

Selected Publications in the last 10 years

1. Altaf Pasha, Lakshmi Vineela and R. Geetha Balakrishna*, Deconstructing the dynamic loop of phase segregation in mixed-halide perovskites, *Appl. Phys. Rev.* 13, 021310 (2026)
2. Kiran Hiremath, Bhakti Kulkarni, Thomas Anoop, Muthu Austeria, R. Geetha Balakrishna*, Quantifying Energy Transfer to Organic Dyes through Self-Trapped Excitonic and Dopant-Mediated Emission in Cs₂NaBiCl₆ Lead-Free Double Perovskite Nanocrystals, *Nanoscale*, (2026)
3. Altaf Pasha and R. Geetha Balakrishna*, Conquering Iodide Migration to Unlock Perovskite Commercialization, *ACS Energy Lett.*, 11, 1, 15-20, (2025)
4. I. Divakar, S.; Talekar, S. S.; Mane, M. V.; Balakrishna, R. G.; Padaki, M., Sequestration of agricultural and industrial hazardous wastes using photocatalytically active Co-ATP-PSf composite hollow fiber
5. Gayathri Karthikeyan, Sakar Mohan, P. Muthu Austeria, R. Geetha Balakrishna*, Surface-Engineered 2D Bimetallic FeNi-MOFs Derived from Layered Double Hydroxides for Photocatalytic Membranes with Enhanced Dye Fixation in Wastewater Treatment, *Small*, 21, 2409133, (2025)
6. Kaveramma, A. B. and Chakraborty Abhisek and R. Geetha Balakrishna*, Managing Film Crystallization via Low Toxic Antisolvents: Stabilizing Ag₃BiI₆ Perovskite-like Solar Cells under Ambient Conditions, *J. Mater. Chem. A.*, 13, 3811-3824, (2025)
7. Sanjayan C. G., Leelavathi Gokavi, Chandan Hunsur Ravikumar, R. Geetha Balarkishna*, Antibody-modified 2D MXene Nanosheet Probes for Selective, Picolevel Detection of Cancer Biomarkers, *Biosens. Bioelectron.*, 271, 117028, (2025)
8. Altaf Pasha, Shubhangi Bhardwaj, Andrew Torma, Kaveramma A. B., Nagaraj S. Naik, Isaac Metcalf, Mukaddar S. K., Hao Zhang, Mahesh Padaki, Suman Kalyan Sahoo, Aditya D. Mohite, Sushobhan Avasthi, R. Geetha Balakrishna*, Ionic Lockdown: Sealing Migration Channels Across Device Interfaces in Mixed Halide Perovskite Solar Cells, *ACS Energy Lett.*, 9, 6002-6010, (2024)
9. S. Akhil, Dong-Won Kang, Hyosung Choi, R. Geetha Balakrishna*, Emerging Bi-Based Multicationic Ternary Chalcogenides as Promising Photoabsorbers for Solar Cells, *Sol. RRL*, 2400662, (2024)

10. Abhisek Chakraborty, Giulia Lucarelli, Jie Xu, Zeynab Skafi, Seezrgio Castro-Hermosa, A. B. Kaveramma, R. Geetha Balakrishna, Thomas M. Brown, Photovoltaics for Indoor Energy Harvesting, *Nano Energy*, 128, 109932, (2024)
11. Abhishek Narayanan, Nagaraj S. Naik, Samadhan Kapse, Ranjith Thapa, R. Geetha Balakrishna, Chandra Sekhar Rout, Mahesh Padaki, In Situ Cascade Steric Stabilization of Poly (Ionic Liquid) Mediated Hexagonal Nickel Hydroxide Morphogenesis for High-Performance Flexible Super Capacitors, *J. Mater. Chem. A.*, 12, 24508-24518, (2024)
12. Jesna George, Altaf Pasha, R. Geetha Balakrishna*, Creating Energy Transfer Pathways in Lead-Free Perovskite Nanocrystals via Dopant Emission Centers for Optical Sensing, *ACS Appl. Nano Mater.*, 17, 19774- 19783, (2024)
13. Swathi Divakar, Harini G. Sampatkumar, Satish S. Naik, Shridhar Malladi, Mahesh Padaki, Siddappa A. Patil, R. Geetha Balakrishna*, Graphitic Carbon Nitride Enriched Phytochemicals-based Photoactive Membranes for Perilous Chromium (VI) Ion Removal, *Sep. Purif. Technol.*, 334, 125953, (2024)
14. Karthikeyarajan Vinothkumar, R. Geetha Balakrishna*, One-pot Synthesis of NH₂-MIL-101(Fe) and α -Fe₂O₃ Composite as Efficient Heterojunction for Multifunctional Photocatalytic Membranes: Towards Zero Waste Generation, *Appl. Cat., B: Environ.*, 340, 123199, (2024)
15. S. Akash, S. Akhil, V. Sanjana, A. Chakraborty, R. Geetha Balakrishna*, Suppressing Phase Segregation in Mixed Halide CsPbI_{3-x}Br_x Perovskites by Dual Passivation Using Sodium Dodecyl Sulphate, *Sol. Energy*, 324, 112596, (2024)
16. Jomy Jose Philip, Gouranga H. Debnath, David H. Waldeck, R. Geetha Balakrishna*, Halide Exchange Mediated Cation Exchange Facilitates Room Temperature Codoping of d-and f-block Elements in Cesium Lead Halide Perovskite Nanoparticles, *Nanoscale*, 16, 9558, (2024)
17. Sumanth Dongre S., Asif Iqbal, Ranjit Thapa, Pratheeksha M., Shwetharani Ramu, and R. Geetha Balakrishna*, Synergistic Catalyst Design for Enhanced Electrochemical Hydrogen Evolution: Fe₂O₃/MoS₂/Ti₃C₂T_x MXene Ternary Composite, *ACS Appl. Eng. Mater.*, 2, 4, 943–954, (2024)

18. Altaf Pasha, Patatri Pramanik, Jesna K. G., Nishant Dhiman, Hao Zhang, Siraj Sidhik, Faiz Mandani, Sudhir Ranjan, Ahipa T. N., Siva Umapathy, Aditya D. Mohite and R. Geetha Balakrishna*, Cationic and Anionic Vacancy Healing for Suppressed Halide Exchange and Phase Segregation in Perovskite Solar Cells, *ACS Energy Lett.*, 8, 3081–3087, (2023)
19. Sanjayan C. G., R. Geetha Balakrishna*, Ratiometric Probe of PQDs/R6G: Achieving High Sensitivity and Precision in Contaminant Detection, *Sens. Actuators B Chem.*, 397, 134626, (2023)
20. Bhavya M. Basavaraja, Ramya Prabhu Bantwal, Anjana Tripathi, Gautam Hegde, Neena Susan John, Ranjit Thapa, Gopalkrishna Hegde, R. Geetha Balakrishna, Manav Saxena, Ali Altaee, Akshaya K. Samal, Functionalized Silver Nanocubes for the Detection of Hazardous Analytes through Surface-Enhanced Raman Scattering: Experimental and Computational Studies, *ACS Sustain. Chem. Eng.*, 11, 29, 10605–10619, (2023)
21. Hemanth Kumar Beere, Pranav Kulkarni, Uday Narayan Maiti, R. Geetha Balakrishna, Priyam Mukherjee, Hyun Young Jung, Ketaki Samanta, and Debasis Ghosh, Realizing Favourable Oxygen Electrocatalytic Activity with Compositionally Complex Metal Molybdates, *Sustain. Energy Fuels*, 7, 4303-4316, (2023)
22. Sumanth Dongre S., E. Siddharthan, Ranjit Thapa, Shwetharani R, and R. Geetha Balakrishna*, Dual Vacancy Passivation in CsPbCl₃ Perovskite Nanocrystals: Implications on Optoelectronic Applications, *ACS Appl. Nano Mater.*, 6, 14, 13227–13237, (2023)
23. Akhil S. and R. Geetha Balakrishna*, CuBiS₂ Ternary Quantum Dots: Tuning the Deposition Techniques for Enhanced Photovoltaic Performance, *ACS Appl. Energy Mater.*, 6, 14, 7487–7496, (2023)
24. Jesna K. George, Altaf Pasha, Sakar Mohan, R. Geetha Balakrishna*, Binding of CsPbBr₃ Nanocrystals to MOF-5 for the Detection of Cadmium Ions in Aqueous Media, *ACS Appl. Nano Mater.*, 2023, 6, 11, 9464–9474, (2023)
25. Basir Maleki, Yatish Kalanakoppal Venkatesh, S. Siamak Ashraf Talesh, Hossein Esmaeili, Sakar Mohan, R. Geetha Balakrishna, A Novel Biomass-Derived Activated Carbon Mediated AC@ZnO/NiO Bifunctional Nanocatalyst to Produce High-Quality

- Biodiesel from Dairy Industry Waste Oil: CI Engine Performance and Emission, *Chem. Eng. J.*, 467, (2023)
26. Shwetharani R., Itika Kainthla, Sumanth Dongre, Laveena D'Souza, R. Geetha Balakrishna*, Recent Advances of Ecofriendly 2D Monoelemental Bismuthene as a Photoabsorber for Energy, Catalysis and Biomedical Applications, *J. Mater. Chem. C.*, 11, 6777-6799, (2023)
 27. Sanjayan C. G., Chandan Hunsur Ravikumar, R. Geetha Balakrishna*, Perovskite QD-based Paper Microfluidic Device for Simultaneous Detection of Lung Cancer Biomarkers – Carcinoembryonic Antigen and Neuron-Specific Enolase, *Chem. Eng. J.*, 464, 142581, (2023)
 28. Sanjayan C. G., and R. Geetha Balakrishna*, Phase Transferred and Non-Coated, Water-Soluble Perovskite Quantum Dots for Biocompatibility and Sensing, *J. Mater. Chem. B*, 11, 2184-2190, (2023)
 29. Akhil S., and R. Geetha Balakrishna*, CuBiSe₂ Quantum Dots as Eco-Friendly Photosensitizers for Solar Cells, *ACS Sustain. Chem. Eng.*, 10, 39, 13176–13184, (2022)
 30. Sanjayan C. G., Jyothi Mannekote Shivanna, Jessica D. Schiffman, Sakar Mohan, Srinivasa Budagumpi, and R. Geetha Balakrishna*, Aqueous, Non-Polymer-Based Perovskite Quantum Dots for Bioimaging: Conserving Fluorescence and Long-Term Stability via Simple and Robust Synthesis, *ACS Appl. Mater. Interfaces*, 14 (34), 38471-38482, (2022)
 31. S. Akhil and R. Geetha Balakrishna*, AgBiS₂ QDs as a Photoabsorber for Eco-friendly Solar Cells, *J. Mater. Chem. A.*, 10, 8615-8625, (2022)
 32. S. Akash, Altaf Pasha, R. Geetha Balakrishna*, Dissipation of Charge Accumulation and Suppression of Phase Segregation in Mixed Halide Perovskite Solar Cells via Nanoribbons, *ACS Appl. Energy Mater.*, 5, 3, 2727–2737, (2022)
 33. Akhil S., Kusuma J., R. Geetha Balakrishna*, Green AgBiSe₂/AgBiS₂ Core Shell Quantum Dots for Stable Solar Cells by Robust SILAR Method, *J. Clean. Prod.*, 366,132760, (2022)

34. Sanjayan C. G., Jyothi M. S., and R. Geetha Balakrishna*, Stabilization of CsPbBr₃ Quantum Dots for Photocatalysis, Imaging and Optical Sensing in Water and Biological Medium; A Review, *J. Mater. Chem. C.*, 10, 6935-6956, (2022)
35. Karthikeyarajan Vinothkumar, Mannekote Shivanna Jyothi, Chandra Lavanya, Mohan Sakar, Suresh Valiyaveettil, R. Geetha Balakrishna*, Strongly Coordinated MOF-PSF Matrix for Selective Adsorption, Separation and Photodegradation of Dyes, *Chem. Eng. J.*, 428, 132561, (2022)
36. Akhil S., Mithun Prakash Ravikumar, Mohammed Jalalah, Mabkhoot Alsaiani, Farid A Harraz, R. Geetha Balakrishna*, Manifestation of the Enhanced Photovoltaic Performance in Eco-Friendly AgBiS₂ QD Solar Cells Using Titanium Oxynitride as the Electron Transport Layer, *Energy & Fuels*, 36,14393-14402, (2022)
37. Pranav Kulkarni, Hyunyoung Jung, Debasis Ghosh, Mohammed Jalalah, Mabkhoot Alsaiani, Farid A. Harraz, R. Geetha Balakrishna*, A Comprehensive Review of Pre-Lithiation/Sodiation Additives for Li-ion and Na-ion Batteries, *J. Energy Chem.*, 76, 479- 494, (2022)
38. Sumanth Dongre S., Shwetharani R., Chandan Hunsur Ravikumar, Lavanya C., R. Geetha Balakrishna*, Review on 2D Arsenene and Antimonene: Emerging Materials for Energy, Electronic and Biological Applications, *Adv. Mater. Interfaces*, 9, 23, 2200442, (2022)
39. Jesna K. George, Shwetharani Ramu, Vishaka V. Halali, R. Geetha Balakrishna*, Inner Filter Effect a Boon in Perovskite Sensing Systems to Achieve Higher Sensitivity Levels, *ACS Appl Mater Interfaces*, 13, 48, 57264–57273, (2022)
40. Altaf Pasha, S. Akhil, and R. Geetha Balakrishna*, Reliability of Cs₂M⁺M³⁺X₆ type Perovskites for Solar Cells: Assessing the Figures of Merit. *J. Mater. Chem. A*, 9, 17701-17719, (2022)
41. Sakar M., Ningaraju C., Yatish K. V., Mithun Prakash R., R. Geetha Balakrishna*, Simultaneous Refining of Biodiesel-Derived Crude Glycerol and Synthesis of Value-Added Powdered Catalysts for Biodiesel Production: A Green Chemistry Approach for Sustainable Biodiesel Industries, *J. Clean. Prod.*, 363, 132448, (2022)

42. C. G. Sanjayan, M. S. Jyothi, M. Sakar, R. Geetha Balakrishna*, Multidentate Ligand Approach for Conjugation of Perovskite Quantum Dots to Biomolecules, *J. Colloid Interface Sci.*, 758-770, (2021)
43. S. Akhil, J. Kusuma, S. Akash, R. Geetha Balakrishna*, Perovskite-Like Ceramic Hole Transport Material for Quantum Dot Sensitized Solar Cells, *Sol. Energy*, 224, 355-360, (2021)
44. S. Akash, R. Shwetharani, J. Kusuma, R. Geetha Balakrishna*, Insights and Future Perspectives for Constructing Efficient Electron Pathways in Photoanodes of QDSSCs, *Sol. Energy*, 224, 650-665, (2021)
45. S. Akhil, S. Akash, Altaf Pasha, Bhakti Kulkarni, Mohammed Jalalah, Mabkhoot Alsaari, Farid A. Harraz, R. Geetha Balakrishna*, Review on Perovskite Silicon Tandem Solar Cells: Status and Prospects 2T, 3T and 4T for Real World Conditions, *Mater. Des.*, 211, 110138, (2021)
46. C. Lavanya, J. Kusuma, R. Geetha Balakrishna*, Pyrochlores: Oxygen-Rich Moieties as Ceramic Fillers in Uplifting the Antifouling Property and Dye Removal Capacity of Polymeric Membranes, *Sep. Purif. Technol.*, 272, 118946, (2021)
47. R. Shwetharani, Samadhan Kapse, Ranjit Thapa, D. H. Nagaraju, and R. Geetha Balakrishna*, Dendritic Ferroselite (FeSe₂) with 2D Carbon-Based Nanosheets of rGO and g-C₃N₄ as Efficient Catalysts for Electrochemical Hydrogen Evolution, *ACS Appl. Energy Mater.*, 3, 12, 12682–12691, (2020)
48. Halali V. Vishaka, George K. Jesna, Pasha Altaf, K. Sarina, and R. Geetha Balakrishna*, Lattice Constriction and Trapped Excitons: A Structure–Property Relationship Unveiled in CsPbBr₃ Perovskite QDs, *J. Mater. Chem. C.*, 8, 17090-17098, (2020)
49. Christina MacLaughlin, Prashant V. Kamat, and Constance M. Biegel, Women Scientists at the Forefront of Energy Research: A Virtual Issue, *ACS Energy Lett.*, 5 (1), 282-289, (2020)
50. J. Kusuma and R. Geetha Balakrishna*, Ceramic Grains: Highly Promising Hole Transport Material for Solid State QDSSCs, *Sol. Energy Mater. Sol. Cells*, 209, 110445, (2020)

51. Shwetharani R., Halali, V. Vishaka, Kusuma J., R. Geetha Balakrishna*, Green to Blue Light-Emitting CsPbBr₃ Perovskite by Ligand Exchange and its Encapsulation by TiO₂ for Tandem Effect in Photovoltaic Applications, *ACS Appl. Nano Mater.*, 3, 6, 6089-6098, (2020)
52. Thangavelu Kokulnathan, Tzyy-Jiann Wang, Elumalai Ashok Kumar, V. Suvina, R. Geetha Balakrishna, Development of an Electrochemical Platform Based on Nanoplate-Like Zirconium Phosphate for the Detection of Furazolidone, *ACS Appl. Nano Mater.*, 3, 5, 4522-4529, (2020)
53. J. Kusuma, S. Akash, R. Geetha Balakrishna*, Transition Metal Nanohybrid as Efficient and Stable Counter Electrode for Heterostructure Quantum Dot Sensitized Solar Cells: A Trial, *Sol. Energy*, 201, 674-681, (2020)
54. R. Shwetharani, Sakar Mohan, C. A. N. Fernando, Vassilios Binas, and R. Geetha Balakrishna*, Recent Advances and Strategies Applied to Tailor Energy Levels, Active Sites and Electron Mobility in Titania and its Doped/Composite Analogues for Hydrogen Evolution in Sunlight, *Catal. Sci. Technol.*, 9, 12, (2019)
55. Pratap Vishnoi, K. Pramoda, Uttam Gupta, Manjeet Chhetri, R. Geetha Balakrishna, C. N. R. Rao, Covalently Linked Heterostructures of Phosphorene with MoS₂/MoSe₂ and their Remarkable Hydrogen Evolution Reaction Activity, *ACS Appl Mater Interfaces*, 11, 31, 27780-27787, (2019)
56. C. Lavanya, R. Geetha Balakrishna*, Naturally Derived Polysaccharides-Modified PSF Membranes: A Potency in Enriching the Antifouling Nature of Membranes, *Sep. Purif. Technol.*, 230, 115887, (2019)
57. J. Kusuma, H. R. Chandan, R. Geetha Balakrishna*, Conjugated Molecular Bridges: A New Direction to Escalate Linker-Assisted QDSSC Performance, *Sol. Energy*, 194, 74-78, (2019)
58. J. Kusuma and R. Geetha Balakrishna*, Exploration of Graphene Oxide Nanoribbons as Excellent Electron Conducting Network for Third Generation QD Solar Cells, *Sol. Energy Mater Sol. Cells*, 183, 211-219, (2018)
59. R. Geetha Balakrishna, Steven M. Kobosko, and Prashant V. Kamat, Mixed Halide Perovskite Solar Cells. Consequence of Iodide Treatment on Phase Segregation Recover, *ACS Energy Lett.*, 3, 2267-2272, (2018)

60. J. Kusuma and R. Geetha Balakrishna*, A review on Electrical Characterization Techniques Performed to Study the Device Performance of Quantum Dot Sensitized Solar Cells, *Sol. Energy*, 159, 682-696, (2018)
61. Chandan H. R., Jessica Schiffman and R. Geetha Balakrishna*, Quantum Dots as Fluorescent Probes: Synthesis, Surface Chemistry, Energy Transfer Mechanism and Applications, *Sens. Actuators B Chem.*, 258, 1191–1214, (2018)

Publications not listed above

62. Bharath Bhaskarbhat, SK Mukaddar, Altaf Pasha, Jan Grzegorz Małeck, Suman Kalyan Sahoo, Srinivas Budagumpi, R Geetha Balakrishna*, Optoelectronic modulation *via* isomerism-induced structural effects in low-dimensional bismuth halide perovskites, *Mater. Adv.*, (2026)
63. Bhaskar, R.; Balakrishna, R. G.*, An azo dye-based colorimetric chemosensor for selective cyanide detection in food matrices. *Inorg Chem Commun*, 189 (1), 116704 (2026)
64. Sampatkumar, H. G.; Vinothkumar, K.; Mane, M. V.; Ghosh, B.; Sasidhar, B. S.; Dateer, R. B.; Balakrishna, R. G.; Patil, S. A., Single-Atom Palladium Nanoclusters: Unlocking Hydrogenation and Base-Free Aminocarbonylation Using an Economical CO Surrogate. *ACS Appl. Energy Mater*, 9 (7), 3901-3912, (2026)
65. Devadiga, V.; M, P.; Rani R, S.; Mohan, S.; Balakrishna, R. G.*, Advances in 2D-2D Heterostructures for Photocatalytic and Photoelectrocatalytic H₂ Evolution, CO₂ Reduction, and N₂ Fixation: Design Strategies and Mechanistic Insights, *Adv Sustain Syst*, 10 (3), e01722 (2026)
66. Nellur, U.; Balakrishna, R. G*.; Mohan, S.; Isloor, A. M.; Padaki, M., Charge-Driven and Interfacial Interactions in MOF-801(Ce)/PVDF Nanocomposite Membranes for Pharmaceutical Removal, *Ind Eng Chem Res*, , 65 (9), 5150-5165 (2026)
67. Dani George, Shwetha Rani, Bhakti Kulkarni, R. Geetha Balakrishna*, Boron and nitrogen concentration profiling in boron carbon nitride: Implications for

- electrochemical sensing, *Diam. Relat. Mater.*, 164, 113438, (2026)
68. S Sumanth Dongre, PJ Akash, M Pratheeksha, M Faisal, Jahir Ahmed, Farid A Harraz, R Geetha Balakrishna*, R Shwetharani, Interface-engineered Co_3Se_4 -MoSSe composites for efficient bifunctional acidic and alkaline water splitting, *J. Power Sources*, 671, 239506, (2026)
 69. Praveen Kumar Gopi, Dani George, Chandan Hunsur Ravikumar, R Geetha Balakrishna*, Disposable low-cost paper-based iron-benzene-1,4, dicarboxylate metal-organic framework-MXene electrochemical sensor for point-of-care picomolar detection of L-tryptophan in human blood serum, *Microchem. J.*, 222, 117245, (2026)
 70. Usha Nellur, R Geetha Balakrishna*, Sakar Mohan, Arun M Isloor, Mahesh Padaki, Charge-Driven and Interfacial Interactions in MOF-801(Ce)/PVDF Nanocomposite Membranes for Pharmaceutical Removal, *Ind. Eng. Chem. Res.*, 65, 9, 5150–5165, (2026)
 71. Samriti Mehta, Rohit Kumar, Rajni Thakur, Sumanth Dongre, R Geetha Balakrishna*, Itika Kainthla, Structural and electrochemical synergy in bimetallic Fe-doped MoSSe ($\text{Mo}_{1-x}\text{Fe}_x\text{SSe}$) for enhanced HER in an acidic medium, *J. Alloys Compd.*, 1050, 185511, (2026)
 72. Dani George, Vishnu Nair Gopalakrishnan, Chandan Hunsur Ravikumar, M. Faisal, Jahir Ahmed, Farid A. Harraz, R. Geetha Balakrishna*, Imine-based COF/ $\text{Ti}_3\text{C}_2\text{T}_x$ Hybrid Nanocomposite for Simultaneous Electrochemical Detection of Biomolecules, *Electrochim. Acta*, 547, 147792, (2026)
 73. B. A. Thippeswamy, Masira I. Chamanmalik, K. V. Yatish, Shubhankar Kumar Bose, R. Geetha Balakrishna*, Siddappa A. Patil, K. Pramoda, Biogenically Prepared Pd Nanoparticles Anchored on Mg-Al Layered Double Hydroxide Intercalated with CNT as a Catalyst for Methanol Oxidation Reaction, *Diam. Relat. Mater.*, 162, 113267, (2026)
 74. Arnet Maria Antony, M. Pratheeksha, R. Shwetharani, R. Geetha Balakrishna*, Siddappa A. Patil, Catalytic Activity of Palladium-Graphitic Carbon Nitride-Based NanoCatalyst in Reduction and Hydrogen Evolution Reactions, *Inorg. Chem. Commun.*, 184, 115991, (2026)

75. Swathi Divakar, R. Geetha Balakrishna*, Mahesh Padaki, State-of-the-Art Dense Composite Membranes: An Innovative Step Towards Separation of Organic Liquid-Liquid Mixtures, *J. Ind. Eng. Chem.*, 148, 372-379, (2025)
76. Rajni Thakur, Rohit Kumar, Samriti Mehta, R. Geetha Balakrishna, Itika Kainthla, Transition Metal Synergy and Chalcogen Coordination in Ni_(1-x)Fe_xSSe for Superior Hydrogen Evolution Activity, *Mater. Chem. Phys.*, 348, 131565, (2026)
77. Bhakti Kulkarni, Thangavelu Kokulnathan, Tzyy-Jiann Wang, R. Geetha Balakrishna*, Allen Joseph Anthuvan, Zeolitic Imidazole Framework-67/Halloysite Nanotube Nanocomposites as Electrocatalysts for the Electrochemical Detection of 4-Nitrochlorobenzene, *J. Alloys Compd.*, 1010, 177496, (2025)
78. Aravind R. Nesaragi, Sumanth Dongre, Asif Iqbal, Ranjit Thapa, R. Geetha Balakrishna*, Siddappa A. Patil*, Graphitic-Carbon Nitride Immobilized Schiff Base Palladium (II): Highly Efficient Electrocatalyst for Hydrogen Evolution Reaction and Density Functional Theory Calculations, *Int. J. Hydrogen Energy*, 117, 314-324, (2025)
79. Dani George, H. R. Chandan, R. Shwetharani, M. Faisal, Jahir Ahmed, Farid A. Harraz, R. Geetha Balakrishna*, Understanding Graphyne; Theoretical Insights and its Optoelectronic Behaviour, *Materials Science in Semiconductor Processing*, 187, 109113, (2025)
80. Karthikeyan Manivannan, C. G. Sanjayan, Karthikeyarajan Vinothkumar, R. Shwetharani, R. Geetha Balakrishna*, In Situ Synthesis of CsPbBr₃ Perovskite Quantum Dots within Pb MOF Framework for Sensitive Detection of Hg²⁺ Ions in Aqueous Solutions, *Materials Science in Semiconductor Processing*, 200, 109962, (2025)
81. Prajwal Sherugar, Abhishek Narayanan, Afzal Hussain, R. Shwetharani, R. Geetha Balakrishna, Mahesh Padaki, Sustainable Nitrogen-Rich Activated Carbon Derived from Rhizophora Mucronata Propagules for Wastewater Treatment and Hydrogen Generation, *Mater. Chem. Phys.*, 347, 131468, (2026)
82. R. Shwetharani, Samriti Mehta, Bhuneshwar Paswan, Itika Kainthla, Sumanth Dongre, Amitava Banerjee, R. Geetha Balakrishna*, Bimetallic Transition Metal Dichalcogenides Ni_xMo_{1-x}SSe as Efficient Electrocatalysts for Hydrogen Evolution Reaction in Protic Electrolyte, *Fuel*, 394, 135035, (2025)

83. Gayathri Karthikeyan, Vidya Devadiga, Sakar Mohan, R. Geetha Balakrishna*, Europium MOFs-Enabled Fluorescent Membranes with Optimized Flux, Filtration, and Fouling Resistance for Wastewater Treatment: A Strategy to Probe MOF Distribution in Membranes, *J. Environ. Chem. Eng.*, 13, 118679, (2025)
84. Gayathri Karthikeyan, Sakar Mohan, R. Geetha Balakrishna*, Multidimensional Nickel-Based Nanoporous Metal–Organic Framework-Integrated Photoactive Membranes for Pollutant Separation and Degradation in Wastewater Treatment, *ACS Appl. Nano Mater.*, 8, 25, 12966–12979, (2025)
85. M. Pratheeksha, N. J. Hemavathi, S. Sumanth Dongre, Suman Kalyan Sahoo, R. Geetha Balakrishna*, R. Shwetharani, NiMo LDH-Derived Mo@NiSe₂ as Advanced Electrocatalysts for Hydrogen Evolution in Acidic and Alkaline Systems, *Energy Fuels*, 39, 6930–6941, (2025)
86. Sumanth Dongre, Giovanni Zuccante, Mohsin Muhyuddin, Carmelo Lo Vecchio, Vincenzo Baglio, Enrico Berretti, Alessandro Lavacchi, R. Shwetharani, R. Geetha Balakrishna, Carlo Santoro, Innovative Biochar-Based Electrocatalysts from Chilli Plants and Fruits for Sustainable Oxygen Reduction and Hydrogen Evolution Reactions, *Electrochim. Acta*, 517, 145763, (2025)
87. Manjunatha Palanna, Mahesh Itagi, Lokesh Koodlur Sannegowda, Bhakti Kulkarni, Kiran Hiremath, Muthu Austeria, R. Geetha Balakrishna*, A Bio-mimicking Cobalt Tetramenthol-Substituted Phthalocyanine-Based Electrochemical Sensor for Selective and Sensitive Detection of Tert-butylhydroquinone, *J. Mater. Chem. B.*, 13, 4188–4200, (2025)
88. Bhakti Kulkarni, Thangavelu Kokulnathan, Tzyy-Jiann Wang, Mysoon M. Al-Ansari, R. Geetha Balakrishna*, Trace-Level Electrochemical Detection of Organic Pollutant Metol in Environmental Samples Using MIL-101(Cr)@F-MWCNTs Nanocomposite, *J. Environ. Chem. Eng.*, 13, 119262, (2025)
89. Dani George, Chandan Hunsur Ravikumar, Jomy Jose Philip, R. Geetha Balakrishna*, Sulfhydryl Functionalization of MXene Enables Selective Sensing of Mercury Ions, *J. Mater. Chem. C.*, 12, 18345–18355, (2024)
90. Gayathri Karthik, Sakar Mohan, R. Geetha Balakrishna*, Engineering Ni-MOF/g-C₃N₄ Composite-Infused Polysulfone Membranes with Optimal Rejection, Flux,

Antifouling, and Photocatalytic Properties for Wastewater Treatment, *ACS ES&T Water*, 10, 4454–4463, (2024)

91. Gayathri Karthik, Sakar Mohan, R. Geetha Balakrishna*, Ligand-Modulated Charge Transfers in Z-scheme Configured Ni-MOF/g-C₃N₄ nanocomposites for photocatalytic remediation of dye-polluted water, *Sci. Rep.* 14, 26149, (2024)
92. Jomy Jose Philip, Aishwarya C. S., Nagaraju Kottam, Chandan Hunsur Ravikumar, R. Geetha Balakrishna*, Reliability of Multi-Emissive Carbon Quantum Dots for Multiplexing; Assessing the Figures of Merit, *J. Fluores.* 35, 6205-6223, (2024)
93. Mounesh, B. A. Thippeswamy, Pramod Shiralkar, R. Geetha Balakrishna, B. M. Nagaraja, K. Pramoda, Z-Scheme Configured Ni-MO Tetra-(4-methylthiazole)-carboxamide Cobalt (II) Phthalocyanine Supported on Functionalized Carbon Nanotubes as an Efficient Electrocatalyst for a Hydrogen Evolution Reaction, *ACS Appl. Energy Mater.*, (2024)
94. Bhuwaneshwari Chandrashekharan, Harini G. Sampatkumar, Dani George, Arnet Maria Antony, Siddalingeshwar V. Doddamani, B. S. Sasidhar, R. Geetha Balakrishna*, Siddappa A. Patil, Palladium Nanoparticle Immobilized on Coconut Coir Extract Coated Boron Carbon Nitride: A Green and Sustainable Nanocatalyst for Cross-Coupling Reactions and HER Studies, *Diam. Relat. Mater.*, 147, 111261, (2024)
95. Harini G. Sampatkumar, Pramod Shiralkar, R. Geetha Balakrishna*, K. Pramoda, Siddappa A. Patil, Palladium Nanoparticles Incorporated Biogenic Modified Graphitic Carbon Nitride as an Electrocatalyst for Methanol Oxidation Reaction, *Inorg. Chem. Commun.*, 170, 113173, (2024)
96. K. Gayathri, K. Vinothkumar, Sakar Mohan, R. Geetha Balakrishna*, Manifestation of UiO-66-Zr MOF-Enabled Photocatalytic Membranes for Successive Separation and Degradation of Dye Mixtures in Water Remediation, *J. Environ. Chem. Eng.*, 12, 112490, (2024)
97. Praveen Kumar Gopi, Sanjayan C. G., Akhil S., Chandan Hunsur Ravikumar, Siripong Thitamadee, Supornchai Kongpatanakul1, R. Geetha Balakrishna*, Werasak Surareungchai, Silver Bismuth Sulphide (AgBiS₂)-MXene Composite as High-Performance Electrochemical Sensing Platform for Sensitive Detection of Pollutant 4-Nitrophenol, *Electrochim. Acta.*, 498, 144616, (2024)

98. Sumanth Dongre, Rohit Kumar, Bhubaneswar Paswan, Itika Kainthla, Amitava Banerjee, Jari S. Algethami, Mabkhoot Alsaiari, Farid A. Harraz, R. Shwetharani, R. Geetha Balakrishna*, Synergistic Electrocatalytic Activity Unveiled: Cu–Mo Bimetal Sulfo-Selenide Nanocomposite for Hydrogen Evolution Reaction, *Mater Today Sustain.*, 27, 100894, (2024)
99. Swathi Divakar, Prajwal Sherugar, K. K. Nagaraja, R. Geetha Balakrishna, Mahesh Padaki, Elevating Oil-in-Water Emulsion Separation: Unleashing the Power of Exfoliated Graphitic Carbon Nitride Composite Membranes, *Chem. Eng. J. Adv.*, 17, 100580, (2024)
100. Shwetharani Ramu, Itika Kainthla, Lavanya Chandrappa, Jyothi Mannekote Shivanna, Brijesh Kumaran, R. Geetha Balakrishna*, Recent Advances in Metal Organic Frameworks–Based Magnetic Nanomaterials for Waste Water Treatment, *Environ. Sci. Poll. Res.*, Volume 31, (2024)
101. Aravind R. Nesaragi, Jahir Ahmed, Mabkhoot Alsaiari, Lohit Naik, Naveen Kumar Kalagatur, H. R. Chandan, Swati R. Hoolageri, Farid A. Harraz, R. Geetha Balakrishna*, Siddappa A. Patil, Fluorescent Imidazole Derived Sensor for Selective in Vitro and in Vivo Fe²⁺ Detection and Bioimaging in Zebrafish with DFT Studies, *Opt. Mater.*, 148, 114850, (2024)
102. Gayathri Karthik, Karthikeyarajan Vinothkumar, Sakar Mohan, R. Geetha Balakrishna*, Synergy of Ligands in Tailoring the Photocatalytic Properties of Zirconium Metal–Organic Framework-Impregnated Membranes for Water Treatment, *Ind. Eng. Chem.*, 63, (2024)
103. K. V. Yatish, C. Ningaraju, H. S. Lalithamba, M. Sakar, R. Geetha Balakrishna*, Demonstrating Photocatalytic Esterification as a Potential Strategy to Improve the Properties of Feedstock Oil Derived from Dairy Waste Scum for Biodiesel Production, *Energy Convers. Manag.*, 309, 118463, (2024)
104. Hemanth Kumar Beere, K. V. Yatish, K. Aravind, Debasis Ghosh, R. Geetha Balakrishna*, K. Pramoda, Unveiling Favorable Synergy of Tubules-like NiMoSe₂ with Defect-Rich Borocarbonitride over Graphene or MXene for Efficient Hydrogen Evolution Reaction Electrocatalysis, *Int. J. Hydrogen Energy*, 54, 1582-1592, (2024)
105. Basir Maleki, Yatish Kalanakoppal Venkatesh, Hossein Esmaeili, Masoumeh Haddadi, Ravikumar Mithun Prakash, R. Geetha Balakrishna, Novel Co₃O₄

Decorated with rGO Nanocatalyst to Boost Microwave-Assisted Biodiesel Production and as Nano-Additive to Enhance the Performance-Emission Characteristics of Diesel Engine, *Energy*, Volume 289, 129944, (2024)

106. Swathi Divakar, Nagaraj S. Naik, R. Geetha Balakrishna*, Mahesh Padaki, Liquid-Liquid (Cyclohexanone: Cyclohexanol) Separation using Augmented Tight Nanofiltration Membrane: A Sustainable Approach, *Chemosphere*, 355, 141820, (2024)
107. Yatish Kalanakoppal Venkatesh, Mithun Prakash Ravikumar, Shwetharani Ramu, Chandan Hunsur Ravikumar, Sakar Mohan, R. Geetha Balakrishna*, Developments in Titanium-Based Alkali and Alkaline Earth Metal Oxide Catalysts for Sustainable Biodiesel Production: A Review, *Chem. Rec.*, 23, 12, e202300277, (2023)
108. Veeranna R. Kattimani, K. V. Yatish, K. Pramoda, M. Sakar, R. Geetha Balakrishna*, Acacia Furnesiana Plant as a Novel Green Source for the Synthesis of NiFe₂O₄ Magnetic Nanocatalyst and as Feedstock for Sustainable High-Quality Biofuel Production, *Fuel*, 348, 128549, (2023)
109. P. Manikanta, Mounesh, Rohit Rangnath Nikam, Jubate Mohantay, R. Geetha Balakrishna, S. Sandeep, and Bhari Mallanna Nagaraja, CdO Decorated with Polypyrrole Nanotube Heterostructure: Potent Electrocatalyst for the Detection of Antihistamine Drug Promethazine Hydrochloride in Environmental Samples, *Langmuir*, 39, 31, 11099–11107, (2023)
110. K. N. Brinda, Zhoveta Yhobu, Jan Grzegorz Małcki, Rangappa S. Keri, R. Geetha Balakrishna, D. H. Nagaraju, Srinivasa Budagumpi, Novel Coumarin Substituted N-heterocyclic Carbene Ag(I), Au(I) and Ni(II) Complexes as Electrocatalysts in Hydrogen Evolution Reactions from Water, *Inter. J. Hyd. Energy*, 48, 10911-10921, (2023)
111. Yatish K. V., Omkaresh B. R., Kattimani V. R., Lalithamba H. S., Sakar M., R. Geetha Balakrishna*, Solar Energy-Assisted Reactor for the Sustainable Biodiesel Production from Butea Monosperma Oil: Optimization, Kinetic, Thermodynamic and Assessment Studies, *Energy*, 263, 125768, (2023)
112. Shwetharani R., Pratheeksha M., Sumanth Dongre S., R. Geetha Balakrishna*, Functionalized 2D Materials F-MoS₂ and F-g-C₃N₄ with TiO₂ as Composite Electrocatalysts for Electrochemical Hydrogen Evolution, *Int. J. Hydrog. Energy*, 48 (14), 5438-5446, (2023)

113. S. B. Arun, B. M. Karthik, K. V. Yatish, K. N. Prashanth, R. Geetha Balakrishna*, Green Synthesis of Copper Oxide Nanoparticles Using the *Bombax Ceiba* Plant: Biodiesel Production and Nano-Additive to Investigate Diesel Engine Performance-Emission Characteristics, *Energy*, 274, 12734, (2023)
114. Aravind R. Nesaragi, Chandan Hunsur Ravikumar, Naveen Kumar Kalagatur, Swati R. Hoolageri, K. M. Mussuvir Pasha, R. Geetha Balakrishna*, Siddappa A. Patil, In Vitro and in Vivo Nanomolar Hg²⁺ Detection in Live Cells and Zebrafish, Theoretical Studies, *J. Photochem. Photobiol., A.*, 445, 115079, (2023)
115. Vinothkumar K., Chandra L., Mohan S., R. Geetha Balakrishna*, Nature-Inspired Photoactive Metal–Organic Framework Nanofiber Filters for Oil–Water Separation: Conserving Successive Flux, Rejection, and Antifouling, *Ind. Eng. Chem. Res.*, 62 (2), 1085-1098, (2023)
116. Chandra L., Vinothkumar K., R. Geetha Balakrishna*, MIL-100 (Fe) Integrated Fibrous Polyvinyl Alcohol Graft on Cellulose Acetate Towards the Development of Green Photo Membranes; Application in Multi-solute Rejection, *J. Environ. Chem. Eng.*, 11, 109851, (2023)
117. S. Sumanth Dongre, R. Shwetharani, S. K. Abdul Moyez, R. Geetha Balakrishna*, In-situ Neodymium Ion Doping into Perovskite Nanocrystals over Ex-situ and its Importance in Triclosan Sensing, *Mater. Chem. Phy.*, 307, 128221, (2023)
118. Bhakti Kulkarni, Suvina V., Pramoda K., R. Geetha Balakrishna*, Picomolar, Electrochemical Detection of Paraoxon Ethyl, by Strongly Coordinated NiCo₂O₄-SWCNT Composite as an Electrode Material, *J. Electroanal. Chem.*, 931, (2023)
119. S. Akash, R. Shwetharani, J. Kusuma, S. Akhil, R. Geetha Balakrishna*, Highly Efficient and Durable Electron Transport Layer for QDSSC: An Integrated Approach to Address Recombination Losses, *J. Alloys Compd.*, 897, 162740, (2022)
120. M. S. Jyothi, R. Shwetharani, Sabarish Radoor, R. Geetha Balakrishna*, 9 - Switchable Photovoltaic Effect in Solar Cells: Architecture, Features, and Future Scope, *Functional Materials Processing for Switchable Device Modulation*, 161-184, (2022)

121. Chandan Hunsur Ravikumar, Nikhil Maroli, Bhakti Kulkarni, Ponmalai Kolandaivel, R. Geetha Balakrishna*, Heterostructure of CsPbBr₃-CdS Perovskite Quantum Dots for Enhanced Stability and Charge Transfer, *Mater. Sci. Eng. B.*, 275, 115513, (2022)
122. Vignesh Nayak, Jyothi Mannekote Shivanna, Shwetharani Ramu, Sabarish Radoor, R. Geetha Balakrishna*, Efficacy of Electrospun Nanofiber Membranes on Fouling Mitigation: A Review, *ACS Omega*, 7, 48, 43346-43363, (2022)
123. Swathi Divakar, Mahesh Padaki, R. Geetha Balakrishna*, Review on Liquid-Liquid Separation by Membrane Filtration, *ACS Omega*, 7, 49, 44495-44506, (2022)
124. Vishal Kandathil, Akshay Moolakkil, Pranav Kulkarni, Alaap Kumizhi Veetil, Manjunatha Kempasiddaiah, Sasidhar Balappa Somappa, R. Geetha Balakrishna, Siddappa A. Patil, Pd/Fe₃O₄ Supported on Bio-waste Derived Cellulosic Carbon as a Nanocatalyst for C-C Coupling and Electrocatalytic Application, *Front. Chem. Sci. Eng.*, 16, 1514-1525, (2022)
125. Pranav Kulkarni, Hemanth Kumar Beere, Mohammed Jalalah, Mabkhoot Alsaieri, R. Geetha Balakrishna*, Farid A. Harraz, Debasis Ghosh, Developing a High-Performance Aqueous Zinc Battery with Zn²⁺ Pre-intercalated V₃O₇-H₂O Cathode Coupled with Surface-Engineered Metallic Zinc Anode, *J. Electroanal. Chem.*, 924, 116851, (2022)
126. K. Gayathri, K. Vinothkumar, Y. N. Teja, Badria M. Al-Shehri, Manickam Selvaraj, M. Sakar, R. Geetha Balakrishna*, Ligand-Mediated Band Structure Engineering and Physiochemical Properties of UiO-66 (Zr) Metal-Organic Frameworks (MOFs) for Solar-Driven Degradation of Dye Molecules, *Colloids Surf. A: Physicochem. Eng. Asp.*, 653, 129992, (2022)
127. P. Kulkarni, D. Ghosh, R. Geetha Balakrishna*, Recent Progress in 'Water-in-Salt' and Water-in-Salt-Hybrid Electrolytes Based High Voltage Rechargeable Batteries, *Sustain. Energy Fuel*, 5, 1619-1654, (2021)
128. Rangaswamy Puttaswamy, Radha Nagaraj, Pranav Kulkarni, Hemanth Kumar Beere, Shrish Nath Upadhyay, R. Geetha Balakrishna*, Nataraj Sanna Kotrappanavar, Srimanta Pakhira, Debasis Ghosh, Constructing a High-Performance Aqueous Rechargeable Zinc-Ion Battery Cathode with Self-Assembled Mat-like Packing of Intertwined Ag(I) Pre-Inserted V₃OH₂O Microbelts with Reduced Graphene Oxide Core, *ACS Sustain. Chem. Eng.*, 9, 11, 3985-3995, (2021)

129. K. Sunil, Prajwal Sherugar, Srilatha Rao, C. Lavanya, R. Geetha Balakrishna, G. Arthanareeswaran, Mahesh Padaki, Prolific Approach for the Removal of Dyes by an Effective Interaction with Polymer Matrix using Ultrafiltration Membrane, *J. Environ. Chem. Eng.*, 9, 6, 106328, (2021)
130. RDAA Rajapaksha, CAN Fernando, R. Geetha Balakrishna, V. Kumar, P. See, An insight in Photocurrent Generation Mechanism on Cu₂O Quantum Dot Sensitized Cu/p-CuI Photo-Electrochemical Cell and Efficient H₂ generation at Cu/p-CuI/Cu₂O electrolyte interface, *Mater. Sci. Eng. B.*, 270, 115205, (2021)
131. Bhakti Kulkarni, V. Suvina, R. Geetha Balakrishna*, D. H. Nagaraju, J. Kusuma, 1D GNR-PPy Composite for Remarkably Sensitive Detection of Heavy Metal Ions in Environmental Water, *Chem Electro Chem.*, 9, 2, (2021)
132. Chandan Hunsur Ravikumar, Vishnu Nair, M. P. Raghavendra, Weresak Surareungchai, Archana Thakur, R. Geetha Balakrishna*, Biomass-Derived Carbon Dot Decorated ssDNA for a 'Turn-on' Fluorescent Assay for Detection of *Staphylococcus Aureus* MNase, *New J. Chem.*, 45, 5890-5896, (2021)
133. Pranav Kulkarni, R. Geetha Balakrishna*, Debasis Ghosh, R. S. Rawat, Rohit Medwal, B. V. R. Chowdari, Zaghif Karim, M. V. Reddy, Molten Salt Synthesis of CoFe₂O₄ and its Energy Storage Properties, *Mater. Chem. Phys.*, 257, 123747, (2021)
134. Soumya Nagashri Manjunath, M. Sakar, Manmohan Katapadi, R. Geetha Balakrishna*, Photochemistry of Ozone to Combat Coronavirus: Problems and Perspectives, *Environ. Technol. Innov.*, 21, 10131, (2021)
135. K. V. Yatish, R. Mithun Prakash, C. Ningaraju, M. Sakar, R. Geetha Balakrishna, H. S. Lalithamba, Terminalia Chebula as a Novel Green Source for the Synthesis of Copper Oxide Nanoparticles and as Feedstock for Biodiesel Production and its Application on Diesel Engine, *Energy*, 215, 119165, (2021)
136. C. Ningaraju, K. V. Yatish, R. Mithun Prakash, M. Sakar, R. Geetha Balakrishna*, Gasoline Pre-treated Feedstock for the Production of Biodiesel with Improved Physicochemical Properties, *Biomass Convers. Biorefin.*, 1-10, (2021)

137. Soumya Nagashri Manjunath, M. Sakar, Manmohan Katapadi, R. Geetha Balakrishna, Recent Case Studies on the Use of Ozone to Combat Coronavirus: Problems and Perspectives, *Environ. Technol. Innov.*, 21, 101313, (2021)
138. Y. N. Teja, M. Sakar, K. Vinothkumar, R. Geetha Balakrishna*, Large-scale Synthesis of Silane Functionalized Near-Superhydrophobic Aluminium Hydroxide Particles via Facile Surface Grafting Technique, *Mater. Today Commun.*, 101744, (2021)
139. K. Vinothkumar, V. Suvina, M. Sakar, R. Geetha Balakrishna*, Fe-based Metal Organic Frameworks for the Simultaneous Detection of Multiple Metal ions in Aqueous Medium by Square Wave Voltammetry Method, *AIP Conf. Proc.*, 2265, 030172, (2020)
140. R. Shwetharani, T. Sushmitha, G. U. Preethi, R. Geetha Balakrishna*, Amplification of Active Sites and Porosity for the Adsorption of QDs via the Induction of Rare-Earth Element La into TiO₂ for Enhanced Photovoltaic Effects in QDSSCs, *New J. Chem.*, 44, 20441-20448, (2020)
141. Bhakti Kulkarni, Mabkhoot Alsairi, Jyothi M. S., Kusuma J., Mohammed Jalalah, Farid A. Harraz, R. Geetha Balakrishna*, Performance of Functionalized 1T-MoS₂ as Composite Counter Electrode Material for QDSSCs and its Analogy with 2H-MoS₂, *Mater. Res. Bull.*, 134, 111096, (2020)
142. K. V. Yatish, H. S. Lalithamba, M. Sakar, R. Geetha Balakrishna, B. R. Omkaresh, S. B. Arun, Parametric Studies on the Storage Stability and Aging Effect of Biodiesel Treated with Eucalyptus Oil as a Cost-Effective Green-Antioxidant Additive, *Int. J. Energy Res.*, 44, 11711-11724, (2020)
143. Jesna George K., Vishaka Halali, Sanjayan C. G., V. Suvina, M. Sakar, R. Geetha Balakrishna*, Perovskite Nanomaterials as Optical and Electrochemical Sensors, *Inorg. Chem. Front.*, 7, 2702-2725, (2020)
144. R. Shwetharani, Vignesh Nayak, M. S. Jyothi, R. Geetha Balakrishna*, Review on Recent Advances of Core-shell Structured Lead Halide Perovskites Quantum Dots, *J. Alloys Compd.*, 834, 155246, (2020)
145. Vishaka V. Halali, R. Shwetha Rani, R. Geetha Balakrishna*, Srinivasa Budagumpi, Ultra-trace Level Chemosensing of Uranyl Ions; Scuffle Between Electron and Energy

- Transfer from Perovskite Quantum Dots to Adsorbed Uranyl Ions, *Microchem. J.*, 156, 104808, (2020)
146. V. Suvina, Thangavelu Kokulnathan, Tzyy-Jiann Wang, R. Geetha Balakrishna*, Lanthanum Cobaltite Supported on Graphene Nanosheets for Non-enzymatic Electrochemical Determination of Catechol, *Mikrochim. Acta*, 187, 1-7, (2020)
147. Vishaka V. Halali, R. Geetha Balakrishna*, An Expeditious Method for the Ultra-Level Chemo Sensing of Uranyl Ions, *Anal. Methods*, 12, 1070-1076, (2020)
148. Vignesh Nayak, Khantong Soontarapa, R. Geetha Balakrishna*, Mahesh Padaki, V. Yu Zadorozhnyy, S. D. Kaloshkin, Influence of TiO₂ Charge and BSA-Metal Ion Complexation on Retention of Cr (VI) in Ultrafiltration Process, *J. Alloys Compd.*, 832, 153986, (2020)
149. Chandan Hunsur Ravikumar, R. Shwetharani, R. Geetha Balakrishna*, Surface Modified Glass Substrate for Sensing *E. coli* Using Highly Stable and Luminescent CdSe/CdS Core Shell Quantum Dots, *J. Photochem. Photobiol. B, Biol.*, 204, 111799, (2020)
150. Vignesh Nayak, Jyothi M. S, R. Geetha Balakrishna*, Mahesh Padaki, V. Yu Zadorozhnyy, S. D. Kaloshkin, 4-Aminophenyl Sulfone (APS) as Novel Monomer in Fabricating Paper-Based TFC Composite for Forward Osmosis: Selective Layer Optimization, *J. Environ. Chem. Eng.*, 8, 103664, (2020)
151. V. Suvina, Thangavelu Kokulnathan, Tzyy-Jiann Wang, R. Geetha Balakrishna*, Unraveling the Electrochemical Properties of Lanthanum Cobaltite Decorated Halloysite Nanotube Nanocomposite: An Advanced Electrocatalyst for Determination of Flutamide in Environmental Samples, *Ecotoxicol. Environ. Saf.*, 190, 110098, (2020)
152. Bhavya M. B., Sai Rashmi Manippady, Manav Saxena, Neena S John, R. Geetha Balakrishna, Akshaya K Samal, Gold Nanorods as an Efficient Substrate for the Detection and Degradation of Pesticides, *Langmuir*, 36, 26, 7332-7344, (2020)
153. Halali V. Vishaka, Manav Saxena, H. R. Chandan, Anupam Anand Ojha, R. Geetha Balakrishna*, Paper-based Field Deployable Sensor for Naked Eye Monitoring of Copper (II) Ions; Elucidation of Binding Mechanism by DFT Studies, *Spectrochim. Acta A Mol. Biomol.*, 223, 117291, (2019)

154. M. S. Jyothi, V. Jagadeesha Angadi, T. V. Kanakalakshmi, Mahesh Padaki, R. Geetha Balakrishna*, Khantong Soontarapa, Magnetic Nanoparticles Impregnated, Cross-Linked, Porous Chitosan Microspheres for Efficient Adsorption of Methylene Blue from Pharmaceutical Waste Water, *J Polym Environ.*, 27, 2408-2418, (2019)
155. K. N. Brinda, G. Achar, J. G. Małęcki, S. Budagumpi, D. H. Nagaraju, V. Suvina, R. Geetha Balakrishna, Glucose Oxidase Mimicking Half-Sandwich Nickel (II) Complexes of Coumarin Substituted N-Heterocyclic Carbenes as Novel Molecular Electrocatalysts for Ultrasensitive and Selective Determination of Glucose, *Biosens. Bioelectron.*, 134, 24-28, (2019)
156. S. Yadav, K. Soontarapa, M. S. Jyothi, M. Padaki, R. Geetha Balakrishna, J. Y. Lai, Supplementing Multi-Functional Groups to Polysulfone Membranes Using Azadirachta Indica Leaves Powder for Effective and Highly Selective Acid Recovery, *J. Hazard. Mater.*, 369, 1-8, (2019)
157. Thangavelu Kokulnathan, V. Suvina, Tzyy-Jiann Wang, and R. Geetha Balakrishna, Synergistic Design of a Tin Phosphate-Entrapped Graphene Flake Nanocomposite as an Efficient Catalyst for Electrochemical Determination of the Antituberculosis Drug Isoniazid in Biological Samples, *Inorg. Chem. Front.*, 2019,6, 1831-1841, (2019)
158. Pranav Kulkarni, Chepurthy Varnika, Beverly Low Ying Tong, Debasis Ghosh, R. Geetha Balakrishna*, R. S. Rawat, S. Adams, M. V. Reddy, Investigating the Role of Precipitating Agents on the Electrochemical Performance of $MgCO_2O_4$, *J. Electroanal. Chem.*, 851, 113403, (2019)
159. Pranav Kulkarni, Debasis Ghosh, R. Geetha Balakrishna*, R. S. Rawat, M. V. Reddy, Stefan Adams, Facile High-Yield Synthesis of $MgCo_2O_4$ and Investigation of its Role as an Anode Material for Lithium-ion Batteries, *Ceram. Int.*, 45, 14775-14782, (2019)
160. T. M. Subrahmanya, Nagaraj S. Naik, Mahesh Padaki, R. Geetha Balakrishna, M. S. Jyothi, Sudesh Yadav, Wei-Song Hung, Synthesis of Poly (4, 4'-biphenylene sulfonyl succinamide) - Polysulfone Blend Membranes for Removal of Toxic Metal Ions from Water, *J. Appl. Polym. Sci.*, 48254, (2019)
161. B. Hemavathi, K. Jagadish, T. N. Ahipa, R. Geetha Balakrishna*, Fabrication of TiO_2 /poly (3- Cyanopyridine-fluorene) Hybrid Nanocomposite as Electron Transport Layer for Dye Sensitized Solar Cell, *J. Electroanal. Chem.*, 838, 136-141, (2019)

162. B. Hemavathi, S. Akash, J. Kusuma, T. Devaiah, R. Shwetharani, R. Geetha Balakrishna*, Ahipa T. N., New 2-methoxy-4, 6-bis (4-(4-nitrostyryl) phenyl) Nicotinonitrile: Synthesis, Characterization and Dye Sensitized Solar Cell Study, *J. Photochem. Photobiol. A: Chem.*, 377, 75-79, (2019)
163. R. Shwetharani, D. H. Nagaraju, R. Geetha Balakrishna*, V. Suvina, Hydrogenase Enzyme-like Nano Catalysts FeS₂ and FeSe₂ for Molecular Hydrogen Evolution Reaction, *Mater. Lett.*, 248, 39-42, (2019)
164. P. Kulkarni, D. Ghosh, R. Geetha Balakrishna*, R. S. Rawat, S. Adams, M. V. Reddy, Investigation of MnCo₂O₄/MWCNT Composite as Anode Material for Lithium-Ion Battery, *Ceram. Int.*, 45, 10619–10625, (2019)
165. M. Sakar, R. Mithun Prakash, Kiran Shinde, and R. Geetha Balakrishna*, Revisiting the Materials and Mechanism of Metal Oxynitrides for Photocatalysis, *Int. J. Hydrog. Energy*, 45, 7691-7705, (2019)
166. R. Shwetharani, H.R. Chandan, M. Sakar, R. Geetha Balakrishna*, Kakarla Raghava Reddy, Anjanapura V. Raghu, Photocatalytic semiconductor thin films for hydrogen production and environmental applications, *Int. J. Hydrog. Energy*, 45, 18289-18308, (2019)
167. B. J. Rajesha, V. Halali Vishaka, R. Geetha Balakrishna*, Mahesh Padaki, NAM Nazri, Effective Composite Membranes of Cellulose Acetate for Removal of Benzophenone-3, *J. Water Process Eng.*, 30, 100419, (2019)
168. K. Raghav Reddy, B. Hemavathi, R. Geetha Balakrishna, A. V. Raghu, S. Naveen, M. V. Shankar, Organic Conjugated Polymer-Based Functional Nanohybrids: Synthesis Methods, Mechanisms, and its Applications in Electrochemical Energy Storage Supercapacitors and Solar Cells, Micro and Nano Technologies, Polymer Composites with Functionalized Nanoparticles, *Elsevier*, 357-379, (2019)
169. B. Hemavathi, V. Jayadev, Praveen C. Ramamurthy, Ranjith Krishna Pai, Narayanan Unni K. N., T. N. Ahipa, Suraj Soman, R. Geetha Balakrishna*, Variation of the Donor and Acceptor in D–A– π –A Based Cyanopyridine Dyes and its Effect on Dye Sensitized Solar Cells, *New J. Chem.*, 43, 39, 15673-15680, (2019)

170. V. H. Vishaka, Manav Saxena, Sachin Latiyan, Shilpee Jain, R. Geetha Balakrishna*, Remarkably Selective Biocompatible Turn-on Fluorescent Probe for Detection of Fe³⁺ in Human Blood Samples and Cells, *RSC Adv.*, 9, 47, 27439-27448, (2019)
171. M. Sakar, R. Geetha Balakrishna, S. K. Nataraj, Dibyendu Mondal, International Conference on Green Methods for Separation, Purification and Nanomaterials Synthesis, *Mater. Today: Proc.*, 9, 491-498, (2019)
172. Satyapriya Bhandari, Dibyendu Mondal, S. K. Nataraj, R. Geetha Balakrishna, Biomolecules Derived Quantum Dots for Sustainable Optoelectronics, *Nanoscale Adv.*, 1, 913-936, (2019)
173. C. Lavanya, R. Geetha Balakrishna*, Khantong Soontarapa, Mahesh S. Padaki, Fouling-Resistant Functional Blend Membrane for Removal of Organic Matter T and Heavy Metal Ions, *J. Environ. Manage.*, 232, 372-381, (2019)
174. C. Lavanya, Khantong Soontarapa, M. S. Jyothi, R. Geetha Balakrishna*, Environmentally Friendly and Cost-Effective Caramel for Congo red Removal, High Flux, and Fouling Resistance of Polysulfone Membranes, *Sep. Purif. Technol.*, 211, 348-358, (2019)
175. Chandan Hunsur Ravikumar, Manjunath Ira Gowda, R. Geetha Balakrishna*, An "OFF-ON" Quantum Dot-Graphene Oxide Bioprobe for Sensitive Detection of Micrococcal Nuclease of Staphylococcus Aureus, *Analyst*, 144, 13, 3999-4005, (2019)
176. R. Shwetharani, R. Geetha Balakrishna*, One-Pot Synthesis of Flower-like FeS₂ as Counter Electrode for Quantum Dot Sensitized Solar Cells, *Mater. Today: Proc.*, 9, 594-598, (2019)
177. M. S. Jyothi, Sudesh Yadav, R. Geetha Balakrishna*, Effective Recovery of Acids from Egg Waste Incorporated PSf Membranes: A Step Towards Sustainable Development, *J. Membr. Sci.*, 549, 227-235, (2018)
178. Chandan H. R., Vishnu Nair G., Muralikrishna S., Nagaraju D. H., and R. Geetha Balakrishna*, Nanoflower-like Structures of MoSe₂ and MoS₂ as Efficient Catalyst for Hydrogen Evolution, *Mater. Lett.*, 220, 163-165, (2018)
179. V. Suvina, S. Murali Krishna, D. H. Nagaraju, J. S. Melo, R. Geetha Balakrishna*, Polypyrrole-Reduced Graphene Oxide Nanocomposite Hydrogels: Promising

- Electrode Material for the Simultaneous Detection of Multiple Heavy Metal Ions, *Mater. Lett.*, 232, 209–212, (2018)
180. B. Hemavathi, R. Geetha Balakrishna*, Aggregation Induced Light Harvesting of Molecularly Engineered D-A- π -A Carbazole Dyes for Dye-Sensitized Solar Cells, *Sol. Energy*, 174, 1085–1096, (2018)
181. B. Hemavathi, Arul Varman Kesava, G. K. Chandrashekar, Praveen C. Ramamurthy, Ranjith Krishna Pai, T. N. Ahipa, R. Geetha Balakrishna*, Polycondensation of Thiophene-Flanked Cyanopyridine and Carbazole via Direct Arylation Polymerization for Solar Cell Application, *React. Funct. Polym.*, 133, 1-8, (2018)
182. V. S. Babu, Mahesh Padaki, Laveena D'Souza, Sébastien Deon, R. Geetha Balakrishna, A. F. Ismail, Effect of Hydraulic Coefficient on Membrane Performance for Rejection of Emerging Contaminants, *J. Chem. Eng.*, 2392-2400, 334, (2018)
183. Shwetha Rani R., Sakar Mohan, Chandan H. R., and R. Geetha Balakrishna*, Observation of Simultaneous Photocatalytic Degradation and Hydrogen Evolution on the Lanthanum Modified TiO₂ Nanostructures, *Mater. Lett.*, 220, 133-135, (2018)
184. Chandan H. R., Sakar Mohan, Ashesh Mahto, Ravishankar T. N., Ramakrishnappa, Sergio Dupont, and R. Geetha Balakrishna*, Observation of Oxo-bridged Yttrium in TiO₂ Nanostructures and Their Enhanced Photocatalytic Hydrogen Generation Under UV/Visible Light Irradiations, *Mater. Res. Bull.*, 104, 212-219, (2018)
185. S. M. Anush, B. Vishalakshi, H. R. Chandan, R. Geetha Balakrishna, Heterocyclic Modification of Chitosan for the Adsorption of Cu (II) and Cr (VI) Ions, *Sep. Sci. Technol.*, 53, 13, 1979-1990, (2018)
186. J. Kusuma, R. Geetha Balakrishna*, Siddappa Patil, M. S. Jyothi, H. R. Chandan, R. Shwetharani, Graphene Ribbons Tilting the Efficiency Scales, *Curr. Sci.*, 115, 4, 603-603, (2018)
187. G. Nagaraju, Alamelu K. Ramasami, R. Geetha Balakrishna*, Jaitron Dupont, Ionic Liquid-Assisted Hydrothermal Synthesis of Silver Vanadate Nanorods, *Iran. J. Sci. Technol. Trans. A. Sci.*, 42, 451-456, (2018)

188. Prashant V. Kamat, Rebecca Scheidt, R. Geetha Balakrishna, Steven Kobosko, Vikash Kumar Iavi, Photocatalytic Aspects of CsPbBr₃ Perovskite Nanocrystals, *ECS Meet. Abstr.*, 233, 31, 1842-1842, (2018)
189. Pranav Kulkarni, S. K. Nataraj, R. Geetha Balakrishna*, D. H. Nagaraju, and M. V. Reddy, Nanostructured Binary and Ternary Metal Sulfides: Synthesis Methods and Their Application in Energy Conversion and Storage Devices, *J. Mater. Chem. A.*, 5, 22040, (2017)
190. Prashant V. Kamat, R. Geetha Balakrishna, Steven Kobosko, Effect of Iodide Treatment on the Photovoltaic Performance of Mixed Halide Perovskite Solar Cells, *ECS Meet. Abstr.*, 233, 11, 908-908, (2017)
191. P. Nithyadharseni, R. Geetha Balakrishna, B. V. R. Chowdari, M. V. Reddy, Synthesis and Lithium Storage Properties of Zn, Co, and Mg Doped SnO₂ Nano Materials, *Electrochim. Acta*, 247, 1, 358, (2017)
192. R. Shwetharani and R. Geetha Balakrishna*, La Activated High Surface Area Titania Float for Adsorption of Pb (II) From Aqueous Media, *New J. Chem.*, 1, 26, (2017)
193. B. Hemavathi, R. Geetha Balakrishna*, T. N. Ahipa, Alcohol Soluble Cyanopyridine-Based Conjugated Donor-Acceptor Polymers: Synthesis, Photophysical, and Their Charge Transport Behavior, *Eur. Polym. J.*, 95, 1-10, (2017)
194. M. S. Jyothi, Khantong Soontarapa, Mahesh Padaki, R. Geetha Balakrishna*, Arun M Isloor, Favourable Influence of mPIAM on PSf Blend Membranes for Ion Rejection, *J. Membr. Sci.*, 533, 229, (2017)
195. Jyothi M. S., R. Geetha Balakrishna*, Mahesh S. Padaki, Eco-friendly Membrane Process and Product Development for Complete Elimination of Chromium Toxicity in Wastewater, *J. Hazard. Mater.*, 332, 112, 1123, (2017)
196. S. Muralikrishna, D. H. Nagaraju, R. Geetha Balakrishna, Werasak Surareungchai, T. Ramakrishnappa, Avinash B. Shivanandareddy, Hydrogels of Polyaniline with Graphene Oxide for Highly Sensitive Electrochemical Determination of Lead Ions, *Anal. Chim. Acta*, 990, 67-77, (2017)

197. Alamelu K. Ramasami, M. V. Reddy, P. Nithyadharseni, B. V. R. Chowdarib, R. Geetha Balakrishna*, Gel-Combustion Synthesized Vanadium Pentoxide Nanowire Clusters for Rechargeable Lithium Batteries, *J. Alloys Compd.*, 69, 850, (2017)
198. Vignesh Nayak, M. S. Jyothi, R. Geetha Balakrishna*, Mahesh Padaki, Sebastien Deon, Novel Modified Polyvinyl Chloride Blend Membranes for Removal of Heavy Metals from Mixed Ion Feed Sample, *J. Hazard. Mater.*, 331, 289-299, (2017)
199. M. S. Jyothi, R. Geetha Balakrishna*, Mahesh Padaki, Sunlight Active PSf/TiO₂ Hybrid Membrane for Elimination of Chromium, *J. Photochem. Photobiol. A: Chem.*, 339, 89–94, (2017)
200. K. Manjunatha, T. S. Koley, V. Kandathil, R. B. Dateer, R. Geetha Balakrishna, Magnetic Nanoparticle-Tethered Schiff Base–Palladium (II): Highly Active and Reusable Heterogeneous Catalyst for Suzuki–Miyaura Cross-Coupling and Reduction of Nitroarenes in Aqueous Medium at Room Temperature, *Appl. Organomet. Chem.*, 32 (4), (2017)
201. Vignesh Nayak, R. Geetha Balakrishna*, Mahesh Padaki, Khantong Soontarapa, Zwitterionic Ultrafiltration Membranes for As (V) Rejection, *Chem. Eng. J.*, 308, 347–358, (2017)
202. J. B. Rajesha, Alamelu K. Ramasami, G. Nagaraju, R. Geetha Balakrishna*, Photochemical Elimination of Endocrine Disrupting Chemical (EDC) by ZnO Nanoparticles, Synthesized by Gel Combustion, *Water Environ. Res.*, 89, 5, 396-405, (2017)
203. R. Shwetharani, R. Geetha Balakrishna*, Efficient Algal Lipid Extraction via Photocatalysis and its Conversion to Biofuel, *Appl. Energy*, 168, 364, (2016)
204. Laveena P. D'Souza, R. Shwetharani, Vipin Amoli, C. A. N. Fernando, Anil Kumar Sinha, R. Geetha Balakrishna*, Photoexcitation of Neodymium Doped TiO₂ for Improved Performance in Dye - Sensitized Solar Cells, *Mater. Des.*, 104, 346, (2016)
205. Chandan H. R., M. Venkataramana, Mahaveer D. Kurkuri, R. Geetha Balakrishna*, Simple Quantum Dot Bioprobe/Label for Sensitive Detection of Staphylococcus Aureus TNase, *Sens. Actuators B. Chem.*, 222, 1201–1208, (2016)

206. M. S. Jyothi, Vignesh Nayak, Mahesh Padaki, R. Geetha Balakrishna*, Aminated Polysulfone/TiO₂ Composite Membranes for an Effective Removal of Cr(VI), Khantong Soontarapa, *Chem. Eng. J.*, 283, 1, 1494–1505, (2016)
207. Vignesh Nayak, Jyothi M. S., R. Geetha Balakrishna*, Mahesh Padaki, and Arun M. Isloor, Synthesis and Characterization of Novel Sulfanilic Acid-Poly Vinyl chloride - polysulfone Blend Membranes for Metal Ion Rejection, *RSC Adv.*, 6, 25492, (2016)
208. Alamelu K. Ramasami, and R. Geetha Balakrishna*, Synthesis, Exploration of Energy Storage and Electrochemical Sensing Properties of Hematite Nanoparticles, *J. Alloys Compd.*, 671, 552–559, (2016)
209. T. N. Ravishankar, R. Geetha Balakrishna, Enhanced Photocatalytic Hydrogen Production from Y₂O₃/TiO₂ Nano-Composites: A Comparative Study on Hydrothermal Synthesis With and Without Ionic Liquid, *N. J. of Chem.*, 40 (4), 3578-3587, (2016)
210. R. Shwetharani and R. Geetha Balakrishna*, Photo-Active Float for Field Water Disinfection, *Photochem. Photobiol. Sci.*, 15 (3), 447, (2016)
211. Nithyadharseni P., Reddy M. V., Ozoemena K. I., R. Geetha Balakrishna, & Chowdari, B. V. R., Electrochemical Performance of BasnO₃ Anode Material for Lithium-Ion Battery Prepared by Molten Salt Method, *J. Elect. Chem Soc.*, 163, 540, (2016)
212. M. S. Jyothi, P. D'Souza Laveena, R. Shwetharani, R. Geetha Balakrishna*, Novel Hydrothermal Method for Effective Doping of N and F into Nano Titania for Both Energy and Environmental Applications, *Material*, *Res. Bull.*, 74, 478–484, (2016)
213. T. N. Ravishankar, M. O. Vaz, S. Khan, T. Ramakrishnappa, S. R. Teixeira, R. Geetha Balakrishna, G. Nagaraju, J. Dupont, Ionic Liquid Assisted Hydrothermal Syntheses of TiO₂/CuO Nano Composites for Enhanced Photocatalytic Hydrogen Production from Water, *Chemistry Select.*, 1 (10), 2199-2206, (2016)
214. S. Muralikrishna, S. Cheunkar, B. Lertanantawong, T. Ramakrishnappa, D. H. Nagaraju, Werasak Surareungchai, R. Geetha Balakrishna, K. Ramakrishna Reddy, Graphene Oxide-Cu (II) Composite Electrode for Non-Enzymatic Determination of Hydrogen Peroxide, *J. Electroanal. Chem.*, 776, 1, 59–65, (2016)

215. V. S. Babu, M. S. Jyothi, R. Shwetharani, Mahesh Padaki, R. Geetha Balakrishna, Elimination of an Endocrine Disruptive Chemical by PSf/TiO₂ Hybrid Membranes via Membrane Rejection and Photocatalytic Oxidation, *AMST*, 19, 1, (2016)
216. Mahesh Padaki and R. Geetha Balakrishna*, B. J. Rajesha, H. R. Chandan, K. Sunil, Removal of BP-3 Endocrine Disrupting Chemical (EDC) using Cellulose Acetate and ZnO Nano Particles Mixed Matrix Membranes, *Membr. Water Treat.*, 7,6, (2016)
217. Nithyadharseni, P., Reddy, M. V., Ozoemena, K. I., R. Geetha Balakrishna, & Chowdari, B. V. R., Low Temperature Molten Salt Synthesis of Y₂Sn₂O₇ Anode Material for Lithium-Ion Batteries, *Electrochim. Acta*, 182, 1060-1069, (2015)
218. Laveena P. D'Souza, S. Muralikrishna, Hunsur R. Chandan, T Ramakrishnappa, and R. Geetha Balakrishna*, Neodymium Doped Titania as Photoanode and Graphene Oxide–CuS Composite as Counter Electrode Material in Quantum Dot Solar Cell, *J. Mater. Res.*, 30, 3241-3251, (2015)
219. Alamelu K. Ramasami, M. V. Reddy, R. Geetha Balakrishna*, Combustion Synthesis and Characterization of NiO Nanoparticles, *Mater. Sci. Semicond. Process*, 40, 194–202, (2015)
220. Alamelu K., Ramasami H., Raja Naika H., Nagabhushana, T. Ramakrishnappa, R. Geetha Balakrishna, G. Nagaraju, Tapioca Starch: An Efficient Fuel in Gel-Combustion Synthesis of Photo-Catalytically and Anti-Microbially Active ZnO Nanoparticles, *Mater. Charact.*, 99, 266–276, (2015)
221. Shwetha Rani R., CAN Fernando and R. Geetha Balakrishna*, Excellent Hydrogen Evolution by a Multi-Approach via Structure-Property Tailoring of Titania, *RSC Adv.*, 5, 39122-30, (2015)
222. Laveena P. D'Souza, Vipin Amoli, Chandan H. R., Anil Kumar Sinha, Ranjith Krishna Pai, R. Geetha Balakrishna*, Atomic Force Microscopic Study of Nanoscale Interaction between N719 Dye and CdSe Quantum Dot in Hybrid Solar Cells and Their Enhanced Open Circuit Potential, *Sol. Energy*, 116, 25-36, (2015)
223. Vignesh Nayak, M. S. Jyothi, S. P. Mahesh Padaki, and R. Geetha Balakrishna*, Ahmad Fauzi Ismail, Preparation and Characterization of Chitosan Thin Films on Mixed-Matrix Membranes for Complete Removal of Chromium, *Chemistry Open*, 4, 278–287, (2015)

224. Siddappa A. Patil, Shivaputra A. Patil, Renukadevi Patil, Rangappa S. Keri, Srinivasa Budagumpi, R. Geetha Balakrishna & Matthias Tacke, N-Heterocyclic Carbene Metal Complexes as Bio-Organometallic Antimicrobial and Anticancer Drugs, *Future Med. Chem.*, 7(10), 1305–1333, (2015)
225. M. S. Jyothi, S. P. Mahesh Padaki, and R. Geetha Balakrishna*, The Effect of UV Irradiation on PSf/TiO₂ Mixed Matrix Membrane for Chromium Rejection, *Desalination*, 354, 189-199, (2014)
226. Shwetharani R. and R. Geetha Balakrishna*, Comparative Study of Homogeneous and Heterogeneous Photo-oxidative Treatment on Bacterial Cell via Multi-Analytical Techniques, *J. Photochem. Photobiol. A: Chem.*, 295, 11–16, (2014)
227. Chandan H. R, Saravanan V, Ranjith Krishna Pai, and R. Geetha Balakrishna*, Synergistic Effect of Binary Ligands on Nucleation and Growth/Size Effect of Nanocrystals; Studies on Reusability of the Solvent, *J. Mater. Res.*, 29, 14, (2014)
228. Shwetharani R., Jyothi, M. S., Laveena, P. D., R. Geetha Balakrishna*, Photoactive Titania Float for Disinfection of Water; Evaluation of Cell Damage by Bioanalytical Techniques, *Photochem. Photobiol.*, 90, (5) 1099–1107, (2014)
229. M. S., Jyothi, Padaki Mahesh S., R. Geetha Balakrishna*, Pai, Dr. Ranjith Krishna, Synthesis and Design of PSf/TiO₂ Composite Membranes for Reduction of Chromium (VI); Stability and Reuse of the Product and the Process, *J. Mater. Res.*, 29, 14, (2014)
230. M. V. Reddy, R. Geetha Balakrishna, B. V. R. Chowdari, Studies on Bare and Mg-doped LiCoO₂ as a Cathode Material for Lithium-Ion Batteries, *Electrochim. Acta*, 128, 192, (2014)
231. Keri R. S., Budagumpi S., Pai R. K., R. Geetha Balakrishna, Chromones as a Privileged Scaffold in Drug Discovery: A Review, *Eur. J. Med. Chem.*, 78, 340-374, (2014)
232. K. Suresh Kumar, T. Ramakrishnappa, R. Geetha Balakrishna, M. Pandurangappa, A Fluorescent Chemodosimeter for Hg²⁺ Based on a Spirolactam Ring-Opening Strategy and its Application Towards Mercury Determination in Aqueous and Cellular Media, 24(1), 67-74, *J. Lumin.*, (2013)

233. Laveena. P. D'Souza, Sindushree, and R. Geetha Balakrishna*, Bifunctional Titania Float for Metal Ion Reduction and Organics Degradation, via Sunlight, ACS, *Ind. Eng. Chem. Res.*, 52, 16162–16168, (2013)
234. H. R. Chandan, R. Geetha Balakrishna*, Study on Precipitation Efficiency of Solvents in Postpreparative Treatment of Nanocrystals, *J. Mater. Re.*, 28, 21, 3003-3009, (2013)
235. R. Geetha Balakrishna, K. S. Rajesh, (2013), Design and Implementation of AMRP for Multi hop Wireless Mobile Ad Hoc Networks, *Int. J. Adv. Comput. Sci. Appl.*, 4, 4, 1662.
236. Swetha, Maheshwari Minchitha and R. Geetha Balakrishna, Elucidation of Cell Killing Mechanism by Various Biochemical Estimations", *Photochem Photobiol*, 88,414–422, (2012)
237. K. U. Minchitha and R. Geetha Balakrishna, Structural Modification and Property Tailoring in Titania for High Efficiency in Sunlight", *Mater. Chem. Phys.*, 136, 720-728, (2012)
238. Yongzhi Wu, Rajiv Balakrishna, M. V. Reddy, A. Sreekumaran Nair, BVR Chowdari, S. Ramakrishna, Functional Properties of Electrospun NiO/RuO₂ Composite Carbon Nanofibers, *J. Alloys Compd.*, 517, 69-74, (2012)
239. Swetha, and R. Geetha Balakrishna, Preparation and Characterization of High Activity Zirconium-Doped Anatase Titania for Solar Photocatalytic Degradation of Ethidium Bromide", *Chin. J. Cata. I*, 32, 1–0, (2011)
240. T. V. Shalini, T. N. Nagaraja, R. Geetha Balakrishna, D. Ashok Satpute, Sheshagiri Shwetha, Anti-Bacterial Activity of Rasamanikya., *Int. J. Res., Ayurveda Pharm.*, 2, 5, (2011)
241. T. N. Anitha, R. Geetha Balakrishna, An Efficient and Scalable Content-Based Dynamic Load Balancing Using Multiparameters on Load-Aware Distributed Multi-Cluster Servers, *Int. J. Eng. Sci. Technol.*, 3, 8, 6401-6411, (2011)
242. Prasanna Kumar Tirupati, Srilakshmi Dasari, K. C. Ragamala, R. Geeta Balakrishna, Shwetha Seshagiri, Anti-Microbial Activity of Talakeshwara Ras, *Int. J. Ayurveda Res.*, 2, 1, (2011)

243. Swetha, Santhosh S. M., and R. Geetha Balakrishna, Enhanced Bactericidal Activity of Modified Titania in Sunlight Against *Pseudomonas Aeruginosa*, a Water-Borne Pathogen, *Photochem. Photobiol.*, 86, 1127-1134, (2010)
244. S. M. Santhosh, Swetha S, and R. Geetha Balakrishna, Structure and Photocatalytic Activity of $Ti_{1-x}MxO_2$ (M = Zr, Co, and Mo) Synthesized by Pulverized Solid State Technique", *Cent. Eur. J. Chem.*, 8, 453-460, (2010)
245. Swetha S., S. M. Santhosh, and R. Geetha Balakrishna, Synthesis and Comparative Study of Nanotitanates Over Degussa P-25 in Disinfection of Water, *Photochem. Photobiol.*, 86 (3), 628-632, (2010)
246. S. M. Santosh, R. Geetha Balakrishna, Catalysed Degradation of Indanthrene Golden Orange R G in Sunlight with Vanadium-Doped TiO_2 , *Int. J. Chem. Sci.*, 6, 1752-1771, (2008)
247. L. G. Devi, R. Geetha Balakrishna, Photocatalytic Oxidation of Indanthrene Blue RS- An Anthraquinone vat Dye Using TiO_2 Photocatalyst, *Oxid. Commun.*, 29, 1, 31-40, (2006)
248. R. Geetha Balakrishna, L. Gomathi Devi, A Study of Photocatalytic Oxidation of Indanthrene Red LGG, an Anthraquinone vat Dye on TiO_2 , *Pol. J. Chem.*, 79, 5, 919-931, (2005)
249. L. Gomathi Devi, R. Geetha Balakrishna, Mass Spectrometric and IR Spectroscopic Study of the Destruction of Environmentally Hazardous Indanthrene Red FFB, a Textile Pollutant, *Res. J. Chem, Environ.*, 8, 4, 62-72, (2004)
250. L. G. Devi, R. Geetha Balakrishna, UV-Visible Spectral Study of Oxidation of Indanthrene Red Vat Dye by Photocatalytic Degradation over TiO_2 Semiconducting Particles, *Oxid. Commun.*, 27, 3, 571-576, (2004)