



**Name: Dr. P. Gayathri**

**Qualification: M.Sc., Ph.D**

**Designation: Assistant Professor**

**Years of Experience: UG: 02 months PG: 02 months**

**Previous Experience: UG: 06 months PG:0, PDF: 4.8**

**Area of Specialization: Physical chemistry, Electrochemistry**

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## PROJECTS

S.no.	Title	Duration	Funding agency	Amount sanctioned (in lakhs)
1	Designing biomimetic based disposable biosensor for clinical applications	Three years (December 2018-September 2021)	UGC-DSKPDF Scheme (Anna University)	24,60,000/-
2	Electroorganic Modifications of Graphene into Redox-mediator-cum-Substrate to Immobilize Glucose Oxidase / Cholestrol Oxidase for Bio-sensor Applications	Two years (June 2016-June 2018)	DST-SERB NPDF Scheme (IIT Madras)	19,20,000/-

## CONFERENCES ATTENDED / PRESENTED PAPER

S.no.	Organized by	State/National/International	Participated/ Presented	Title	Date(s)
1*	Pachaiyappas college, Chennai	International	Presented	Copper(II).benzotriazole framework built on carbon nanotube by $\pi$ - $\pi$ interaction for electrochemical sensing Applications	February 02-03, 2018
2	IIT-Madras, Chennai	National	Presented	Redox Active Cobalt-Bipyridine Metal work-Nafion Coated Carbon Nanotubes for Sensing Ascorbic Acid	August 17 <sup>th</sup> , 2017
3	ISAEST-11, Chennai	International	Presented	Electrochemical preparation of copper benzotriazole complex on MWCNT chemically modified electrode and its application to H <sub>2</sub> O <sub>2</sub> sensing	December 08-10, 2016
4	ISAEST-10, Chennai	International	Presented	Simultaneous electrochemical detection of ascorbic acid and uric acid in the physiological pH on preanodized glassy carbon electrode	January 28-30, 2013
5	VIT University, Vellore	International	Presented	MWCNT-Chitosan composite chemically modified electrode as an electrochemical detector for highly selective flow injection analysis of H <sub>2</sub> O <sub>2</sub>	December 5-7, 2013
6	VIT University, Vellore	International	Presented	A Preanodized Glassy Carbon Electrode for the Simultaneous Electrochemical Detection of	February 20-22, 2012

				Ascorbic acid and Uric acid in the Physiological pH	
7	VIT University, Vellore	International	Presented	Addordable and quick sensor for blood-hemoglobin	November 26 <sup>th</sup> , 2012

## JOURNAL PUBLICATIONS

S.NO.	JOURNAL NAME	UGC /SCI/SCIE /WOS	ISBN / ISSN NUMBER	REFERENCE	DATE OF PUBLICATION/D OI
1	New Journal of Chemistry	Scopus/SC I	1369-9261 (web)	Oxygen sensitive 1-amino-2-naphthol immobilized functionalized-carbon nanotube electrode	30 April 2020/ doi.org/10.1039/D0NJ00438C
2	The Journal of Physical Chemistry C	Scopus/SC I	1932-7455 (web)	Regioselective Electrochemical Oxidation of One of the Identical Benzene Rings of Carbazole to 1,4-Quinone on the MWCNT Surface and Its Electrocatalytic Activity	24 November 2019/ doi.org/10.1021/acs.jpcc.9b07486
3	The Journal of the Electrochemical Society	Scopus/SC I	1945-7111 (web)	Redox Active Cobalt-Bipyridine Metal work-Nafion Coated Carbon Nanotubes for Sensing Ascorbic Acid	29 September 2018 / doi.org/10.1149/2.0661813jes
4	The Journal of the Electrochemical Society	Scopus/SC I	1945-7111 (web)	Aquotrisc(benzotriazole)sulfatocopper(II) benzotriazole framework assembled on multiwalled carbon nanotubes through $\pi$ - $\pi$ interaction for H <sub>2</sub> O <sub>2</sub> sensing in ph 7 buffer Solution	20 September 2017/ doi.org/10.1149/2.011713jes
5	ChemElectroChem	Scopus/SC I	2196-0216	Redox-active copper-benzotriazole stacked multiwalled carbon nanotubes for the oxygen reduction reaction	14 June 2018/ doi.org/10.1002/celec.201800754
6	The Journal of Physical Chemistry C	Scopus/SC I	1932-7455 (web)	An unusual electrochemical reductive cleavage of azodye into highly redox active copolymeric aniline derivatives on a MWCNT modified electrode surface in neutral pH and its electro-analytical features	17 March 2015/ doi.org/10.1021/acs.jpcc.5b00612
7	Langmuir	Scopus/SC I	1520-5827 (web)	Electrochemical behaviour of 1,10 Phenanthroline ligand on MWCNT surface and its relevant electrochemistry for selective recognition of copper ion and hydrogen peroxide sensing	13 August 2014/ doi.org/10.1021/la502651w
8	Chemistry—A European Journal	Scopus/SC I	1521-3765	An iron impurity in multiwalled carbon nanotube complexes with	06 November 2013/ doi.org/10.1002/chem.201303075

				chitosan that biomimics the heme-peroxidase function	
9	The Journal of Physical Chemistry C	Scopus/SC I	1932-7455 (web)	Improved electric wiring of hemoglobin with impure-multiwalled carbon nanotube/nafion modified glassy carbon electrode and its highly selective hydrogen peroxide biosensing	October 17, 2012/ doi.org/10.1021/jp3064933
10	The Journal of Electroanalytical Chemistry	Scopus/SC I	1572-6657	Selective covalent immobilization of catechol on activated carbon electrodes	22 December 2009/ doi.org/10.1016/j.jelchem.2009.12.016

### WEBINARS [National/International]

S.no.	Organized by	State/National/International	Topic	Date(s)
1	Easwari Engineering College	National	Chemistry in Everyday Life	May 23 <sup>rd</sup> , 2020

OTHERS:

#### Book Chapter:

In Handbook of Functional Nanomaterials. Volume 3 - Application and Development, (Ed. M. Aliofkhazraei), Chapter 15. Organic Redox Mediators Functionalized CNT Chemically-Modified Electrodes for Electrochemical Applications, Nova Science Publishers Inc., USA (2013) (pp 377-392). **ISBN: 978-1-62948-566-9**