## Faculty Profile

Name	Dr. Sheeja s r
Designation	Associate Professor of Chemistry
Teaching Experience	15 years
Research Field	Inorganic Chemistry
Research	Ph.D (2006-2011) Topic of Work: Studies on metal complexes with acylhydrazone based on heterocyclic carbonyl compounds. Supervising Guide: Dr. M.R. Prathapachandra Kurup, Professor, Dept. of Applied Chemistry, Cochin University of Science & Technology, Kochi-22, Kerala, India Five years of research experience in the field of coordination complexes of hydrazones during the PhD programme.  One and half years of research experience in the field of coordination chemistry and fluorescence study as part of the research work done under UGC-Minor Research Project Scheme  Research supervisor (Part-time PhD – Category B), Bharathiar University, Coimbatore Number of Ph.D. student: 1  Research Guide, University of Calicut Number of Ph.D. students: 3
Publications	<ol> <li>Photophysical properties, DFT calculations and DNA binding studies of a series of deep blue emitting cerium (III) complexes, TM Anjana, E Manoj, CM Naseera, FM Liyakhath, Ajmal Thayyullathil, Subair Naduparambath, SR Sheeja, MR Prathapachandra Kurup, Journal of Molecular Structure 1327 (2025) 141186.</li> <li>Hydrothermal assisted synthesis of shape-controlled zinc oxide nanostructures for tuneable photodegradation of methylene blue pollutant, C Jayakrishnan, SR Sheeja, G Suresh Kumar, K Lalithambigai, J Duraimurugan, Mohammed Mujahid Alam, Journal of Sol-Gel Science and Technology 112 (2024) 262-276.</li> <li>Effect of Temperature and Method of Synthesis on Morphology and Phase Transition of Amorphous and</li> </ol>

- Crystalline Nano Silica Extracted from Mission Grass (Pennisetum Polystachion) Ajmal Thayyullathil, C. M Naseera, F. M Liyakhath, E. K Vydhehi, **S. R Sheeja**, Subair Naduparambath, Swetha Sasidharan, Silicon 16 (2024) 3491–3501.
- Synthesis of dumbbell-shaped ZnO nanostructures for energy storage and photocatalytic dye degradation applications, C Jayakrishnan, SR Sheeja, J Duraimurugan, S Prabhu, R Ramesh, G. Suresh Kumar, K.G. Subhash, Mohd Shkir & Mohan Reddy Pallavolu, Materials Technology 37 (14) (2022) 3006-3016.
- Photoelectrochemical properties and photocatalytic degradation of methyl orange dye by different ZnO nanostructures, C Jayakrishnan, SR Sheeja, J Duraimurugan, S Prabhu, R Ramesh, G.S. Kumar, P. Maadeswaran, M. Shkir,, Journal of Materials Science: Materials in Electronics 33 (12) (2022) 9732-9742. https://doi.org/10.1007/s10854-022-07801-0
- 6. Spectral studies and quantum chemical ab initio calculations for Copper(II) complexes of two heterocyclic aroylhydrazones, S.R. Sheeja, Neema Ani Mangalam, M. Sithambaresan, M.R. Prathapachandra Kurup, Savas Kaya, Goncagül Serdaroglu, Journal of Molecular Structure, 1245 (2021) 131001-131010.
- 7. Synthesis, spectral characterization and crystal structure of copper(II) complexes of 2-benzoylpyridine-N(4)-phenylsemicarbazone, M.R. Prathapachandra Kurup, Binu Varghese, M. Sithambaresan, Suja Krishnan, **S.R. Sheeja**, Eringathodi Suresh, Polyhedron 30 (2011) 70-78.
- 8. Ft-Ir And Computational Study Of Di-2-Pyridyl Ketone Nicotinoylhydrazone, Neema Ani Mangalam, C Yohannan Panicker, **SR Sheeja**, MR Prathapachandra Kurup, Y Sheena Mary, K Raju, Hema Tresa Varghese, V Manikantan Nair, International Journal of Industrial Chemistry, 1 (2010) 17-28
- Mn(II) complexes of some acylhydrazones with NNO donor sites: Syntheses, a spectroscopic view on their coordination possibilities and crystal structures, Neema Ani Mangalam, S.R. Sheeja, M.R. Prathapachandra Kurup, Polyhedron 29 (2010) 3318-3323.
- 10. Vibrational spectroscopic studies and computational study of quinoline-2-carbaldehyde benzoyl hydrazone, **S.R. Sheeja**, Neema Ani Mangalam, M.R. Prathapachandra Kurup, Y. Sheena Mary, K. Raju, Hema

- Tresa Varghese, C. Yohannan Panicker, J. Mol. Struct. 973 (2010) 36-46.
- 11. Chemistry of molecular and supramolecular structures of vanadium(IV) and dioxygen-bridged V(V) complexes incorporating tridentate hydrazone ligands, Neema Ani Mangalam, Sarika Sivakumar, **S.R. Sheeja**, M.R. Prathapachandra Kurup, Edward R.T. Tiekink, Inorg. Chim. Acta 362 (2009) 4191-4197.

## **Paper Presentations**

- Paper presentation on "A study on photoluminescent Ce(III) complex of hydrazone" at International Conference – Emerging Frontiers in Chemical Sciences EFCS 2023, Organized by Farook College Kozhikode, India held on 19-21 December 2023
- 2. Paper presentation on "Fluorescence Studies of Zinc(II) Complexes of Hydrazones" at National Seminar on New Developments in Chemical Sciences (NDCS 2023) held on 16-17 November 2023 at Government College Madappally Vadakara, India.
- 3. Paper presentation on "Spectral Studies of Quinoline-2-Carbaldehyde Nicotinoyl Hydrazone" at Current Trends in Chemistry CTriC 2020 held on 6-7 February 2020 at Department of Applied Chemistry CUSAT, Kochi-22, Kerala,India.
- 4. Paper presentation on "NMR Spectral Studies of Hydrazones derived from Quinoline-2-carbaldehyde" at National Seminar on "Recent advances in Chemical Sciences" held on 4-5 January 2018 at Government College Madappally Vadakara, India.
- Paper presentation on "EPR Spectroscopy of Oxovanadium(IV) complexes of acylhydrazones" UGC sponsored National Seminar on 'Recent Advances in Chemistry' at the Department of Chemistry, Vimala College, Thrissur, on 9th January 2017.
- Paper presentation on "EPR Spectroscopy of Copper(II) complexes" UGC Sponsored National Seminar "Frontiers in Chemistry (FIC-2014)" held on 20<sup>th</sup> February 2014 at Al-Ameen College Edathala, Aluva, India.
- 7. Resource person in the National Webinar on Chromatography organized by the Post Graduate Department of Chemistry, Vimala College (Autonomous) Thrissur on 12th March 2021.

## **Courses Attended**

- 1. Orientation Programme conducted by the UGC-Academic Staff College, University of Calicut from 30-10-2012 to 26-11-2012.
- 2. Refresher Course in Chemistry conducted by the UGC-Academic Staff College, University of Calicut from 04- 10-2013 to 24-10-2013.
- 3. Winter school in Basic Sciences conducted by the UGC-Human Resource Development Centre (HRDC), Kannur University from 08-11- 2018 to 28-11-2018
- 4. Faculty Development Programme in Science (Philosophy of Science) organized by the Kerala State Higher Education Council from 6-10 May 2019 at Rajagiri College of Social Sciences, Kalamassery, Kochi.
- 5. SWAYAM ARPIT ONLINE COURSE -Online Refresher Course In Chemistry For Higher Education, examination held on 16.02.2020
- 6. Short Term Course in Research Methodology (Science) from 28-02-2020 to 05-03-2020 at the UGC-Human Resource Development Kannur University Campus, Thavakkara, Kannur.
- 7. MOOC Course (e-verification) on 'Online Learning and Content Development' from 18th April 2020 to 2nd May 2020, organized by FLAIR Kerala, Directorate of Collegiate Education, Kerala
- 8. Attended One week FDP Programme on Jmol Application, organized by Center for Virtual Learning, Dr.N.G.P. Arts and Science College, Coimbatore, Tamil Nadu through Online from May 04 10, 2020
- 9. Completed Four week Online non-credit course 'Introduction to Molecular Spectroscopy' authorized by University of Manchester on 18th May 2020.
- 10. Six days short term Faculty Development Programme from 23rd to 28th May 2020, organized by PG Department of Chemistry, IQAC and Chemistry Alumni Association of Payyannur College in association with The Kerala State Higher Education Council
- 11. Two Weeks Faculty Development Programme on "MANAGING ONLINE CLASSES and CO-CREATING MOOCS: 2.0" from May 18 June 03, 2020
- 12. Successfully completed the Faculty Development Programme on Pedagogical Approaches and Digital Tools for Effective Teaching-Learning conducted by the Internal Quality Assurance Cell of the college under the UGC Paramarsh Scheme in association with Kerala State Higher Education Council from 03 07 August, 2020.
- 13. National Level One-Week Faculty Development Programme on Research Methodology 26<sup>th</sup> April 2021 to

C	01st May 2021 organized by Amar Sewa Mandal's Kamla
l N	Nehru Mahavidyalaya, Nagpur