

Bharathiar University State University I "A⁺⁺" Grade by NAAC I 26th Rank in MoE-NIRF Maruthamalai Road, Coimbatore, Tamil Nadu - 641 046.

Dr I PRABHA	
Associate Professor	
Department of Chemistry	(B) (B)
Bharathiar University	
Tamil Nadu	
E-mail: prabhainbaraj@buc.edu.in	
Phone: 7395909084	
Office Number: 0422-2428318	
Research Area	Courses Teaching
 Advanced Functional Materials 	Physical Chemistry-I
 Environmental Applications 	Physical Chemistry-III
Catalysis	Physical Chemistry-IV (Thermodynamics)
	Analytical Chemistry Chemistry in Day to day life
Beesewak Formation and	Teaching Experience:
Research Experience:	
Research Credentials (as on November 2024	– Source: Google scholar)
H-Index: 13 Citations: 430	
Publications	Journals: 28 Books/Chapters: 4
Career	
At Bharathiar University	
1. Designation : Associate Professor	
Period : November 2016 - Till Date	
0	
1. Designation : Assistant Professor	
Institution Name : Sathyabama University	
Period : - Till Date	
Education	
Subject · Chemistry	
Institution : Sathvabama University	
Affiliated University : Sathyabama University	
Year of Award :	
Proincto	Personal Quidence
FIDJECTS	Completed
	Ph.D 1
	On Going
	Ph.D 7
Publications	
4. Composites and their Applications in Light-Source-Enhanced Destruction of Organic Wastes	
In: Functional Nanocomposites and Their Applications (np. 267–288) Apple Academic Press, (Japuary 2025)	
I Prabha	



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Dr I PRABHA , Associate Professor , Department of Chemistry

3. Role of Graphene-Anchored Stable Compounds for the Sustainable Photocatalytic Activities for the

Removal of Hazardous Compounds in Medicinal Waste

In Graphene-Based Photocatalysts: From Fundamentals to Applications (pp. 553-577). Cham: Springer Nature Switzerland. (October 2024)

I Prabha, A Nivetha, C Senthamil, J Hemalatha

2. Lanthanum-Based Compounds Promoted by Carbon Substrates for Catalytic Applications

In Multifunctional Inorganic Nanomaterials for Energy Applications (pp. 211-230). CRC Press (June 2024)

I Prabha, J Hemalatha, C Senthamil, JJ Umashankar, K Preethi, S Nandhabala **1. Heavy Metal Contamination in Groundwater and Impact on Plant and Human.**

Spatial Modeling and Assessment of Environmental Contaminants: Risk Assessment and Remediation, 233-246, Springer International Publishing. (February 2021)

A Nivetha, C Sakthivel, I Prabha

International Journals - 28

28. Enhanced Efficiency of Novel Green and Urea Mediated CuCo2O4 Nanocomposites for Acetaminophen

Drug Loading, Accessible Catalytic Reduction of Nitro Compounds and Adsorption of Pesticides

Journal of Inorganic and Organometallic Polymers and Materials, 1-22. (October 2024)

J Hemalatha, I Prabha, R Dhanush Kumar, JJ Umashankar, C Senthamil, K Preethi, S Vijayakumar

27. Harvesting high-performance electro-water oxidation and selective MB degradation through dual

functional Gd2O3–La2O3 photo-electrocatalysts

Materials Today Sustainability, 27, 100947. (September 2024)

Sakthivel Chandrasekar, Nivetha Ambikapathi, Prabha Inbaraj, Qiang Jing, Bo Liu.

26. Enriching the Surface Properties of Novel SnO2 Doped CoZnO2 Nanocomposite for Photocatalytic,

Reduction and Bio?Medicinal Applications

ChemistrySelect, 9(26), e202304159. (July 2024)

I Prabha, S Baskar, A Nivetha, C Sakthivel, S Nandhabala, J Hemalatha, C Senthamil

25. Efficient Transition Metal Nanozymes as the Alternate for Natural Enzymes in Food Analysis and

Environmental Remediation

Journal of Environmental Chemical Engineering, 112575. (April 2024)

J Hemalatha, C Senthamil, C Sakthivel, A Nivetha, JJ Umashankar, I Prabha

24. Multiprocessing Substrates Enhanced Ta2O5/NiCo2O4 Spinel Nanocomposites for Effective

Electro-/Photocatalytic and Toxicological Effects via the Caenorhabditis elegans Model

Langmuir 2024, 40, 12, 6077-6093 (March 2024)

Sakthivel Chandrasekar, Nivetha A, Govindhan Thiruppathi, Palanisamy Sundararaj Senthamil C, Hemalatha J, Prabha I. 23. Fabrication of a bifunctionalyzed Calotropis gigantea inspired Ag–Cu–Co trimetal oxide for the remediation

of methylene blue, and its larvicidal and antibacterial applications

New Journal of Chemistry, 47(26), 12375-12392. (June 2023) A Nivetha, C Sakthivel, J Hemalatha, C Senthamil, I Prabha

22. Effective Role of Polyamidoamine (PAMAM) Dendrimer functionalized nanomaterials in anticancer

applications

Chemistry Select, 8(19), e202204490. (May 2023)

Sundramoorthi Nandhabala, Jayachandran Hemalatha, Chennappan Senthamil, Chandrasekar Sakthivel, Ambikapathi Nivetha, Inbaraj Prabha

21. Phytofabrication of cost-effective selenium nanoparticles from edible and non-edible plant materials of

Senna auriculata: Characterization, antioxidant, antidiabetic, antimicrobial, biocompatibility, and wound

healing

Journal of Molecular Liquids, 367, 120337. (December 2022)

Murugan Prasathkumar, Chandrasekar Sakthivel, Robert Becky, Chenthamara Dhrisya, Inbaraj Prabha, Subramaniam Sadhasivam



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20. A novel approach of phyllanthus niruri supported Ag-Cu-Co for anti-oxidant, anti-bacterial, larvicidal and	
photodegradation applications	
Surfaces and Interfaces, 35, 102388. (December 2022) A Nivetha, C Sakthivel, Gopalan Rajagopal, S Nandhabala, J Hemalatha, C Senthamil, I Prabha 19. Multifunctionalized metal chalcogenides and their roles in catalysis and biomedical applications	
ChemistrySelect, 7(46), e202203394. (December 2022) Chennappan Senthamil, Jayachandran Hemalatha, Sundaramoorthi Nandhabala, Ambikapathi Nivetha, Chandrasekar Sakthivel, Inbaraj Prabha	
To. Synthesis of a multi-functionalized NiCozo4 spinel neterostructure via the hydrothermal route for high-	
performance photo-electrocatalytic, anti-bacterial and eco-toxicity applications	
Chandrasekar Sakthivel, Ambikapathi Nivetha, Govindhan Thiruppathi, Palanisamy Sundararaj, Inbaraj Prabha 17. Surfactant-Enhanced Nano Spinel Oxide for Applications in Catalysis, Dye Degradation and Antibacterial	
Activity	
Chemistry Select, 7(33), e202202389. (September 2022) Ambikapathi Nivetha, Dr. Inbaraj Prabha. 16. Evaluation on Synthesis and Catalytic Properties of ZnO Enriched MgO Nanomaterials Using Limonia	
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15. Temperature-controlled fabrication of semiconducting polymeric nanocatalysts for selective carbon	
dioxide conversion and X-ray shielding capacity	
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ra. Enective/comparative investigation on green mediated nano copper oxide: rabrication, characterization	
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I Prabha, A Nivetha, C Sakthivel 13. Phytofabrication of selenium nanoparticles using Azolla pinnata: Evaluation of catalytic properties in	
oxidation, antioxidant and antimicrobial activities	
Journal of Environmental Chemical Engineering, 9(4), 105483. (August 2021) Gopalan Rajagopal, Ambikapathi Nivetha, Sakkanan Ilango, G Periyasamy Muthudevi, I Prabha, Radhakrishnan Arthimanju 12. Semiconducting Poly (1-Aminoanthroquinone) Nanoscale Materials: Synthesis, Morphological Aspects	
and Novel Catalytic Applications	
Research Square (August 2021) C Sakthivel, A Nivetha, C Suresh Philip, I Prabha 11. Novel fabrication of cellulose sprinkled crystalline nanocomposites using economical fibrous sources:	
High performance, compatible catalytic and electrochemical properties	
Microporous and Mesoporous Materials, 318, 111021. (April 2021) C Suresh Philip, A Nivetha, C Sakthivel, CG Veena, I Prabha 10. Effectiveness of surfactants for unique hierarchical Mn2O3 nanomaterials as enhanced oxidative	
catalysts, antibacterial agents, and photocatalysts	
Journal of Physics and Chemistry of Solids, 144, 109429 (September 2020) P Amsaveni, A Nivetha, C Sakthivel, C Suresh Philip, I Prabha 9. Role of citric acid/glycine-reinforced nanometal oxide for the enhancement of physio-chemical	
specifications in catalytic properties	
Journal of Superconductivity and Novel Magnetism, 33(12), 3893-3901. (August 2020) S Mangala Devi, A Nivetha, I Prabha	



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8. Superparamagnetic properties and significant applications of iron oxide nanoparticles for astonishing	
efficacy—a review	
Journal of Superconductivity and Novel Magnetism. 32(2), 127-144. (November 2019) S Mangala Devi, A Nivetha, I Prabha 7. Influence of Citric Acid/Urea on High Performance Magnesia–Zirconia Nanocomposite: Synthesis,	
Characterization and Catalytic Approaches	
Catalysis Letters, 149, 2683-2695 (May 2019) L Keerthana, C Sakthivel, I Prabha 6. Current Status of Platinum Based Nanoparticles: Physicochemical Properties and Selected Applications ? A	
Review	
Johnson Matthey Technology Review, 63(2), 122-133. (April 2019) C Sakthivel, L Keerthana, I Prabha 5. MgO-ZrO2 mixed nanocomposites: fabrication methods and applications	
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A Nivetha, S Mangala Devi, I Prabha 3. Effect of synthesis and photocatalytic activities of metal oxide in degradation of phenol in organic	
contaminants.	
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2. Photodegradation of phenol by zinc oxide, titania and zinc oxide-titania composites: Nanoparticle	
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1. Removal of Arsenic and Copper Metals from Contaminated Water using Iron (III) Oxide Nanoparticle	
International Journal of Chemistry and Chemical Engineering, ISSN 2248-9924 3 (2), (2013), pp. 107-112 (November 2013) S Sai Bhargav, I Prabha National Journals - 3 3 Effective photocotalytic domineralization of reactive red 198 utilizing papercomposite particles under UV	
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2. Synthesis, anti-larvicidal and anti-bacterial studies of 7-hydroxy-4methylcoumarin,	
7-acetoxy-4-methylcoumarin, 8-acetyl-7-hydroxy-4methylcoumarin, resacetophenone,	
8-acetyl-5-hydroxy-4-methylcoumarin and 4, 7-dimethylcoumarin	
Research Journal of Pharmacy and TechnologyYear: 2016, Volume: 9, Issue: 4, 423-429. (June 2016) I.Prabha, Nagarajan N.S. 1. Photocatalytic performance of nanocatalyst for the effective removal of dye in the wastewater	
Chemical Science Transactions, 2(S1), S220-S224. (February 2013) I Prabha, S Lathasree	