



**Dr. Jayanti Mishra**

**ASSISTANT PROFESSOR**

**DEPARTMENT OF CHEMISTRY**

## PROFILE

- Dedicated & Committed Faculty in Department of Chemistry, with 1.5 years of experience in teaching UG students.
- Subjects Handled: Engineering chemistry
- Skills:
  - Capable of handling rota evaporator, high temperature furnaces, centrifuge machines, UV-Vis, fluorescence and FT-IR spectrophotometer, thermogravimetric Analysis (TGA), PXRD, DLS, NMR, mass spectrometer, viscometer etc.
  - Basic understanding of surface analysis methods (BET), Thin layer chromatography (TLC), DFT calculations using material studio software, experience of working on Origin, ChemBioDraw Ultra, Topspin, MestreNova etc.

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@Jayanti91803590

## EDUCATIONAL QUALIFICATIONS

Ph.D. (2019): Centre for Nanoscience and Nanotechnology, Panjab University, Chandigarh, India  
M.Sc. (Chemistry, 2012): Hans Raj College, University of Delhi, Delhi, India  
B.Sc. (Zoology, Botany & Chemistry, 2008): C. S. J. M. University of Kanpur, Uttar Pradesh, India

## PROFESSIONAL EXPERIENCE

Teaching Experience: 1.5 years  
Industry Experience: 0  
Research experience: 1.5 years  
Total: 3 years

## INSTITUTION/DEPARTMENT RESPONSIBILITIES

## RESEARCH AREA/SPECIALISATION/ RESEARCH GRANTS/ PROJECTS IF ANY

- Conduction of chemistry theory classes
- Conduction of chemistry practical
- Part of Departmental NBA Accreditation Team

**Specialization:** Chemistry, nanoscience, material science  
**Research Interest:** Chemistry; nanoscience and nanotechnology, material science

- Experience in Schiff base reactions, liquid-liquid extractions, acid and base catalyzed reactions, solid state reactions, high temperature reactions in furnaces etc.
- Synthesis of organic ligands, organic nanoparticles and surface modified metal oxides

## ACHIEVEMENTS/ACCOMPLISHMENTS/AWARDS/RECOGNITION/GUEST LECTURES DELIVERED

- Presented research paper in the 'National Conference on Applied Sciences Synergising The Engineering And Technology' held on the 18th and 19th January, 2021
- Presented a poster in **7<sup>th</sup> Virtual Nanotechnology Poster Conference, NANOPOSTER 2017**, held from 22-28 May, 2017 organised by The International NanoScience Community (TINC), Budapest, Hungary. **Title of the poster:** Room temperature Synthesis of Surface Modified ZnO Nanoparticles and its Application in Dye degradation.
- Presented a poster in **Chandigarh Region Innovation and Knowledge Cluster (CRIKC) Nanoscience Day** held in Indian Institute of Science Education and Research, Mohali on 21<sup>st</sup> July 2015, organised by Institute of Nano Science and Technology, Mohali. **Title of the poster:** Urea based imidazole coupled structure directing agent: Synthesis of ZnO nanoparticles and its photocatalytic activity.
- Participated in ACS on campus event, 2015, IIT Delhi
- Visited **Photon factory, KEK Japan** to perform synchrotron X-ray experiment at Indian Beamline sponsored by Department of Science and Technology, Government of India
- Participated in **"International Conference on Nanoscience and Technology (ICONSAT) 2014"** held in Panjab University, Chandigarh from 2<sup>nd</sup> to 5<sup>th</sup> March 2014, organised by Institute of Nano Science and Technology, Mohali.
- Participated in 3rd International Conference on Advanced nanomaterials and nanotechnology (ICANN), 2013, Guwahati
- Participated in International Conference on Interdisciplinary areas with Chemical Sciences (ICIACS 2013), Chandigarh
- Participated in an International symposium on "New Directions in Chemical Sciences", NDCS 2012, IIT Delhi
- Participated in National Seminar on "Environmental Pollution and Sustainable Development, 2012

## PUBLICATIONS/PATENTS/BOOKS

## ASSOCIATION WITH PROFESSIONAL BODIES

- **Jayanti Mishra**, Ashok K. Ganguli and Navneet Kaur, Urea Based Tripodal Nanoreceptors And Their Application In Chemosensing For Cr(III) And HSO<sub>4</sub>(I), Proceedings of National Conference on Applied Sciences Synergizing the Engineering and Technology (ASSET-2021) [Online], East Point College of Engineering and Technology, Bengaluru, 18<sup>th</sup>-19<sup>th</sup> January-2021, and cited in *International Journal of Scientific Research in Science and Technology*, 2021, 8,

2, 53-66; DOI: 10.32628/IJSRST2182007

- **Jayanti Mishra**, Manpreet Kaur, Navneet Kaur and Ashok K. Ganguli, Highly selective and sensitive simultaneous nanomolar detection of Cs(I) and Al(III) ions by tripodal organic nanoparticles in aqueous medium: The effect of urea backbone on chemosensing, *RSC Advances* (Impact factor: **3.119**), 2020, 10, 22691-22700; DOI: 10.1039/d0ra03171b
- **Jayanti Mishra**, Harpreet Kaur, Ashok K. Ganguli and Navneet Kaur, Fluorescent chemosensor based on urea/thiourea moiety for sensing of Hg(II) ions in an aqueous medium with high sensitivity and selectivity: A comparative account on effect of molecular architecture on chemosensing, *Journal of Molecular Structure* (Impact factor: **2.463**), 2018, 1161, 34-43, DOI: 10.1016/j.molstruc.2018.01.004.
- **Jayanti Mishra**, Menaka Jha, Navneet Kaur and Ashok K. Ganguli, Room temperature synthesis of urea based imidazole functionalised ZnO nanorods and their photocatalytic application, *Materials Research Bulletin* (Impact factor: **4.019**), *Materials Research Bulletin*, 2018,102, 311-318, DOI: 10.1016/j.materresbull.2018.02.045
- **Jayanti Mishra**, Navneet Kaur, Ashok K. Ganguli, Selective and Sensitive Fluorescence recognition of Pb(II) in aqueous medium by organic nanoparticles of a urea linker based tetrapodal receptor: Effect of linker molecules in a sensor on chemosensing, *Inorganica Chimica Acta* (Impact factor: **2.304**), 2019, 487, 214-220, DOI: 10.1016/j.ica.2018.12.022
- Vaishali Sethi, [Jayanti Mishra](#), Arpan Bhattacharyya, [Debasis Sen](#) and Ashok K. Ganguli, Hydrotrope induced structural modifications in CTAB/ butanol/ water/ isooctane reverse micellar systems, *Physical Chemistry Chemical Physics* (Impact factor: **3.430**), 2017, 19, 22033-22048, DOI: 10.1039/C7CP03191B

**PROFESSIONAL COURSES COMPLETED**

