

Faculty Profile

Faculty Photo

Brief Profile (Few Paragraphs)

Dr. Manjunatha C is an Associate Professor in the Department of Chemistry and Coordinator of the Centre of Excellence in Nanomaterials and Devices at RV College of Engineering, Bengaluru. With over 20 years of academic and research experience, he specializes in the synthesis, characterization, and application of nanomaterials for energy storage, sensors, and environmental remediation.

He has authored 110+ publications in reputed international journals and holds 3 granted patents. His research spans a wide range of nanostructured materials including metal oxides, chalcogenides, borates, and carbon-based composites, with expertise in electrochemical testing and battery/supercapacitor device prototyping.

A member of ECS, and ACS (USA), Dr. Manjunatha is actively involved in guiding Ph.D. and UG/PG students and collaborating on interdisciplinary projects in advanced materials and electrochemistry.

Personal Information

- **Name:** MANJUNATHA. C
- **Designation:** Associate Professor
- **Department:** CHEMISTRY
- **Email:** manjunathac@rvce.edu.in
- **Phone:** 08067178038

Google Scholar : <https://scholar.google.co.in/citations?user=xGChruoAAAAJ&hl=en>

ResearchGate : <https://www.researchgate.net/profile/C-Manjunatha>

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ORCID: <https://orcid.org/0000-0003-0422-9614>

Domain of Expertise

Research Focus

- **Primary Area:** Design and Development of Functional Materials for Energy and Electronics Applications
- **Allied Areas:**

- o **Electrochemical energy storage (Li ion battery and Supercapacitors)** devices
- o Energy conversion (Green Hydrogen) devices
- o Nanoscience and Technology, Carbon/Inorganic Nano Materials/composite
- o Sensor (Electrochemical, bio and Gas) applications
- o Modelling/Simulation of Li battery Digital twinning, Elelctrochemical modelling, Li ion battery technology for EVs, Cell/Battery testing.

Academic Qualifications

- **Ph.D:** Faculty of Applied Sciences, Visvesvaraya Technological University (VTU), 2009–2013.
- **M.Sc:** Inorganic Chemistry, Bangalore University, 2002–2004.
- **B.Sc:** Physics, Chemistry, Mathematics, Bangalore University, 1999–2002.
- **CSIR-UGC, NET (Chemical Sciences):** Qualified the CSIR-UGC NET in Chemical Sciences with an All India Rank of 42, awarded by CSIR-UGC, MHRD, Government of India on June 22, 2014.

Professional Experience

Experience			
S.No	Institute/College/Industry	Job Title	Duration (From- To)
1.	RV College of Engineering	Associate Professor	December 2024, Till Date
2.	RV College of Engineering	Assistant Professor (Selection Grade)	August 2024 to December 2024
3.	RV College of Engineering	Assistant Professor (Senior Scale)	February 2023 to August 2024
4.	RV College of Engineering	Assistant Professor	February 2011 to February 2023
5.	RV College of Engineering	Lecturer	January 2009 to February 2011
6.	Deeksha centre for learning Pre-University College, Kanakapura road, Bangalore, INDIA	Lecturer	April 2008 to Jan 2009
7.	The National Pre-University College, Jayanagar, Bangalore-56070, INDIA	Lecturer	June 2005 to April 2008
8.	Solid State & Structural Chemistry Unit. Indian Institute of Science (IISc), Bangalore, INDIA	Research Project Assistant	Jan 2005 to May 2005
9.	Materials Research Lab. John F Welch Technology Center GEITC. GE Bangalore, INDIA	Research Project Trainee	July 2004 to Dec 2004

Publications & Patents

Journal Publications

2025 Publications

114. R. Kavitha, **C. Manjunatha**, Jiaguo Yu, , S. Girish Kumar, Rational design and interfacial engineering of hierarchical S-scheme heterojunction and their photocatalytic applications, *EnergyChem*, (Q-1, IF = 22.2, Cite Score : 40.8) (Status: Accepted). 2025,

113. Uranium removal from Water by Adsorption: A Detailed Characterisation and Parametric Study Using Nickel Ferrite Nano Adsorbent, *Environmental Pollutants and Bioavailability*, (Q-2) (Accepted), 2025.

112. Jaiswal, Y., Rastogi, C. K., Maurya, R., **Manjunatha, C.**, & Ji, G. Synthesis of watermelon seed extract and silica nanocomposites coatings and their utilization for the corrosion prevention of mild steel in saline solutions. *Canadian Metallurgical Quarterly*, (Q2) (2025). 1–16.
<https://doi.org/10.1080/00084433.2025.2502706> 111.

111. Poojashri Ravindra Naik, Vinod Alurdoddi Rajashekara, Sudeep Mudhulu, **Manjunatha Channegowda***, Facile synthesis, characterisation and application of zinc ferrite in removal of uranium from water by adsorption, *Journal of Contaminant Hydrology*, (Q-1) Volume 273, 2025, 104583, ISSN 0169-7722, <https://doi.org/10.1016/j.jconhyd.2025.104583>.

110. S. Beena, Chandresh Kumar Rastogi, Yash Athreya, K.P. Shwetha, Nelsa Abraham, Suresh Babu Viswanathan, M.K. Sudha Kamath, **C. Manjunatha***, Unveiling the supercapattery behaviour of novel kotoite-type $\text{Co}_3(\text{BO}_3)_2$ nanoparticles, *Journal of Energy Storage*, (Q-1) Volume 110, 2025, 115299, ISSN 2352-152X, <https://doi.org/10.1016/j.est.2025.115299>.)

109. Ashwini Chavan V.M., G. Shireesha, **Manjunatha C***, Improved Energy Density and Capacitance of Battery Type Asymmetric Supercapacitor Based on Rationally Synthesized NiAl-LDH and NiAl-LDH@CNT Nanocomposites, *ACS Applied Electronic Materials*, (Q-1), <https://doi.org/10.1021/acsaelm.4c01381>, 2025, 7, 1, 48–6

2024 Publications

108. K.P. Shwetha, M.K. Sudha Kamath, Chandresh Kumar Rastogi, Yash Athreya, Sooryadas Sudhakaran, **C. Manjunatha***, Tailored carbon nanotube- CoS_2 nanocomposites for the development of asymmetric supercapacitor coin cells demonstrating enhanced electrochemical properties, *Journal of Energy Storage*, (Q-1) Volume 97, Part A, 2024, 112699, ISSN 2352-152X, <https://doi.org/10.1016/j.est.2024.112699>.

107. **Manjunatha C***, Chandresh Kumar R, Manmadha Rao B, Girish Kumar S, Varun S, Kartik R, Gyanprakash Maurya, Karthik B, Swathi C, Mohtada Sadrzadeh, Ajit Khosla “Advances in Hierarchical Inorganic Nanostructures for Efficient Solar Energy Harvesting Systems”, Wiley, *ChemSusChem*, e202301755. (2024) <https://doi.org/10.1002/cssc.202301755> , (Q-1, IF= 8.4, Cite Score = 15.5, Indexed in Web of Science and Scopus) (COVER FEATURE ARTICLE)

106. Shwetha KP, Yash Athreya, Sudha Kamath MK*, Girish Kumar S, **Manjunatha C***, Ajit Khosla, Development of NiS@f-MWCNT Nanocomposite Based High Performance Supercapacitor Coin Cell Prototype Device, (2023) *Journal of Energy Storage*, 75, 1, 2024, 109404, <https://doi.org/10.1016/j.est.2023.109404> (Q-1, IF= 9.4, Cite Score = 10.3, Indexed in Web of Science and Scopus)

105. Hiremath, S., Mudhulu, S., Vidya, C., Chandraprabha, M. N., Moses, V., & **Manjunatha, C.***. Green synthesized nano-TiO₂ from Tamarindusindica leaf extract for photo-degradation of combination of dyes by suspension and immobilization on inert supports. *Green Chemistry Letters and Reviews*, (Q-1, IF = 5.8) 2024, 17(1). <https://doi.org/10.1080/17518253.2024.2420711>
104. **Manjunatha C**, Arpit Verma, Igra Arabia, Ujwal S Meda, Ishpal Rawal, Sarevesh Rustagi, Bal Chandra Yadav, Patrick Dunlop, Nikhil Bhalla and Vishal Chaudhary, "High Selectivity and Sensitivity through Nanoparticle Sensors for Cleanroom CO₂ Detection" *IOP Nanotechnology* 35 (2024) 315501 (10pp), <https://doi.org/10.1088/1361-6528/ad3fbf>. (Q-2, IF= 3.5, Cite Score = 6.7, Indexed in Web of Science and Scopus)
103. Raghavendra Garlapally, Niharika MP, B. Manmadha Rao*, **Manjunatha C***, B Venkateswarlu, NeellaNagarjuna, "Advances in Different Crystallization Techniques for Anodically Grown Amorphous TiO₂ Nanotubes and its Applications", *IOP Physica Scripta*, 2024, 99, 6, 062002, <https://doi.org/10.1088/1402-4896/ad3583>, (Q-2, IF= 2.9, Cite Score = 4.4, Indexed in Web of Science and Scopus)
102. K. P. Shwetha, P. N. Amogh, S. Shrinath Vaidya, N. Hariprasad, S. Krishna and **C. Manjunatha***, "Nanorobotics for Advancing Biomedicine: Progresses in Materials, Design, Fabrication, Opportunities and Applications," in *IEEE Access*, (Q-1) vol. 12, pp. 91664–91677, 2024, doi: 10.1109/ACCESS.2024.3416818
101. Poojashri Ravindra Naik, Vinod Alurdoddi Rajashekara, Sudeep Mudhulu, **Manjunatha Channegowda***, Batch studies on uranium uptake by CeO₂ nanoparticles from its aqueous solution, *Inorganic Chemistry Communications*, 2024, 163, 112292, ISSN 1387-7003, <https://doi.org/10.1016/j.inoche.2024.112292>. (Q-2, IF= 3.8, Cite Score = 4.6, Indexed in Web of Science and Scopus)
100. K. P. Shwetha, M. K. SudhaKamath and **C. Manjunatha***, "NiS//MWCNT-Based Supercapacitor for Efficient Energy Storage," *IEEE Explore*, 2024 8th International Conference on Computational System and Information Technology for Sustainable Solutions (CSITSS), Bengaluru, India, 2024, pp. 1-5, doi: 10.1109/CSITSS64042.2024.10816906.
99. Mudit Vishal Choudhary, Pradeep Sonkar, Neeraj Yadav, Chandresh Kumar Rastogi, Gyanprakash Maurya, **C. Manjunatha***, Effect of the fuel on the partial stabilization of nickel barium oxide electrocatalyst for supercapacitor applications, *Materials Today: Proceedings*, 2024, , ISSN 2214-7853, <https://doi.org/10.1016/j.matpr.2024.01.008>, . Cite score =2.3, Indexed in Scopus)

2023 Publications

98. Beena Somanath, **Manjunatha C***, Yash Athreya, Shwetha KP, Nelsa Abraham, Suresh Babu Viswanathan, Sudha Kamath MK, S. Girish Kumar, and Ajit Khosla, "A Practically Simple, Scalable Synthesis of Ni₃B₂O₆ nanograins and fabrication of coin cell supercapacitor for powering temperature sensor device" *ACS Applied Electronic Materials*, 5, 9, (2023), DOI: 10.1021/acsaelm.3c00765, (Q-1, IF= 4.7, Indexed in Web of Science and Scopus) [FRONT COVER PAGE ARTICLE , <https://pubs.acs.org/toc/aaembp/5/9>]
97. Sudeep M, **Manjunatha C***, Sudarshan B, Ajit Khosla, Praveen Sekhar, Trends in graphene-based e-skin and artificial intelligence for biomedical applications, *IEEE Sensors Journal*, vol. 23, no. 17, pp. 18963–18976, 1 Sept.1, (2023), doi: 10.1109/JSEN.2023.3294297. (Q-1, IF= 4.3, Cite Score = 7, Indexed in Web of Science and Scopus)

96. K.P. Shwetha, **C. Manjunatha***, M.K. Sudha Kamath, Chandresh Kumar Rastogi, Vivek Chaudhary, Gyanprakash Maurya, Yash Athreya, B.W. Shivaraj, Ajit Khosla, "Fabrication of super-high energy density asymmetric supercapacitor prototype device employing NiCo₂S₄@f-MWCNT nanocomposite", *Journal of Energy Storage*, Volume 72, Part D, (2023), 108657, 10.1016/j.est.2023.108657, (Q-1, IF= 9.4, Cite Score = 10.3, Indexed in Web of Science and Scopus)
95. Baqar Ali Quraishi, **Manjunatha C***, Ashoka S*, Shivaraj B W, Nishchith B S, Yogesh K, Ajit Khosla, Studies on electrochemical performance of flower-like La₄Mo₇O₂₇ nanostructures towards oxygen evolution reaction, *ECS Advances*, (Q-3) 2 030504, (2023), DOI: 10.1149/2754-2734/acf1b3
94. V.M. Ashwini Chavan, **C. Manjunatha***, K.P. Shwetha, G. Shireesha, S. Girish Kumar, M.K. Sudha Kamath, Sumira Malik, Ajit Khosla, "Probing the influence of mixed alkaline electrolytes towards the fabrication of melamine-derived porous Co₃O₄-based supercapacitor", *Materials Chemistry and Physics*, Volume 308, (2023), 128209. DOI: 10.1016/j.matchemphys.2023.128209, (Q-1, IF= 4.6, Cite Score = 7.7, Indexed in Web of Science and Scopus)
93. Rajani M R, Ravishankar R, Maya Naik K, Srinidhi Raghavan M, Vidya C, Girish Kumar S, **Manjunatha C***, Carbonaceous MnFe₂O₄ nano-adsorbent: Synthesis, characterisation and investigations on chromium (VI) ions removal efficiency from aqueous solution, *Applied Surface Science Advances*, Volume 16, (2023), 100434, DOI: 10.1016/j.apsadv.2023.100434, (Q-1, IF= 6.1, Cite Score = 4.4, Indexed in Web of Science and Scopus)
92. S. Girish Kumar, R. Kavitha, and **C. Manjunatha***, Review and Perspective on Rational Design and Interface Engineering of g-C₃N₄/ZnO: From Type-II to Step-Scheme Heterojunctions for Photocatalytic Applications, *ACS Energy & Fuels* (2023), 37, 1238–1246., DOI: 10.1021/acs.energyfuels.3c01032, (Q-1, IF= 5.1, Indexed in Web of Science and Scopus) [FRONT COVER PAGE ARTICLE]
91. Shubha MB, **Manjunatha C***, Sudeep M., Chandruvasan S., Sumira Malik, and Praveen Sekhar, "Development of NiCoO₂ Nanoparticles based Electrochemical Sensor with Extremely Low Detection for Hazardous 4-Nitrophenol", *Journal of The Electrochemical Society*, (2023) 170 067509, DOI: 10.1149/1945-7111/acdf89, (Q-1, IF= 3.9, Cite Score = 7, Indexed in Web of Science and Scopus)
90. R. Hari Krishna*, M.N. Chandraprabha**, K Samrat, T P Krishna Murthy, **Manjunatha C**, S. Girish Kumar, "Carbon nanotubes and graphene-based materials for adsorptive removal of metal ions – A review on surface functionalization and related adsorption mechanism", *Applied Surface Science Advances*, 16 (2023) 100431, DOI:10.1016/j.apsadv.2023.100431, (Q-1, IF= 6.1, Cite Score = 4.4, Indexed in Web of Science and Scopus).
89. Anil Subash S; **Manjunatha C***; Sudeep M; Chandresh Kumar Rastogi; Vishal Chaudhary; S. Girish Kumar; Praveen Sekhar, "Development of a Non-Enzymatic Vitamin-C Electrochemical Sensor Based on rGO/Ce₂(SO₄)₃ Hierarchical Nanocomposite", "Journal of The Electrochemical Society, (2023), DOI 10.1149/1945-7111/acbe71, (Q-1, IF= 3.9, Cite Score = 7, Indexed in Web of Science and Scopus)
88. **C. Manjunatha***, K. P. Shwetha, Y. Athreya S. G. Kumar, and M. K. Sudha Kamath, Perspective—Supercapacitor-Powered Flexible Wearable Strain Sensors, *ECS Sensors Plus*, (Q-1), (2023), 2 017002 DOI 10.1149/2754-2726/acb27a
87. Dheeraj Kumar Yadav, Manu Prakash Maurya, Karthik Raitani, Chandresh Kumar Rastogi, Maurya Gyanprakash, R. Hari Krishna, **Manjunatha C**, "Effect of fuel concentration on supercapacitor cycling of Co₃O₄ fabricated via solution combustion method", *Materials Today: Proceedings*, (2023), ISSN

2214-7853, DOI:10.1016/j.matpr.2022.12.267. (Cite score =2.3, Indexed in Scopus)

86. B. S, Nishchith, Kalegowda, Yogesh, S, Ashoka, Sriram, Ganesan Kurkuri, Mahaveer D., **Manjunatha C**, "Two-step synthesis of α -NiCu(OH)2CO3/Na3NiCuCO3PO4: a battery-type electrode for pseudocapacitor applications" New Journal of Chemistry, (2023), 47, 4386-4401
DOI:10.1039/D2NJ04762D, (Q-2, IF= 3.9, Cite Score = 5.8, Indexed in Web of Science and Scopus)

85. Maurya Gyanprakash*, Chandresh Kumar Rastogi*, Karthik Raitani, Manu Prakash Maurya, Vivek Choudhary, Romil Chaudhary, and **Manjunatha C*** "Optimization of Ascorbic Acid in the Synthesis of Cobalt Oxide for Enhanced Electrocatalytic Activity toward the Oxygen Evolution Reaction" Energy & Fuels" (2023), 37 (2), 1238-1246, DOI: 10.1021/acs.energyfuels.2c03814, (Q-1, IF= 4.6, Cite Score = 6.3, Indexed in Web of Science and Scopus)

2022 Publications

84. Praveen Manjappa, Hari Krishna Rajan, Mamatha Gowdaru Mahesh, Karthikeya Gulur Sadananda, **Manjunatha C**, Girish Kumar Shivashankar, and Nagabhushana Bhangi, Mutt, "Effective Attenuation of Electromagnetic Waves by Synergetic Effect of α -Fe2O3 and MWCNT/Graphene in LDPE-Based Composites for EMI Applications", Materials, 2022, 15(24), 9006;
DOI:10.3390/ma15249006, (Q-2, IF= 3.78, Cite Score = 4.7, Indexed in Web of Science and Scopus)

83. R. Hari Krishna, M. N. Chandrababha, Prakash Monika, Tanuja B, Vishal Chaudhary, **Manjunatha C**, Biomolecule conjugated inorganic nanoparticles for biomedical applications: A review, Biotechnology and Genetic Engineering Reviews, 2022, DOI:10.1080/02648725.2022.2147678, (Q-1, IF=5.1, Cite Score = 7.5, Indexed in Web of Science and Scopus)

82. Virat Khanna, Kamaljit Singh, Santosh Kumar, Suneev Anil Bansal, **Manjunatha C**, Ing Kong, Mohammad Khalid, and Vishal Chaudhary, "Engineering Electrical and Thermal Attributes of Two-Dimensional Graphene Reinforced Copper/Aluminium Metal Matrix Composites for Smart Electronics", ECS Journal of Solid State Science and Technology, 2022 11 127001,
DOI:10.1149/2162-8777/aca933. (Q-3, IF= 2.01, Cite Score = 3.3, Indexed in Web of Science and Scopus)

81. Sudeep M., Yashesh Vijay Rajyaguru, Chandresh Kumar Rastogi, Sham Aan MP., Sridharan M., Ajit Khosla, **Manjunatha C***, Recent development of nickel based chalcogenides for hydrogen generation, Materials Today: Proceedings, Volume 73, Part 2, 2023, Pages 316-322,
DOI:10.1016/j.matpr.2022.10.244. (Cite score = 2.3, Indexed in Scopus)

80. M. Praveen, G.S. Karthikeya, R. Hari Krishna, G.M. Mamatha, **Manjunatha C**, Ajit Khosla, B.M. Nagabhushana, The role of magnetic nano CoFe2O4 and conductive MWCNT/graphene in LDPE-based composites for electromagnetic interference shielding in X-band, Diamond and Related Materials, 2022, 109501, <https://doi.org/10.1016/j.diamond.2022.109501>, (Q-1, IF=3.3, Cite Score = 5.2, Indexed in Web of Science and Scopus)

79. **Manjunatha C***, Rafiq Mulla, Hari Krishna R, Sachith Nayak, Yashaswini N, Suraj L, Manickam Selvaraj, Vishal Chaudhary & Ajit Khosla, Insights into structural features and thermoelectric properties of layered oxychalcogenides, BiCuOCh (Ch = S, Se, Te): promising green materials for energy conversion, Materials Research Innovations, (2022) DOI: 10.1080/14328917.2022.2140784, (Q-3, Cite score = 4, Indexed in Web of Science and Scopus)

78. Chaudhary Nitin Chandra, Chandresh Kumar Rastogi, Maurya Gyanprakash, R. Hari Krishna,

Manjunatha C, Investigation of cycling effect on the enhancement of electrochemical activity of zinc doped nickel oxide, *Materials Today: Proceedings*, 2022, DOI:10.1016/j.matpr.2022.10.049. (Cite score = 2.3, Indexed in Scopus)

77. Manu Prakash Maurya, Karthik Raitani, Maurya Gyanprakash, Chandresh Kumar Rastogi, R. Hari Krishna, **Manjunatha C**, The copper interlayer tunes the reactivity of cobalt oxide towards the oxygen evolution reaction, *Materials Today: Proceedings*, 2022, DOI:10.1016/j.matpr.2022.10.053. (Cite score = 2.3, Indexed in Scopus)

76. **Manjunatha C***, Rafiq Mulla, Yashaswini Nagaraj, Suraj Lokesh, Sachith Nayak, Sudeep Mudhulu, Chandresh Kumar Rastogi, Charles William Dunnill, Hari Krishna Rajan, Ajit Khosla, "Comprehensive insights into synthesis, structural features and thermoelectric properties of high-performance inorganic chalcogenide nanomaterials for conversion of waste heat to electricity", *ACS Applied Energy Materials*, 2022. DOI:10.1021/acsaem.2c01353 (Q-1, IF=6.96, Cite Score = 8.4, Indexed in Web of Science and Scopus)

75. K.P. Shwetha, Yash Athreya, L. Suraj, Chandresh Kumar Rastogi, M.K. Sudha Kamath, K. Natarajan, Ajit Khosla, **Manjunatha C***, Recent developments of hybrid metal chalcogenides for high performance supercapacitors, "Materials Today: Proceedings", 2022, DOI:10.1016/j.matpr.2022.09.543. (Cite score =2.3, Indexed in Scopus)

74. Prakash Monika, M. N. Chandraprabha, R. Hari Krishna, Maanya Vittal, C Likhitha, N Pooja, Vishal Chaudhary & **Manjunatha C*** Recent advances in pomegranate peel extract mediated nanoparticles for clinical and biomedical applications, *Biotechnology and Genetic Engineering Reviews*, (2022) DOI: 10.1080/02648725.2022.2122299 (Q-1, IF=5.1, Cite Score = 7.5, Indexed in Web of Science and Scopus)

73. Prince Kaushik, Chandresh Kumar Rastogi, **Manjunatha C**, Ashish Patel, Maurya Gyanprakash, "Investigating electrochemical properties of iron oxide-carbon nanotube composite for supercapacitor application" *Materials Today: Proceedings*, (2022), ISSN 2214-7853, DOI:10.1016/j.matpr.2022.08.258. (Cite score =2.3, Indexed in Scopus)

72. Vishal Chaudharya, **Manjunatha C***, Sajid Ali Ansari, R Hari Krishna, Ajeet Kaushik, Virat Khanna, Zhenhuan Zhao, Hidemitsu Furukawa, Ajit Khosla, "Low-trace monitoring of airborne sulphur dioxide employing SnO₂-CNT hybrids-based energy-efficient chemiresistor" *Journal of Materials Research and Technology*, (2022), 20, 2468-2478, DOI:10.1016/j.jmrt.2022.07.159 (Q-1, IF=6.27, Cite Score = 5.9, Indexed in Web of Science and Scopus)

71. C Vidya, **Manjunatha C**, A Pranjal, M I Faraaz & K Prashantha "A multifunctional nanostructured molybdenum disulphide (MoS₂): an overview on synthesis, structural features, and potential applications", *Materials Research Innovations*, (2022), DOI: 10.1080/14328917.2022.2109887 (Q-3, Cite score = 4, Indexed in Web of Science and Scopus)

70. Shwetha K P, **Manjunatha C***, Sudha Kamath MK*, Vinaykumar, Radhika M G, Ajit Khosla, "Morphology controlled synthesis and structural features of ultrafine nanoparticles of Co₃O₄: An active electrode material for supercapacitor", *Applied Research*, (Q-2) Wiley, 2022. DOI:10.1002/appl.202200031, Scopus Indexed)

69. J Shivakumara*, **Manjunatha C***, R Hari Krishna*, S Ashoka, G Gousiya Bhanu, B Manmadha Rao*, B Venkateswarlu, Chikkahanumantharayappa, Ajit Khosla, "Study the effect of Zn²⁺ co-doping on the structural and optical properties of CdSiO₃:Eu³⁺ phosphor", *Applied Physics A*, 2022. DOI: 10.1007/s00339-022-05773-w, (Q-2, IF=2.98, Cite Score = 4.2, Indexed in Web of Science and

Scopus)

68. Javalkar Vinay Kumar, N. Shylashree, Spoorthi G. Gojanur, G. Vishnu Teja Raju, Vinay Varma Bhupathiraju, **Manjunatha Channegowda***, Design and Analysis of a Biosensor for the Detection of Estrogen Hormonal Levels, *BioNanoScience*, 2022 DOI:10.1007/s12668-022-00951-9 (Q-3, Cite Score = 4.8, Indexed in Web of Science and Scopus)
67. Shivakumara J, Hari Krishna R., **Manjunatha C**, Ashoka Siddaramanna, B Manmadha Rao, Ajit Khosla & Chikkahanumantharayappa (2022): Investigations on the effect of NH₄Cl flux on the structural and optical properties of CdSiO₃:Eu³⁺ nanophosphor, *Materials Research Innovations*, 2022, DOI: 10.1080/14328917.2022.2044172 (Q-3, Cite score = 4, Indexed in Web of Science and Scopus)
66. I. Nigam, G. Anjaneya, **Manjunatha C** and M.R. Srinivas, Enhancement of Heat Transfer in a Concentric Tube Counter Flow Heat Exchanger using CuO Nanofluids, *International Journal of Vehicle Structures and Systems*, 2022, 14(1), 27-31. doi:10.4273/ijvss.14.1.07. (Q-3, Cite Score = 1.3, Indexed in Scopus)
65. Hari Krishna, R., Chandraprabha, M.N., Mamatha, G.M. M. Mallappa, Deepa Kundagol, **Manjunatha C**, Non-enzymatic Catalytic Oxidation of Glucose and Dual Mode Sensing by Fluorescence/Electrochemical Methods Using MO-GO Composites (MO = ZnO, CuO, NiO and Co₃O₄). *Topics in Catalysis* (2022). <https://doi.org/10.1007/s11244-022-01588-4>, (Q-2, IF=2.9, Cite Score = 5.5, Indexed in Web of Science and Scopus)
64. Mallikarjunaswamy C*, Lakshmi Ranganatha V, Deepakumari H N, Nagaraju G, Ajit Khosla, and **Manjunatha C***, "Eco-Friendly Green Synthesis, Characterizations and Antimicrobial Activities of Nickel Oxide Nanoparticles", *ECS Transactions*, 107 (1) 16303-16312 (2022), [10.1149/10701.16303ecst ©The Electrochemical Society] (h-index =56, cite score = 1.1, Indexed in Scopus)
63. Sudeep M*, **Manjunatha C***, Sham Aan M P, Ujwal Shreenag Meda, and G Satheesh Babu, "A Novel Electrospun PU@CuS Hybrid Nanofiber-Composite: Synthesis and Morphology Characterization", *ECS Transactions*, 107 (1) 2073-2084 (2022), [10.1149/10701.2073ecst ©The Electrochemical Society] (h-index =56, cite score = 1.1, Indexed in Scopus)
62. Yashesh Vijay Rajyaguru, Ujwal Shreenag Meda, Aditi Pandey, **Manjunatha C**, "Electrolyzers for Green Hydrogen Generation and Their Integration with Fuel Cells", *ECS Transactions*, 107 (1) 4723-4731 (2022) [10.1149/10701.4723ecst ©The Electrochemical Society] (h-index =56, cite score = 1.1, Indexed in Scopus)
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2. **C. Manjunatha**, H. Nagabhushana, R.P.S. Chakradhar and B.M. Nagabhushana "Characterization, luminescence studies of combustion derived Dy³⁺ doped CdSiO₃ nanophosphor", International Conference on Luminescence and its Applications (ICLA-2012, page no. 285) Organized by Rajiv Gandhi University of Knowledge Technologies, Hyderabad, India , Indian Institute of Chemical Technology, Hyderabad, India, Society for Information Displays (India Chapter), and Luminescence Society of India, on 7-10th February, 2012, Hyderabad, India.
3. **C. Manjunatha**, B.M. Nagabhushana, H. Nagabhushana, R.P.S. Chakradhar, "Enhancement of thermoluminescence property of CdSiO₃:Sm³⁺ nanophosphor by flux aided combustion process for radiation dosimetry". International conference on "Laser Advances in Science Engineering and Research: (ICLASER-2012, Page No. 44), June 8-10, 2012, M.S. Ramaiah Institute of Technology, Bangalore, India.
4. **C. Manjunatha**, B.M. Nagabhushana, presented the work on "Facile Synthesis of CdSiO₃ Nanobelts: A Versatile Luminescent Host" at **Winter School-2012 on Frontiers in Materials Science**, conducted by Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bangalore 560064 India in association with **University of Cambridge**, Department of Materials Science and Metallurgy, Pembroke Street, **Cambridge CB2 3QZ**, and **Ras Al Khaimah Center for Advanced Materials**, Ras Al Khaimah, **United Arab Emirates** at JNCASR from 3rd to 8th December 2012.
5. **C. Manjunatha**, "Preparation and characterisation of PVDF-CdSiO₃ nanocomposite thin film" is presented in the International Conference on Advanced Materials, Manufacturing, Management and Thermal Sciences (AMMMT 2013) held at Siddaganga Institute of Technology, Tumkur during 3-4 may 2013.
6. G.Shireesha, **C. Manjunatha**, Anjana Jain, M C Radhakrishna Participated in First International conference on " Large Area and Flexible Micro Electronics (ILAFM-2014), Organised by Centre of Excellence (TEQIP) Macroelectronics during 18-20 Dec 2014, at R.V. College of Engineering, Bangalore-59. (Investigation on Characteristics of PVDF/ Cd_{0.99}Ni_{0.01}SiO₃ films for high-k capacitors, , International Conference on Large Area Flexible Macro Electronics-2014, R V College of Engineering, Bangalore, 18th-20th Dec.2014)

7. **C. Manjunatha**, Presented the research work entitled “ Effect of NaCl flux on Photoluminescence of Solution combustion derived CdSiO₃:Ce³⁺ nanoparticles., at Second Indo-Canadian Symposium on Nano-Science and Technology (ICSNST-216), organized by The National Institute of Engineering, Mysuru, Karanataka, India in association with McMaster University, Hamilton, Canada during 18-19 February 2016.
8. **C. Manjunatha**, Shubha.M.B, Pranjal Anand, Faraaz Mohammed Ikram “Hydrothermal Synthesis and Characterisation of Hierarchically Architected Cannonite-Bi₂O(OH)₂SO₄ Nano-flowers” attend India's Biggest Nanotechnology event 'BENGALURU INDIA NANO 2018', which will be held during 5th-7th, December 2018 at The Lalit Ashok, Bengaluru
9. **C. Manjunatha**, Koushik. H. M, Abhishek. B, Mrutunjaya. Jena, Nagaraju. G, “ Zn_{1-x}Al_xO nanoparticles: An excellent adsorbent for methyl orange dye derived by simple solution combustion synthesis” National Symposium on Nano Science and Technology (NSNST-2018) 20 to 22 June 2018. Indian Nanoelectronics Users Program (INUP), Centre For Nano Science And Engineering (CeNSE), Indian Institute of Science, Bangalore-560012
10. **C. Manjunatha**, Sham Aan M.P, Subana P.S “Fabrication of thiol-functionalised core shell magnetic iron oxide nano-particles for Hg²⁺ ion removal in water” under “Green Nanotechnology” Session of “World Nanotechnology Conference” which was held during April 15-17, 2019 at Dubai, UAE.
11. **C. Manjunatha**, M.B. Shubha , N. Srinivasa, S. Ashoka “Design and Development of Hierarchically Architected Highly Active polymorphs of NiS_x (x= 1, 1.33, 2) Nanostructures as Efficient Electrocatalyst towards Overall Water Splitting” in the Young Scientists’ Conference (India International Science Festival-IISF-2019) to be held during November 05-08, 2019 at Biswa Bangla Convention Centre in Kolkata, INDIA.
12. **C. Manjunatha**, M.B. Shubha, N. Srinivasa, S. Ashoka, “Design and Development of Hierarchically Architected Highly Active polymorphs of NiS_x (x = 1, 1.33, 2) Nanostructures as Efficient Electrocatalyst towards Overall Water Splitting, International winter school: Frontiers on Materials science @ JNCASR, 2-6 December, 2019.
13. **C. Manjunatha**, M.B. Shubha , N. Srinivasa, S. Ashoka “Design and Development of Hierarchically Architected Highly Active polymorphs of NiS_x (x= 1, 1.33, 2) Nanostructures as Efficient Electrocatalyst towards Overall Water Splitting” in International conference of Emerging Trends in catalysis (icETC-2020) to be held during January 06-08, 2020 at VIT-Vellore, INDIA.
14. S Sarkar, V Suchithra, M Sridharan, **C Manjunatha***, “Nanobot Swarm for Targeted Elimination of Tumour in Brain” International Conference on Technologies for Smart Green Connected Societies (ICTSGS1);SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/2959>
15. Anil Subash, C Thanmayi, GK Jayaprakash, **C Manjunatha***, “Graphene based Field-Effect Transistor biosensor: Advances in construction, working and healthcare applications” International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/2042>
16. Anil Subash, GK Jayaprakash, **C Manjunatha***, New hierarchical Cerium (III) Sulphate decorated reduced Graphene Oxide for electrochemical Vitamin-C sensor” International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/2092>

17. PS Subana, R Suresh, **C Manjunatha***, "Remediation of Lead ions from waste water using magnetic iron oxide nanoadsorbents–a review" International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/1606>
18. PS Subana, R Suresh, **C Manjunatha***, "Removal of Cadmium ions from polluted water using magnetic iron oxide nanoadsorbents–a review" International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/1567>
19. BV Kumar, S Darshan, BW Shivaraj, **C Manjunatha***, "Modelling and Simulation of TiO₂/Se Sensor for Detection of CO Gas using COMSOL Multiphysics" International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/2264>
20. SP Nikam, R Chandrakumar, S Ashoka, **C Manjunatha***, 'Synthesis, characterization and study of synergistic effect of CuS/CuSe hybrid nanocomposite for electro catalytic application" International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/2266>
21. Saad Patel, BW Shivaraj, **C Manjunatha***, "Functionalized Iron oxide nanostructures: Recent advances in the Synthesis, characterization and electrochemical sensor applications" International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/1119>
22. AR Faisal, BW Shivaraj, **C Manjunatha***, "Advances in MoS₂ nanostructures and their composites: Synthesis characterization and hydrogen fuel generation", International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/1123>
23. P Hiroli, M Kumar, **C Manjunatha***, "ITO conductive ink: Advances in materials, preparation and potential sensor applications" International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/1118>
24. A Chakraborty, S Chakraborty, M Krishna, **C Manjunatha***, "Hybrid SnO₂ nano composite: Recent advances in the synthesis, characterization and gas sensor applications", International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/482>
25. V Kumar, S Chakraborty, M Krishna, **C Manjunatha***, "Recent advances in the synthesis, characterization of pure, doped and hybrid NiO nanoparticles composite for gas sensor applications" International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/473>
26. US Meda, YV Rajyaguru, A Pandey, **C Manjunatha**, Electrolyzers for green hydrogen generation and their integration with fuel cells, International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/946>
27. US Meda, A Pandey, YV Rajyaguru, **C Manjunatha**, "Designing a solar PV module for powering an electrolyzer" International Conference on Technologies for Smart Green Connected Societies

(ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/934>

- 28.15. M Kaushik, B Vijeth, SM Darshan, GK Hegade, SK Shetty, **C Manjunatha***, "Recent advances in efficient nanostructured photocatalysts for hydrogen fuel production: A short review" International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/993>
29. A Warathe, A Kaviraj, D Pradeep, S Basavaraju, Tarang Manmohan Singh Kalsy, **C Manjunatha***, "E-Nose, a versatile smart electronic nanosystem: Advances in the nanomaterials, fabrication of device, and their potential applications" International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/992>
30. I Rahman, A Mahalingpur, S Mittal, S Shetty, R Shetty, **C Manjunatha***, "Metal oxide based electrochromic materials: Recent advances in Synthesis, characterisation and applications" International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/982>
31. Sourab S, C Tarun, C Walvekar, SK Radhakrishna, LS Viranchi, **C Manjunatha***, "Advances in printable, flexible and transparent graphene photodetectors for optoelectronics applications" International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/991>
32. PN Amogh, HP Nandakumar, SS Vaidya, S Krishna, IR Patil, **C Manjunatha***, "Nanorobotics for advancing biomedicine: Advances in Materials, design, fabrication, opportunities and health risks" International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/990>
33. D Prabhakar, SM Abhijith, S Jain, HG Nihar, **C Manjunatha***, "Current progress in RFID Technology: Design, Materials, Fabrication and Applications" International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/985>
34. G Dheeraj, JKP Urs, SK Hombal, S Shukla, D Dwivedi, **C Manjunatha***, "Construction, working and applications of E-tongue: a versatile tool for all tastes?" International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/986>
35. NR Shekh, RP Rathod, P Kumar, MAZ Ghazi, YK Gowda, **C Manjunatha***, "Nanomaterials embedded thin film transistor for sensor applications: Tutorial review" International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/987>
36. Hima Priya KN, Meghana C S, Neha Karunakar Raju, Shilpa S P, Yashaswini M R, **C Manjunatha***, "Current developments in conductive nano-inks for flexible and wearable electronics", International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/983>
37. A Singaraju, VM Satyam, A Chintalapati, D Khare, **C Manjunatha***, "Advances in graphene based bioelectronic devices and applications: A concept for the future health" International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/984>

38. L Saipriya, A Deekshitha, S Verma, C Swathi, **C Manjunatha***, "Advances in Graphene based MEMS and NEMS devices: Materials, Fabrication and applications", International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/989>
39. SA Joshi, PP Athani, PS Hegde, MS Tanmaye, **C Manjunatha***, "Potentiometric sensor devices: Current progress in materials, device fabrication and biomedical applications", International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/988>
40. S Varun, B Karthik, **C Manjunatha***, C Vidya, "Z-scheme photocatalyst for reduction CO₂ to renewable fuels: a promising and powerful strategy to curb carbon footprints" International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/902>
41. US Meda, S Deekshasushmith, **C Manjunatha**, Fire retardant nanocoatings for wooden structures, International Conference on Technologies for Smart Green Connected Societies (ICTSGS1); SGS - Engineering & Sciences 1 (01) 2021. <https://spast.org/techrep/article/view/332>.

RESEARCH PAPERS PRESENTED IN NATIONAL CONFERENCES

1. **C. Manjunatha**, D.V Sunita, H. Nagabhushana, R.P.S. Chakradhar and B.M. Nagabhushana "Combustion synthesis, structural characterization and Thermoluminescence studies on cerium doped CdSiO₃ nano powder". **National conference** on Recent Trends in Materials Chemistry and Engineering (**RTMCE -2011, page no. 214**) organized by Department of Chemistry, RNS Institute of Technology, Bangalore, India during September 29-30, 2011.
2. **C. Manjunatha**, H. Nagabhushana, R.P.S. Chakradhar and B.M. Nagabhushana, "Cd_{1-x}Ni_xSiO₃ nanocrystalline phosphor: Preparation, Structural characterization and Thermoluminescence properties". **National conference** on Recent Advances in Material Science (**RAMS-2011, page. no. 61**) organized by Department of Physics, M.S. Ramaiah Institute of Technology, Bangalore, India from 12-14th Dec.2011.
3. **C. Manjunatha**, H. Nagabhushana , R.P.S. Chakradhar and B.M. Nagabhushana "Synthesis, characterization and study the effect of fluxes on the microstructure, phase, and crystallinity of CdSiO₃ nanophosphor" **National conference** on Recent Advances in Chemical and Environmental Sciences (**NCRACES-2011, page no. 84**) organized by Department of Chemistry, School of Engineering and Technology, Jain University and Prof. C.N.R. Rao Centre for Advanced Materials, Department of Physics, Tumkur University, Tumkur, India on 28th and 29th December-2011-On The Occasion Of International Year Of Chemistry-2011.
4. **C. Manjunatha**, G.K. Ramachandra, H. Nagabhushana , R.P.S. Chakradhar and B.M. Nagabhushana "Flux influence on the structural and thermoluminescence of Co²⁺ doped CdSiO₃ nanophosphor", **National conference** on Recent Advances in Functionalized materials (**RAFM-2012, page. no. 16**) organized by Department of Chemistry, M.S. Ramaiah Institute of Technology, Bangalore, India on 24-25th January 2012. (Awarded Best Oral Presentation)

5. **C. Manjunatha**, G.K. Ramachandra H. Nagabhushana, R.P.S. Chakradhar and B.M.Nagabhushana "Facile method for the preparation of microporous Cadmium metasilicate and its structural characterization", National conference on Recent Advances in Functionalized materials (RAFM-2012, page. no. 75) organized by Department of Chemistry, M.S. Ramaiah Institute of Technology, Bangalore, India on 24-25th January 2012.
6. **C. Manjunatha ***, Koushik. H. M, Abhishek. B, Mrutunjaya. Jena, Nagaraju. G, "Zn_{1-x}Al_xO nanoparticles: An excellent adsorbent for methyl orange dye derived by simple solution combustion synthesis" National Symposium on Nano Science and Technology (NSNST-2018) 20 to 22 June 2018. Indian Nanoelectronics Users Program (INUP), Centre For Nano Science And Engineering (CeNSE) Indian Institute of Science, Bangalore-560012.
7. G. Shireesha, **C. Manjunatha**, Anjana Jain, R. Chandramani, M C Radhakrishna, Structural and optical characterization of an inorganic nanocomposite Cd_{0.99}Ce_{0.01}SiO₃/Poly(vinylidene fluoride) flexible films, at Nanoscience-A multidisciplinary Approach, at Mount Carmel College on 10th-11th Feb 2016 at Mount Carmel College, Bangalore.

Book Chapters (03)

1. **Title of the Book:** GREEN SUSTAINABLE PROCESS FOR CHEMICAL AND ENVIRONMENTAL ENGINEERING AND SCIENCE: Green Inorganic Synthesis
Title of book chapter: Microwave Assisted Green Synthesis of Inorganic Nanomaterials
Authors: **C. Manjunatha ***, Ashoka S, Hari Krishna R
Editors: Inamuddin Rajender Boddula, Mohd Imran Ahamed, Abdullah M. Asiri
Publishers: Elsevier, Paperback ISBN: 978-0-12-821887-7, eBook ISBN: 978-0-12-821901-0, DOI: 10.1016/B978-0-12-821887-7.00011-2, published date 1st December **2020**. Page 1-40.
2. **Title of the Book:** GREEN SUSTAINABLE PROCESS FOR CHEMICAL AND ENVIRONMENTAL ENGINEERING AND SCIENCE: Green Inorganic Synthesis
Title of book chapter: Green synthesis of inorganic nanoparticle using microemulsion methods
Authors: **C. Manjunatha ***, Ashoka S, Hari Krishna R
Editors: Inamuddin Rajender Boddula, Mohd Imran Ahamed, Abdullah M. Asiri
Publishers: Elsevier, Paperback ISBN: 978-0-12-821887-7, eBook ISBN: 978-0-12-821901-0, DOI:10.1016/B978-0-12-821887-7.00002-1, published date 1st December **2020**. Page 1-40.
3. **Title of the Book:** Essential Oils: Extraction Methods and Applications
Title of book chapter: Supercritical CO₂ Extraction as a Clean Technology Tool for Isolation of Essential Oils
Authors: T. P. Krishna Murthy, R. Hari Krishna, M. N. Chandra Prabha, Priyadarshini Dey, Blessy Baby Mathew, **C. Manjunatha**
Editor: Inamuddin
Publishers: Wiley- Scrivener, **2023**, Print ISBN:9781119829355, Online ISBN:9781119829614
DOI:10.1002/9781119829614, <https://doi.org/10.1002/9781119829614.ch34>

Patents [Filed / Published / Granted]

1. Synthesizing NiSe₂ active electrode nanoparticles for high energy density asymmetric supercapacitor coin cell, Indian Patent No: 564019, 2023-2025. [Granted]
2. A Preparation Method of Tungsten Oxide Nanocubes having High-Specific Capacitance for Electrochemical Energy Storage Applications, Indian Patent No: 562332, 2023-2025. [Granted]
3. A two-step synthesis method for preparing NiSe₂@WO₃ nano-composite, Applications No : 202341089261, 2023, [Filed]

Research & Grants & Consultancy Projects

Ongoing & Completed Research Projects

- Establishment of Bio-fuel Research Information and Demonstration Centre (BRIDC-RVCE)" at RV College of Engineering, Funding Agency: Karnataka State Bio-fuel Development Board (KSBDDB), Government of Karnataka, Duration: 2012-ongoing, Role: Co-PI.

Professional Memberships

1. Member of American Chemical Society (ACS, USA, 31610891)
2. Member of Royal Society of Chemistry (RSC, UK) (730705)
3. Member of Electrochemical Society (ECS)-USA (504170)
4. Indian Society for Technical Education (ISTE); ID no.: LM 105901
5. Luminescence Society of India: Karnataka Chapter (LSI-KC): ID No: LM 010.

Awards & Recognitions

1. Listed among **WORLD'S TOP 2% SCIENTISTS in 2023**, in the field of Materials Science-Energy, by **Stanford University**-Scopus survey.
2. International "**ICTSGS SERVICE AWARD**" sponsored by "American Chemical Society" (ACS) and "Electrochemical Society" (ECS) in 2021 by **Yamagata University, JAPAN**.
3. "**BEST RESEARCHER AWARD**" from RV College of Engineering for the academic year 2019-2020 by Indian Society for Technical Education (ISTE), RVCE chapter, INDIA.
4. **Two times, "EXCELLENT PERFORMER"** Award for the academic year 2021-22 and 2022-23 by "**Rashtreeya Sikshana Samithi Trust" (RSST), Bengaluru, INDIA**.
5. "**BEST STUDENT PROJECT AWARD**" by Indian Institute of Chemical Engineers (IIChe), Bangalore Chapter, (The Institute is recognized by the Department of Science and Technology, Government of India.), 26th July 2022.
6. **Awarded International Travel Support (ITS)** from SERB-DST, Government of India (Sanction No. ITS/2019/000577) to deliver an invited talk at the World Nanotechnology Conference, held in Dubai, UAE, April 15-17, 2019.
7. **Recognized for Front Cover Publications: Recognized for publishing three research articles selected as front cover features in internationally acclaimed journals, highlighting the novelty and impact of the work in materials chemistry and energy research:**
 - *ACS Applied Electronic Materials*, Vol. 5, Issue 9
[View Cover](https://pubs.acs.org/toc/aaembp/5/9) : <https://pubs.acs.org/toc/aaembp/5/9>
 - *Energy & Fuels (ACS)*, Vol. 37, Issue 19
[View Cover](https://pubs.acs.org/toc/enfuem/37/19) : <https://pubs.acs.org/toc/enfuem/37/19>

- *ChemSusChem* (Wiley – Chemistry Europe)
[View Cover](https://chemistry-europe.onlinelibrary.wiley.com/doi/10.1002/cssc.202400951) : <https://chemistry-europe.onlinelibrary.wiley.com/doi/10.1002/cssc.202400951>

Student Supervision

- Ph.D. Candidates: 02
- M.Tech Students: 25
- Undergraduate Research Mentees: 100

Professional Roles

- Editorial Board: *ECS Sensor Plus (Q1)* [<https://www.electrochem.org/publications/sensors>]
- Actively serving as a peer reviewer for over **20 reputed international journals** in the fields of materials chemistry, nanotechnology, energy storage, and electronic devices, including:
 - **Journal of Energy Storage** (Elsevier)
 - **ACS Applied Energy Materials** (American Chemical Society)
 - **ACS Omega** (American Chemical Society)
 - **ACS Applied Electronic Materials** (American Chemical Society)
 - **International Journal of Nanomedicine** (Dove Medical Press)
 - **Materials Today Sustainability** (Elsevier)
 - **Progress in Materials Science** (Elsevier, IF: 48.0)
 - **Journal of The Electrochemical Society** (ECS)
 - **Materials Science & Engineering B** (Elsevier)
 - **Optical Materials** (Elsevier)
 - **Materials Chemistry and Physics** (Elsevier)
 - **Chemical Physics Letters** (Elsevier)
 - **Luminescence** (Wiley)
 - **Applied Nanoscience** (Springer)
 - **Applied Research** (Wiley)
 - **ECS Sensors Plus** (ECS-IOP)
 - **ECS Advances** (ECS-IOP)
 - **New Journal of Chemistry** (Royal Society of Chemistry)
 - **Scientific Reports** (Nature Publishing Group)
 - **Journal of Hazardous Materials** (Elsevier)
 - **Journal of Environmental Chemical Engineering** (Elsevier)

Chair/Committee Member:

1. **Co-Chair** for the International Conference organised by “Yamagata University” on “Technologies for Smart Green Connected Societies (ICTSGS-1) held online globally on 29th and 30th November 2021. ECS Transactions. (<https://www.ictsgs.com/>)
2. Coordinator for One day Outreach Program on “Nanoscience and Technology: Trends and Challenges” in association with ‘Centre for Nano and Soft Matter Sciences, Bangalore on ‘Friday, 8th March 2019, RVCE.
3. Co-chair for the “INTERNATIONAL CONFERENCE ON SMART ENGINEERING MATERIALS-ICSEM 2016, during 20-22, October-2016, Theme 2: Fabrication Techniques of Smart Devices and Structures (FTS); Mechanical Engineering Seminar Hall, RVCE.

4. Technical committee Member for the "INTERNATIONAL CONFERENCE ON SMART ENGINEERING MATERIALS-ICSEM 2016, during 20-22, OCTOBER-2016, @ R V COLLEGE OF ENGINEERING, BENGALURU

Teaching

Core Courses: I/II

- CM211IA, Chemistry of Smart materials and Devices
- CM221IB, Chemistry of Functional Materials

Professional Roles

Responsibilities

- **Academic Department:**, CIE-TEST, TIME TABLE, SCIENCE FORUM, RESEARCH LAB, COUNSELOR; RVJSTEAM journal, Research Advisory committee.
- **Administrative:** CoE Centre for Nanomaterials and Devices, Worked as Department Coordinator for NAAC, NBA, AICTE, VTU.

External Connect

- **Overseas Collaborations** : Active research partnerships are maintained with leading international experts across prestigious institutions worldwide:

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🏠 Prof. I-Ming Hung

Professor, Department of Chemical Engineering and Materials Science

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Scientist, Hierarchical Green-Energy Materials Research Center, National Cheng Kung University

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