RESUME

Dr. MAYAKRISHNAN GOPIRAMAN

Special Associate Professor
Nano Fusion Technology Research Lab
Division of Molecules and Polymers
Institute for Fiber Engineering (IFES)
Interdisciplinary Cluster for Cutting Edge Research (ICCER)
National University Corporation Shinshu University
3-15-1, Tokida, Ueda, Nagano 386-8567
Japan
Institute webpage: [Link]; Google Scholar: [Link]; ResearchGate: [Link]

✆ +81 70 4076 2868; (✉) gopiraman@shinshu-u.ac.jp; gopiramanm@gmail.com

PERSONAL DETAILS

Name	:	Mayakrishnan Gopiraman
Father's name	:	G Mayakrishnan
Mother's name	:	M Valli
Nationality	:	Indian
Date of birth (Age)	:	29th June 1987 (37 Years Old)
Languages known	:	English, Tamil and Japanese (Basic Level)
Address (Permanent)	:	78 Pudhurkallan Kuttur, Hasthampatti Post, Salem 636007, Tamilnadu, India; Mobile: +91 9842073311

PROFESSIONAL EXPERIENCE

Specially Appointed Associate Professor – Division of Molecules and Polymers, Institute for Fiber Engineering (IFES), Interdisciplinary Cluster of Cutting-Edge Research (ICCER), Shinshu University, Ueda, Japan – from 1st April 2020 to present

Distinguished Adjutant Faculty – Department of Biochemistry, Center for Molecular Medicine and Diagnostics (COMManD), Saveetha Institute of Medical and Technical Sciences, Tamilnadu, India - from 16th May 2024 to present

Associate Professor – Department of Applied Bioscience, College Life and Environmental Science, Konkuk University, Seoul, South Korea – from 17th March 2016 to 29th February 2020

Special Assistant Professor – Interdisciplinary Cluster of Cutting-Edge Research, Division of Frontier Fibers, Shinshu University, Ueda, Japan – from 1st April 2015 to 16th March 2016

Postdoctoral Research Associate – Interdisciplinary Cluster of Cutting-Edge Research, Division of Frontier Fibers, Shinshu University, Ueda, Japan – from 1st April 2014 to 31st 2015

EDUCATION

Ph.D. (Carbon Materials Supported Metal Nanostructures for Efficient Catalytic Organic Transformations) – Shinshu University, Ueda, Japan – April 2011 to March 2014

Master of Science (**Chemistry**) – National Institute of Technology, Tiruchirappalli – July 2008 to May 2010 – First class with 7.21 CGPA of marks

Bachelor of Education (**Physical Science**) – Lisieux College of Education, Coimbatore – June 2007 to May 2008 – First class with 76.77% of marks

Bachelor of Science (**Chemistry**) – Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore – June 2004 to May 2007 – First class with 72.96% of marks

ADDITIONAL QUALIFICATIONS AND ACTIVITIES

Diploma in Yoga – Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore – 2004 to 2005 – First class

Diploma in Computer Programming (DCP) – ACETECH Computer Education, Coimbatore – July 2006 to January 2007 – 'A' Grade

Obtained '**B**' and '**C**' certificates in National cadet corps (**NCC)** 2006–2007

National Cadet Corp (**NCC**) volunteer during 2004–2007

Scouts volunteer during 2007–2008

AREAS OF EXPERTISE

Materials Chemistry, Heterogenous Catalyst, Electrospun Nanofibers, Carbon Nanocomposites, Corrosion, Energy, Environmental

RESPONSIBILITIES AND ACCOMPLISHMENTS

- Conducted team and independent research on synthesis of various novel nanocomposite materials and their potential applications in filtration, sensors, catalysis, energy and biomedical.
- Well versed in handling and applying the spectroscopic and microscopic techniques like NMR, FT–IR, UV–Visible, Mass spectrometry, TGA, Raman, GC-MS, XRD, SEM, TEM and XPS to characterize the materials.
- (Co)guiding PhD student researcher, postgraduate and undergraduate students.

AWARDS/HONOURS

- Received **Best Oral Presentation Award** - "The 4th International Symposium on for High-tech Fiber engineering of young researches" held at Shinshu University, Japan during 1-3

September 2011

- Selected for Japanese Government (Monbukagakusho: **MEXT**) Scholarship (**JASSO)** for 2 years, PhD program, from 1st April 2011 to 31st March 2013
- **Best Biographical Profile** published by Marquis Who's Who in the World 2016
- Appointed as **Distinguished Adjutant Faculty,** Department of Biochemistry, Center for Molecular Medicine and Diagnostics (COMManD), Saveetha Institute of Medical and Technical Sciences, Tamilnadu, India - from 16th May 2024 to present
- **Editor in Chief** – Journal "Nanoscale Reports" – from Jan-2018 to present
- **Editorial Board Member** – Chemical Science Review and Letters; Mathews Journal of Pharmaceutical Science, Nanoscale Reports; Nano Progress; Chemical Science & Engineering Research
- RSC Advances – **Reviewer Panel Member**
- **Chairman** for oral and poster sessions - International conferences
- Served as a Technical Program **Committee Member** - 4th International Multi Topic Conference (IMTIC) 2015 organized by Mehran University of Engineering & Technology (MUET)
- **First Place** in District level Firing Completion in Combined Annual Training Camp 2005-2006 (SD and JD) held at Marudhamalai Sri Subramania Swamy Devasthanam Higher Secondary School, Vadavalli, Coimbatore, during 6-17 January 2006

KEYNOTE/INVITED TALKS

- Delivered **Invited Guest Lecture** on Electrospun Nanofibers in Catalysis, Biomedical, Energy and Environmental Applications, at CSIR-AMPRI, November 30th 2023, Bhopal, India. During the visit to CSIR-AMPRI, Indo-Japan Joint-Research Program by JSPS-DST.
- Delivered **Keynote Talk** on Electrospun Nanofibers: Surface Modification and Potential Applications, at The 14th International Symposium on High-Tech Fiber Engineering for Young Researcher 2023, August 28th-31st 2023, Soochow University, China.
- Delivered **Invited Talk** on 'Electrospun nanofibers and their applications' at JCK Joint Symposium on Nano Nanotechnology Innovations, 19 Jan 2021 (Online Mode).
- Delivered **Keynote Talk** on "Electrospun Nanofibers and Their Applications" at JCK Joint Symposium on Nano Nanotechnology Innovations, 19-January 2021, Suzhou, China.
- Delivered **Keynote Talk** on "Functionalized Nanofibers and their Applications" at Proceedings of the 7th International Symposium on High-Tech Fiber Engineering for Young Researcher, 31, Auguest-8. Sep 2015, Suzhou, China.

PRESS RELEASED WORKS

- News title: Monitor human/humanoid movements: Development of ultra-high-performance high-tech nanofiber sensor

  Theme: Flexible Piezoelectric Sensor Based on Two-Dimensional Topological Network of PVDF/DA Composite Nanofiber Membrane

  Journal: Advanced Fiber Materials 2024

Inventors: Junpeng, X., Ling, W., Fanghua, L., Mengying, L., Yoshinori, Y., Muhammad, A. I., **Gopiraman, M.**, Jian, S., Kim, I. S.

Press: Shinshu University Press Release; News Date: 10th May 2024. [Link]

- News title: Developed PU/PEO nanofiber composite material applicable to filtration, biomedical and energy fields

  Theme: Water-based eco-friendly fabrication of physicochemically crosslinked and highly wettable PU-rich electrospun PU/PEO nanofiber composites with exceptional chemical and thermal stability; Journal: Green Chemistry 25(19), pp.7556-7570.

  Inventors: Osamu, O., **Gopiraman, M.**, Yan, G., Chunhong, Z., Kei, W., Kim, I. S.

  Press: Shinshu University Press Release; News Date: 11th October 2023 [Link].

- News Title: Bilayer PET/PVDF substrate-reinforced solid polymer electrolyte improves solid-state lithium metal battery performance

  Theme: Enhanced properties of solid polymer electrolytes by a bilayer nonwoven PET/nanofiber PVDF substrate for use in all-solid-state lithium metal batteries. Journal of Power Sources, 564, p.232851.

  Inventors: Sun, L., Cai, Y., Kim, D., Kim, S., Zhu, C., Wang, F., Ullah, A., Wong, P.Y., **Gopiraman, M.**, Lee, C. and Kim, I.S.

  Shinshu University Press Release; News Date: 22nd March 2023 [Link]. AAAS and EurekAlert Release Data: 22nd March 2023 [Link].

SPECIAL ISSUES EDITED

- Bioactive Nanoparticles: Synthesis and Potential Applications; Guest Editors: **Gopiraman, M.**, Kim, I. S., Ramkumar, V. International Journal of Molecular Sciences, IF – 5.6; Year: 2023-2024.
- Electrospun Composite Nanofibers: Sensing and Biosensing Applications; Guest Editors: **Gopiraman, M.**, Kim, I. S., Ramkumar, V. Sensors, IF – 3.9; Year: 2023-2024.
- Advanced Research on Electrode Materials for Supercapacitors; Guest Editors: **Gopiraman, M.**, Ramkumar, V. Crystals, IF – 2.7; Year: 2023-2024.
- Lead Guest Editor for a Special Issue “Environmentally Feasible Synthesis of Nanomaterials and its Usefulness; Guest Editors: **Gopiraman, M.** Journal of Nanomaterials.

CONFERENCES ORGANIZED

- The IFES East Asia Special Symposium on “Advanced Functional Materials” by Internationally Recognized Scholars Program, held at National University Corporation Shinshu University, Nagano, Japan during January 24th-27th 2024, Role: Co-organized.
- The 4th International Symposium on High-Tech Fiber Engineering for Young Researchers held at Shinshu University, Nagano, Japan during August 29th- September 4th 2011, Role: Co-organized.
- Organizing Committee Member of Horizon – 2008 & 2009 (National Level Student’s

Symposiums), NIT, Trichy, India.

COLLABORATIONS

- National University Singapore (NUS), Singapore
- Soochow University, China
- Korean University, South Korea
- Yonsei University, South Korea
- Yeungnam University, South Korea
- National Institute of Technology, Trichy, India
- Indian Institute of Technology, Delhi, India
- Jeonbuk National University, South Korea
- Korea University, South Korea

REVIEWER ROLE

Served as a Reviewer for over 100 reputed journals in ACS Publications, RSC Publishing, Elsevier, Wiley, Springer, MDPI, Nature Publishing Group. Some of the notable journals are Nature Reviews Methods Primers, ACS Applied Materials and Interfaces; Advanced Functional Materials; Journal of Materials Chemistry A; Materials and Design; European Polymer Journal, Advanced Synthesis & Catalysis.

STUDENTS (CO)GUIDED

- PhD (Co-guided) – 2
- Postgraduate (Co-guided) – 18; Undergraduate (Co-guided) – 17

PROJECTS

- Title of the Project: Recyclable, smart and highly efficient wire-shaped solar cells waved portable/wearable electronics, Grand Number: 24K15389; Project duration: 3 years (2024-2026), Funding agency: JSPS (KAKENHI Basic Research (C) (General)), Funding amount: ~3,510,000 JPY (estimated)/3 years. **Principle Investigator (PI): Dr. M. Gopiraman**. Project Status: On-going.

- Title of the Project: "Bio-manufacturing Revolution Promotion Project" and "Building a Platform for Comprehensive Utilization of Eggshell Membranes Using Modified Enzymes", Project duration: 5 years (2023-2027); Funding agency: NEDO (New Energy and Industrial Technology Development Organization); Joint Project: Pharma Foods and National University Corporation Shinshu University; Funding amount – 160 billion JPY (estimated)/5 years; **Role of Dr. M. Gopiraman: One of the Principal Investigators (PIs)**. Project Status: On-going.

- Title of the Project: Development of antiviral and antimicrobial textile based Personal

Protective Equipment (PPE) using polymer nanocomposites with metal and metal oxide nanoparticles immobilized proteolytic enzymes, Grant Number: JP JSBP 120237703; Project Category: JSPS Bilateral Research Program; Project duration: 2 years (2023-2025); Funding Agency: JSPS from Japan Side and DST from India Side; Funding amount: 2,000,000 JPY/2-year (from JSPS) and 11,22,000 INR/2-year (from DST). Investigators: 2, Team Members: 12. Principal Investigators (PIs): Prof. Dr. Hideaki Morikawa and Dr. Sorna Gowri Vijayakumar; **Role of Dr. M. Gopiraman – Team Member**. Project Status: On-going.

- Title of the project: Omics Research of Crop Bioresources for Future; Total duration: 5 years (2016.3.1~2020.8.31); Funding Agency: Korea Research Foundation (KRF); Funding amount: 113,240,000 KRW/year (566 million KRW in total); Number of Investigators: 5 (1 PI, and 4 Co-PI); Principal Investigator (PI) – Prof. Dr. Ill Min Chung; **Role of Dr. M. Gopiraman – Co-Principal Investigator (Co-PI)**. Project Status: Completed.

OUTREACH:

Our group have jointly developed PU-nanofibers based composite nanofiber mask in order to protect the people from the spreading of virus infection during the COVID-19 pandemic (AirQueen and NafiaS) - The masks are commercially available on Amazon. The work has been press released – National University Corporation Shinshu university, NHK-Japan and other medias in Japan and South Korea.

JOURNAL COVER IMAGES

- Paper Title: Flexible Piezoelectric Sensor Based on Two-Dimensional Topological Network of PVDF/DA Composite Nanofiber Membrane
  Journal: Advanced Fiber Materials (May 2024)
  Inventors: Junpeng, X., Ling, W., Fanghua, L., Mengying, L., Yoshinori, Y., Muhammad, A. I., **Gopiraman, M.**, Jian, S., Kim, I. S.
  Cover Image: Front Cover
- Paper Title: Water-based eco-friendly fabrication of physicochemically crosslinked and highly wettable PU-rich electrospun PU/PEO nanofiber composites with exceptional chemical and thermal stability
  Journal: Green Chemistry 25(19), pp.7556-7570.
  Inventors: Osamu, O., **Gopiraman, M.**, Yan, G., Chunhong, Z., Kei, W., Kim, I. S.
  Cover Image: Back Cover

INDUSTRIES VISITED / WORKSHOPS ATTENTED:

- Visited Instrumental Facilities in National Institute of Materials Science (NIMS), Tsukuba, Japan - 4th July 2024
- World Smart Energy Week, Organizer: RX Japan Ltd., 28th February – 1st March, 2024, Tokyo

Big City, Tokyo, Japan.

- Visited Electrochemical Facilities in Sanyo Chemical Industries. Ltd. Kyoto, Japan – 17th April, 2024.

PUBLICATION DETAILS

- Full Papers / Communications/ Reviews – 96
- Book Chapters – 8
- Patents – 12 (4 Granted (3 Japanese; 1 Korean); 5 Open; 3 Submitted)
- Projects – 4 (1 Completed; 3 Ongoing)
- Conference Proceedings – 12
- Cumulative Impact Factor – 522.6: Average Impact Factor – 5.44
- Total Number of Citations – 4070
- h - index – 37
- i10 - index – 78

LIST OF PUBLICATIONS (Reverse Chronological Order)

[96] **Gopiraman, M.**, Ramkumar, V., Junpeng, X., Muhammad, F., Azeem, U., Zhang, K.Q., Kim, S.C., Kim, I.S. (2024) Vastly Synergistic Fe_2CuNiS_4-Nanoarchitectures Anchored 2D-Nano-Sandwich Derived from Flower-like-$CuFeS_2$/N-Graphene and Cube-like-$NiFeS_2$/N-CNTs for Water Oxidation and Nitrophenol Reduction, ***Energy & Environmental Materials*** (Accepted). IF – 15.0. [Link]

[95] Sharjeel, A., Ling, W., Kaiser, H., Gopiraman, M., Rajamani, L., Kim, K.O., Ullah, A., Kim, I. S. (2024) Investigating alginate and chitosan electrospun nanofibers as a potential wound dressing: an in vitro study, ***Nanocomposites***, 10, 254-267. IF – 4.6 [Link]

[94] Junpeng, X., Ling, W., Fanghua, L., Mengying, L., Yoshinori, Y., Muhammad, A. I., **Gopiraman, M.**, Jian, S., Kim, I. S. (2024) Flexible Piezoelectric Sensor Based on Two-Dimensional Topological Network of PVDF/DA Composite Nanofiber Membrane, ***Advanced Fiber Materials***, 1-17. IF – 17.2 [Link]

[93] Ramkumar, V., Santhanaraj, D., **Gopiraman, M.**, Karthikeyan, G. G., Bharathi, A., Babu, C. M., Kim, S. C., (2024) Melamine-based metal-organic frameworks for high-performance supercapacitor applications, ***Journal of Colloid and Interface Science,*** 666, 380-392. IF – 9.9 [Link]

[92] Ramkumar, V., Jegatheesan, P., **Gopiraman, M.**, Kim, S. C., Muneeswaran, M., (2024) Surface Modified Advanced Magnetoelastic Sensors for Biomedical Engineering, ***Surface and Interfaces,*** 48, 104247. IF – 6.2 [Link]

[91] Muhammad, A. I., Sabeen, G., Zhu, C., **Gopiraman, M.**, Kim, I. S. (2024) Eggshell membrane as a novel and green platform for the preparation of highly efficient and reversible curcumin-based colorimetric sensor for the monitoring of chicken freshness, ***International Journal of Biomacromolecules***. IF – 8.2 [Link]

[90] Muhammad, A. I., Sabeen, G., Yoshinori, Y., Liang F., Wang L., Muhammad F., Muhammad, N. S., **Gopiraman, M.**, Kim, I. S. 2024. Green extract surface-coated electrospun cellulose nanofibers as an efficient, reversible, and reusable smart colorimetric sensor for real-time monitoring of chicken freshness, ***Current Research in Biotechnology***, 7, 100192. IF – 5.6 [Link]

[89] Muhammad, F., **Gopiraman, M.**, Kim, I. S. (2024) Photo reduced molybdenum oxide/polyacrylonitrile composite membrane for eco-friendly silver, copper ions reduction and release mechanisms. ***Chemical Engineering Journal***, 484,149219. IF – 15.1 [Link]

[88] **Mayakrishnan, G.**, Vanaraj, R., Kitauchi, T., Kanthapazham, R., Kim, S.C. and Kim, I.S., 2023. Preparation and Characterization of Polymer-Based Electrospun Nanofibers for Flexible Electronic Applications. ***Coatings***, 14(1), p.35. IF – 3.4 [Link]

[87] Farooq, M., Khalid, M., Yoshinori, Y., Wang, F., Iqbal, M.A., Sarwar, M.N., **Mayakrishnan, G**. and Kim, I.S., 2023. Ag and MoO_3 Nanoparticle-Containing Polyacrylonitrile Nanofiber Membranes for Wound Dressings. ***ACS Applied Nano Materials***, 6(18), pp.17171-17178. IF – 5.3 [Link]

[86] Sun, L., Miyagi, D., Cai, Y., Ullah, A., Haider, M.K., Zhu, C., **Gopiraman, M**. and Kim, I.S., 2023. Rational construction of hierarchical nanocomposites by growing dense polyaniline nanoarrays on carbon black-functionalized carbon nanofiber backbone for freestanding supercapacitor electrodes. ***Journal of Energy Storage***, 61, p.106738. IF – 9.4 [Link]

[85] Ohsawa, O., **Mayakrishnan, G.**, Ge, Y., Zhu, C., Watanabe, K. and Kim, I.S., 2023. Water-based eco-friendly fabrication of physicochemically crosslinked and highly wettable PU-rich electrospun PU/PEO nanofiber composites with exceptional chemical and thermal stability. ***Green Chemistry***, 25(19), pp.7556-7570. IF – 9.8 [Link]

[84] Vanaraj, R., Arumugam, B., **Mayakrishnan, G.**, Kim, I.S. and Kim, S.C., 2023. A Review on Electrospun Nanofiber Composites for an Efficient Electrochemical Sensor Applications. ***Sensors***, 23(15), p.6705. IF – 3.9 [Link]

[83] Ramkumar V., Bharathi, A., **Gopiraman, M.**, Suresh Kumar, S.M., Kim, S.C., 2023. An Overview of Active Electrode Materials for the Efficient High-performance Supercapacitor Application. ***Crystals***, 13(7), p.1118. IF 2.7 [Link]

[82] Ullah, A., Sun, L., Wang, F.F., Nawaz, H., Yamashita, K., Cai, Y., Anwar, F., Khan, M.Q., **Gopiraman, M.** and Kim, I.S., 2023. Eco-friendly bioactive β-caryophyllene/halloysite nanotubes loaded nanofibrous sheets for active food packaging. ***Food Packaging and Shelf Life***, 35, p.101028. ISSN: 2214-2894. IF: 8.749 [Link]

[81] Sun, L., Cai, Y., Kim, D., Kim, S., Zhu, C., Wang, F., Ullah, A., Wong, P.Y., **Gopiraman, M.**, Lee, C. and Kim, I.S., 2023. Enhanced properties of solid polymer electrolytes by a bilayer nonwoven PET/nanofiber PVDF substrate for use in all-solid-state lithium metal batteries. ***Journal of Power Sources***, 564, p.232851. ISSN: 0378-7753. IF: 9.2 [Link]

[80] Haider, M.K., Kharaghani, D., Sun, L., Ullah, S., Sarwar, M.N., Ullah, A., Khatri, M., Yoshiko, Y., **Gopiraman, M**. and Kim, I.S., 2023. Synthesized bioactive lignin nanoparticles

polycaprolactone nanofibers: A novel nanobiocomposite for bone tissue engineering. ***Biomaterials Advances***, 144, p.213203. ISSN: 2772-9508. IF: 5.5 [Link]

[79] Ullah, A., Sarwar, M.N., Wang, F.F., Kharaghani, D., Sun, L., Zhu, C., Yoshiko, Y., **Gopiraman, M.**, Lee, J.S. and Kim, I.S., 2022. In vitro biocompatibility, antibacterial activity, and release behavior of halloysite nanotubes loaded with diclofenac sodium salt incorporated in electrospun soy protein isolate/hydroxyethyl cellulose nanofibers. ***Current Research in Biotechnology***, 4, pp.445-458. ISSN: 2590-2628. IF: 5.4 [Link]

[78] Sindhuja, D., **Gopiraman, M**., Vasanthakumar, P., Bhuvanesh, N., Karvembu, R., 15 September 2021. Ruthenium−p−cymene complexes with acylthiourea, and its heterogenized form on graphene oxide act as catalysts for the synthesis of quinoxaline derivatives. ***Journal of Organometallic Chemistry***, 121933. ISSN: 0022-328X. IF: 2.3 [Link]

[77] Ramesh, P., Amalraj, S., Arunachalam, P., **Gopiraman, M**., Al-Mayouf, A. M., Vasanthkumar, S., February 2021. Covalent intercalation of hydrazine derived graphene oxide as an efficient 2D material for supercapacitor application. ***Synthetic Metals*** **272**, pp. 116656. ISSN: 0379-6779. IF: 4.4 [Link]

[76] Ayyannan, G., Mohanraj, M., **Gopiraman, M**., Uthayamalar, R., Raja, G., Bhuvanesh, N., Nandhakumar, R., Jayabalakrishnan, C., 1 November 2020. New Palladium (II) complexes with ONO chelated hydrazone ligand: Synthesis, characterization, DNA/BSA interaction, antioxidant and cytotoxicity. ***Inorganica Chimica Acta***, 119868. ISSN: 0020-1693. IF: 2.8 [Link]

[75] Vijayakumar, E., Ramakrishnan, S., Sathiskumar, C., Dong, J. Y., **Gopiraman, M**., Kim, K., Noh, H. S., Kim, M. K., Lee, H., 1 March 2020. Three-dimensional bimetal TMO supported carbon based electrocatalyst developed via dry synthesis for hydrogen and oxygen evolution. ***Applied Surface Science*** **505**, 144642. ISSN: 0169-4332. IF: 6.7 [Link]

[74] **Gopiraman, M.**, Kim, I.S. and Chung, I.M., 2 February 2020. Stepwise Construction of Ru(II)-Center Containing Chiral Thiourea Ligand on Graphene Oxide: First Efficient, Reusable and Stable Catalyst for Asymmetric Transfer Hydrogenation of Ketones. ***Catalysts*** **10** (2), 175. ISSN: 2073-4344. IF: 3.9 [Link]

[73] **Mayakrishnan, G**., Elayappan, V., Kim, I.S. and Chung, I.M., 20 January 2020. Sea-Island-Like Morphology of CuNi Bimetallic Nanoparticles Uniformly Anchored on Single Layer Graphene Oxide as a Highly Efficient and Noble-Metal-Free Catalyst for Cyanation of Aryl Halides. ***Scientific Reports***, 10(1), 1-15. ISSN: 2045-2322. IF: 4.997 [Link]

[72] Chung, I.M., Malathy, R., Kim, S.H., Kalaiselvi, K., Prabakaran, M., **Gopiraman, M**., 15 Jan 2020. Ecofriendly green inhibitor from Hemerocallis fulva against aluminum corrosion in sulphuric acid medium. ***Journal of Adhesion Science and Technology*** **34** (14), 1483-1506. ISSN: 1568-5616. IF: 2.431 [Link]

[71] **Gopiraman, M.**, Saravanamoorthy, S., Ullah, S., Ilangovan, A., Kim, I.S. and Chung, I.M., 14th January 2020. Reducing-agent-free facile preparation of Rh-nanoparticles uniformly anchored on onion-like fullerene for catalytic applications. ***RSC Advances***, **10**(5), 2545-2559. ISSN 2046-2069. IF. 3.9 [Link]

[70] Chung, I.M., Hemapriya, V., Kim, S.H., Ponnusamy, K., Arunadevi, N., Chitra, S., Prabakaran, M., **Gopiraman, M**., 25 Nov 2019. Liriope platyphylla extract as a green inhibitor for mild steel corrosion in sulfuric acid medium. ***Chemical Engineering Communications*** **208** (1), 72-88. ISSN: 1563-5201. IF: 2.586 [Link]

[69] **Mayakrishnan, G**., Somasundaram, S., Ullah, S., Andivelu, I., Ick Soo, K. and Ill Min, C., 30 October 2019. Facile Green Preparation of Rhodium Nanoclusters Supported Nano-Scaled Graphene Platelets for Sonogashira Coupling Reaction and Reduction of p-Nitrophenol. ***Catalysts***, **9**(11), 908. ISSN: 2073-4344. IF: 3.9 [Link]

[68] **Gopiraman, M.**, Saravanamoorthy, S., Baskar, R., Ilangovan, A. and Ill-Min, C., 07 Oct 2019. Green synthesis of Ag@ Au bimetallic regenerated cellulose nanofibers for catalytic applications. ***New Journal of Chemistry***, **43**(43), 17090-17103. ISSN: 1369-9261. IF: 3.3 [Link]

[67] Facile Mechanochemical Synthesis of Nickel/Graphene Oxide Nanocomposites with Unique and Tunable Morphology: Applications in Heterogeneous Catalysis and Supercapacitors. M. Gopiraman, S. Saravanamoorthy, D. Deng, A. Ilangovan, I. S. Kim, I. M. Chung, ***Catalysts*** 27 May 2019, **9**(5), 486 (1-19). ISSN: 2073-4344. IF: 3.9 [Link]

[66] **Gopiraman, M.**, Muneeswaran, M. and Kim, I.S., 20th May 2019. Highly porous Ru/C and Cu/C nanocatalysts derived from custard apple for rapid and selective reduction of p-nitrophenol. ***Nano Progress***, ***1***(1), 30-36. ISSN: 2582-1598. [Link]

[65] Highly active and reducing agent-free preparation of cost-effective NiO-based carbon nanocomposite and its application in reduction reactions under mild conditions (25 April 2018) S. Saravanamoorthy, I.-M. Chung, V. Ramkumar, B. Ramaganth and M. Gopiraman, ***Journal of Industrial Engineering Chemistry*** **60**, 91-101. ISSN: 1226-086X. IF: 6.1 [Link]

[64] Cultivation of Cu/HMPC Catalyst from Hyperaccumulating Mustard Plant for Highly Efficient and Selective Coupling Reactions under Mild Conditions (24th January 2018) **M. Gopiraman**, J. S. Lee, I. M. Chung, I. S. Kim, ***RSC Advances*** **8**, 4531-4547. ISSN 2046-2069. IF. 3.9 [Link]

[63] **Gopiraman, M**., Deng, D., Saravanamoorthy, S., Chung, I.M. and Kim, I.S., 17th January 2018. Gold, silver and nickel nanoparticle anchored cellulose nanofiber composites as highly active catalysts for the rapid and selective reduction of nitrophenols in water. ***RSC advances***, **8**(6), 3014-3023. ISSN 2046-2069. IF. 3.9 [Link]

[62] Highly active and cost-effective CuO-based carbon nanocomposite with unique morphology for catalytic synthesis of imines under solvent-free conditions (December 2017) M. Gopiraman and I.M. Chung****Journal of Taiwan Institute of Chemical Engineers*** **81**, 455-464. ISSN: 1876-1070. IF: 5.7 [Link]

[61] Heteroatom-rich hierarchically porous carbon nanosheets derived from human hair as an efficient metal-free catalyst for imine formation (08 June 2017 October 2017) **M. Gopiraman** and I. M. Chung* ***Reaction Kinetics, Mechanisms and Catalysis*** **122**, 205–215. ISSN: 1878-5204. IF: 1.8 [Link]

[60] Interconnected meso/microporous carbon derived from pumpkin seeds as an efficient electrode material for supercapacitors (31 October 2017) **M. Gopiraman**, S. Saravanamoorthy, S.-H. Kim and I.-M. Chung, ***Carbon Letters*** **24**, 73-81. ISSN: 2233-4998. IF: 4.5 [Link]

[59] Highly active human-hair-supported noble metal (Ag or Ru) nanocomposites for rapid and selective reduction of p-nitrophenol to p-aminophenol (17th May 2017 October 2017) **M. Gopiraman**, S. Saravanamoorthy and I. M. Chung ***Research on Chemical Intermediates*** **43**, 5601–5614. ISSN: 1568-5675. IF: 3.3 [Link]

[58] Multifunctional human-hair nanocomposites for oxidation of alcohols, *aza*-Michael reactions and reduction of 2-nitrophenol (05 June 2017 August 2017) **M. Gopiraman** and I.-M. Chung, ***The Korean Journal of Chemical Engineering*** **34**, 2169–2179. ISSN: 1975-7220. IF: 2.7 [Link]

[57] Three-dimensional cheese-like carbon nanoarchitecture with tremendous surface area and pore construction derived from corn as superior electrode materials for supercapacitors (1 July 2017) **M. Gopiraman**, D. Deng, B. S. Kim, I.M. Chung,* and I. S. Kim*, ***Applied Surface Science*** **409**, 52-59. ISSN: 0169-4332. IF: 6.7 [Link]

[56] Nitrogen- and Oxygen-Containing Porous Ultrafine Carbon Nanofiber: A Highly Flexible Electrode Material for Supercapacitor (May 2017) K. Wei, K.-O. Kim, K.-H. Song, J. S. Lee, **M. Gopiraman** and I. S. Kim ***Journal of Materials Science and Technology*** **33**, 424-431. ISSN 1005-0302. IF: 10.9 [Link]

[55] Utilization of Human Hair as a Synergistic Support for Ag, Au, Cu, Ni and Ru Nanoparticles: Application in Catalysis (1 March 2017) **M. Gopiraman**, D. Deng, K.Q. Zhang, W. Kai, I.M. Chung, R. Karvembu, I. S. Kim, ***Industrial & Engineering Chemistry Research*** **56** (8), 1926–1939. ISSN: 1520-5045. IF: 4.2 [Link]

[54] Interconnected ruthenium dioxide nanoparticles anchored on graphite oxide: Highly efficient candidate for solvent-free oxidative synthesis of imines (25 February 2017) G. Yuan, **M. Gopiraman**,* H.J. Cha, H.D. Soo, I.M. Chung and I. S. Kim* ***Journal of Industrial and Engineering Chemistry*** **46** 279–288. ISSN: 1226-086X. IF: 6.1 [Link]

[53] Industrial-Quality Graphene Oxide Switched Highly Efficient Metal-and Solvent-Free Synthesis of *β*-Ketoenamines under Feasible Conditions (6 February 2017) D. Deng, L. Xiao, I.M. Chung, I.S Kim and **M. Gopiraman**, ***ACS Sustainable Chemistry & Engineering*** **5** 1253–1259. ISSN: 2168-0485. IF: 8.4 [Link]

[52] Cyclodextrin functionalized cellulose nanofiber composites for the faster adsorption of toluene from aqueous solution (1 November 2016 January 2017) G. Yuan, M. Prabakaran, S. Qilong, J. S. Lee, I.-M. Chung, **M. Gopiraman**, K.H. Song, and I. S. Kim ***Journal of the Taiwan Institute of Chemical Engineers*** **70** 352–358. ISSN: 1876-1070. IF: 5.7 [Link]

[51] Allantoin-loaded porous silica nanoparticles / polycaprolacton nanofiber composites: fabrication, characterization, and drug release properties (08 Dec 2015 2016) M. Ke, J. A. Wahab, B. Hyunsik, K. H. Song, J. S. Lee, **M. Gopiraman** and I. S. Kim ***RSC Advances*** **6** 4593-4600. ISSN 2046-2069. IF: 3.9 [Link]

[50] Effect of POSS content on the electrical, thermal, mechanical and wetting properties of electrospun polyacrylonitrile (PAN)/POSS nanofibrous mats (06 Oct 2015 2016) J. L. Gu, M. S. Khil, K. B. Kim, M. Gopiraman, K.H. Song, I. S. Kim ***Journal of Experimental Nanoscience*** 11 500-511. ISSN 1745-8080. IF: 2.024 [Link]

[49] Handspinning enabled highly concentrated carbon nanotubes with controlled orientation in nanofibers (23 November 2016) H. Lee, K. Watanabe, M. Kim, **M. Gopiraman**, K.-H. Song, J. S. Lee and I. S. Kim ***Scientific Reports*** **6**, 37590. ISSN: 2045-2322. IF: 4.996 [Link]

[48] Human Hair: A Suitable Platform for Catalytic Nanoparticles (3 October 2016) D. Deng, **M. Gopiraman**, S. H. Kim, I. M. Chung, I. S. Kim ***ACS Sustainable Chemistry & Engineering*** **4** 5409-5414. ISSN: 2168-0485. IF: 8.4 [Link]

[47] Silver coated anionic cellulose nanofiber composites for an efficient antimicrobial activity (20 September 2016) **M. Gopiraman**, H. Seki, J. Abdul Wahab, Y. Kyohei and I. S. Kim ***Carbohydrate Polymers*** **149** 51-59. ISSN 0144-8617. IF: 11.2 [Link]

[46] Robust Au–Ag/graphene bimetallic nanocatalyst for multifunctional activity with high synergism (15 September 2016) S. Ganesh Babu, **M. Gopiraman**, D. Deng, K. Wei, R. Karvembu and I.S. Kim ***Chemical Engineering Journal*** **300** 146-159. ISSN: 1385-8947. IF: 15.1 [Link]

[45] Fabrication of Silk Fibroin Based Three Dimensional Scaffolds for Tissue Engineering (27 August 2016) C. Yin, A. W. Jatoi, H. Bang, **M. Gopiraman**, and I.-S. Kim ***Fibers and Polymers*** **17** 1140-1145. ISSN 1875-0052. IF: 2.5 [Link]

[44] Physicochemical Evidence for the Adsorption of Extract of Jacaranda mimosifolia on Steel Against Corrosion in Acid Medium (August 2016) K. Rose, M. Sukumaran, K. Devarayan, **M. Gopiraman**, S. Arumugam ***Oriental Journal of Chemistry*** **32** 2147-2153. ISSN: 0970-020 X. IF- N/A [Link]

[43] A simple method for the fabrication of metallic copper nanospheres-decorated cellulose nanofiber composite (July 2016) H. S. Bang, K. Ma, K. Wei, C. Y. Kang, B. S. Kim, **M. Gopiraman**, J. S. Lee, I. S. Kim ***Journal of Materials Science and Technology*** **7** 605–610. ISSN: 1005-0302. IF:10.9 [Link]

[42] Cellulose acetate nanofiber mat with honeycomb-like surface structure (15 April 2016) F. Hamano, S. Hiromichi, M. Ke, **M. Gopiraman**, C.T. Lim and I. S. Kim ***Materials Letters*** **15** 33–36. ISSN: 0167-577X. IF: 3.574 [Link]

[41] Highly dispersed nanoscale hydroxyapatite on cellulose nanofibers for bone regeneration (1 April 2016) K. Yamaguchi, J. Abdul Wahab, X. Gang, H. Bang, **M. Gopiraman** and I. S. Kim ***Materials Letters*** **168** 56-61. ISSN: 0167-577X. IF: 3.0 [Link]

[40] Noble metal/functional cellulose nanofiber composites for catalytic applications (5 November 2015) **M. Gopiraman**, B. Hyunsik, Y. Guohao, Y. Chuan, K.H. Song, J.S. Lee, I.M. Chung, R. Karvembu and I.S. Kim ***Carbohydrate Polymers*** **132** 554-564. ISSN 0144-8617. IF: 11.2 [Link]

[39] Sustainable and versatile CuO/GNS nanocatalyst for highly efficient base free coupling reactions (5 October 2015) **M. Gopiraman**, D. Deng, S. Ganesh Babu, T. Hayashi, R. Karvembu and I. S. Kim ***ACS Sustainable Chemistry & Engineering*** **3** 2478-2488. ISSN: 2168-0485. IF: 8.4 [Link]

[38] Needle-like MnO_2/activated carbon nanocomposites derived from human hair as versatile electrode materials for supercapacitors (17 Sep 2015) D. Deng, B. S. Kim, **M. Gopiraman** and I. S. Kim ***RSC Advances*** **5** 81492-81498. ISSN 2046-2069. IF: 3.9 [Link]

[37] Synthesized photo-cross-linking chalcones as novel corrosion inhibitors for mild steel in acidic medium: experimental, quantum chemical and Monte Carlo simulation studies (04 Sep 2015) E. Ebenso, B. Ramaganthan, L. Olasunkanmi, M. Kabanda, Y. Sasikumar, I. Bahadur, A. Adekunle, I. Bassey Obot and **M. Gopiraman** ***RSC Advances*** **5** 76675-76688. ISSN 2046-2069. IF: 3.9 [Link]

[36] Utilization of photo-cross-linkable polymer for mild steel corrosion inhibition in 1.0 M HCl medium (16 June 2015 August 2015) R. Baskar, **M. Gopiraman**, D. Kesavan, K. Subramanian and S. Gopalakrishnan ***Journal of Materials Engineering and Performance*** **24** 2847-2856. ISSN: 1059-9495. IF: 2.3 [Link]

[35] Photodegradation of dyes by a novel TiO_2/u-RuO_2/GNS nanocatalyst derived from Ru/GNS after its use as catalyst in aerial oxidation of primary alcohols (GNS = Graphene NanoSheets) (05 April 2015 August 2015) **M. Gopiraman**, S. Ganesh Babu, Z. Khatri, B.S. Kim, W. Wei, R. Karvembu and I.S. Kim ***Reaction Kinetics, Mechanisms and Catalysis*** **115** 759-772. ISSN: 1878-5204. IF: 3.3 [Link]

[34] UV-responsive polyvinyl alcohol nanofibers prepared by electrospinning (1 July 2015 2014) K. Zeeshan, A. Shamshad, K. Imran, **M. Gopiraman**, H.K. Seong and I.S. Kim ***Applied Surface Science*** **342** 64-68. ISSN: 0169-4332. IF: 6.7 [Link]

[33] Highly hydrophilic water-insoluble nanofiber composite as an efficient and easily-handleable material for a rapid adsorption of cesium from radioactive wastewater (31 Oct 2014) H. Bang, K. Watanabe, R. Nakashima, K. Wei, K.H. Song, J.S. Lee, **M. Gopiraman** and I.S. Kim ***RSC Advances*** **4** 59571–59578. ISSN 2046-2069. IF: 3.9 [Link]

[32] Corrosion inhibition of *Eleusine aegyptiaca* and *Croton rottleri* leaf extracts on cast iron surface in 1 M HCl medium (30 September 2014) V. Rajeswari, D. Kesavan, **M. Gopiraman**, P. Viswanathamurthi, K. Poonkuzhali and T. Palvannan ***Applied Surface Science*** **314** 537–545. ISSN: 0169-4332. IF: 6.7 [Link]

[31] Nanostructured RuO_2 on MWCNTs: Efficient Catalyst for Transfer Hydrogenation of Carbonyl Compounds and Aerial Oxidation of Alcohols (22 August 2014) **M. Gopiraman**, S. Ganesh Babu, R. Karvembu and I.S. Kim ***Applied Catalysis A: General*** **484** 84–96. ISSN: 0926-860X. IF: 5.5 [Link]

[30] Cold pad batch dyeing of cellulose nanofibers with reactive dyes (18 June 2014 August 2014) Z. Khatri, A.K. Jhatial, F. Ahmed, M. I. Abro, **M. Gopiraman** and I.S. Kim ***Cellulose*** **21** 3089–3095. ISSN: 0969-0239. IF: 5.7 [Link]

[29] Highly Active, Selective and Reusable RuO_2/SWCNT Catalyst for Heck Olefination of Aryl Halides (3 July 2014) **M. Gopiraman**, R. Karvembu and I.S. Kim ***ACS Catalysis*** **4** 2118-2129. ISSN 2155-5435. IF: 12.9 [Link]

[28] Corrosion inhibition of mild steel in 1.0 M hydrochloric acid medium by new photo-cross-linkable polymers (April 2014) R. Baskar, D. Kesavan, **M. Gopiraman**, K. Subramanian ***Progress in Organic Coatings*** **77** 836–844. ISSN: 0300-9440. IF: 6.6 [Link]

[27] Catalytic *N*-Oxidation of Tertiary Amines on RuO_2NPs Anchored Graphene Nanoplatelets (26 Mar 2014) **M. Gopiraman**, H. Bang, S. Ganesh Babu, K. Wei, R. Karvembu and I.S. Kim ***Catalysis Science and Technology* 4** 2099−2106. ISSN 2044-4761. IF: 5.0 [Link]

[26] Structural, Optical, and Multiferroic Properties of Single Phased $BiFeO_3$ (Published - 27 April 2013 Issue date - March 2014) M. Muneeswaran, P. Jegatheesan, **M. Gopiraman**, I.S. Kim and N.V. Giridharan ***Applied Physics A,* 114**, 853–859. ISSN 1432-0630. IF: 2.7 [Link]

[25] Dry Synthesis of Easily Tunable Nano Ruthenium Supported on Graphene – Novel Nanocatalysts for Aerial Oxidation of Alcohols and Transfer Hydrogenation of Ketones (October 9, 2013) **M. Gopiraman**, S. Ganesh Babu, Z. Khatri, K. Wei, Y.A. Kim, M. Endo, R. Karvembu and I.S. Kim ***Journal of Physical Chemistry C* 117** 23582–23596. ISSN 1932-7447. IF: 3.7 [Link]

[24] An Efficient, Reusable CuO/MWCNT Catalyst for *N*-Arylation of Imidazole (10 June 2013 October 2013) **M. Gopiraman**, S. Ganesh Babu, Z. Khatri, W. Kai, Y.A. Kim, M. Endo, R. Karvembu and I.S. Kim ***Carbon*** 62 135–148. ISSN: 0008-6223. IF: 10.9 [Link]

[23] Inhibition of Cast Iron Corrosion in Acid, Base, and Neutral Media Using Schiff Base Derivatives (30 January 2013 July 2013) V. Rajeswari, D. Kesavan, **M. Gopiraman** and P. Viswanathamurthi ***Journal of Surfactants and Detergents* 16** 571–580. ISSN 1097-3958. IF: 1.6 [Link]

[22] Synthesis of Novel Photosensitive Polymers for the Protection of Mild Steel from Acid Corrosion (16 July 2013) R. Baskar, D. Kesavan, **M. Gopiraman** and K. Subramanian ***RSC Advances*** 3 17039–17047. ISSN 2046-2069. IF. 3.9 [Link]

[21] Dyeing and Characterization of Cellulose Nanofibers to Improve Color Yields by Dual Padding Method (02 March 2013 June 2013) Z. Khatri, R.A. Arain, A.W. Jatoi, **M. Gopiraman**, K. Wei and I.S. Kim ***Cellulose* 20** 1469–1476. ISSN 0969-0239. IF: 5.7 [Link]

[20] Chemical and Electrochemical Investigations of High Carbon Steel Corrosion Inhibition in 10% HCl Medium by Quinoline Chalcones (16 October 2012 June 2013) G. Ayyannan, K. Karthikeyan, S.S. Vivekananthan, **M. Gopiraman** and A. Rathinavelu ***Ionics* 19** 919–932. ISSN 0947-7047. IF: 2.8 [Link]

[19] Structural and Mechanical Properties of Cellulose Acetate/Graphene Hybrid Nanofibers: Spectroscopic Investigations (June 2013) **M. Gopiraman**, K. Fujimori, K. Zeeshan, B.S. Kim and I.S. Kim ***Express in Polymer Letters* 7** 554–563. ISSN 1788-618X. IF: 3.3 [Link]

[18] Physicochemical Studies of Glucose, Gellan gum, and Hydroxypropyl Cellulose-Inhibition of Cast Iron Corrosion (5 June 2013) V. Rajeswari, D. Kesavan, **M. Gopiraman** and P. Viswanathamurthi ***Carbohydrate polymers* 95** 288–294. ISSN 0144-8617. IF: 11.2 [Link]

[17] Effect of Green Inhibitors on Acid Corrosion of AISI 1022 Steel (16th May 2013) V.S. Sundaram, S. Pitchai, K. Devarayan, **M. Gopiraman**, A. Vincent, S. Nagarajan ***Chemical Science Reviews and Letters* 1**, 195–200. ISSN 2278-6783 IF- [Link]

[16] Green Inhibitors for Corrosion of Metals: A Review (19th May, 2012 2013) D. Kesavan, **M. Gopiraman**, N. Sulochana ***Chemical Science Reviews and Letters* 1** 1–8. ISSN 2278-6783. IF - NA [Link]

[15] Preparation and Characterization of Electrospun Poly (ε-Caprolactone)-Poly (l-Lactic acid) Nanofiber Tubes (26 January 2013 May 2013) Z. Khatri, R. Nakashima, **M. Gopiraman**, K.H. Lee, Y.H. Park, K. Wei and I.S. Kim ***Journal of Materials Science*** **48** 3659–3664. ISSN 0022-2461. IF: 4.5 [Link]

[14] Pad Dyeing of Cellulose Acetate Nanofibres with Disperse Dyes (16 October 2012 April 2013) Z. Khatri, A. Khatri, U. Saleem, **M. Gopiraman**, B.S. Kim, K. Wei and I.S. Kim ***Coloration Technology*** **129** 159–163. ISSN 1478-4408. IF: 1.8 [Link]

[13] Facile and Homogeneous Decoration of RuO_2 Nanorods on Graphene Nanoplatelets for Transfer Hydrogenation of Carbonyl Compounds (20 Mar 2013) **M. Gopiraman**, S. Ganesh Babu, Z. Khatri, K. Wei, E. Morinobu, R. Karvembu, I.S. Kim ***Catalysis Science and Technology*** **3** 1485–1489. ISSN 2044-4761. IF: 5.0 [Link]

[12] Spectroscopic Investigations of Physicochemical Interactions on Mild Steel in an Acidic Medium by Environmentally Friendly Green Inhibitors (26 September 2012 March 2013) P. Sakunthala, S.S. Vivekananthan, **M. Gopiraman**, N. Sulochana and A.R. Vincent ***Journal of Surfactants and Detergents*** **16** 251–263. ISSN 1097-3958. IF: 1.6 [Link]

[11] Mechanical and Electromagnetic Interference Shielding Properties of Poly (vinyl alcohol)/Graphene and Poly (vinyl alcohol)/Multi-Walled Carbon Nanotube Composite Nanofiber Mats and the Effect of Cu Top-Layer Coating (1 March 2013) K. Fujimori, **M. Gopiraman**, H.K. Kim, B.S. Kim and I.S. Kim ***Journal of Nanoscience and Nanotechnology*** **13** 1759–1764. ISSN: 1533-4880. [Link]

[10] Cationic-Cellulose Nanofibers: Preparation and Dyeability with Anionic Reactive Dyes for Apparel Application (21 August 2012 January 2013) Z. Khatri, **M. Gopiraman**, Y. Hirata, K. Wei and I.S. Kim ***Carbohydrate polymers*** **91** 434–443. ISSN 0144-8617. IF: 11.2 [Link]

[9] Effects of pH on Electrospun PVA/Acid-Treated MWNT Composite Nanofibers (19 June 2012 September 2012) H. Bang, **M. Gopiraman**, B.S. Kim, S.H. Kim, I.S. Kim ***Colloids and Surfaces A: Physicochemical and Engineering Aspects*** **409** 112–117. ISSN 0927-7757. IF: 5.2 [Link]

[8] Physicochemical Studies of 4-Substituted *N*-(2-Mercaptophenyl)-Salicylideneimines: Corrosion Inhibition of Mild Steel in an Acid medium (10 March 2012 September 2012) D. Kesavan, M.M. Tamizh, **M. Gopiraman**, N. Sulochana, R. Karvembu ***Journal of Surfactants and Detergents*** **15** 567–576. ISSN 1097-3958. IF: 1.6 [Link]

[7] Chemical and Physical Interactions of 1-Benzoyl-3,3-Disubstituted Thiourea Derivatives on Mild Steel Surface: Corrosion Inhibition in Acidic Media (13 June 2012) **M. Gopiraman**, N. Selvakumaran, D. Kesavan, I.S. Kim, R. Karvembu ***Industrial & Engineering Chemistry Research*** **51** 7910–7922. ISSN 0888-5885. IF: 4.2 [Link]

[6] Synthesis, Characterization and Electrochemical Studies of Novel Bi-phenyl Based Compounds (14th March 2012) R. Baskar, **M. Gopiraman**, D. Kesavan, I.S. Kim and K. Subramanian ***Industrial & Engineering Chemistry Research*** **51** 3966–3974. ISSN 0888-5885. IF: 4.2 [Link]

[5] Influence of 2, 3-Dihydroxyflavanone on Corrosion Inhibition of Mild Steel in Acidic Medium (12 April 2011 February 2012) **M. Gopiraman**, C. Sathya, S. Vivekananthan, D. Kesavan, N.

Sulochana ***Journal of Materials Engineering and Performance*** **21** 240–246. ISSN 1059-9495. IF: 2.3 [Link]

[4] An Investigation of Mild Carbon Steel Corrosion Inhibition in Hydrochloric Acid Medium by Environment Friendly Green Inhibitors (27th October 2011 January 2012) **M. Gopiraman**, P. Sakunthala, D. Kesavan, V. Alexramani, I.S. Kim and N. Sulochana ***Journal of Coatings Technology and Research*** **9** 15–26. ISSN 1547-0091. IF: 2.3 [Link]

[3] 2-Acetylpyridine *N*-(4) Morpholine Thiosemicarbazone (HAcpMTSc) as a Corrosion Inhibitor on Mild Steel in HCl (06th July 2011) S.L.A. Kumar, **M. Gopiraman**, S.K. Moorthy, S. Anandaram ***Industrial & Engineering Chemistry Research*** **50** 7824–7832. ISSN 0888-5885. IF: 4.2 [Link]

[2] Inhibitive Action of Clematis Gouriana Extract on the Corrosion of Mild Steel in Acidic Medium (03rd June 2011) **M. Gopiraman**, P. Sakunthala, R. Kanmani, A.R. Vincent and N. Sulochana ***Ionics*** **17** 843–852. ISSN 0947-7047. IF: 2.8 [Link]

[1] Adsorption and Corrosion Inhibition Behaviour of *N*-(Phenylcarbamothioyl) Benzamide on mild steel in acidic medium (5 October 2011 January 2012) **M. Gopiraman**, N. Selvakumaran, D. Kesavan, R. Karvembu ***Progress in Organic Coatings*** **73** 104–111. ISSN 0300-9440. IF: 6.6 [Link]

[BOOK CHAPTERS] (Reverse Chronological Order)

[8] S. Saravanamoorthy, M. Muneeswaran, V. Ramkumar, A. Ilangovan, **M. Gopiraman**, "Application of edible film and coating in preservation of meat products" (2024). "Edible Film and Coatings: Innovative Applications for Packaging and Food Preservation" Taylor and Francis publishers, USA, ***CRC*** publishers.

[7] S. Saravanamoorthy, M. Muneeswaran, V. Ramkumar, A. Ilangovan, **M. Gopiraman**, 'Inorganic Materials for Energy, Medicine and Environmental Remediation' (2022). 'Metal Nanostructures Derived Composites for Catalytic Conversion of Organic Contaminants in Wastewater' ***Springer*** publishers, Switzerland. ISBN: 978-3-030-79899-4.

[6] G. Balamurugan, S. Vikneshvaran, **M. Gopiraman**, V. Porchezhiy, A. Ilangovan, S. Saravanamoorthy, 'Functional Nanocomposites for Groundwater Treatment' (2021). 'Functional Hybrid Nanomaterials for Environmental Remediation' RSC Publishing. ISBN: 978-1-83916-528-3.

[5] V. Ramkumar, I.P. Bincy, D. Santhanaraj, **M. Gopiraman**, S.N. Jaisankar, 'π-Stacking, conjugated, polymer-supported carbon nanotubes (CNTs) composite materials for light-emitting diode (LED) application' (2021) 169-194. 'Polymer-Based Advanced Functional Composites for Optoelectronic and Energy Applications', Elsevier publications, Netherlands. ISBN: 9780128185094

[4] M. Muneeswaran, **M. Gopiraman**, S. S. Dhanabalan, N. V. Giridharan, A.F. Ali, 'Multiferroic Properties of Rare Earth-Doped $BiFeO_3$ and Their Spintronic Applications' (2020) 'Metal and Metal Oxides for Energy and Electronics', 375-395. Springer publishers, Switzerland. ISBN: 978-3-030-53065-5

[3] **M. Gopiraman**, I. S. Kim, 'Preparation, Characterization and Applications of Electrospun Carbon Nanofibers and its Composites' (2019) IntechOpen Publishers, USA. DOI: 10.5772/intechopen.88317

[2] **M. Gopiraman**, I. S. Kim, 'Carbon Nanocomposites: Preparation and its Applications in Catalytic Organic transformations' (2018) 17-43. 'Nanocomposites Recent Evolutions' IntechOpen Publishers, USA. ISBN: 978-1-78985-012-3

[1] S. Ganesh Babu, **M. Gopiraman**, R. Karvembu, I.S. Kim, 'Carbon Material Supported Nanostructures in Catalysis', (2015) 172-197. 'Chemical Functionalization of Carbon Nanomaterials: Chemistry and Applications', Taylor and Francis publishers, USA. ISBN: 978-1138894570.

[PATENTS GRANTED/SUBMITTED] (Reverse Chronological Order)

[11] Sensor to monito human/humanoid motions, Junpeng, X., Ling, W., Fanghua, L., Mengying, L., Yoshinori, Y., Muhammad, A. I., **Gopiraman, M.**, Shi, J., Kim, I.S., Reference number: **P2504STL**; Patent application number: **2024-075027**; Application date: 7 May 2024.

[10] Food freshness calorimetry sensor, Muhammad, A. I., Sabeen, G., Zhu, C., **Gopiraman, M**., Kim, I. S., Patent application number: 2024-026616: Application date: February 26, 2024. Reference number: **N23030**: Our office reference number: **P2434STL**

[9] Method for producing catalyst and catalysis, **M. Gopiraman**, I. S. Kim, Japanese Patent Application No: 2018-061525, **Publication No: JP 2019-171274**, Filing Date: 28th Mar 2018, Release Date: 10th Oct 2019.

[8] Method for producing carbon nanofiber nonwoven fabric, carbon nanofiber nonwoven fabric and carbon nanofiber, I. S. Kim, **M. Gopiraman**, Nagaishi, T. Japanese Patent Application No: 2015-069438, Publication No: JP 2016-188159, Filing Date: 30 Mar 2015, Release Date: 4 Nov 2016.

[7] Porous carbon nanostructure, method for producing porous carbon nanostructure, and electric double layer capacitor, Kim, I.S., **Gopiraman, M**., Hara, K., Scripture, D. Japanese Patent Application No. 2015-069894; Publication No: JP 2016-188163; Filing Date: on 30 Mar 2015, Release Date: 4 Nov 2016.

[6] Production method of composite nanofiber (2015) I. S. Kim, H. S. Bang, K. Ma, **M. Gopiraman**, X. W. Hong, J. H. Xia JP Patent Date of filing 26.06.2015, Application No 2015-125975; **Publication No: JP,2017-008449,A**

[5] Production method of carbon nanofiber nonwoven fabric, carbon nanofiber nonwoven fabric, and carbon nanofiber (2015) I.S. Kim, **M. Gopiraman**, T. Nagaishi JP Patent Date of filing 30.03.2015, Application No 2015-069438; **Publication No: JP,2016-188159,A**

[4] Animal tissue work piece, manufacturing method of animal tissue work piece, metal nanoparticle catalyst and manufacturing method of metal nanoparticle catalyst (2015) I.S. Kim, **M. Gopiraman**, R. Karvembu, K. Watanabe JP Patent Date of filing 30.03.2015; Application No 2015-069356; **Publication No – JP,2016-064398,A**

[3] Breathable waterproof membranes for electronic devices and electronic devices, Kim, I.S., Wei, K., Zeeshan, K., **Gopiraman, M.**, Nakajima, T., Suzuki, H., Zhao, X. Japanese Patent

Application No. 2012-170688, Publication No: JP 2014-030775, Filing Date: 07-31-2012, Release Date: on 20 Feb 2014.

[2] Method for producing shape-memory nanofilament and shape-memory nanofilament, Kim, I.S., Kim, B.S., Wei, K., Gao, E., Yujin, L., Zeeshan, K., **Gopiraman, M.**, Nakajima, T., Ho-jae, J. Japanese Patent Application No. 2012-218949, Publication Number: JP 2014-070322, Filing Date: 09-29-2012; Release date: 21 Apr 2014

[1] Breathable waterproof membrane for electronic equipment and electronic equipment, Inventor: Kim I. S., Wei K., Zeeshan, K., **Gopiraman, M.**, Nakajima, T., Suzuki, H., Xuelai, Z. Patent application 2012-170687; Filing date: July 31, 2012; Publication date: February 20, 2014, **Publication No: JP2014-032741**.

[LIST OF CONFERENCE PROCCEDINGS] (Reverse Chronological Order)

[12] Functionalized Cellulose Nanofibers and their Catalytic Applications (2015) G. Yuan, **M. Gopiraman**, I.S. Kim, 7th International Symposium on High-Tech Fiber Engineering for Young Researcher held at Soochow University, Suzhou, China during 12th-20th November.

[11] MnO_2/C Nanocomposites as Electrode Materials for Supercapacitors (2015) D. Deng, **M. Gopiraman**, I.S. Kim, 7th International Symposium on High-Tech Fiber Engineering for Young Researcher held at Soochow University, Suzhou, China during 12th-20th November.

[10] Ag Immobilized Cellulose Nanofibers for Antibacterial Activities (2015) H. Seki, **M. Gopiraman**, I.S. Kim, 7th International Symposium on High-Tech Fiber Engineering for Young Researcher held at Soochow University, Suzhou, China during 12th-20th November.

[9] Supported Carbon Nanofibers for Fuel Cells Applications (2015) P. D. Nam, **M. Gopiraman**, I.S. Kim, 7th International Symposium on High-Tech Fiber Engineering for Young Researcher held at Soochow University, Suzhou, China during 12th-20th November.

[8] Cyclodextrin-Functionalized Cellulose Nanofibers Composites for the Removal of Toluene from Aqueous Solution (2015) H. Fumiaki, **M. Gopiraman**, I.S. Kim, 7th International Symposium on High-Tech Fiber Engineering for Young Researcher held at Soochow University, Suzhou, China during 12th-20th November.

[7] Fabrication of TiO_2 Nanofibers for Dye-Sensitized Solar Cells (2015) T. Nagaishi, **M. Gopiraman**, I.S. Kim, 7th International Symposium on High-Tech Fiber Engineering for Young Researcher held at Soochow University, Suzhou, China during 12th-20th November.

[6] Preparation and Characterization of Silk Fibroin/Soluble Eggshell Membrane Protein Nanofibers by Electrospinning (2015) X. Gang, **M. Gopiraman**, I.S. Kim, 7th International Symposium on High-Tech Fiber Engineering for Young Researcher held at Soochow University, Suzhou, China during 12th-20th November.

[5] Structural Control of Titanium Oxide on the Carbon Nanofibers and its Solar Cells Applications (2015) Y. Ishihara, **M. Gopiraman**, I.S. Kim, 7th International Symposium on High-Tech Fiber Engineering for Young Researcher held at Soochow University, Suzhou, China during 12th-20th November.

[4] Drug Loaded Porous SiO_2 Immobilized Nanofiber Composites for Controlled Release (2015) C. Yin, **M. Gopiraman**, I. S. Kim, 7th International Symposium on High-Tech Fiber Engineering for Young Researcher held at Soochow University, Suzhou, China during 12th-20th November.

[3] Fabrication of Silk Fibroin Based 3D-Scaffolds for Tissue Engineering (2015) M. Ke, **M. Gopiraman**, I. S. Kim, 7th International Symposium on High-Tech Fiber Engineering for Young Researcher held at Soochow University, Suzhou, China during 12th-20th November.

[2] Meal Nanoparticles Anchored on Nanofiber for Catalytic Organic Reactions (2015) C. Yin, **M. Gopiraman**, I. S. Kim, H. Bang, The Textile Machinery Society of Japan held at Osaka, Japan during 5th-6th May.

[1] Adsorption and inhibition effect of environment friendly green inhibitor on mild steel corrosion in acidic medium (2011) **M Gopiraman**, K. Fujimori, B.S. Kim, R. Karvembu, I.S. Kim, The 4th International Symposium on High-Tech Fiber Engineering for Young Researchers held at Shinshu University, Nagano, Japan during August 29th- September 4th.

[PAPER/ORAL/POSTER PRESENTAIONS IN CONFERENCES] (Reverse Chronological Order)

[15] Flexible piezoelectric sensor based on two-dimensional topological network of PVDF/DA composite nanofiber membrane, J. Xiong, **M. Gopiraman**, I. S. Kim, TMSJ 77th Osaka Conference, at Osaka during 30th and 31st May 2024.

[14] Surface Modification and Potential Applications of Electrospun Polymer Nanofibers, **M. Gopiraman**, 1st Indo-Japan Textile Research Conference held at IIT-Delhi during 27th and 28th November 2023.

[13] Carbon Materials dopped Metal Nanostructures in Catalysis and Mechanism, **M. Gopiraman**, The China-Japan Textile & Composite Symposium held at Nantong University, China during Aug 31st to Sep 2nd.

[12] Electrospun Nanofibers and Their Applications (2021) **M. Gopiraman**, JCK Joint Symposium on Nano Nanotechnology Innovations held at Shinshu University, Japan during 19th January 2021.

[11] Functional Nanofibers and Their Applications (2015) **M. Gopiraman**, 7th International Symposium on High-Tech Fiber Engineering for Young Researcher held at Soochow University, Suzhou, China during 12th-20th November.

[10] Meal Nanoparticles Anchored on Nanofiber for Catalytic Organic Reactions (2015) C. Yin, **M. Gopiraman**, I. S. Kim, H. Bang, The Textile Machinery Society of Japan held at Osaka, Japan during 5th-6th May.

[9] An Efficient Copper-Oxide/Carbon-Nanotube Catalyst for N-Arylation of Imidazole (2014) **M. Gopiraman**, R. Karvembu, I.S. Kim, The International Conference on Nanoscience and Nanotechnology (ICONN 2014) held at the Adelaide Convention Centre, South Australia during 2nd-6th February.

[8] RuO_2 Nanorods on Graphene Nanoplatelets Catalyst for Transfer Hydrogenation of Carbonyl Compounds (2013) **M. Gopiraman**, R. Karvembu, I.S. Kim, The 7th Asian Conference on Electrochemical Power Sources (ACEPS - 7) held at Osaka, Japan during 24th-27th November.

[7] Preparation and Characterization of Graphene Incorporated Cellulose Acetate Nanofibers, their Structural and Mechanical Properties (2013) **M. Gopiraman**, K. Fujimori, B.S. Kim, I.S. Kim, 3rd International Conference on Multifunctional, Hybrid and Nanomaterials at Naples, Italy, during 3rd-7th March.

[6] CuO Nanoparticles Decorated on CNT as an Effective Nanohybrid Catalyst for N-arylation of Heterocycles (2011) **M. Gopiraman**, S. Ganesh Babu, B. S. Kim, R. Karvembu, I.S. Kim, ICNANO-2011 (An international conference on Nanomaterials & Nanotechnology held at University of Delhi, New Delhi during 18th-21st December.

[5] Enhanced Mechanical Properties of Cellulose Acetate/Graphite Hybrid Nanofibers (2011) **M. Gopiraman**, B.S. Kim, I.S. Kim, Advances in Textile, Machinery Nonwoven and Technical Textile held at Kumaraguru College of Technology, Coimbatore during 15th-17th December.

[4] Studies on Corrosion Inhibition Nature of 2-Acetylpyridine N (4) Morpholine Thiosemicarbazone on Mild Steel in HCl (2011) **M. Gopiraman**, B.S. Kim, I.S. Kim, The 11th Asian Textile Conference held at EXCO, Daegu, Korea during 1st-4th November.

[3] Enhanced Mechanical Properties and EMI Shielding Effectiveness of PVA/Graphite and PVA/MWCNT Hybrid Nanofibers (2011) **M. Gopiraman**, K. Fujimori, B.S. Kim, I.S. Kim, IUPAC 9th International Conference on Advanced via Macromolecular Engineering (APME 2011) held at Cappadocia, Turkey during 5th-8th September.

[2] Adsorption and inhibition effect of environment friendly green inhibitor on mild steel corrosion in acidic medium (2011) **M Gopiraman**, K. Fujimori, B.S. Kim, R. Karvembu, I.S. Kim, The 4th International Symposium on High-Tech Fiber Engineering for Young Researchers held at Shinshu University, Nagano, Japan during August 29th- September 4th.

[1] Structural and Corrosion inhibition studies of 2-acetyl pyridine N (4) disubstituted thiosemicarbazone (2010) S.L.A. Kumar, **M. Gopiraman**, S.K. Moorthy, S. Anandaram, Presented at Recent trends in chemistry held at NITK, India.

REFERENCES

Dr. Ick Soo Kim

Distinguished Professor and Director
Nano Fusion Technology Research Lab
Interdisciplinary Cluster for Cutting Edge Research (ICCER)
Institute for Fiber Engineering (IFES)
National University Corporation Shinshu University
Tokida, Ueda, Nagano, Japan
Phone: +81–268–21–5439
Mobile: +81–80–3088–0295
Fax: +81–268–21–5482
E-mail: kim@shinshu–u.ac.jp, kimicksoo@hotmail.com, kimicksoo.gr@gmail.com

Dr. R. Karvembu

Professor and Dean

Department of Chemistry
National Institute of Technology
Trichy-620 015
India
Phone: +91-431-2503631
Mobile: +91-9442268653
Fax: +91-431-2500133
E-mail: kar@nitt.edu, karvembu@rediffmail.com

Dr. Morikawa Hideaki

Professor, Vice President
Graduate School of Science and Technology
Institute of Textile Science and Technology

Executive Director of 'Interdisciplinary Cluster for Cutting Edge Research (ICCER)'
National University Corporation Shinshu University
Tokida, Ueda, Nagano
Japan
Phone: 0268-23-6833
Mobile: 090-4152-2900
E-mail: morikaw@shinshu–u.ac.jp

Dr. Ill-Min Chung

Professor and Vice President
Department of Applied Bioscience
College of Life and Environmental Science
Konkuk University
120-Neungdong-ro, Gwangjin-gu
Seoul-143 701, Korea
Phone: 82.2.450.3310
Mobile: 010-547-08301
Fax: 82.2.446.7856
E-mail: imcim@konkuk.ac.kr, Illminchung@gmail.com

DECLARATION

I hereby declare that the information furnished above is true to the best of my knowledge.

Thank you.

Mayakrishnan Gopiraman