

Faculty Profile



Dr. A. KALAIVANI
Assistant Professor - Chemistry

HIGHLIGHTS:

- Number of Journal Publications: 12
- H-Index: 5
- Project Funding Received: NIL
- Patents Published: NIL
- Patents Granted: NIL

PROFESSIONAL LINKS:

- Scopus ID: 57935174900
- Scopus Link: <https://www.scopus.com/authid/detail.uri?authorId=57935174900&origin=resultslist>
- Google Scholar ID: OFa3t3cAAAAJ&hl
- Anna University Faculty ID: 2122358
- AICTE Faculty ID: 1-3553433577
- Anna University Supervisor ID: NIL
- LinkedIn: <https://in.linkedin.com/in/kalaivani-arumugam-57511b64>

PROFESSIONAL BACKGROUND:

- Teaching Experience till date : 9 years 2 months

AREA OF SPECIALIZATION:

- Nano materials synthesis and fabrication of chemical sensors and biosensors
- Electroanalytical chemistry

PAPERS PUBLISHED:

- Synthesis of Exclusive Star Shaped PbS Nanocrystals and Determination of Cd(II) Ions Using Hg(II)-PbS Modified Graphite Electrode by Differential Pulse Anodic Stripping Voltammetry
- P.S. Ramesh, N.S. Sangeetha, **A. Kalaivani** and S. Sriman Narayanan
- *Asain Journal of Chemistry* 2012 (25) 30-34
- Synthesis of Spiropyrrolidines and Spiropyrrolizidines by Azomethine Ylide Cycloaddition of Baylis-Hillman Adducts Derived from N-Methyl Maleimide
- K. Karthikeyan, N. Saranya, **A. Kalaivani**, P. T. Perumal
- *Synlett* 2010 (18) 2751-2754.

- PEDOT/Electrochemically Reduced Graphene Oxide film modified electrode for Mercury(II) determination using Anodic stripping voltammetry.
- **A. Kalaivani**, N. Saranya, R. Divya and S. Sriman Narayanan
- *Graphene.*, 1, (2013), 131-135
- Cadmium selenide Quantum dots - MWCNTs nanocomposite modified electrode for the Determination of Epinephrine.
- **A. Kalaivani** and S. Sriman Narayanan
- *Advanced Materials Research*, 938 (2014), 176-181
- An Electrochemical Sensor for the determination of Uric Acid based on CdSe Quantum Dots (QDs) / Graphene Oxide (GO) nanocomposite
- **A. Kalaivani** and S. Sriman Narayanan
- *International Journal of Innovative Research in Science & Engineering*, (2014)2347-3207.
- Simultaneous determination of Adenine and Guanine using CdSe QDs/GO nanocomposites modified electrode
- **A. Kalaivani** and S. Sriman Narayanan
- *J. Nanosci. Nanotechnol.* 15 (2015), 4697
- Fabrication of CdSe quantum dots @ nickel hexacyanoferrate core-shell nanoparticles modified electrode for the electrocatalytic oxidation of hydrazine
- **A. Kalaivani** and S. Sriman Narayanan
- *Journal of material science: Materials in electronics* 29, 20146–20155 (2018)
- A novel electrochemical immobilization of Hg in CdSe QDs – modified graphite electrode and its improved performance in voltammetric determination of lead (II) ion
- **A. Kalaivani** and S. Sriman Narayanan
- *Materials Today: Proceedings*, 36 (2021) 863–866.
- Enhancement of glucose transport by Cassia fistula ethyl acetate extract through activation of IRTK, Phosphatidylinositol 3 kinase and GLUT4 on 3T3L1 adipocytes
- S. Anand, R. Bharathi Raja, M. Mettilda, **A. Kalaivani**
- *Journal of Huazhong University of Science and Technology*, 50, 2021.
- High-performance flexible supercapacitors based on potassium nickel (II) hexacyanoferrates (III) nanoparticles on carbon cloth as an electrode material
- LM Samyn, TS Lessa, RS Babu, **A Kalaivani**, TM Barbosa, ALF de Barros
- *Materials Advances* 4 (16), 3654-3661
- Highly Sensitive Sensor for the Determination of Riboflavin Using Thionine Coated Cadmium Selenide Quantum Dots Modified Graphite Electrode
- **A Kalaivani**, R Suresh Babu, S Sriman Narayanan
- *Micro* 3 (3), 686-698

BOOKS PUBLISHED:

- Disposable Electrochemical Sensors for Healthcare Monitoring: Material Properties and Design - Mesoporous Carbon-based Disposable Sensors (Chapter 3)
R. Suresh Babu, A. Murali, M. Devendiran, **A. Kalaivani**
RSC Publishing

COURSES CERTIFIED:

- Nanotechnology and Nanosensors, Part1 (Coursera July - 2020)
- Nanotechnology and Nanosensors, Part2 (Coursera April – 2022)
- Introduction to Molecular Spectroscopy (Coursera July – 2020)
- Effective Teaching in Engineering, IIT Chennai, 29-31 Aug 2018

- Research Methodology - Tools and Techniques in Engineering, Saveetha Engineering College, 26 - 27 Nov 2018
- IIT FDP201X on Pedagogy for online and blended Teaching-Learning process, IIT, Mumbai

ACHIEVEMENTS AND AWARDS:

- **Best Poster Award** at Global Summit of Advanced trends in Materials Chemistry at Cauvery College Trichy, 2020
- **Teacher of the year** at Saveetha Engineering College 2021-2022.
- Awarded **Thiruvalluvar University 9th rank** certificate in the year 2009.
- Rotary Club Awarded **School first Student** certificate in the Year 2003.

CONFERENCES/SEMINARS/WORKSHOPS ATTENDED:

- International Conference on service learning and science communication, MCC College, Chennai, 2022.
- International Virtual Conference on Advances in chemistry and Materials, Saveetha Engineering College, Chennai, 2021
- Global Summit of Advanced trends in Materials Chemistry at Cauvery College Trichy, 2020
- Innovative strategies in Chemical Sciences and Technologies at Bhakthavatchalam College, 2020
- Advanced Materials for catalysis, Energy and Environment at Gurunanak College, Chennai, 2019.
- International conference on Materials and spectroscopy at Saveetha Engineering College, Chennai, 2018
- International conference on emerging trend in nano world held at Vels University, Chennai, 2017.
- National Conference on Food, Health and Environment held at Dr. MGR Educational and Research Institute University, Chennai, 2016.
- International Conference on Recent Trends in Analytical Chemistry held at University of Madras, Chennai, 2015.
- International Conference on Advances in New Materials held at University of Madras, Chennai, 2014.
- National conference in Recent Advances in Chemistry and Environment held at SRM University, Chennai, 2014.
- National Conference on Green Processes and Nano Materials held at Hindustan University, Chennai, 2014
- International Conference on Nanomaterials: Science, Technology and Applications held at B. S. Abdur Rahman University, Chennai, 2013.
- Indian Analytical Science Congress held at Goa, 2013.
- Chennai Chemistry Conference held at CSIR-CLRI, Chennai, 2013.
- International Conference on recent advances in Material Science and Technology held at NIT Karnataka, 2013.
- National Conference in Recent Advances in application oriented chemistry held at Dr. M.G.R Educational and Research Institute University, Chennai, 2012.
- DAE-BRNS Theme meeting on Recent Trends in Analytical Chemistry held at University of Madras, Chennai, 2012.
- National Conference on Nanoscience and Nanotechnology held at University of Madras, Chennai, 2011.
- Second National Conference on Multifunctional Nanomaterials and Nanocomposites held at Bharathiar University, Coimbatore, 2011