Curriculum Vitae

| Personal information | VAISHNA PRIYA K |
|---|--|
| Date and place of birth | 11/05/1994, Bathery, Kerala, India |
| Gender | Female |
| Nationality | Indian |
| Address | |
| Phone number | |
| e-mail | Vyshnapriya493@gmail.com |
| | https://www.linkedin.com/in/vaishna-priya-a78334161/ https://scholar.google.com/citations?user=26k4g3wAAAAJ&hl=en |
| Education titles awarded | Master of Science in Chemistry |
| Work experience | |
| Dates | From 07/09/2019- 07/09/2022 |
| Occupation or position held Name and address of employer | Senior research fellow Materials science and technology division CSIR-National institute for interdisciplinary science and technology (NIIST), Thiruvananthapuram- 695019, Kerala, India |
| Main activities | Development of heteroatom doped carbon from metal-organic frameworks(MOFs) for energy and environmental applications (fuel cell ORR electrocatalysis, removal of organic contaminants from water based on advanced oxidation processes and triboelectric nanogenerators) |
| Dates | From 07/09/2017- 07/09/2019 |
| Occupation or position held Name and address of employer | Junior research fellow CSIR-National institute for interdisciplinary science and technology (NIIST), Thiruvananthapuram- 695019, Kerala, India |
| Main activities | Development of heteroatom doped carbon from metal-organic frameworks(MOFs) for fuel cell ORR electrocatalysis |
| Education and training Dates | From 07/09/2017 to 03/08/2023 |
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| Principal subjects/occupational skills covered | Ph.D. in Chemical sciences- Materials Science (Thesis submitted) Successfully qualified the Ph.D. course works on the topics of a) Research Methodology b) Analytical Tools and Instrumentation c) Sol-Gel Chemistry d) Advanced Material Science e) Advanced Materials Characterization techniques f) Advanced Electrochemistry g) Porous Structures. Synthesis of porous materials: Various MOFs (ZIF-8, ZIF-67, MIL, HKUST etc.), Carbon materials from sources such as MOFs and biomasses (N-doped Carbon, transition metal containing carbon etc.) Fabrication of electrospun nanofibers from polymers such as PVDF, PAN etc. Morphological and textural characterization of porous materials and their application in various areas such as fuel cell ORR electrocatalysis, advanced oxidation processes and tribolectric nanogenerators. Mentoring students for their MS dissertation work Handling of analytical equipments like BET surface area analyser, Powder X-ray diffractometer, TG/DTA analyser, FTIR, UV spectrophotometer, electrospining unit, Zeta potential and particle size analyser. | | | | | | | | | |
|--|---|---------|--|----|--|------------------|---------|----|--|----|
| Name, address and type of organisation providing education and training | CSIR - National Institute for Interdisciplinary Science and Technology (CSIR-NIIST), Industrial Estate P.O., Pappanamcode, Thiruvananthapuram-695019, Kerala,India Ph.D course affiliated to Academy of Scientific and Innovative Research(AcSIR), CSIR- Human Resource Development Centre, (CSIR-HRDC) Campus Postal Staff College Area, Sector 19, Kamla Nehru Nagar, Ghaziabad, Uttar Pradesh- 201 002 | | | | | | | | | |
| Dates | From 01/082014 to 31/08/2016 | | | | | | | | | |
| Title of qualification awarded | Master of Science in Chemistry | | | | | | | | | |
| Principal subjects/occupational skills covered | Chemistry including Inorganic, Polymer, Organic and Physical Chemistry | | | | | | | | | |
| Name, address and type of organisation providing education and training | Mahatma Gandhi University, Priyadarshini Hills, 686 560 Kottayam, Kerala, India | | | | | | | | | |
| Mother tongue | Ма | layalam | | | | | | | | |
| Other languages | English, Hindi | | | | | | | | | |
| Self-assessment | Understanding Speaking Writir | | | | | | Writing | | | |
| European level (*) |) Listening Reading Spoken interaction Spoken production | | | | | poken production | | | | |
| English | | B2 | | B2 | | B2 | | B2 | | B2 |

C2

(*) A1/A2: Basic; B1/B2: Intermediate; C1/C2: Advanced;

English

Hindi

B2

Organisational skills and competences

Assisted in the day to day running of group activities, coordinating procurements, implementation of safety measures, management of lab chemicals and consumables.

B2

B2

A2

| Technical skills and competences | Synthesis and characterization of porous materials : MOFs, carbon materials (e.g. N-doped carbon, transition metal incorporated carbon, g-C ₃ N ₄ etc). Data handling of X-ray diffractometer Use and data handling of automatic surface area and pore size analyser Use and data handling of TG/DTA analyser Use and data handling of FTIR spectrometer Use and data handling of UV spectrophotometer Use and data handling of Zeta potential and particle size analyser Data handling of Scanning Electron Microscopes Use and Data handling of X-ray photo electron spectroscopy Use of electrospinning unit Use and Data handling of Bio-Logic (model SP-300) electrochemical workstation |
|---|--|
| Computer skills and competences | Working knowledge on Origin, Endnote, Chemdraw, , X'pert highscore Plus, MS-Office, Gatan microscopy suite, XPS Peak 4.1, Autolab etc |
| Additional information | |
| Publications in International Peer Reviewed Journals | Vaishna Priya K, M. Thomas, R. Illathvalappil, S. K, S. Kurungot, B. N. Nair, A. P. Mohamed, G. M. Anilkumar, T. Yamaguchi and U.S. Hareesh, Template assisted synthesis of Ni,N co-doped porous carbon from Ni incorporated ZIF-8 frameworks for electrocatalytic oxygen reduction reaction, New Journal of Chemistry, 2020, 44, 12343-12354. B.S. Athira, A. George, K. Vaishna Priya, U.S. Hareesh, E.B. Gowd, K.P. Surendran, A. Chandran, High-Performance Flexible Piezoelectric Nanogenerator Based on Electrospun PVDF-BaTiO3 Nanofibers for Self-Powered Vibration Sensing Applications, ACS Applied Materials & Interfaces 14(39) (2022) 44239-44250. H. Varghese, Vaishna Priya K, U.N.S. Hareesh, A. Chandran, Nanofibrous PAN-PDMS Films-Based High-Performance Triboelectric Artificial Whisker for Self-Powered Obstacle Detection, Macromolecular Rapid Communications n/a(n/a) (2023) 2300462. Vaishna Priya K, Anupriya A, A. Peer Mohamed, U.S. Hareesh, MIL-100 (Fe) framework derived Fe encapsulated carbon catalyst for persulfate-activated degradation of organic contaminants from wastewater (under review) K. Vaishna Priya, Geeta Pandurang Kharabe, Sidharth Barik, A. Peer Mohamed, Sreekumar Kurungot, and Unnikrishnan Nair Saraswathy Hareesh*, Co, N decorated micro-meso porous carbon as a bifunctional electrocatalyst for Oxygen Reduction Reaction and Zn-Air battery (under review) |
| Oral Presentations | Vaishna Priya K, Minju Thomas, Balagopal N. Nair, A. Peer Mohamed, U. S. Hareesh, Template assisted synthesis of Ni, N co-doped porous carbon from Ni incorporated ZIF-8 framework for electrocatalytic oxygen reduction reaction, Annual Technical Meeting - 2020, Materials Research Society of India, Trivandrum chapter |
| Poster Presentations | Vaishna Priya K, Minju Thomas, Balagopal N. Nair, A. Peer Mohamed, U. S. Hareesh, Synthesis and Tuning of Ni Incorporated Nitrogen Doped Porous Carbon from Ni/Zn ZIF-8 based Structers for Enhanced Electrocatalytic applications, International Conference on Recent Trends in Materials Science and Technology (ICMST-2018) Vaishna Priya K, Minju Thomas, Balagopal N. Nair, A. Peer Mohamed, U. S. Hareesh Morphological Tuning Ni, Nitrogen co-doped Porous Carbon Structure Derived from Ni Incorporated Zeolitic Imidazolate Famework-8, National Conference on Emerging Trends in Science, Technology & Application of Electron Microscope (STAEM- 2018) |
| | (Best poster award) 3. Vaishna Priya K, 1,2 Anupriya A, 3 A. Peer Mohamed, 1 U.S Hareesh 1,2*, MIL-100 Derived Fe Decorated Carbon for Persulphate Based Rhodamine B Degradation, International Conference on Chemistry and Applications of Soft Materials (CASM 2022) |

| Honors a | and Awards | 1.UGC- Junior Research Fellowship and Lectureship in Chemistry, Awarded by Council of Scientific and Industrial Research, Human Resource Development Group, Examination Unit, CSIR Complex, Library Avenue Road, Pusa, New Delhi-110012 (December-2016). | | | | |
|------------------|---|--|--|--|--|--|
| References | Dr. U. S. Hareesh Senior Principal Scientist, Materials Science and Technology Division National Institute for Interdisciplinary Science and Technology (CSIR-NIIST) Industrial Estate P.O., Thiruvananthapuram-695019, Kerala, India E-mail: hareesh@niist.res.in Mobile: +91-9446337222 | | | | | |
| | Dr. Sreekumar Kurungot Senior Principal Scienti st Physical & Materials Chemistry Division CSIR-Nati onal Chemical Laboratory Dr. Homi Bhabha Road, Pune 411008, Maharashtra, India Ph: +91-20-25902566 Email: k.sreekumar@ncl.res.in Web: (Insti tute): https://www.ncl-india.org | | | | | |
| | Dr. Balagopal School of Mole Perth, Western E-mail:nnbalu@ Mobile: 81-561 +91-98958183 | N. Nair cular and Life Sciences(MLS), Faculty of Science and Engineering, Curtin University, Australia 6845, Australia ⊉gmail.com, b.nair@curtin.edu.au -34-3215 5 | | | | |
| Vaishna Priya K. | l solemnly decla | re that the information in this resume is true to the best of my knowledge and belief. | | | | |