

STAFF PROFILE



Name : B. DINESH
Designation : Assistant Professor

Date of Entry into Service : 16/6/2019

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Education : MS., MPhil., PhD

Areas of specialization : Physical Chemistry (Electrochemistry)

Projects undertaken

Title of the Project	Name of the funding Agency	Duration	Completed/Ongoing	Amount	Remarks
Direct Electrochemistry on Metalloproteins immobilized on pristine MWCNT	DST-SERB	02	Completed	17,20,000 (Seventeen lacs and twenty thousand rupees)	Success

Seminars Organized

Title of the Seminar/Conference/Workshop	Date	Sponsoring Agency	National/State/International	Co-ordinator/Convener
-	-	-	-	-
-	-	-	-	-

Seminors, Workshop and Conferences Attended

- [1] Bose Dinesh and Ramiah Saraswathi, “**Enhanced Electrocatalytic Performance of a novel graphene-PEDOT-Pt nanocomposite for methanol oxidation**” (Poster presentation) National Conference on Nanoscience and Nanotechnology (NCNN-2011) Organized by National center for Nanoscience and Nanotechnology, University of Madras, Chennai, India, during 25-27, August 2011.
- [2] Bose Dinesh and Ramiah Saraswathi, “**Electrochemical formation of the Cu-Curcumin complex and its application to the nanomolar detection of 4-nitrophenol**” (Poster presentation) International Conference on Recent Advances in Textile and Electrochemical Sciences (RATES-2013) Organized by Department of Industrial Chemistry, Alagappa University, Karaikudi, India, during 21-23, March 2013.
- [3] Bose Dinesh and Ramiah Saraswathi, “**Simultaneous determination of the ascorbic acid dopamine and uric acid with Graphene-PEDOT nanocomposite** (Poster Presentation) International Conference on Advanced Materials, Processing and Devices (AMPD-2013) held at Department of Materials Science, Madurai Kamaraj Univeristy, Madurai, India, during 15-16, July 2013 which won the **1st price and Best Paper Award**
- [4] Muniyandi Bagavathi, Bose Dinesh and Ramiah Saraswathi, “**Performance Evaluation of GO-MWCNT/Co(OH)₂ in Supercapacitor** (Poster Presentation) International Conference on Advanced Materials, Processing and Devices (AMPD-2013) held at Department of Materials Science, Madurai Kamaraj Univeristy, Madurai, India, during 15-16, July 2013
- [5] Muniyandi Bagavathi, Bose Dinesh and Ramiah Saraswathi, “**Electrophoretic Deposition of Ni-Co layered double hydroxide film for the application of Electrochemical Pseudocapacitors**” (Poster presentation) International Conference on Recent Advances in Textile and Electrochemical Sciences (RATES-2013) Organized by Department of Industrial Chemistry, Alagappa University, Karaikudi, India, during 21-23, March 2013
- [6] Bose Dinesh, Rajesh Madhu and Ramiah Saraswathi, “**Electrochemical preparation of reduced graphene oxide/ZnO-Au nanocomposite modified electrode and its application to trace level detection of hydrazine** (Oral Presentation) National Symposium on Frontier Areas in Chemistry – II (NSFAC-II) held at Department of Chemistry, The American College, Madurai, India, during 27th and 28th January 2014.
- [7] Bose Dinesh and Annamalai Senthil kumar, “**A homemade and low cost carbon ink modified glassy carbon electrode for simultaneous determination of ascorbic acid, dopamine and uric acid**”. (Poster presentation) Eleventh international symposium on Society for Advancement of Electrochemical Science and technology (iSAEST), CECRI campus, Karaikudi-630 003, India, during 8-10, December 2016.

- [8] Sugumaran Monisha, **Bose Dinesh** and Annamalai Senthil kumar, “**Patenting of Tulasi Extract as a Redox-Active chemically modified electrode and turning it as electrocatalyst**”. (Poster presentation) Eleventh international symposium on Society for Advancement of Electrochemical Science and technology (iSAEST), CECRI campus, Karaikudi-630 003, India, during 8-10, January 2019. (**Best paper award**).
- [9] **Bose Dinesh, Uma Maheswari Krishnan** Spherical Nanocarbon Interface for Electrochemical Determination of 2, 4 Dinitrophenol, (Poster presentation) Nano India 2019 held at Mahatma Gandhi University Kottayam, Kerala on 26th and 27th April, 2019.
- [10] State level seminar on “Recent Advances in Crystal Growth and Crystallography (RACC-2012)” held at School of Physics, Madurai Kamaraj University, Madurai, India, during 21-22, March 2012.
- [11] Seminar on “Recent Trends in Advanced Materials State level seminar (SRAM-2012)” held at School of Physics, Madurai Kamaraj University, Madurai, India, during 8th and 9th, March 2012.
- [12] National Workshop on Preparation and Characterization of Nanomaterials (NWPCN-2011) held at National center for Nanoscience and Nanotechnology, University of Madras, Chennai, India, during 14-16, March 2011.
- [13] State level seminar on “Recent Developments and Applications on Nano Systems” (RDANS-2011) held at School of Physics, Madurai Kamaraj University, Madurai, India, under UGC-DRS-Phase III Programme during 10-11, March 2011
- [14] International Conference and workshop on “New Materials and Devices for Photovoltaic Applications (ICWNMDP-2011)” Organized by Department of Materials Science, Madurai Kamaraj University Madurai, India held on 10-12 February 2011.
- [15] International Year of Chemistry Celebrations – 2011 sponsored by the UGC-New Delhi, organized by School of Chemistry, Madurai Kamaraj University Madurai, India held on 19th December 2011.
- [16] Indo-Norwegian Satellite Meeting on “Advances in Solar Cell Materials & Technologies” (SMASMT-2011) sponsored by The Research Council of Norway Organized by Department of Materials Science, Madurai Kamaraj University, Madurai, India, held on 17th December 2011.
- [17] State level seminar on “Recent Trends in Condensed Matter Physics” (RTCMP-2010) held at School of Physics, Madurai Kamaraj University, Madurai, India under UGC-DRS-Phase III Program during 15-16, February 2010.
- [18] Tamil Nadu State Council for Science & Technology (TNSCST), Chennai and Patent Facilitating Centre, TIFAC, DST, New Delhi sponsored one day “Patent Awareness Program” held at School of Chemistry, Madurai Kamaraj University, Madurai, India on 4th December 2009.

[19] Three days short term course on “ Electron Microscopy” (EM-2008) organized under at Technical Educational Quality Improvement Programme held at Department of Metallurgical and Materials Engineering, National Institute of Technology, Tiruchirappalli, India during 6-8, September 2008.

Books Published:

Title of the Book Published	ISBN No.	Publisher if any	Year of Publishing	Authored/Edited
Novel Catalyst Materials for Bioelectrochemical Systems: Fundamentals and Applications (pages-185-205)	ISBN13: 9780841236684eISBN: 9780841236677	American Chemical Society	2020	Author

Research Publications:

- [1] Veerappan Mani, Bose Dinesh, Shen-Ming Chen, Ramiah Saraswathi “Direct electrochemistry of myoglobin at reduced graphene oxide-multiwalled carbon nanotubes-platinum nanoparticles nanocomposite and biosensing towards hydrogen peroxide and nitrite”, Biosensors and Bioelectronics 53 (2014) 420–427. <Impact Factor:10.257>
- [2] Bose Dinesh, Veerappan Mani, Ramiah Saraswathi, Shen-Ming Chen, “Direct electrochemistry of cytochrome c immobilized on a graphene oxide–carbon nanotube composite for picomolar detection of hydrogen peroxide”, RSC Advances, 4 (2014) 28229–28237. <Impact Factor:3.119>
- [3] A. T. Ezhil Vilian, Veerappan Mani, Shen-Ming Chen, Bose Dinesh and Sheng-Tung Huang, “The Immobilization of Glucose Oxidase at Manganese Dioxide Particles-Decorated Reduced Graphene Oxide Sheets for the Fabrication of a Glucose Biosensor, Industrial and Engineering Chemistry Research 53 (2014) 15582–155894. <Impact Factor:3.573>
- [4] Abinaya C, Bose Dinesh, M Sangari, A. Ramar, M. Umadevi, and J. Mayandi Impact of Carbon-Fluorine doped Titanium dioxide in the performance of an electrochemical sensing of dopamine and rose Bengal sensitized solar cells, AIP ADVANCES 5, (2015) 017149. <Impact Factor:1.653>
- [5] Rajesh Madhu, Bose Dinesh, Shen-Ming Chen, Ramiah Saraswathi and Veerappan Mani, “An electrochemical synthesis strategy for composite based ZnO microspheres–Au nanoparticles on reduced graphene oxide for the sensitive detection of hydrazine in water samples” RSC Advances 5 (2015) 54379–54386. <Impact Factor:3.119> **First two authors equally contributed**

- [6] Vedyappan Veeramani, Bose Dinesh, Ramiah Saraswathi, Shen-Ming Chen, Electrochemical synthesis of Au-MnO₂ on electrophoretically prepared graphene nanocomposite for high performance supercapacitor and biosensor applications. *Journal of Materials Chemistry A* 4 (2016) 3304–3315. **<Impact Factor:11.301> First two authors equally contributed**
- [7] Bose Dinesh, Ramiah Saraswathi, Enhanced performance of Pt and Pt-Ru supported PEDOT-RGO nanocomposite towards methanol oxidation. *International journal of hydrogen energy* 41 (2016) 13448-13458. **<Impact Factor:4.939>**
- [8] Bose Dinesh, Vedyappan Veeramani Shen-Ming Chen, Ramiah Saraswathi, In situ electrochemical synthesis of reduced graphene oxide-cobalt oxide nanocomposite modified electrode for selective sensing of depression biomarker in the presence of ascorbic acid and dopamine. *Journal of Electroanalytical Chemistry* 786 (2017) 169–176. **<Impact Factor:3.807>**
- [9] Padmanathan Karthick Kannan, Bose Dinesh, Chang Yong An, and Chan-HwaChung, A Facile Electrochemical Preparation of Violarite (Ni₂FeS₄) Nanosheets on Carbon Sheet and its Application towards Non-Enzymatic Glucose Sensing. *ChemistrySelect*, 2 (2017) 1967–1973. **<Impact Factor:1.811>**
- [10] Bose Dinesh, Ramiah Saraswathi, Annamalai Senthil Kumar, Water based homogenous carbon ink modified electrode as an efficient sensor system for simultaneous detection of ascorbic acid, dopamine and uric acid, *Electrochimica Acta* 233 (2017) 92–104. **<Impact Factor:6.215>**
- [11] Bose Dinesh, Ramiah Saraswathi, Electrochemical synthesis of nanostructured copper-curcumin complex and its electrocatalytic application towards reduction of 4-nitrophenol, *Sensors and Actuators B* 253 (2017) 502–512. **<Impact Factor:7.11>**
- [12] Sakthivel Mani, Sukanya Ramaraj, Shen-Ming Chen, Bose Dinesh*, Tse-Wei Chen, Two-dimensional metal chalcogenides analogous NiSe nanosheets and efficient electrocatalytic performance towards glucose sensing. *Journal of Colloid and Interface Science* 507 (2017) 378–385. **<Impact Factor:7.489> (as a Corresponding author)**
- [13] Bose Dinesh, K. S. Shalini Devi and Annamalai Senthil Kumar, Curcumin-quinone immobilized carbon black modified electrode prepared by in-situ electrochemical oxidation of curcumin-phytonutrient for mediated oxidation and flow injection analysis of sulphide. *Journal of Electroanalytical Chemistry* 804 (2017) 116-127 **<Impact Factor:3.807>**
- [14] Muniyandi Bagavathi, Bose Dinesh, and Ramiah Saraswathi, A Facile One-Step Electrophoretic Deposition of Co-Ni Layered Double Hydroxide Nanosheets for a High Performance Supercapacitor, *ChemistrySelect* 2 (2017) 8799-8806 **<Impact Factor:1.81>**

- [15] A.T. Ezhil Vilian, Bose Dinesh, Rethinasabapathy Muruganantham, Sang Rak Choe, Sung-Min Kang, Yun Suk Huh and Young-Kyu Han, Pd nanoparticles supported amine functionalized 3D metal organic framework MIL-101(Cr) as an electrode modifier for nitrite sensing. *Microchimica Acta* DOI 10.1007/s00604-017-2513-8. <**Impact Factor:6.232**>
- [16] Mani Sakthivel, Shen-Ming Chen, Sukanya Ramaraj, Bose Dinesh* A highly conducting spherical Au nanoparticles interconnected functionalized carbon nanofibers nanocomposites and its enhanced electrocatalytic activity towards hydrazine through direct electron transfer. *Journal of Taiwan institute of chemical engineers* 82 (2017) 64-74 <**Impact Factor:4.79**> (as a Corresponding author)
- [17] Sakthivel Mani, Sukanya Ramaraj, Shen-Ming Chen, Bose Dinesh*, Synthesis of rose like structured LaCoO₃ assisted functionalized carbon nanofiber nanocomposite for efficient electrochemical detection of anti-inflammatory drug 4-aminoantipyrine. *Electrochimica Acta* 260 (2018) 571-581 <**Impact Factor:6.215**> (as a Corresponding author)
- [18] Sakthivel Mani, Sukanya Ramaraj, Shen-Ming Chen, Bose Dinesh* Entrapment of bimetallic CoFeSe₂ nanosphere in functionalized carbon nanofiber for selective and sensitive electrochemical detection of caffeic acid in wine samples. *Analytica chimica Acta* 1006 (2018) 22-32 <**Impact Factor:5.977**>
- [19] Thangavelu Kokulnathanan, Tata Sanjay Kanna Sharma, Shen-Ming Chen, Tse-Wei Chen and Bose Dinesh, Ex-situ decoration of graphene oxide with palladium nanoparticles for the highly sensitive and selective electrochemical determination of chloramphenicol in food and biological samples. *Journal of Taiwan institute of chemical engineers*. 89 (2018) 26-38 <**Impact Factor:4.79**>
- [20] Sakthivel Mani, Sukanya Ramaraj, Shen-Ming Chen, Bose Dinesh Synthesis of two-dimensional Strontium based molybdenum diselenide nanosheets and its application for efficient electrochemical reduction of metronidazole in human urine sample *Journal of Physical Chemistry C* 122 (2018) 12474-12484 **Impact Factor: 4.89**
- [21] A.T. Ezhil Vilian, Bose Dinesh, Sang Rak Choe, Yun Suk Huh and Young-Kyu Han, Facile synthesis of fascinating Co-MOF/RGO hybrid as an electrode material for asymmetric supercapacitor and glucose sensor applications. *Journal of Materials Chemistry A* 6 (2018) 14367-14379 **Impact Factor: 11.301**.
- [22] Recent advances in molybdenum disulfide-based electrode materials for electroanalytical applications A.T. Ezhil Vilian, Bose Dinesh, Sung-Min Kang, Uma Maheswari Krishnan, Yun Suk Huh and Young-Kyu Han. *Microchimica Acta*, 2019 **Impact Factor: 6.232**

[23] Bose Dinesh*, K. S. Shalini Devi, Uma Maheswari Krishnan, Stable High Surface Excess of Glucose Oxidase Enzyme Immobilization onto Intrinsic Metal Impurities Encapsulated Multiwalled Carbon Nanotubes for Biosensing Applications, ACS Applied Biomaterials 2 (2019) 1740-1750.

[24] Bose Dinesh, A.T. Ezhil Vilian, Cheol Hwan Kwak, Yun Suk Huh, Ramiah Saraswathi, Young-Kyu Han. The facile and simple synthesis of poly(3,4-ethylenedioxythiophene) decorated reduced graphene oxide for biosensor applications, 2019, Analytica chimica Acta, Revision <Impact Factor:5.977>

[25] Aarthi Kannan, K. S. Shalini Devi, **Bose Dinesh**, Uma Maheswari Krishnan, Sakthivel Gandhi. Tailoring the electrochemical interface of mesoporous carbon with ubiquinone for detection of parabens in cosmetics. 2020, Chemistry Select <Impact Factor:1.8113>

Research Activities

Degree	No. Awarded	No. Submitted	No. Guiding
M.Phil.,	-	-	-
Ph.D.,(Part-time)	-	-	-
Ph.D. (Full-time)	-	-	-

Details of Invited Lecture / Resource Person

Place	Date	Sponsoring Agency	Topic	Audience type	International/National/State Level
National Taipei university of technology (Taiwan)	2012	DST-SERB	Enhanced performance of Pt and Pt-Ru supported PEDOT-RGO nanocomposite towards methanol oxidation	Research scholar scientists	State Level

Academic council/Board of Studies Member

Institution	For a period of	Dept.
-	-	-
-	-	-

Honours Achieved

Agency	Recognition IN/National/State	Cash award if any(Amount)	For the service of
DST-SERB	National Postdoctoral Fellowship	Fellowship	Young Scientist
UGC-BSR	National Meritorious fellowship	Fellowship	Research scholar
Madurai kamaraj university	Best paper Award	2000/-	Research work
CECRI-Karaikudi	Best paper Award	5000/-	Research work

Service in Extra Curricular Activities (NSS/NCC/AEEP/YRC/MCCA/Club etc.,)

Whether NSS/NCC/AEEP/YRC	Period
-	-
-	-

Reviewer/editor of a journal

Title of the Journal	ISSN No. if any	International/ National/State	Impact factor/h-index
Diamonds and Related Materials	-	International	3.12
Oriental Journal of Chemistry	-	International	-
Micro chemical jounran;	-	International	-

Details of Orientation and Refresher attended

Orientation/Refresher	University/College/Institute at which attended	Duration	
		from	to
-	-		
-	-		

Any Other Information : NIL