate Professor
PG & Research Department of Chemistry,
Thiagarajar College, Madurai – 625 009.
E-mail: sayeeekannanramaraj@gmail.com
Mobile: + 91 9486162075
- 2) **Dr. K. PANDIAN**
Professor & Head
Department of Inorganic Chemistry,
University of Madras, Chennai – 600005.
E-mail: jeevapandian@unom.ac.in
Mobile: +91 9443624712

DECLARATION

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

Place: Madurai

Date:

Yours Truly



(N.P.Krishnan)