I. PERSONAL DETAILS

II.

1. Name of Teaching Faculty : Dr. Resmi M. R.
2. Designation :Principal in Charge and Professor in Chemistry
3. Department :Department of Chemistry
4. Address : Prasanthi, Pulamanthole (PO), Malappuram, KeralaPin: 679323
5. Contact No & email ID : 9446547724, resmiraveendran.mr@gmail.com
6. Date of Birth : 24.05.1972

II. EDUCATION BACKGROUND

Academic Qualifications

Examinations	*Name of the Board/University*	*Year of Passing*	*% of marks obtained*	*Division/ Class/ Grade*	*Subject*
Graduation	University of Calicut	1992	89.8	Distinction	Chemistry
Post-Graduation	University of Calicut	1994	76.5	First Rank	Chemistry
CSIR-JRF	CSIR	1994	Qualified	Qualified	Chemical Science

Research Degrees

Degree	*Title of Thesis/ Dissertation*	*Date of Award with Reg. No.*	*Discipline/ Subject*	*University*
Ph.D.	Vibrational spectroscopic investigations of orientational ordering in fullerene-based materials	27-07-2001	Chemistry	Indian Institute of Technology, Madras (Supervisor: Prof. T. Pradeep)
Post Doctoral Fellowship	Photocatalytic oxidation of n-octanol by hydrophobic TiO_2 in supercritical carbon dioxide.	2001-2002	Chemistry	North Carolina State University (Supervisor: Prof. Mary Anne Fox)

III. PROFESSIONAL DETAILS

1. Date of Entry in to service 30.01.2002
2. Early Career Nil
3. Academic /Teaching Experience 20 years
4. Area of Specialization Nano Chemistry and Spectroscopy
5. Courses TaughtB. Sc., M. Sc.
6. Research Experience26 years, Completedtwo major research projects and one minor research project.Guided 4 students to their PhD and currently guiding one student for their PhDs.
7. Professional Affiliations NA
8. Academic Honors & Awards NA
9. Conference/Seminar/ Workshop Presentations

10. Selected Publications

1. DP Das, H Ameena, RM Ramakrishnan, P Raveendran, Sustained release composites of salbutamol sulfate embedded in polyethylene glycol prepared using supercritical CO_2 as a green mixing medium, *Journal of the Indian Chemical Society*, 2025,102338.

2. HV Padi, N Nanattil, S Sulaiman, RM Ramakrishnan, BN Narayanan,High-quality graphene devoid of oxygen functionalities as conductive ink for flexible electronics and bendable all-solid-state supercapacitors*Journal of Energy Storage*,2024, 86, 111297.

3.AP Ajaykumar, K Nikhila, Ovungal Sabira, Kodangattil Narayanan Jayaraj, Sudhir Rama Varma, VA Rasheed, VS Binitha, Kalapparambil Sreeja, Resmi M Ramakrishnan, Annet Babu, A bio-inspired approach for the synthesis of few-layer graphene using beetle defensive gland extract*RSC advances*2024, 14 (9), 5729-5739.

4. K Sreeja, M Usha, U Rajeena, P Raveendran, RM Ramakrishnan, Fluorine-rich graphene quantum dots by selective oxidative cutting of hydroxy fluorographene and their application for sensing of Fe (III) ions, *Journal of Fluorine Chemistry*2023, 268, 110130.

5. Mani Usha, Kalapparambil Sreeja, Uruniyengal Rajeena, PriyakumariChakkingal Parambil, Poovathinthodiyil Raveendran, Resmi M Ramakrishnan, Preparation of mesoporous poly (fullerene oxide) framework by thermal [3+ 2] cycloadditions and its

application as a semiconductor photocatalyst, *Fullerenes, Nanotubes and Carbon Nanostructures*2023, 31 (4), 317-326,

6. Jyothi P Ramachandran, Anu Antony, Resmi M Ramakrishnan, Scott L Wallen, Poovathinthodiyil Raveendran, CO_2-solvated liquefaction of polyethylene glycol (PEG): A novel, green process for the preparation of drug-excipient composites at low temperatures, *Journal of CO_2 Utilization*2022, 59, 101971.

7. Jyothi P Ramachandran, Ajila P Kottammal, Anu Antony, Resmi M Ramakrishnan, Scott L Wallen, Poovathinthodiyil Raveendran, Green processing: CO_2-induced glassification of sucrose octaacetate and its implications in the spontaneous release of drug from drug-excipient composites, *Journal of CO_2 Utilization*, 2021, 47, 101472.

8. U Rajeena, P Raveendran, RM Ramakrishnan, Stepwise defluorination of fluorographene: How do the structural features govern the rates of heterogeneous electron transfer?„*Journal of Fluorine Chemistry*, 2020,109555.

9. U Rajeena, M Akbar, P Raveendran, RM Ramakrishnan, Graphene reduction of P25 titania: Ti^{3+}-doped titania/graphene nanohybrids for enhanced photocatalytic hydrogen production *International Journal of Hydrogen Energy*2020, 45 (16), 9564-9574.

10. Cheriyathvalappil Shaniba, Mohammed Akbar, Kuttikkattil Ramseena, Poovathinthodiyil Raveendran, Binitha N Narayanan, Resmi M Ramakrishnan, Sunlight-assisted oxidative degradation of cefixime antibiotic from aqueous medium using TiO2/nitrogen doped holey graphene nanocomposite as a high performance photocatalyst, *Journal of Environmental Chemical Engineering*2020, 8 (1), 102204.

11. V Vadery, SK Cherikkallinmel, RM Ramakrishnan, S Sugunan, BN Narayanan, Green production of biodiesel using waste borosilicate glass derived catalyst and the process up-gradation in pilot scale, *Renewable Energy*, 2019, 141, 1042-1053.

12. A Antony, JP Ramachandran, RM Ramakrishnan, P Raveendran, Sizing of paper with sucrose octaacetate using liquid and supercritical carbon dioxide as a green alternative medium, *Journal of CO_2 Utilization*2018, 28, 306-31

13. Anu Antony, Anila Raj, Jyothi P Ramachandran, Resmi M Ramakrishnan, Scott L Wallen, Poovathinthodiyil Raveendran Sizing and Desizing of Cotton and Polyester Yarns Using Liquid and Supercritical Carbon Dioxide with Nonfluorous CO_2-Philes as Size Compounds, ACS Sustainable Chemistry & Engineering 2018, 6 (9), 12275-12280.

14. SG Ullattil, RM Ramakrishnan, Defect-Rich Brown TiO_{2-x} Porous Flower Aggregates: Selective Photocatalytic Reversibility for Organic Dye Degradation *ACS Applied Nano Materials*2018, 1 (8), 4045-4052.

15. U Rajeena, M Akbar, P Raveendran, RM Ramakrishnan, Fluorographite to hydroxy graphene to graphene: a simple wet chemical approach for good quality graphene, *New Journal of Chemistry*2018, 42 (12), 9658-9665,

16. S Balasubramanyan, S Sasidharan, R Poovathinthodiyil, Resmi M Ramakrishnan, Binitha N Narayanan, Sucrose-mediated mechanical exfoliation of graphite: a green method for the large scale production of graphene and its application in catalytic reduction of 4-nitrophenol, *New Journal of Chemistry*, 2017, 41 (20), 11969-11978.

Conference Papers

1. Rajeena U and Resmi M.R. (2017) "The synthesis of sodium doped fluorographene nanosheets and their application for hydrogen storage". Proceedings of the International conference Emerging frontiers in chemical science, Department of Chemistry, Farook college. Kozhikode, kerala, September 23-25,2017, 64.
2. Uruniyengal Rajeena, Resmi M. Ramakrishnan, (2019) "Electrochemical detection of nitrite based on glassy carbon electrode modified with graphene", International conference on materials on millennium, Department of Chemistry, Cochin University. March 14-16, 2019, 132.
3. Sreeja K., Swathy K.J., Amrutha K., Rajeena U. and Resmi M. Ramakrishnan (2018) "The Selective Oxidation of Cyclohexene Over G-C3N4 /RGO Metal Free Catalysts" International conference Chemistry and Physics of materials, St. Thomas College. Trissur, Kerala, December 19-21, 2018.
4. Rajeena U and Resmi, M.R. (2018) "Nucleophilic Substitution and Simultaneous Exfoliation of Fluorographite: An Alternative Pathway for the Bulk Preparation of Chemically Functionalized Graphene" 30th keralascienece congress, held at Government Brennen college, Thalassery, January 28 -30, 2018, 101.
5. Thasni T., Rajeena U. and Resmi M.R. (2017) "Boron doped Graphene: A metal free catalyst for 4-
Nitrophenol Reduction" Emerging trends in nanoscience and technology, National seminar, Sree Neelakanta Govt. Sanskrit College, Pattambi, Kerala, December 19-20, 2017.
6. Rajeena U, Rajmohan P. R., Raveendran P. and Resmi M. R. (2018) "Solvent induced defluorination in flurographene: a solution F-19nmr study" Proceedings of National seminar frontiers in chemical science, Department of Chemistry, University of Calicut, Kerala, February 26-28, 2018, 39.
7. Rajeena U. and Resmi M.R. (2019) "Simultaneous Voltammetric Sensing of Lead and Cadmium on Poly (methylene blue)/Graphene Modified Glassy Carbon Electrode" Chemistry past present future (CPPF), National seminar, Sree Neelakanta Govt. Sanskrit College, Pattambi, Kerala, November, 21-22, 2019.