Faculty Profile of Dr. C. Viswanathan

Dr. C. Viswanathan
Professor
Department of Nanoscience and Technology

Email:viswanathan@buc.edu.in

Phone No:+91-422-2428 422

Mobile No:9952661338

Research Area

- Thin film devices
- Nanomaterials for Electrochemical Biosensing Applications
- Nanomaterials for Electrochemical Chemical Sensors Applications
- Nanomaterials for Energy Storage and Energy Conversion Application

Education & Career

Education

Ph. D.
Subject : Physics
Institution : Department of Physics
Affiliated University : Bharathiyar University

Year of Award : 2005

M. Sc.,
Subject: Physics
Institution : Kongunadu Arts and Science College
Affiliated University : Bharathiyar University
Year of Award : 2000

B. Sc.,
Subject: Physics
Institution: Government Arts College, Salem
Affiliated University: University of Madras
Year of Award: 1997

Career

At Bharathiar University (Reverse Order)

Professor : Since January 2021

Associate Professor : January 2018 to January 2021
Assistant Professor : January 2008 to January 2018

Past Experience

Marie Curie Post-Doctoral Fellow (Experienced Researcher) : November 2006 to December 2007 at Institute of Micro Electronics (IMEL), *National Center for Scientific Research (NCSR)*, “DEMOKRITOS” Athens, Greece.
Post-Doctoral Fellow : October 2005 to October 2006 at Centre for National Research Scientific (CNRS), Institute Charles Sadron (ICS), University of Louis Pasteur (ULP), Strasbourg, France.

Awards

FELLOW OF THE ACADEMY OF SCIENCES CHENNAI *(FORMERLY TAMILNADU ACADEMY OF SCIENCES)*

TAMILNADU YOUNG SCIENTIST AWARD – 2017 Dept of Higher Education, Science City, Govt of Tamilnadu.

YOUNG SCIENTIST AWARD - 2016 ACADEMY OF SCIENCES CHENNAI **(** *FORMERLY TAMILNADU ACADEMY OF SCIENCES)*

***Best Faculty Award*, 2013 ,PK Das Memorial Award, Nehru Group of Institutions**

DST - *Young Scientist Award (2012)* – Fast Track Scheme, Department of Science and Technology **(DST)** - Science & Engineering Research Board **(SERB)**, Govt of India.

***Marie Curie Post-Doctoral Fellow* (Experienced Researcher),** MCRTN (Marie Curie Research Team Network) Institute of Micro Electronics (IMEL), *National Center for Scientific Research (NCSR)*, "DEMOKRITOS" Athens, Greece, Nov' 2006 – Dec' 2007

Post-Doctoral Fellow, Centre for National Research Scientific (CNRS), Institute Charles Sadron (ICS), University of Louis Pasteur (ULP), Strasbourg, France. Oct' 2005 – Oct' 2006

Project Fellow in a *University Grants Commission of India (UGC)* sponsored research project, Dept of Physics, Bharathiar University,

Coimbatore – 46. Aug' 2001 – Aug' 2004.

One of the *Best Poster Awards* 2nd International Conference on Advanced Nanomaterials and Nanotechnology (ICANN-2011), 08 - 10, December 2011, Organized by Department of Physics and Center for Nanotechnology, *Indian Institute of Technology (IIT*), Guwahati.

One of the *Best Poster Awards* National Seminar on Water Resources Development and Sustainable Management,23rd March 2015, Organized by Department of Department of Environmental Science, *Bharathiar University*, (Eureka Forbes Best Poster Award).

One of the *Best Poster Awards* National Conference on Emerging Biomaterials (NCEB 2016) held on 19.10.2016 to 21.10.2016 at Department of Nanoscience & Technology, *Bharathiar University*, Coimbatore.

One of our image "Zinc Oxide Moon" has got selected/awarded Honorary mention in NanoArtography competition 2020. (2021 A.J. Drexel Nanomaterials Institute Calendar, https://nano.materials.drexel.edu/wp-content/uploads/2020/11/2021-Calendar.pdf)

Membership

Member in

Magnetic Society of India,

Biosensor society of India,

Electrochemical society of India

Board of Studies Member in

Nanoscience and Technology, Medical biotechnology, Bharathiar University, Kongunadu Arts and Science college, Coimbatore. KSR college of Technology, Tirunchengodu.

Doctoral Committee Member in

Anna University, Chennai (Govt College of Technology (GCT) & Coimbatore Institute of Technology (CIT), Dept of Physics, Coimbatore. Vellore Institute of Technology (VIT), SRM University, Chennai, PSG Tech etc.

Panel of Question Paper Setter in

Karunya University, Coimbatore.,KSR College of Technology, Tiruchengode., Chettinad Hospital and Research Institute, Chennai.

Pondicherry Central University, Pondicherry. Anna University, Chennai

Professional Bodies

Society for Advancement of Electrochemical Science and Technology (SAEST)
Life fellow member
Period: Since 2018

Visits

- Dept of Physics, National University of Singapore (NUS), Singapore.
- Dept of Chemistry, University of Manchester, Manchester, United Kingdom (UK).
- Dept of Chemistry, University of Birmingham, Birmingham, United Kingdom (UK).
- Dept of Physics/Centre for Nanoscience, University of Kassel, Kassel, Germany.
- Institute of Physical Chemistry (IPC), NCSR “DEMOKRITOS”, Athens, Greece.
- Institute Charles Sadron , (ICS), Strasbourg, France.

Collaborators

CECRI, Karaikudi, INDIA

Dept of Nanoscience and Technology, Pondicherry University

Bio-MEMS and Microsystems Laboratory, Department of Electrical and Computer Engineering, Florida International University, Miami, FL, USA

VIT, Vellore

AMIRTHA UNIVERSITY, COIMBATORE

ALAGAPPA UNIVERSITY

UNIVERSITY OF MADRAS

Others

Reviewer in

Materials Research Bulletin

Materials Science in Semiconductor processing Physica E

Sensor Letters

Iranian Polymer Journal Analyst

Electrochemical Acta

Thin Solid Films

Advanced Materials Letters

Polymer Composites

Journal of Materials Chemistry B Analytical Methods

Journal of Physics and Chemistry of Solids

ACS sensors

ACS Catalysis

ACS Applied Nanomaterials

Projects

Funded Projects (National Level)

- Ongoing
- Completed

Title of the Project : Developing Ordered Assembly of Metal Oxide – Polyaniline Nano Hybrid Materials for Multiple Biomarkers Detection in Diabetes Health Monitoring Systems
Agency : TANSCHE, Govt of Tamilnadu Provisionally Approved
Period : 2020-2022 On going
Amount : Rs. 17,71,750/-

Title of the Project : Establishment of wearable sensor technology for the development of point of care devices
Agency : Rashtriya Uchchatar Shiksha Abhiyan (RUSA 2.0) - Bharathiar Entrepreneurship Innovation and Career Hub (BEICH); DT 26.12.2019
Period : 2019-2020 Ongoing
Amount : Rs. 8,00,000

Title of the Project : Synthesis and Analysis of polyamine coated ZnO nanoparticles formulations for seed priming to raise drought tolerance in radish (Raphanus sativus L.)
Agency : Ministry of Science and Technology Department of Bio Technology (DBT)
Period : 2021-2024 Ongoing
Amount : Rs. 38,00,000/-

Title of the Project : Controlled Growth of Single Crystalline V2O5 nanorod arrays for High Storage Capacity Li-Ion Batteries,
Agency : University Grants Commission (UGC)
Period : 2009-2011
Amount : Rs.8,39,600/-

Title of the Project : Langmuir Blodgett Assembly of Ordered Tin oxide / Graphene Nanocomposites film for Energy Storage Applications
Agency : Department of Science & Technology (DST) under Fast Track Scheme for Young Scientist (SR/FTP/PS-153/2011, Dated Sep 26, 2012
Period : 2012-2015
Amount : Rs. 21,00,000/-

Title of the Project : Defence Research Development Organization (DRDO)ERIP/ER/0903791/M/01/1198
Agency : Preparation and characterization of Zinc Oxide Nanorods for Ultra-Violet (UV) Sensor Applications
Period : 2010-2013
Amount : Rs. 8,90,000/-

Title of the Project : Fabrication of novel nanoparticle / thin film alternatively layered coatings of metal oxides
Agency : Council of Scientific & Industrial Research (CSIR) 03 (1374)16/EMR-II, 29.11.2016
Period : 2017-2020
Amount : Rs. 20,00,000/-

Title of the Project : Department of Science & Technology (DST-SERB) Science and Engineering Research Board
Agency : Au decorated WO3/Graphene nanohybrids as high efficient photoelectrochemical water splitter for hydrogen production
Period : 2017-2020
Amount : Rs. 47,00,000/-

Title of the Project : Establishment of wearable sensor technology for the development of point of care devices
Agency : RUSA 2.0
Period : 2019-2020
Amount : Rs. 8,00,000/-

Title of the Project : Development of electrochemical wearable biosensor in human sweat metabolomics for the detection of biomarker
Agency : Department of Science & Technology (DST-SERB - CRG) Science and Engineering Research Board, Core Research Grant
Period : 2019-2022
Amount : Rs. 35,00,000/-

Consultancy Projects

- Ongoing
- Completed

Ongoing Consultancy Project Informations
Completed Consultancy Project Informations

Research Guidance

- Post-Doc
- Ph.D.
- M.Phil.
- M.Sc.,

ONGOING

1. Mr. Nikhil.Prabhakar

Research Field: Nanomaterials for Energy storage and Conversion.

Date of joining: October 2019

2. Mr. K. Prabhu

Research Field: Nanomaterials for Biosensors.

Date of joining: January 2021

3. Mr. Lakshminarayanan. M

Research Field: Nanomaterials for Electrochemical Biosensors.

Date of joining: January 2021

4. Mr. Vasanth .S

Research Field: Nanomaterials for Electrochemical Biosensors.

Date of joining: January 2021

5. Ms. Bhuvaneshwari. G

Research Field: Nanomaterials for Electrochemical Biosensors.

Date of joining: December 2021

6. Ms. Akshaya. E.U

Research Field: MOFs Based Energy Conversion Application

Date of joining: December 2022

7. **Mr. Mohankumar. G**

Research Field: Nanomaterials for Electrochemical Chemical Sensors.

Date of joining: August 2023

AWARDED

1. **Dr. P. Manivel**

Thesis Title: Development of conducting polymer nanocomposites and evaluation of their properties for bio-sensor applications

Degree Awarded in April 2014

2. **Dr. D. Vasanth Raj**

Thesis Title: Systematic Investigations on the properties and applications of nanostructured SnO2 and V2O5 thin films
Degree Awarded in August 2014

3. **Dr. B.V. Mohan Kumar**

Thesis Title: Controlled growth, Surface modified Multiwalled Carbon Nanotubes and its performance for Energy storage applications
Degree Awarded in February 2016

4. **Dr. S.Viji**

Thesis Title: Diatom Frustules: Optimization, Characterization and Transducer Application in Biosensing - A Nanotechnological Approach
Degree Awarded in February 2017

5. **Dr. R. SRIRAMPRABHA**

Thesis Title: Development of self-assembled and chemically derived nickel oxide based nanocomposites for electrochemical glucose sensors
Degree Awarded in January 2019

6. **Dr. M.Sekar**

Thesis Title: Carbon fiber Based Electrochemical Immunosensor for Sweat Cortisol Detection
Degree Awarded in July 2019

7. **Dr. J.A.Allen**

Thesis Title: Environmental Remediation, Valorization and Cytotoxic Evaluation mediated by Nanostructured Zinc Oxide and its Hybrid on castoff cigarette filters

Degree Awarded in November 2019

8. **Dr. M.Divagar**

Thesis Title: Development of Nanostructured MnO2 based Self-Operating Electrochemical Biosensor
Degree Awarded in December 2019

9. **Dr. D.Murugasan**

Thesis Title: RF Magnetron Sputtered MoO3 Nanostructured Thin Films on

Flexible Substrates for Multifunctional Applications
Degree Awarded in January 2020

10. Dr.P.Sivasakthi

Thesis Title: Preparation and characterization of Zinc based Nanostructured Thin Films for Electrochemical Detection of Gallic Acid

Degree Awarded in October 2021

11. Dr. H. Amir

Thesis Title: Simultaneous detection and degradation of nicotine using a photoelectrochemical method

Degree Awarded in April 2023

1 : Ms. S.Sathyapriya
Thesis Title: Synthesis and Characterization of Nanostructured Zinc Oxide
Thesis Awarded in 2008

2 : Ms. J. Jayasree
Thesis Title: Ellipsometric analysis on Optical properties of Silver Thin Films
Thesis Awarded in 2008

3 : Ms.V.Ramya
Thesis Title: A New Approach to Synthesize Eu2O3, CeO2 – Eu2O3 Composite Nanorods by Two Stage Chemical Precipitation and Study its Structural, Morphological and Optical Properties
Thesis Awarded in 2009

4 : Ms.T.Sindhu
Thesis Title: Synthesis, Characterization and Toxicological studies of CdO Nanoparticles
Thesis Awarded in 2009

5 : Ms.K.Vidhya
Thesis Title: Synthesis and Photoluminescence Characterization of Pure

and Polymers Encapsulated Zinc Oxide Nanoparticles and Its Antimicrobial Activity
Thesis Awarded in 2009

6 : Mr.K.Sivashanmugan
Thesis Title: In Vitro Toxicity Studies of Silver Nanoparticles Stabilized with Trisodium Citrate, Polyvinyl Pyridine (PVP), Polyethylene Glycol (PEG) and Bovine Serum Albumin (BSA)
Thesis Awarded in 2009

7 : Ms. Nandhinidevi. V
Thesis Title: Electrodeposition of V2O5 Nanostructures for Lithium-Ion Battery Application
Thesis Awarded in 2010

8 : Ms. Sasi. R
Thesis Title: Synthesis of Cerium Oxide Nanoparticles With High Specific Surface Area and Its Application Towards Biodiesel Production
Thesis Awarded in 2010

9 : Mr. P. Sivakumar
Thesis Title: Facile electrodeposition of CeO2 nanorod arrays modified electrode for electrochemical detection of dopamine
Thesis Awarded in 2010

10: Ms. K.Sathyapriya
Thesis Title: Evaluation Of Antibacterial Activity Of Prepared Tin Oxide Nanostructured Thin Films
Thesis Awarded in 2011

11: Ms. S.Suganthi
Thesis Title: Solvothermal Method For Large Scale Synthesis Of Monodispersed Spherical Fe3O4 Nanoparticles And its Application In Antimicrobial Activity
Thesis Awarded in 2011

12: M.DIVAGAR
Thesis Title: Preparation of nanostructured MnO2 thin films by electrodeposition method and its electrochemical studies
Thesis Awarded in 2012

13: R. KRISHNA KUMAR
Thesis Title: Synthesis and characterization of graphene oxide and chemically reduced graphene oxide
Thesis Awarded in 2012

14: M. JOSE ANNSI
Thesis Title: Zinc doped cupric oxide (cuo) nanostructures: photodegradation of organic pollutants
Thesis Awarded in 2012

15: A.ASHWINI
Thesis Title: Synthesis and Characterization of Perovskite LaMnO3Nanoparticles: A Systematic Investigation on Morphology Dependent Photocatalytic Activity
Thesis Awarded in 2012

16: V.RAJA PREETHY
Thesis Title: Magnetic and Electrochemical Properties of Carbon Coated Zinc Ferrite Nanospheres
Thesis Awarded in 2013

17: S.Krishna Moorhty
Thesis Title: Facile Synthesis and Physicochemical Properties of GO/ ZnO2, GO/ SnO2 and GO/ZnO2/SnO2 nanocomposites and their visible-light photocatalytic activity
Thesis Awarded in 2014

18: D.Aravinth
Thesis Title: Synthesis and Characterization of MnO2 / Pyrrole nanocomposite for H2O2 sensing
Thesis Awarded in 2014

19: Seetha T.S.
Thesis Title: A Study on Bioglass-Ceramic Electrophoretic Coatings on Surgical Grade 316L SS for its Corrosion Resistance in Simulated Body Fluid Environment
Thesis Awarded in 2014

20: H.Amir
Thesis Title: RF Magnetron Sputtered Nano Zinc Oxide Thinfilm Modified Flourine Doped Tin Oxide Electrode: Preparation , Characterization and Its

Electrochemical Sensing Application
Thesis Awarded in 2016

20 J.Sri Priya
Thesis Title: preparation and characterization of nickle oxide nanostructured thin films for electrochromic applications

Thesis Awarded in 2017

21. G. Mohankumar

Thesis Title: Rf sputtered tungsten oxide (wo3) thin film-modified electrode for the electrochemical detection of acephate

Thesis Awarded in 2021

1 : D.Vasanthan
Thesis Title: Polymer based Superparamagnetic Magnetite nanoparticles for Cancer Therapy
2008-2009

2 P.Manivel
Thesis Title: Synthesis of Novel 2,3,5,6-tetrakis (Morpholinomethyl) Hydroquinone for the preparation of Metallic Silver Nanoparticles By Reduction Method
2008-2009

3 P.Ramesh
Thesis Title: Preparation and Characterization of Chitosan Nanoparticle and its Toxicological Studies in MICE
2008-2009

4 D.Kannan
Thesis Title: Dielectric Property Studies of Cobalt Ferrite Nanoparticles Synthesized by Co-Precipitation Method
2008-2009

5 K.Dhanabalan
Thesis Title: Synthesis and Characterization of Zero Valent Iron (Feo)

Nanoparticles for Dechlorination
2008-2009

6 J.Franklin Josiah
Thesis Title: Multilayer Antireflection Coating By Using Physical Vapor Deposition Method
2008-2009

7 Anjali Paravanoor
Thesis Title: Controlling the dispersion and frictional behaviour through adsorption of polyelectrolytes on layered nanoparticles (Kaolin, serpentine and halloysite clay)
2009-2010

8 M.Dinesh
Thesis Title: White Light Emitting Europium Doped Zinc Oxide Nanoparticles
2009-2010

9 S.Kalpana
Thesis Title: Cobalt Nickel Alloy nanoclusters Synthesis and Characterization
2009-2010

10 K.Karthika
Thesis Title: Synthesis of Polymer Based Spherical Carbonized Polymeric Micro/Nano porous Beads for Enviornmental and Pharmaceutical Applications

2009-2010

11 C.Revathi
Thesis Title: ZnO Nanowires: Synthesis, Characterization and its Sensor applications
2009-2010

12 P.Sivakumar
Thesis Title: Spectroscopic and Imaging Analysis of Functionalized Carbon Nanotubes for Nanodevice
2009-2010

13 M.Ganesh Kumar
Thesis Title: Study on patterning of sol-gel based Zn1-xMgxO thinfilms by

capillary force soft lithography
2010-2011

14 P.Nandha Kumar
Thesis Title: Development of silver based chemical sensor for the detection of Nitro Compounds in Explosive
2010-2011

15 N.Seetha lakshmi
Thesis Title: Preparation and Characterization of Biopolymeric nanoparticles
2010-2011

16 R.Suriyaprabha
Thesis Title: Study of adsorption and release of IBUPROFEN on Hydroxyapatite nanoparticles
2011-2012

17 N.Pratheep Kumar
Thesis Title: Nanocrystalline porous silicon based integrated MEMS pressure and temperature sensor
2011-2012

18 B.Kathirvel
Thesis Title: Facile synthesis of p-type SiNWs/Zno for the photodiode applications
2011-2012

19 S.Janani
Thesis Title: Silver coated ZnO nanostructures for SERS studies
2012-2013

20 M.Kumutha
Thesis Title: Synthesis and characterization of ZnSnO3 – CeO2cubic structures for sensing applications
2012-2013

21 S.Keerthika
Thesis Title: Influence of graphite on flame&Fire retardance of porous PVA membrane
2012-2013

22 PR.Kalees Warran
Thesis Title: Synthesis and characterization of sol-gel based nanostructured pure & Doped Snoxide thinfilms for gas sensing application
2012-2013

23 Martina Susan
Thesis Title: Application of Nano bioactive glass as a drug delivery System
2013-2014

24 G.Rajendrakumar
Thesis Title: Preparation and characterization of Graphene by Milling of graphite
2013-2014

25 K. Vijayalakshmi
Thesis Title: Synthesis and characterization of polyaniline –para-toluene sulfonate and polyaniline –campour sulfonate Salts
2013-2014

26 S.Mahalakshmi
Thesis Title: Synthesis and characterization of nanocapsule based on layer by layer assembly using manganese carbonate as a template
2014-2015

27 Mohanapriya.S
Thesis Title: Vanadium oxide thin films by pulsed DC reactive magnetron sputtering for electrochromic applications
2015-2016

28 Malini. M
Thesis Title: Green synthesis and characterization of iron oxide nanoparticles
2015-2016

29 G. Harith
Thesis Title: Fe2TiO5 as Anode Material for Li and Na ion batteries
2015-2016

30 N.Santhiya
Thesis Title: Synthesis and characterization of chitosan/Fe3O4/Pd nanocomposite as catalyst towards 4-nitrophenol reduction

2016-2017

31 G.Sharmila
Thesis Title: One step synthesis of Curcumin conjucted Au QCs & Ag QCs and their applications
2016-2017

32 R.Gokilavani
Thesis Title: Biosynthesis and characterization of copper oxide nanoparticles using ipomoea pes-caprae
2016-2017

33 D. Nivetha
Thesis Title: Synthesis and Characterization of Nickel Oxide/Polyaniline nanocomposite for optical glucose sensing
2017-2018

34 C Koventhan
Thesis Title: Electrodeposited nickel oxide-reduced graphene oxide for non-enzymatic glucose sensing application
2017-2018

35 S Madhumathi
Thesis Title: TiO2 nanoflower integrated conductive carbon yarn as binder free electrode for sensitive and selective detection of cortisol

2017-2018

36 D.Ajith Kumar
Thesis Title: RF Magnetron sputtered nano structured WO3 thin film modified fluorine doped tin oxide electrode: preparation and characterization and its electrochemical sensing applications
2018-2019

37 N.Mohammed Arsath Arief
Thesis Title: RF Magnetron sputtered nano structured TiO2 thin film modified stainless steel electrode: preparation and characterization and its electrochemical sensing application
2018-2019

38 S.Nandhini
Thesis Title: Nanostructured SnO2 Integrated Carbon Yarn As a Binder Free

Electrode for Cortisol Detection
2018-2019

39. V. Sakthivel

Thesis Title: Tungsten oxide thin films grown by Thermal Evaporation Method: Preparation, Characterization and its Electrochemical Sensing Application.

2019-2020

40.A. Mohanaramu

Thesis Title: RF Magnetron sputtered TiO2 Thin Film modified stainless steel Electrode: Preparation, Characterization and its Electrochemical sensing Application.

2019-2020

41. P. Vishwa@maheswari

Thesis Title: Selectivity Enhanced Gallic acid Electrochemical detection on RF Magnetron Sputtered ZnO/GS Thin Film: Influence of Substrate

2019-2020

42. M. Kavithanjali

Thesis Title: Space Charge Effect on the Conductivity of the Electrolytes BaZrO3 and BaCeO2 for Solid oxide Fuel Cell Application.

2019-2020

43. Bhuvaneshwari G

Thesis Title: Electrochemical Detection of nicotine based on CuO nanoparticle

2020-2021

44. Mohankumar G

Thesis Title: Electrochemical galic acid sensing behavior of ZnS thin fims by chemical bath deposition method

2020-2021

45. Roshan Johns J

Thesis Title: Development of SnO2-based$_2$ based chemiresistive gas sensor for selective ammonia

2020-2021

46. Santhoshkumar R

Thesis Title: High-Performance Asymmetric Supercapacitor based on NiS/GS Nanoparticles

2020-2021

47. Sneha A.R

Thesis Title: Development of nitrogen enhanced carbon quantum dots based immunosensor for HER-2 breast cancer biomarker detection

2021-2022

48. Aishwarya R

Thesis Title: Rapid detection of Nicotine using Cerium Oxide Quantum dot coated graphite sheet based Photoelectrochemical sensor

2021-2022

49. Mahalakshmi M

Thesis Title: Influence of nanoscale architecture on ionic diffusion based SWCNT/ PANI structural electrodes

2021-2022

50. Nanda Kumar S

Thesis Title: Fabrication of Fe2O3 Modified Carbon Yarn as Textile based electrode for Electrochemical Detection of Cancer biomarker

2022-2023

51. Vaishnavi M

Thesis Title: Synthesis of Magnesium oxide -Polypyrrole nanofiber composite by In-situ chemical polymerization for Supercapacitor Application

2022-2023

52. Sankarapandi A

Thesis Title: Influence on nanoscale advance of mwcnt/ zro2 nanocomposite for boosting specific capacitance of supercapacitor

2022-2023

53. Vanitha. C

Thesis Title: Synthesis and Characterization of WO3 Nanoparticles using Hydrothermal Methodb at Different Time Duration for Electrochemical Biosensing Applications

2022-2023

1. Dr. Sornambikai.S
UGC Dr. D.S. Kothari Post Doctoral Fellow
Period:2016-2018

2. Dr. Sornambikai.S
RUSA-BCTRC
Period: 2021-2022

Research Publication

- International
- National
- Patents
- Conferences
- Books/Chapters
- Database

2023

1. **Synthesis effect on Surface functionalized Ti_3C_2Tx MXene supported Nickel Oxide nanocomposites with enhanced specific capacity for supercapacitor application**.

Authors: Nikil, Vasanth, N.Ponpandian, C Viswanathan,

Journal of Energy Stroage, 72, (2023), 108414.

2. **Hydrogen spillover effect-Harnessing Hydrogen Evolution Reaction from Diverse Carbon-based Supports with Tungsten Oxide Catalyst**

Authors: R Rajalakshmi, G Srividhya, Viswanathan C, N Ponpandian,

Journal of Materials Chemistry A, 11, (2023), 15889-15905..

3. **The intriguing Bifunctional effect of Strong Metal Support Interaction (SMSI) and Hydrogen Spillover Effect (HSPE) for effective Hydrogen Evolution Reaction,**

Authors: R Rajalakshmi, G Srividhya, C Viswanathan, N Ponpandian,

Applied Catalysis B: Environmental, 339, (2023), 123089

4. **Vertically pillared α-Fe_2O_3 nanorods on carbon yarn as a textile-based stable immunosensor electrode for selective electrochemical sensing of interleukin-6 cancer biomarker.**

Authors: K Prabhu, M Lakshminarayanan, G Mohankumar, N Ponpandian, C Viswanathan

Sensors and Actuators A: Physical 357, (2023), 114419

5. **Modulating the electronic structure of MoS_2/NiS_2 by functionalizing it over the N-doped reduced GO to improvise the catalytic hydrogen evolution.**

Authors:R Murugan, A Rebekah, D Navadeepthy -

International Journal of Hydrogen Energy, 2023

6. **CRISPR based biosensing: An ultrasensitive theranostic tool for the detection of early Breast Cancer biomarkers–A mini review.**

Authors:S Sornambikai, KP Divya, S Vasanth, C Viswanathan, N Ponpandian.

Biosensors and Bioelectronics: X, 100367

7. **Single-step synthesis of Mn_3N_2, MnxON and Mn_3O_4 nanoparticles by thermal plasma arc discharge technique and their comparative study as electrode material for supercapacitor.**

Authors: L Kumaresan, KS Harshini, H Amir, G Shanmugavelayutham.

Journal of Alloys and Compounds 942, 169121

8. **CeO_2 Nanoparticles Modified on Graphite Sheet Electrodes for Photoelectrochemical Tobacco Wastewater Detection, Degradation, and Toxicity Measurement.**

Authors: Humayun Amir, Nikhil Prabhakar, Govindhan Thiruppathi, Palanisamy Sundararaj, Nagomony Ponpandian, and Chinnuswamy Viswanathan

ACS Applied Nano Materials 2023 6 (6), 4864-4874 DOI: 10.1021/acsanm.3c00600

9 .I**nterfacial charge separation of nickel tungstate anchored on g-C_3N_4 heterojunction stimulates visible-light driven direct Z-scheme photoelectrochemical hydrogen evolution**

Authors:ST Sathiya Bama Sundararaj , Humayun Amir , Viswanathan Chinnusamy.

International Journal of Hydrogen Energy.

10.**MXene supported biomimetic bilayer lipid membrane biosensor for zeptomole detection of BRCA1 gene,**

Authors: KP Divya, S Keerthana, C Viswanathan, N Ponpandian,

Microchimica Acta 190 (4),116. 2023

11. **Enhanced bifunctional aspects of oxygen vacancy rich cation substituted $MnCo_2O_4$ intercalated with g-C_3N_4 as an oxygen evolution and supercapacitor electrode,**

Authors: A Rebekah, H Amir, C Viswanathan, N Ponpandian,

International Journal of Hydrogen Energy 48 (16), 6384-6398

12. **Electrodeposition of SnO_2 nanostructures onto copper substrates and their electrochemical properties,**

Authors: DV Raj, N Ponpandian, C Viswanathan,

Materials Science and Technology, 1-11,2023

13. **Effect of gamma-ray irradiated reduced graphene oxide (rGO) on environmental health: An in-vitro and in-vivo studies,**

Authors: S Sivaselvam, A Mohankumar, R Narmadha, R Selvakumar, P Sundararaj, ,

Environmental Pollution 318, 120933,2023

14. **Bimetallic Coreshell-Hemoglobin Complex Immobilized MXene Based Voltammetric Biosensor for the Electrochemical Detection of Acrylamide,**

Authors: KP Divya, S Keerthana, C Viswanathan, N Ponpandian,

Journal of The Electrochemical Society 169 (12), 127510,2022

15.**Electrochemical impedimetric immunosensor based on stabilized lipid bilayer–tethered WS_2@MWCNT for the sensitive detection of carcinoembryonic antigen,**

Authors: S Keerthana, KP Divya, A Rajapriya, C Viswanathan, N Ponpandian,

Microchimica Acta 189 (12), 450

2022

16. **Diatom Frustules: A Transducer Platform for Optical Detection of Molecules**

Authors:S Viji, N Ponpandian, C Viswanathan.

Diatom Microscopy, 283-305

17. **Hybrid nanostructures of WS_2 nanoflowers on N, B co-doped rGO for sensitive amperometric detection of Nilutamide,**

Authors: S Keerthana, A Rajapriya, C Viswanathan, N Ponpandian,

Materials Today Chemistry 26, 101052,5,2022.

18.Fluorescence quenching mechanism of P-doped carbon quantum dots as fluorescent sensor for Cu^{2+} ions,

Authors: M Preethi, C Viswanathan, N Ponpandian,

Colloids and Surfaces A: Physicochemical and Engineering Aspects 653, 129942,3,2022.

19.**Influence on effective and ineffective delamination of MXene (Ti_3C_2Tx) by tightly anchoring tin oxide nanocomposite for boosting the specific capacitance of supercapacitor,**

Authors: N Prabhakar, A Rajapriya, N Ponpandian, C Viswanathan,

Journal of Alloys and Compounds 921, 166092,2 2022

20. **.Novel palladium-decorated molybdenum carbide/polyaniline nanohybrid material as superior electrocatalyst for fuel cell application,**

Authors: M Duraisamy, E Mari, V Chinnuswamy, S Senthilkumar, YC Lin,

International Journal of Hydrogen Energy 47 (88), 37599-37608,3,2022.

21. .**Plasma assists titanium nitride and surface modified titanium nitride nanoparticles from titanium scraps for magnetic properties and supercapacitor applications.**

Authors: L Kumaresan, H Amir, G Shanmugavelayutham, C Viswanathan,

Ceramics International 48 (20), 30393-30406.

22. **Potato starch derived N-doped carbon quantum dots as a fluorescent sensing tool for ascorbic acid,**

Authors: M Preethi, R Murugan, C Viswanathan, N Ponpandian,

Journal of Photochemistry and Photobiology A: Chemistry, 2022, 431, 114009.

23. **Three dimensional integrated architecture of SrFe LDH on hierarchical NiS framework as a flexible electrode for efficient energy storage and conversion applications,**

Authors: A Rajapriya, S Keerthana, C Viswanathan, N Ponpandian,

Journal of Energy Storage, 2022, 53, 105091.

24. **Systematic Review on Electrochemical Biosensing of Breast Cancer miRNAs to Develop Alternative DCIS Diagnostic Tool,**

Authors: Sundaram Sornambikai, H Amir, Bhuvaneshwari Guruswami, Nagamony Ponpandian, C Viswanathan,

ECS Sensors Plus, 2022,

25. **Engineering the semiconducting CdS nanostructures by N-doped**

rGO for enhancing the adsorption sites: Promising electrocatalyst for hydrogen evolution reaction,

Authors: R Murugan, A Rebekah, JA Allen, M Preethi, C Viswanathan, N Ponpandian,

International Journal of Hydrogen Energy, 2022, 47(36) 16106-16120

26. **One-step preparation of N-doped grapheme quantum dots with high quantum yield for bioimaging and highly sensitive electrochemical detection of isoniazid.**

Authors: S Sivaselvam, C Viswanathan, N Ponpandian,

Biomaterials Advances, 2022, 212731

27. **SnO_2 nanoflakes deposited carbon yarns based electrochemical immunosensor towards cortisol measurement,**

Authors: M. Sekar, R. Sriramprabha M. Pandiaraj, N. Ponpandian, and C. Viswanathan,

Journal of Nanostructure in Chemistry, 2022

28. ***Waste cigarette butt derived Carbon/Magnesium oxide nanocomposite as potential adsorbent for the removal of ciprofloxacin from waste water***

Authors: C Viswanathan, N Ponpandian

Materials Letters , 2022.

–

29.**A metal-free, dual catalyst for the removal of Rhodamine B using novel carbon quantum dots from muskmelon peel under sunlight and ultrasonication: A green way to clean the environment,**

Authors: M. Preethi, C Viswanathan, N Ponpandian,

Journal of Photochemistry and Photobiology A: Chemistry, 426, 113765.

30. **TiO_2 anchored carbon fibers as non-invasive electrochemical sensor platform for the cortisol detection.**

Authors: M. Sekar, R. Sriramprabha M. Pandiaraj, N. Ponpandian, and C. Viswanathan.

Materials Letters 308, 131238.

31. **Evolution of intrinsic 1-3D WO_3 nanostructures: Tailoring their phase structure and morphology for robust hydrogen evolution reaction.**

Authors: R Rajalakshmi, A Rebekah, C Viswanathan, N Ponpandian.

Chemical Engineering Journal 428, 132013.

32. **Revealing the Role of Brønsted Basicity by the Electrocatalytic Reaction via Li Insertion in the $MgFe_2O_4$ Lattice**

Authors: Saravanakumar Tamilarasan, S. J. Sardhar Basha*, Sathiya Bama Sundararaj, Humayun Amir, Viswanathan Chinnusamy, and Selvaraju Thangavelu.

The Journal of Physical Chemistry C 2022, 126, 29, 11915–11926

2021

33..Investigation of morphologically tuned Sb2S3 nanostructures as an effective electrocatalyst for hydrogen evolution reaction
Authors: Murugan, R., A. Rebekah, J. A. Allen, C. Viswanathan, and N. Ponpandian.
Colloids and Surfaces A: Physicochemical and Engineering Aspects 622 (2021): 12661

34.Langmuir-Blodgett deposited Na3V2(PO4)3-MnO2 nanocomposite thin film electrodes for hybrid energy storage application,
Authors:M. Divagar, N. Ponpandian, C. Viswanathan,

Materials Science and Engineering: B, 270, 115229, (2021).

35. Rapid one-pot synthesis of PAM-GO-Ag nanocomposite hydrogel by gamma-ray irradiation for remediation of environment pollutants and pathogen inactivation,
Authors:S. Sivaselvam, R. Selvakumar, C. Viswanathan, N.Ponpandian, Chemosphere, 275, 130061, (2021).

36.WS2 hierarchical nanoflowers on rGO with enhanced electrochemical performance for sensitive and selective detection of mesalazine in real sample analysis,

Authors:S. Keerthana, A. Rajapriya, S. Amirthapandian, C. Viswanathan, N. Ponpandiana,
Colloids and Surfaces A: Physicochemical and Engineering Aspects, 618, 126452, (2021),

37.Highly stable and selective LaNiO3 nanostructures modified glassy carbon electrode for simultaneous electrochemical detection of neurotransmiting compounds,
Authors:S. Priyatharshni, D. Navadeepthy, G. Srividhya, C. Viswanathan, N. Ponpandian,
Colloids and Surfaces A: Physicochemical and Engineering Aspects, 618, 126387, (2021)

38.Removal of 1-napthylamine using magnetic graphene and magnetic graphene oxide functionalized with Chitosan,
Authors:A. Rebekah, D. Navadeepthy, G. Bharath, C. Viswanathan, N. Ponpandian,
Environmental Nanotechnology, Monitoring & Management, 15, 100450, (2021).

39.Boosting the kinetics of oxygen and hydrogen evolution in alkaline water splitting using nickel ferrite /N-graphene nanocomposite as a bifunctional electrocatalyst,
Authors:D. Navadeepthy, A. Rebekah, C. Viswanthan, N. Ponpandian,
International Journal of Hydrogen Energy, (2021).

40.A green path to extract carbon quantum dots by coconut water: Another fluorescent probe towards Fe3+ ions,
Authors:M. Preethi, C, Viswanathan, N, Ponpandian,
Particuology, (2021)

41.Investigation of morphologically tuned Sb2S3 nanostructures as an effective electrocatalyst for hydrogen evolution reaction,
Authors:R. Murugan, A. Rebekah, J. A. Allen, C. Viswanathan, N. Ponpandian,
Colloids and Surfaces A: Physicochemical and Engineering Aspects, 622, 126612, (2021).

42.Magnetic nanoparticle-decorated graphene oxide-chitosan composite as

an efficient nanocarrier for protein delivery,
Authors:A. Rebekah, S. Sivaselvam, C. Viswanathan, D. Prabhu, R. Gautam, N. Ponpandian,
Colloids and Surfaces A: Physicochemical and Engineering Aspects, 610, 125913, (2021).

43.NiCo2O4 nanoparticles inlaid on sulphur and nitrogen doped and co-doped rGO sheets as efficient electrocatalysts for the oxygen evolution and methanol oxidation reactions,
Authors:A. Rebekah, C. Viswanathan, N. Ponpandian,
Nanoscale Advances, (2021).

44.Enhanced electrochemical activities of morphologically tuned MnFe2O4 nanoneedles and nanoparticles integrated on reduced graphene oxide for highly efficient supercapacitor electrodes,
Authors: R. Rajalakshmi, K. P. Remya, C. Viswanathan, N. Ponpandian,
Nanoscale Advances, 3, 2887-2901, (2021).

2020

45.Direct growth of MoS2 hierarchical nanoflowers on electrospun carbon nanofibers as an electrode material for high-performance supercapacitors,
Authors: A. Rajapriya, S. Keerthana, C. Viswanathan, N. Ponpandian,
Journal of Alloys and Compounds, 859, 157771. (2021).

46.Fe2O3/polyaniline supramolecular nanocomposite: a receptor free sensor platform for the quantitative determination of serum creatinine,
Authors: R. Sriramprabha, M. Sekar, R. Revathi, C. Viswanathan, J. Wilson,
Analytica Chimica Acta, 1137, 103-114, (2020).

47. Substrate temperature induced enhanced selectivity and sensitivity for nanomolar gallic acid detection on RF magnetron sputtered ZnO/GS thin film electrode,
Authors:P. Sivasakthi, H. Amir, S. Sornambikai, N. Ponpandian, C. Viswanathan,
Sensors and Actuators A: Physical, 315, 112368, (2020).

48. Effect of CuO, MoO3 and ZnO nanomaterial coated absorbers for clean water production,

Authors:T. Arunkumar, D. Murugesan, C. Viswanathan, G. Neri, D. Denkenberger,
SN Applied Sciences, 2, 1709, (2020).

49. Enhanced removal of emerging pharmaceutical contaminant ciprofloxacin and pathogen inactivation using morphologically tuned MgO nanostructures,
Authors:S. Sivaselvam, P. Premasudha, C. Viswanathan, N. Ponpandian,
Journal of Environmental Chemical Engineering, 8 (5), 104256, (2020).

50. Morphologically tuned LaMnO3 as an efficient nanocatalyst for the removal of organic dye from aqueous solution under sunlight,
Authors: S. Priyatharshni, S. Rajesh Kumar, C. Viswanathan, N. Ponpandian,
Journal of Environmental Chemical Engineering, 8 (5), 104146, (2020).

51. Magnetic graphene/chitosan nanocomposite: a promising nano-adsorbent for the removal of 2-naphthol from aqueous solution and their kinetic studies,
Authors: A. Rebekah, G. Bharath, Mu. Naushad, C. Viswanathan, N. Ponpandian,
International Journal of Biological Macromolecules, 159, 530-538, (2020).

52. Tailoring the morphology and size of perovskite BiFeO3 nanostructures for enhanced magnetic and electrical properties,
Authors: K. P. Remya, D. Prabhu, R. Justin Joseyphus, A. Chandra Bose, C. Viswanathan, N.Ponpandian,
Materials & Design, 192, 108694, (2020).

53. Zn-substituted MnCo2O4 nanostructure anchored over rGO for boosting the electrocatalytic performance towards methanol oxidation and oxygen evolution reaction (OER),
Authors: A. Rebekah, S. Anantharaj, C. Viswanthan, N. Ponpandian,
International Journal of Hydrogen Energy, 45 (29), 14713-14727, (2020)

54. Review—towards wearable sensor platforms for the electrochemical detection of cortisol,
Authors: M. Sekar, R. Sriramprabha, Praveen Kumar Sekhar, S. Bhansali, N. Ponpandian, M.Pandiaraj, C. Viswanathan,
Journal of The Electrochemical Society, 167, 067508, (2020).

55. Mesoporous nickel oxide nanostructures: influences of crystalline defects and morphological features on mediator-free electrochemical monosaccharide sensor application,
Authors: R. Sriramprabha, M. Sekar, J. Wilson, N. Ponpandian, C. Viswanathan,
Nanotechnology, 31, 215501, (2020).

56. Effect of cation substitution in MnCo2O4 spinel anchored over rGO for enhancing the electrocatalytic activity towards oxygen evolution reaction (OER),
Authors: A. Rebekah, E. Ashok Kumar, C. Viswanathan, N. Ponpandian,
International Journal of Hydrogen Energy, 45 (11), 6391-6403, (2020).

57. Engineering the surface of graphene oxide with bovine serum albumin for improved biocompatibility in caenorhabditis elegans,
Authors: S. Sivaselvam, A. Mohankumar, G. Thiruppathi, P. Sundararaj, C. Viswanathan, N.Ponpandian,
Nanoscale Advances, 2, 5219-5230, (2020).

58. A nanocomposite of NiFe2O4–PANI as a duo active electrocatalyst toward the sensitive colorimetric and electrochemical sensing of ascorbic acid,
Authors: D. Navadeepthy, M. Thangapandian, C. Viswanathan, N. Ponpandian,
Nanoscale Advances, 2, 3481-3493, (2020).

2019

59. ZnO nanorod integrated flexible carbon fibers for sweat cortisol detection,
Authors: M. Sekar, J. A. Allen, R. Sriramprabha, M. Pandiaraj, S. Bhansali, N. Ponpandian, C.Viswanathan,
ACS Applied Electronic Materials, 2 (2), 499–509, (2020).

60. MnCo2O4-rGO hybrid magnetic nanocomposite modified glassy carbon electrode for sensitive detection of L-Tryptophan,
Authors: A. Rebekah, T. Kokulnathan, T. J. Wang, C. Viswanathan, N. Ponpandian,
Journal of The Electrochemical Society, 166 (10), B845, (2019).

61. Nitrogen doped carbon nanofibers loaded with hierarchical vanadium tetrasulfide for the voltammetric detection of the non-steroidal anti-prostate cancer drug nilutamide,
Authors: R. Kumuthini, T. Kokulnathan, S.M. Chen, J. A. Allen, C. Viswanathan, H. Annal Therese,
Microchimica Acta, 186, 141, (2019).

62. Two dimensional α-MoO3 nanosheets decorated carbon cloth electrodes for high-performance supercapacitors,
Authors: D. Murugesan, S. Prakash, N. Ponpandian, P. Manisankar, C. Viswanathan,
Colloids and Surfaces A: Physicochemical and Engineering Aspects, 569, 137-144, (2019).

63. Design and fabrication of MEMS based intracranial pressure sensor for neurons study,
Authors: N. Manikandan, S. Muruganand, M. Divagar, C. Viswanathan,
Vacuum, 163, 204-209, (2019).

64. Carbon fiber based electrochemical sensor for sweat cortisol measurement,
Authors: M. Sekar, M. Pandiaraj, S. Bhansali, N. Ponpandian, C. Viswanathan,
Scientific Reports, 9, 403, (2019).

65. Self-assembly of nanostructured hydroxyapatite spheres for photodegradation of methylene blue dye,
Authors: I. Reeta Mary, R. Leethiyal, P. Sekar, D. Mangalaraj, C. Viswanathan, N. Ponpandian,
Materials Today: Proceedings, 18, 1729-1734, (2019).

66. Comparative study of biological (phoenix loureiroi fruit) and chemical synthesis of chitosan-encapsulated zinc oxide nanoparticles and their biological properties,
Authors: R. Murugan, J. A. Allen, M. Kasipandi, K. Naveen Kumar, S. Saravanan, S. Saikumar, C.Viswanathan, T. Parimelazhagan, N. Narendra,
Arabian Journal for Science and Engineering, (2019).

67 Synthesis and characterization of hexagonal prism like zinc oxide for electrochemical determination of gallic acid in wine samples,
Authors: G. Kesavan, J. A. Allen, S. M. Chen, R. Kumuthini, T. W. Chen, C. Viswanathan, S. Y. Lee, W. H. Chang,
International Journal of Electrochemical Science, 14, 4769 – 4780, (2019).

68. α-MoO3 nanostructure on carbon cloth substrate for dopamine detection,
Authors: D. Murugesan, K. Moulaee, G. Neri, N. Ponpandian, C. Viswanathan,
Nanotechnology, 30, 265501, (2019).

69. Surface imprinted Ag decorated MnO2 thin film electrodes for the synergic electrochemical detection of bacterial pathogens,
Authors:M. Divagar, R. Sriramprabha, S. Sornambikai, N. Ponpandian, C. Viswanathan,
Journal of The Electrochemical Society, 166, G1, (2019).

70. Circumferential growth of zinc oxide nanostructure anchored over carbon fabric and its photocatalytic performance towards p-nitrophenol,
Authors: J. A. Allen, D. Murugesan, C. Viswanathan,
Superlattices and Microstructures, 125, 159-167, (2019).

2018

71. Effect of nano-coated CuO absorbers with PVA sponges in solar water desalting system,
Authors: T. Arunkumar, D. Murugesan, K. Raj, D. Denkenberger, C. Viswanathan, D. Dsilva Winfred Rufuss, R. Velraj,
Applied Thermal Engineering, 148, 1416-1424, (2019).

72. Highly selective and sensitive electrochemical detection of dopamine with hydrothermally prepared β-MnO2 nanostructures,
Authors: M. Divagar, R. Sriramprabha, N. Ponpandian, C. Viswanathan,
Materials Science in Semiconductor Processing, 83, 216-223, (2018).

73. Detection of typhoid fever by diatom-based optical biosensor,
Authors: S. Viji, A. Muthukumar, N. Ponpandian, C. Viswanathan,
Environmental Science and Pollution Research, 25, 20385–20390, (2018).

74. Amine-functionalized diatom frustules: a platform for specific and

sensitive detection of nitroaromatic explosive derivative,
Authors: S. Viji, T. Neethi, J. A. Allen, N. Ponpandian, C. Viswanathan,
Environmental Science and Pollution Research, 25, 20540–20549, (2018).

75. Self-assembled SnO2/reduced graphene oxide nanocomposites via Langmuir-Blodgett technique as anode materials for Li-ion batteries,
Authors: R. Sriramprabha, N. Ponpandian, C. Viswanathan,
Materials Letters, 218, 295-298, (2018).

76. Surfactant-free solvothermal synthesis of Hydroxyapatite nested bundles for the effective photodegradation of cationic dyes,
Authors: I. Reeta Mary, S. Sonia, D. Navadeepthy, D. Mangalaraj, C. Viswanathan, N. Ponpandian,
Journal of Physics and Chemistry of Solids, 116, 180-186, (2018).

77. Tin oxide/reduced graphene oxide nanocomposite-modified electrode for selective and sensitive detection of riboflavin,
Authors: R. Sriramprabha, M. Divagar, N. Ponpandian, C. Viswanathan,
Journal of The Electrochemical Society, 165, B498, (2018).

78. Trace level electrochemical determination of the neurotransmitter dopamine in biological samples based on iron oxide nanoparticle decorated graphene sheets,
Authors: T. Kokulnathan, J. A. Allen, S. M. Chen, C. Viswanathan, K. Kadirvelu,
Inorganic Chemistry Frontiers, 5, 705-718, (2018).

79. Nanostructured SnO2 integrated conductive fabrics as binder-free electrode for neurotransmitter detection,
Authors: M. Sekar, M. Pandiaraj, P. Michelle, S. Bhansali, N. Ponpandian, C. Viswanathan,
Sensors and Actuators A: Physical, 269, 401-411, (2018).

80. Effect and safety evaluation of hydrothermal synthesis on graphene and GO/MgO nanocomposite for visible light photocatalytic activity,
Authors: S. Krishna Moorthy, D. Murugesan, N. Ponpandian, C. Viswanathan,
International Journal of Contemporary Applied Researches, 5 (11), (2018).
.
81. N-doped graphene with anchored ZnFe2O4 nanostructures as an anode

for lithium ion batteries with enhanced reversible capacity and cyclic performance,
Authors: D. Navadeepthy, S. Bhuvaneswari, R. Prakash, C. Viswanathan, N. Ponpandian,
New Journal of Chemistry, 42, 16564-16570, (2018).

2017

82. Facile synthesis of monodispersed 3D hierarchical Fe3O4 nanostructures decorated r-GO as the negative electrodes for Li-ion batteries,
Authors: S. Rajesh Kumar, J. G. Kim, C. Viswanathan, W. B. Kim, R. Kalai Selvan, N. Ponpandian,
Materials Research Bulletin, 97, 272-280, (2018).

83. N-doped Graphene/ZnFe2O4: a novel nanocomposite for intrinsic peroxidase based sensing of H2O2,
Authors: D. Navadeepthy A. Rebekah C. Viswanathan N. Ponpandian,
Materials Research Bulletin, 95, 1-8, (2017).

84. Textile fiber electrode to monitor uric acid as a marker for assessing wound chronicity,
Authors: P. Michelle, C. Sohini, U. Yogeswaran, M. Pandiaraj, M. Sekar, R. E. Fernandez, C.Viswanathan, M. Norman, S. Bhansali.
ECS Transactions, 80, 1277, (2017).

85. Fabric based wearable biosensor for continuous monitoring of steroids,
Authors: M. Pandiaraj, M. Sekar, R. E. Fernandez, C. Viswanathan, S. Bhansali,
ECS Transactions, 77, 1841, (2017).

86. LaCoO3 nanostructures modified glassy carbon electrode for simultaneous electrochemical detection of dopamine, ascorbic acid and uric acid,
Authors: S. Priyatharshni, A. Tamilselvan, C. Viswanathan, N. Ponpandian,
Journal of The Electrochemical Society, 164, B152, (2017).

87. Selective and low potential electrocatalytic oxidation and sensing of l-cysteine using metal impurity containing carbon black modified electrode,
Authors: S. Sornambikai, M. R. A. Kadir, A. Senthil Kumar, N. Ponpandian, C. Viswanathan,
Analytical Methods, 9, 6791-6800, (2017).

2016

88. Facile approach for synthesis of GO/ZnO nanocomposite for highly efficient photocatalytic degradation of organic dyes under visible light,
Authors: S. Krishna Moorthy, C. Viswanathan, N. Ponpandian,
Nano Hybrids and Composites, 17, 121-126, (2017).

89. Effect of Yb substitution on room temperature magnetic and dielectric properties of bismuth ferrite nanoparticles,
Authors: K. P. Remya, S. Amirthapandian, M. Manivel Raja, C. Viswanathan, N. Ponpandian,
Journal of Applied Physics, 120, 134304, (2016).

90. Electrochemical simultaneous detection of dopamine, ascorbic acid and uric acid using LaMnO3 nanostructures,
Authors: S. Priyatharshni, M. Divagar, C. Viswanathan, D. Mangalaraj, N. Ponpandian,
Journal of The Electrochemical Society, 163, B460, (2016).

91. Exchange spring magnetic behavior in BaFe12O19/Fe3O4 nanocomposites,
Authors: K. P. Remya, D. Prabhu, S. Amirthapandian, C. Viswanathan, N. Ponpandian,
Journal of Magnetism and Magnetic Materials, 406, 233-238, (2016).

92. Green synthesis and characterization of bioceramic hydroxyapatite (HAp) nanosheets and its cellular study,
Authors: M. Manoj, R. Subbiah, P. Meena, D. Mangalaraj, N. Ponpandian, C. Viswanathan, K. Park,
Advanced Science, Engineering and Medicine, 8, 216-221, (2016).

93. Novel multiform morphologies of hydroxyapatite: synthesis and growth mechanism,
Authors: I.Reeta Mary, S. Sonia, S. Viji, D. Mangalaraj, C. Viswanathan, N. Ponpandian,
Applied Surface Science, 361, 25-32, (2016).

94. Magneto electric properties of Yb doped bismuth ferrite nanoparticles,
Authors: K. P. Remya, C. Viswanathan, N. Ponpandian, S. Amirthapandian,
Proceedings of the fourth international conference on frontiers in, 2016,

2015

95. Influence of supporting electrolytes on the structure of electrodeposited SnO2 thin films for energy storage applications,
Authors:D. Vasanth Raj, N. Ponpandian, C. Viswanathan,
Ionics, 22, 1837–1846, (2016).

96. Superhydrophobic Ag decorated ZnO nanostructured thin film as effective surface enhanced Raman scattering substrates,
Authors: N. Dhanpal Jayram, S. Sonia, S. Poongodi, P. Suresh Kumar, Y. Masuda, D. Mangalaraj, N. Ponpandian, C. Viswanathan,
Applied Surface Science, 355, 969-977, (2015).

97. Electrodeposition of macroporous SnO2 thin films and its electrochemical applications,
Authors: D. Vasanth, N. Ponpandian, D. Mangalaraj, C. Viswanathan,
Materials Focus, 4, 245-251, (2015).

98. Hydrothermal synthesis of novel Zn doped CuO nanoflowers as an efficient photodegradation material for textile dyes,
Authors: S. Sonia, I. Jose Annsi, P. Suresh Kumar, D. Mangalaraj, C. Viswanathan, N. Ponpandian,
Materials Letters, 144, 127-130, (2015).

99. Improved microbial growth inhibition activity of bio-surfactant induced Ag–TiO2 core shell nanoparticles,
Authors: D. Nithyadevi, P. Suresh Kumar, D. Mangalaraj, N. Ponpandian, C. Viswanathan, P. Meena,
Applied Surface Science, 327, 504-516, (2015).

100. Hydrothermal synthesis of highly stable CuO nanostructures for efficient photocatalytic degradation of organic dyes,
Authors: S. Sonia, S. Poongodi, P. Suresh Kumar, D. Mangalaraj, N. Ponpandian, C. Viswanathan,
Materials Science in Semiconductor Processing, 30, 585-591, (2015).

101. Synthesis and characterization of Mgo nanoparticles by neem leaves through green method,
Authors: S. Krishna Moorthy, C. H. Ashok, K. Venkateswara Rao, C. Viswanathan,

Materials Today: Proceedings, 2, 4360-4368, (2015).

102. Synthesis of hierarchical WO3 nanostructured thin films with enhanced electrochromic performance for switchable smart windows,
Authors: S. Poongodi, P. Suresh Kumar, Y. Masuda, D. Mangalaraj, N. Ponpandian, C.Viswanathan, S. Ramakrishna,
RSC Advances, 5, 96416-96427, (2015).

103. Formulation of SnO2/graphene nanocomposite modified electrode for synergitic electrochemcial detection of dopamine,
Authors: R. Sriramprabha, M. Divagar, D. Mangalaraj, N. Ponpandian, C. Viswanathan,
Advanced Materials Letters, 6(11), 973-977, (2015).

104. SCLC conduction mechanism in indium selenide thin films and its dependence on local structure,
Authors: C. Viswanathan, K. Prem Nazeer, M. Tamil Selvan, S. Velumani, J. A. Ascencio,
International Journal of Science and Humanities, 1, 801–816, (2015).

105. Core–shell hydroxyapatite/Mg nanostructures: surfactant free facile synthesis, characterization and their in vitro cell viability studies against leukaemia cancer cells (K562),
Authors: M. Manoj, D. Mangalaraj, N. Ponpandian, C. Viswanathan,
RSC Advances, 5, 48705-48711, (2015).

106. Edge-carboxylated graphene anchoring magnetite-hydroxyapatite nanocomposite for an efficient 4-nitrophenol sensor,
Authors: G. Bharath, V. Veeramani, S. M. Chen, M. Rajesh, M. Manivel Raja, A. Balamurugan, D. Mangalaraj, C. Viswanathan, N. Ponpandian,
RSC Advances, 5, 13392-13401, (2015).

107. Highly monodispersed Ag embedded SiO2 nanostructured thin film for sensitive SERS substrate: growth, characterization and detection of dye molecules,
Authors: N. Dhanpal Jayram, S. Sonia, P. Suresh Kumar, L. Marimuthu, Y Masuda, D. Mangalaraj, N. Ponpandian, C. Viswanathan, S. Ramakrishna,
RSC Advances, 5, 46229-46239, (2015).

108. Influence of growth parameters on the formation of hydroxyapatite (HAp) nanostructures and their cell viability studies,
Authors: M. Manoj, R. Subbiah, D. Mangalaraj, N. Ponpandian, C. Viswanathan, K. Park,
Nanobiomedicine, 2, 2, (2015).

2014

109. Enzymatic electrochemical glucose biosensors by mesoporous 1D hydroxyapatite-on-2D reduced graphene oxide,
Authors: G. Bharath, M. Rajesh, S. M. Chen, V. Veeramani, A. Balamurugan, D. Mangalaraj, C. Viswanathan, N. Ponpandian,
Journal of Materials Chemistry B, 3, 1360-1370, (2015).

110. Quercetin conjugated superparamagnetic magnetite nanoparticles for in-vitro analysis of breast cancer cell lines for chemotherapy applications,
Authors: S. Rajesh Kumar, S. Priyatharshni, V. N. Babu, D. Mangalaraj, C. Viswanathan, S. Kannan, N. Ponpandian,
Journal of Colloid and Interface Science, 436, 234-242, (2014).

111. Diatom-Based Label-Free Optical Biosensor for Biomolecules,
Authors: S. Viji, M. Anbazhagi, N. Ponpandian, D. Mangalaraj, S. Jeyanthi, P. Santhanam, A. Shenbaga Devi, C. Viswanathan,
Applied Biochemistry and Biotechnology, 174, 1166–1173, (2014).

112. Electrochemical behavior of nanostructured SnO2 thin films in aqueous electrolyte solutions,
Authors: D. Vasanth Raj, N. Ponpandian, D. Mangalaraj, C. Viswanathan,
Materials Science in Semiconductor Processing, 26, 55-61, (2014).

113. Rheological behavior - electrical and thermal properties of polypyrrole/graphene oxide nanocomposites,
Authors: P. Manivel S. Kanagaraj A. Balamurugan N. Ponpandian D. Mangalaraj C. Viswanathan,
Journal of Applied Polymer Science, 131 (16), (2014).

114. Electrochemical performance of SnO2 hexagonal nanoplates,
Authors: D. Vasanth Raj, N. Ponpandian, D. Mangalaraj, A. Balamurugan, C. Viswanathan,
Ionics, 20, 335–346, (2014).

115. Effect of NaOH concentration on structural, surface and antibacterial activity of CuO nanorods synthesized by direct sonochemical method,
Authors: S. Sonia, N. Dhanpal Jayram, P. Suresh Kumar, D. Mangalaraj, N. Ponpandian, C.Viswanathan,
Superlattices and Microstructures, 66, 1-9, (2014).

116. Hydrophilic polymer coated monodispersed Fe3O4 nanostructures and their cytotoxicity,
Authors: S Rajesh Kumar, L. Marianna, S. Gianni, A Joseph Nathanael, S. I. Hong, T. H. Oh, D. Mangalaraj, C. Viswanathan, N. Ponpandian,
Materials Research Express, 1, 01501, (2014).

117. Rheological behavior and electrical properties of polypyrrole/thermally reduced graphene oxide nanocomposite,
Authors: P. Manivel, S. Kanagaraj, A. Balamurugan, N. Ponpandian, D. Mangalaraj, C.Viswanathana
Colloids and Surfaces A: Physicochemical and Engineering Aspects, 441, 614-622, (2014).

118. An in vitro analysis of H1N1 viral inhibition using polymer coated superparamagnetic Fe3O4 nanoparticles,
Authors: S. Rajesh Kumar, M. Paulpandi, M. Manivel Raja, D. Mangalaraj, C. Viswanathan, S. Kannan, N. Ponpandian,
RSC Advances, 4, 13409-13418, (2014).

119. Facile in situ growth of Fe3O4 nanoparticles on hydroxyapatite nanorods for pH dependent adsorption and controlled release of proteins,
Authors: G. Bharath,a D. Prabhu,b D. Mangalaraj,a C. Viswanathana, N. Ponpandian,
RSC Advances, 4, 50510-50520, (2014).

120. Effect of catalyst concentration on the synthesis of MWCNT by single step pyrolysis,
Authors: B Kumar, Rajesh Thomas, Ambily Mathew, G Mohan Rao, D Mangalaraj, N Ponpandian, C Viswanathan,
Advanced Materials Letters, 5, 543-548, (2014).

2013

121. Shape evolution and size controlled synthesis of mesoporous hydroxyapatite nanostructures and their morphology dependent Pb(ii)

removal from waste water,
Authors: G. Bharath, A. Jagadeesh Kumar, K. Karthick, D. Mangalaraj, C. Viswanathan, N. Ponpandian,
RSC Advances, 4, 37446-37457, (2014).

122. Surfactant free solvothermal synthesis of monodispersed 3D hierarchical Fe3O4 microspheres,
Authors: S. Rajesh Kumar, M. Manivel Raj, D. Mangalaraj, C. Viswanathan, N. Ponpandian,
Materials Letters, 110, 98-101, (2013).

123. Influence of growth and photocatalytic properties of copper selenide (CuSe) nanoparticles using reflux condensation method,
Authors: S. Sonia, P. Suresh Kumar, D. Mangalaraj, N. Ponpandian, C. Viswanathan,
Applied Surface Science, 283, 802-807, (2013).

124. Electrodeposition of SnO2 nanoneedles on anodized copper substrates and its electrochemical performance,
Authors: D. Vasanth Raj, N. Ponpandian, D. Mangalaraj, C. Viswanathan,
AIP Conference Proceedings, 1536, 151, (2013).

125. A comparative analysis of green synthesis approach starch capped metal oxides (ZnO & CdO) nanoparticles and its bacterial activity,
Authors: K Vidhya, VP Devarajan, C Viswanathan, D Nataraj, G Bhoopathi,
AIP Conference Proceedings, 1536, 229, (2013).

126. Synthesis, morphology, optical and photocatalytic performance of nanostructured β-Ga2O3,
Authors: K.Girija, S. Thirumalairajan, G. S. Avadhani, D. Mangalaraj, N. Ponpandian, C.Viswanathan,
Materials Research Bulletin, 48, 2296-2303, (2013).

127. Enhanced photocatalytic performance of novel self-assembled floral β-Ga2O3 nanorods,
Authors: K Girija, S Thirumalairajan, A. K. Patra, D Mangalaraj, N Ponpandian, C Viswanathan,
Current Applied Physics, 13, 652-658, (2013).

128. Graphene nanosheets by low-temperature thermal reduction of graphene oxide using RF-CVD,
Authors: P. Manivel, S. Ramakrishnan, N. K. Kothurkar, N. Ponpandian, D. Mangalaraj, C.Viswanathan
Journal of Experimental Nanoscience, 8, 311-319, (2013).

129. Effect of annealing and electrochemical properties of sol–gel dip coated nanocrystalline V2O5 thin films,
Authors: D. Vasanth Raj, N. Ponpandian, D. Mangalaraj, C. Viswanathan,
Materials Science in Semiconductor Processing, 16, 256-262, (2013).

130. Organic additives assisted synthesis of mesoporous β-Ga2O3 nanostructures for photocatalytic dye degradation,
Authors: K. Girija, S. Thirumalairajan, A. K. Patra, D. Mangalaraj, N. Ponpandian, C. Viswanathan,
Semiconductor Science and Technology, 28, 035015, (2013).

131. Optical and electrochemical studies of polyaniline/SnO2 fibrous nanocomposites,
Authors: P. Manivel, S. Ramakrishnan, N. K. Kothurkar, A. Balamurugan, N. Ponpandian, D. Mangalaraj, C. Viswanathan,
Materials Research Bulletin, 48, 640-645, (2013).

132. Novel synthesis of LaFeO3 nanostructure dendrites: a systematic investigation of growth mechanism, properties, and biosensing for highly selective determination of neurotransmitter compounds,
Authors: S. Thirumalairajan, K. Girija, V. Ganesh, D. Mangalaraj, C. Viswanathan, N. Ponpandian,
Crystal Growth & Design, 13 (1), 291–302, (2013).

133. Effect of annealing and electrochemical properties of sol–gel dip coated nanocrystalline V2O5 thin films,
Authors: D. Vasanth Raj, N. Ponpandian, D. Mangalaraj, C. Viswanathan,
Materials Science in Semiconductor Processing, 16, 256–262, (2013).

134. Shape evolution of perovskite LaFeO3 nanostructures: a systematic investigation of growth mechanism, properties and morphology dependent photocatalytic activities,
Authors: S. Thirumalairajan, K. Girija, N. Y. Hebalkar, D. Mangalaraj, C.

Viswanathan, N Ponpandian,
RSC advances, 3, 7549-7561, (2013)

2012

135. Conducting polyaniline-graphene oxide fibrous nanocomposites: preparation, characterization and simultaneous electrochemical detection of ascorbic acid, dopamine and uric acid,
Authors: P. Manivel, M. Dhakshnamoorthy, A. Balamurugan, N. Ponpandian, D. Mangalaraj, C.Viswanathan
RSC advances, 3, 14428-14437, (2013).

136. Controlled synthesis of perovskite LaFeO3 microsphere composed of nanoparticles via self-assembly process and their associated photocatalytic activity,
Authors: S. Thirumalairajan, K. Girija, I. Ganesh, D. Mangalaraj, C. Viswanathan, A. Balamurugan, N. Ponpandian,
Chemical Engineering Journal, 209, 420-428, (2012).

137. Novel synthesis of silver nanoparticles using 2,3,5,6-tetrakis-(morpholinomethyl) hydroquinone as reducing agent,
Authors: P. Manivel, A. Balamurugan, N. Ponpandian, D. Mangalaraj, C. Viswanathan,
Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 95, 305-309, (2012).

2011

138. Electronic transport between Au surface and scanning tunnelling microscope tip via a multipodal cyclodextrin host–metallo-guest supramolecular system,
Authors: L. E. P. Kyllonen, C. Viswanathan, M. Davide, T. Kefalas, J. M. Haider, Z. Pikramenou, I. M. Mavridis, K. Yannakopoulou,
Journal of Physical Organic Chemistry, 25, 198–206, (2012).

139. Self assembly of Co doped CeO2 microspheres from nanocubes by hydrothermal method and their photodegradation activity on AO7,
Authors: N. Sabari Arul, D. Mangalaraj, P. C. Chen, N. Ponpandian, C. Viswanathan,
Materials Letters, 65, 3320-3322, (2011).

140. Strong quantum confinement effect in nanocrystalline cerium oxide,
Authors: N. Sabari Arul, D. Mangalaraj, P. C. Chen, N. Ponpandian, C.

Viswanathan,
Materials Letters, 65, 2635-2638, (2011).

2009

141. Preparation of new reducing agent for the synthesis of silver nanoparticles,
Authors: P. Manivel, K. Sivashanmugan, C. Viswanathan, D. Mangalaraj,
AIP Conference Proceedings, 1349, 415, (2011).

2008

142. Effects of the film thickness on optical constants of transparent CdS thin films deposited by chemical bath deposition,
Authors: F. Yakuphanoglu, C. Viswanathan, D.Sounderajan, P.Peranandham,
Journal of Optoelectronics and Advanced Materials, 11(7), 945-949, (2009).

2007

143. Molecular nanodevices based on functionalized cyclodextrins,
Authors: D Velessiotis, D Maffeo, C Millios, E Makarona, C Viswanathan, K Yannakopoulou, I Mavridis, Zoe Pikramenou, N Glezos,
Physica Status Solidi (a), 205, 2532–2535, (2008).

144. Electrical conductivity and single oscillator model properties of amorphous CuSe semiconductor thin film,
Authors:F. Yakuphanoglu, C. Viswanathan,
Journal of Non-Crystalline Solids, 353, 2934-2937, (2007).

145. The effect of annealing on vacuum-evaporated copper selenide and indium telluride thin films,
Authors: P. Peranantham, Y. L. Jeyachandran, C. Viswanathan, N. N. Praveena, P. C. Chitra, D. Mangalaraj, S. K. Narayandass,
Materials Characterization, 58, 756-764, (2007).

2005

146. Sheathing polymer gels fibrils with nanotubules,
Authors: C. Viswanathan, P. Mésini, J.-M. Guene,
Macromolecular Symposia, 251, 11–14, (2007).

147. Effect of substrate temperature on the properties of vacuum evaporated indium selenide thin films,
Authors: C. Viswanathan, V. Senthilkumar, R. Sriranjini, D. Mangalaraj, Sa. K. Narayandass, J. Yi,
Crystal Research and Technology, 40 (7), 658-664, (2005).

148. Influence of substrate temperature on the properties of vacuum evaporated InSb films,
Authors: V. Senthilkumar, S. Venkatachalam, C. Viswanathan, S. Gopal, Sa. K. Narayandass, D. Mangalaraj, K. C. Wilson, K. P. Vijayakumar,
Crystal Research and Technology, 40 (6), 573-578, (2005).

149. Preparation and characterization of electrodeposited indium selenide thin films,
Authors: S. Gopal, C. Viswanathan, B. Karunagaran, Sa. K. Narayandass, D. Mangalaraj, J. Yi,
Crystal Research and Technology, 40 (6), 557-562, (2005).

150. On the electrical characteristics of vacuum evaporated indium selenide thin films,
Authors: C.Viswanathan, G. G. Rusu, S. Gopal, D. Mangalaraj, Sa. K. Narayandass,
Journal of Optoelectronics and Advanced Materials, 7, 705 – 711, (2005).

2004

151. Current – voltage studies on vacuum evaporated In70Se30 thin films,
Authors: C. Viswanathan, G. G. Rusu, D. Mangalaraj, Sa. K. Narayandass, J. Yi,
Journal of Optoelectronics and Advanced Materials, 7, 713 - 720, (2005).

152. Space charge limited current, variable range hopping and mobility gap in thermally evaporated amorphous InSe thin films,
Authors:C. Viswanathan, S. Gopal, M. Thamilselvan, K. PremNazeer, D. Mangalaraj, Sa. K. Narayandass, J. Yi, D. C. Ingram,
Journal of Materials Science: Materials in Electronics volume, 15, 787–792, (2004).

153. Characterization of vacuum evaporated In - Se thin films,
Authors:C. Viswanathan, S. Gopal, D. Mangalaraj, Sa. K. Narayandass, O. F. Caltun, G. Rusu, J. Yi,
Ionics, 10, 311–316, (2004).

154. Conduction studies on electrodeposited indium selenide thin films,
Authors: S. Gopal, C. Viswanathan, M. Thamilselvan, K. Premnazeer, Sa.K.

Narayandass, D.Mangalaraj Ionics, 10, 300-303, (2004).

2003

155. Characterization of vacuum-evaporated In70Se30 thin films,
Authors: C. Viswanathan, S. Gopal, B. Karunagaran, D. Mangalaraj, Sa. K. Narayandass, J. Yi,
Proc. SPIE 5774, Fifth International Conference on Thin Film Physics and Applications, 5774, (2004).

156. Optical constants of DC magnetron sputtered titanium dioxide thin films measured by spectroscopic ellipsomety,
Authors: B. Karunagaran, R. T. Rajendra Kumar, C. Viswanathan, D. Mangalaraj, Sa. K. Narayandass, G. Mohan Rao,
Crystal Research and Technology, 38 (9), 773-778, (2003).

Tab 2 Content
Tab 3 Content
Tab 4 Content

1. Convener in DST-PURSE sponsored National Workshop on Advanced Instruments for Characterization (NWAIC-2012) held on March 27, 2012 at Department of Nanoscience & Technology, Bharathiar University, Coimbatore.

2. Co-Convener in National Conference on Multifunctional Nanomaterials and Nanocomposites (NCMNN 2010) held on 04.02.2010 to 05.02.2010 at Department of Nanoscience & Technology, Bharathiar University, Coimbatore.

3. Co-Convener in National Conference on Multifunctional Nanomaterials and Nanocomposites (NCMNN 2011) held on 24.03.2011 to 25.03.2011 at Department of Nanoscience & Technology, Bharathiar University, Coimbatore.

4. Co-Convener in National Conference on Multifunctional Nanomaterials and Nanocomposites (NCMNN 2013) held on 25.02.2013 to 26.02.2013 at Department of Nanoscience & Technology, Bharathiar University, Coimbatore.

5. Co-Ordinator in UGC-ASC sponsored Refresher Course in Nanoscience held on 01.12.2012 to 21.12.2012 at UGC-Academic Staff College, Bharathiar University, Coimbatore – 641 046.

6. Co-Ordinator in UGC-ASC sponsored Refresher Course in Nanoscience held on 24.05.2016 to 13.06.2016 at UGC-Academic Staff College, Bharathiar University,

Coimbatore – 641 046.

7. Co-Convener in National Conference on Emerging Biomaterials (NCEB 2016) held on 19.10.2016 to 21.10.2016 at Department of Nanoscience & Technology, Bharathiar University, Coimbatore

8. Convener in One Day Intensive Workshop on Fundamentals of X- Ray Diffraction – WFXRD-2017 held on 31St August, 2017 at Department of Nanoscience & Technology, Bharathiar University, Coimbatore

9. Organizing Secretary in DST PURSE SYMPOSIA held on 13th Sep to 15th Sep,2022 at Bharathiar University campus, Coimbatore.

10. Convener in DST-SERB-CRG sponsored One Day Workshop on Advanced Electrochemical Techniques held on September 26th , 2022 at Department of Nanoscience & Technology, Bharathiar University, Coimbatore.

1.Recent Advances in SnO2 and V2O5 Nanomaterials Research: Synthesis, Characterization and Applications
D. Vasanth Raj, M. D. Kannan and C. Viswanathan
Advance Research Trends in Material Science and Engineering,
MKSES Publisher Lucknow India, 11-39, (2021),
ISBN: 978-81-949305-5-6.

2.Environmental chemistry for a sustainable world
A. Dennyson Savariraj, R. V. Mangalaraja, K. Prabakar, C. Viswanathan,
Electrochemical aspects for wastewater treatment,
Green Methods for Wastewater Treatment, 121-149, (2019),
ISBN: 978-3-030-16427-0 - https://doi.org/10.1007/978-3-030-16427-0_6

3.Multifunctional Nanomaterials and Nanocomposites
D. Mangalaraj, N. Ponpandian, C. Viswanathan and A. Balamurugan,
Multifunctional Nanomaterials and Nanocomposites (Vol–I),
ISBN: 978-81-92124710.

4.Multifunctional Nanomaterials and Nanocomposites
D. Mangalaraj, N. Ponpandian, C. Viswanathan and A. Balamurugan,
Multifunctional Nanomaterials and Nanocomposites (Vol–II),
ISBN: 978-81-92124711.

Tab 6 Content

1.PATENT GRANTED: Method for simultaneous detection and degradation of Smokeless tobacco wastewater and its by products using Photoelectrochemical Oxidation

Indian Patent Grant No: 442144

2.PATENT GRANTED: Simultaneous Detection, Quantification, and Degradation of Cigarette Waste Water and its by-products using Photoelectrochemical Method;

Indian Patent Grant No: 453005

Alumini Reflections:

Dr D Vasanth Raj - Faculty of Physics, PSG college of Technology, Coimbatore

Dr. P. Manivel -

Dr. B.V.Mohan Kumar - Principal , Govt College, Karnataka

Dr.S.Viji - Research Scientist at Accubits Invent Pvt Ltd, Thiruvananthapuram Taluk, Kerala, India

Dr. R. SRIRAMPRABHA - Post Doctoral Fellow, Soft lab, Department of Mechanical Engineering, Ajou University, South Korea

Dr.M.Sekar - Post Doctoral Fellow, Soft lab, Department of Mechanical Engineering, Ajou University, South Korea

Dr. J.A.Allen - Research Scientist at Accubits Invent Pvt Ltd, Thiruvananthapuram Taluk, Kerala, India

Dr.M.Divagar - Postdoctoral Researcher at Agricultural Research Organisation, Rishon LeZion, Center District, Israel

Dr.D.Murugasan -

Dr P Sivasakthi -

Dr H Amir - Post Doctoral Fellow , Pusan National University South Korea.