



ASATH MURPHY M S

ASSISTANT PROFESSOR – CHEMISTRY

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PROFILE

CONTACT

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Chennai

EDUCATION

2026

KARUNYA INSTITUTE OF
TECHNOLOGY AND SCIENCES

- Ph.D. Chemistry

2020

KARUNYA INSTITUTE OF
TECHNOLOGY AND SCIENCES

- M.Sc. Chemistry
- Score: 84%

2018

WOMEN'S CHRISTIAN COLLEGE

- B.Sc. Chemistry
- Score: 70%

CORE SKILLS

- Electrocoagulation & Wastewater Treatment
- Environmental Chemistry
- Research & Scientific Writing
- Spectroscopy Analysis (IR, UV-VIS)
- Data Analysis & Laboratory Techniques
- Academic Teaching & Student Mentoring
- Scientific Presentation & Conferences

Ph.D. in Chemistry with strong research expertise in electrocoagulation and wastewater treatment technologies. Experienced in teaching science and guiding students in analytical and experimental chemistry. Published multiple research papers in Scopus indexed journals.

THESIS TITLE

Performance assessment of electrocoagulation using similar and dissimilar sets of aluminium and titanium electrodes for dye wastewater treatment.

WORK EXPERIENCE

■ Karunya Institute of
Technology and Sciences

Sept 2021 - Nov 2021
July 2023 - Dec 2023

Teaching & Research Assistant (TRA)

- Guided students in experimental chemistry techniques
- Supported academic research and documentation

RESEARCH PROFILES

- SCII Indexed Articles : 8
- ESCI Indexed : 3
- Scopus Indexed Articles : 12
- WoS Indexed Articles : 11

PUBLICATIONS

- **Asath Murphy M S**, Jovitha Jane D, Riju S Robin, Sahaya Leenus S, Jegathambal P, Kalivel P. An investigation on the treatment of wastewater disperse dye by electrocoagulation and to examine the use of the treated dye for flora and fauna. Iranian Journal of Chemistry and Chemical Engineering (2024) (SCI Indexed, IF-1.3)
- **Asath Murphy M S**, Jovitha Jane D. Evaluation of electrocatalytic activity Ti and Al as anode for the remediation of textile dyeing effluent. Iranian Journal of Catalysis (2024) (ESCI Indexed, IF-2.8)

- **Asath Murphy M S**, Jovitha Jane D, Sahaya Leenus S, Riju S Robin, Jaegathambal P, Kalivel P. Electrochemical treatment of textile wastewater using copper electrodes. J Environ Sci Health A Tox Hazard Subst Environ Eng (2023) (SCI indexed, IF-2.1)
- Jovitha Jane D, **Asath Murphy M S** et al. Comparative study on the electrocatalytic activity of dissimilar electrode combinations for the treatment of textile effluent by electrocoagulation process and their subsequent reuse. Iranian Journal of Catalysis (2023) (ESCI Indexed IF-2.8)
- Jovitha Jane D, **Asath Murphy M S** et al. An Attempt to Reduce the Electrocoagulation Costs and to Ensure the Reuse of Treated Aqueous Dye Solution. Nature Environment and Pollution Technology (ESCI indexed)(2023)
- Jovitha Jane D, **Asath Murphy M S** et al. Investigating the efficiency of electrocoagulation using similar/dissimilar electrodes for the detoxification of Coralene Rubine dye: a cost effective approach. Environmental Geochemistry and Health (2024) (SCI indexed, IF-4)
- Jovitha Jane D, **Asath Murphy M S** et al. Evaluation of toxicity in real-time textile effluents post-treatment using Sorghum bicolor and Danio rerio-Potential for reuse. Desalination and Water Treatment (2024) (SCI Indexed, IF-1)
- Sahaya Leenus S, Jovitha Jane D, **Asath Murphy M S**, Vanarajan S, Palanichamy J, Kavitha S, Kalivel P. Sustainable dual-stage treatment of textile wastewater using Ti-Ti electrocoagulation and activated carbon for water reuse: a comparative study of synthetic and industrial effluent. Environmental Nanotechnology, Monitoring & Management (2026) (SCI Indexed, IF-2.9)
- Sahaya Leenus S, Parameswari K, Kavitha S, **Asath Murphy M S**. Assessing titanium vs. aluminium electrodes for wastewater remediation in the small-scale industries (SSI) textile sector. Environmental Nanotechnology, Monitoring and Management (2024) (SCI Indexed, IF-2.9)
- Sahaya Leenus S, Parameswari K, Kavitha S, Jovitha Jane D, **Asath Murphy M S**. Electrocoagulation using Ti/Ti for the remediation and reuse of aqueous Dispersive Blue-79. Environmental Monitoring and Assessment (2024) (SCI Indexed, IF-3)
- Parameswari K, Jithin C.J, Kavitha S, Padmanaban D, Jebasingh B, Jegathambal P, **Asath Murphy M S**, Jovitha Jane D. Efficiency assessment of Cu and Al electrodes in the removal of anthraquinone based disperse dye aqueous solution in electrocoagulation-an analytical approach. International Journal of Environmental Analytical Chemistry (2023) (SCI Indexed, IF-2.5)
- Parameswari K, Jagdeesh T, Kavitha S, Padmanabhan D, Jegathambal P, **Asath Murphy**. Comparative study on removal of yellow 10gw dye from aqueous solution using Al, Cu electrodes in electrocoagulation. Materials Today Proceedings (2020)

PAPER PRESENTATIONS - 05

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| <ul style="list-style-type: none"> • Presented a paper entitled "Treatment of real-time textile dyeing effluent with copper electrodes" in the International Conference (online) on Challenges and Opportunities in Water and Wastewater Management. • Presented a paper "Removal of C.I Disperse Orange 30 dye from aqueous solution by electrocoagulation process using aluminium electrodes" in the 6th International Conference on Recent Advances in Material Chemistry(ICRAMC-2022). • Presented a paper titled "Performance Evaluation of Ti and Al as Anodes for the Remediation of Textile Dyeing Effluent" in the 2nd International Conference on Frontiers in Chemical Sciences (ICFCS-2023). | <ul style="list-style-type: none"> • Presented a paper entitled "Treatment and reuse of disperse dye solution in the electrocoagulation process" in the international conference on advanced materials (ICAM 2023). • Presented a paper entitled "Cu-Cu electrodes in the abatement of dye from real-time textile dyeing effluent in electrocoagulation" in the National Level Virtual Conference on Emerging Trends in Chemical Sciences. |
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SEMINARS/ WORKSHOP ATTENDED/ POSTER PRESENTATIONS -09