



Miranda House

UNIVERSITY OF DELHI

Name: Dr. Preeti Droliya

Department: Chemistry

Current Designation: Assistant Professor

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Academic Qualifications: M. Sc., B.Sc.

Research Degree(s): Ph.D. Doctorate in Philosophy (Chemistry) (2015-2019) from University of Delhi under the supervision of Dr. Anil Kumar Nain, Dyal Singh College, University of Delhi. Thesis titled-Physicochemical studies of molecular interactions in multi-component solvent systems.

Field of Specialization under the Subject/Discipline: Physical Chemistry

Total Teaching Experience: 3.5 years

List of Publications

1. **Preeti Droliya**, D. Chand, Anil Kumar Nain. Experimental and theoretical studies of transport and optical properties of binary mixtures of acetonitrile with some alkyl methacrylates at temperatures from 298.15 to 318.15 K. *Indian Journal of Chemistry Section-A* (October 2020).
2. **Preeti Droliya**, Anil Kumar Nain. Densities, speeds of sound and excess properties of benzonitrile + methyl methacrylate, or + ethyl methacrylate, or + n-butyl methacrylate binary mixtures at temperatures from 293.15 K to 318.15 K. *Journal of Chemical Thermodynamics* 132 (2019) 142-154. ISSN: 0021-9614
3. **Preeti Droliya**, Anil Kumar Nain. Densities, ultrasonic speeds, excess and partial molar properties of binary mixtures of acetonitrile with some alkyl methacrylates at temperatures from 293.15 K to 318.15 K. *Journal of Chemical Thermodynamics*, 123 (2018) 146-157.
4. Anil Kumar Nain, **Preeti Droliya**, Jyoti Gupta, Deviations in viscosity and thermodynamics of viscous flow for binary mixtures of methyl acrylate with 1-alkanols at different temperatures, *Indian Journal of Chemistry Section-A*, 57 (2018) 761-769.
5. Anil Kumar Nain, **Preeti Droliya**. Temperature and concentration dependence of volumetric properties of (tetrahydrofuran + methyl acrylate, or +ethyl acrylate, or +n-butyl acrylate, or +tert-butyl acrylate) binary mixtures. *Journal of Chemical Thermodynamics*, 105, (2017) 317-326.
6. **Preeti Droliya**, Anil Kumar Nain. Experimental and theoretical studies of acoustic and viscometric properties of binary mixtures of tetrahydrofuran with some alkyl acrylates at temperatures from 293.15 to 318.15 K. *Journal of Molecular Liquids*, 241 (2017), 549-562. ISSN: 0167-7322



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7. Anil Kumar Nain, **Preeti Droliya**, Jyoti Gupta. Theoretical study of molecular interactions of amino acids in aqueous carbohydrate solutions by scaled particle theory. *Indian Journal of Chemistry Section-A*, 56A (2017) 939-944.
8. Anil Kumar Nain, **Preeti Droliya**, J. Yadav and A. Agarwal, Physicochemical study of solute-solute and solute-solvent interactions of L-asparagine and L-glutamine in aqueous-D-mannose solutions at temperatures from 293.15 to 318.15 K *Journal of Chemical Thermodynamics*, (2016) 95, 202-215.
9. Anil Kumar Nain, **Preeti Droliya**, Internal Pressure, free volume and excess thermodynamic properties of methyl acrylate + 1-alkanols (C4–C10) binary mixtures from ultrasonic speed and density data by using regular solution theory and theoretical estimation of ultrasonic speed by using scaled particle theory, *Indian Journal of Chemistry Section-A*, 55 (2016) 23-33.
10. Anil Kumar Nain, **Preeti Droliya**, R. K. Manchanda, A. Khurana and D. Nayak, Physicochemical studies of homoeopathic formulations (extremely diluted solutions) of acidum salicylicum in ethanol by using volumetric, acoustic, viscometric and refractive index measurements at 298.15, 308.15 and 318.15 K, *Journal of Molecular Liquids*, 215 (2016) 680-690.
11. Anil Kumar Nain, Renu Pal, **Preeti Droliya**, Study of (solute + solute) and (solute + solvent) interactions of homologous series of some α -amino acids in aqueous-streptomycin sulfate solutions at different temperatures by using physicochemical methods. *Journal of Chemical Thermodynamics*. 95 (2016) 77–98.
12. Anil Kumar Nain, **Preeti Droliya**, R. K. Manchanda, A. Khurana and D. Nayak, Physicochemical studies of extremely diluted solutions (homoeopathic formulations) of sulphur in ethanol by using volumetric, acoustic, viscometric and refractive index measurements at different temperatures, *Journal of Molecular Liquids*, 211 (2015) 1082-1094.

Faculty Development Programs Attended

1. Completed online Inter-Disciplinary two-week Refresher Course in “Chemistry” from 30 June – 13 July, 2023 organized by Teaching Learning Centre, Ramanujan College, University of Delhi in collaboration with Army Institute of Education (AIE), affiliated to Guru Gobind Singh Indraprastha University, Delhi under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching and obtained Grade A+.
2. Completed online Inter-Disciplinary two-week Refresher Course in “Managing Online Classes & Cocreating MOOCs” 27.0” from 06 – 20 June, 2023 organized by Teaching Learning Centre, Ramanujan College, University of Delhi under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching and obtained Grade A+.
3. Completed 4-Week Faculty Induction/Orientation Programme for “Faculty in Universities/Colleges/Institutes of Higher Education” from 23 April – 22 May, 2023 organized



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by Teaching Learning Centre, Ramanujan College, University of Delhi in collaboration with Army Institute of Education (AIE), affiliated to Guru Gobind Singh Indraprastha University, Delhi under the aegis of Ministry of Education, Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching and obtained Grade A+.

Research Guidance:

- Experimental Summer Workshop for undergraduate science students, Flavor of Research - Investigative Projects in Multidisciplinary Contexts, under D. S. Kothari Centre for Research and Innovation in Science Education, Miranda House, University of Delhi, Delhi, June - July, 2023.

Membership of Professional Bodies:

- Life member of Society for Material Chemistry (SMC)

Resource Person

1. Resource person for the Bridge Course on Laboratory Safety and Handling of Equipment for B.Sc.(H) Chemistry I Year, conducted by Department of Chemistry, Miranda House 2023.
2. Resource person for the Bridge Course on Laboratory Safety and Handling of Equipment for B.Sc.(H) Chemistry I Year, conducted by Department of Chemistry, Miranda House on 24 - 25 November, 2022.
3. Resource Person for the Bridge Course on Laboratory Safety and Handling of Equipment for B.Sc.(H) Chemistry I Year, conducted by Department of Chemistry, Miranda House on 2 and 3 December, 2021.
4. Resource Person for the Bridge Course on Laboratory Safety and Handling of Equipment, conducted by Department of Chemistry, Miranda House on 19, 20, 26, 27 December 2020.

Conferences Organised:

1. **Co-Convener of International Conference** on Smart Consumption and Sustainable Living in association with Ministry of Environment, Forest and Climate Change on 24-25 August 2023.
2. **Member of organising committee IUPACGWB 2023** - International Conference on Recent Trends in Chemistry, organized by Department of Chemistry, Miranda House on 14-15 February 2023.
3. **Member of organising committee of 2nd International Conference** on Integrative Chemistry, Biology & Translational Medicine (ICBTM 2022) held on 6-8 December 2022 organized by the consortium of Hansraj College University of Delhi, Institute of Nuclear Medicine & Allied Sciences (DRDO-INMAS), Miranda House University of Delhi, and Mayo Clinic Florida USA .



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4. **Member of organising committee for the National Webinar** on “Recent advances In Chemistry” held on 16 February 2022, organised by Department of Chemistry, Miranda House, University of Delhi, Delhi.
5. **Member of the organising committee for a talk** on metal and modern medicine held on 29 March 2022, organised by Rasayanika, The Chemical Society in collaboration with IQAC, Miranda House, University of Delhi.
6. **Member of organising committee for the Webinar** on “IPR, Patent and Chemistry” held on 11th August 2021, organised by Rasayanika, The Chemical society in collaboration with IQAC, Miranda House, University of Delhi, Delhi.
7. **Member of organizing committee for International Conference** held at Miranda house on 19-20 February 2021 "Chemistry- the catalyst for change" organised by Department of Chemistry, Miranda House, University of Delhi on 19-20 February 2021.
8. **Member of organizing committee for International Webinar** "Empowering Diversity in Science" organised by Department of Chemistry, Miranda House, University of Delhi on 12 February 2021.

Seminars/Workshops/Conferences attended

1. Participated in One-Day Training Session on दैनिक प्रशासनिक कार्यों में हिंदी का प्रयोग organized by IQAC, Miranda House, in collaboration with Department of Hindi, Miranda House, University of Delhi, Delhi on 28th April 2023.
2. **Participated in Oral presentation** in National conference on Recent Trends in Chemistry and Nano-Biotechnology (RTCN-2022) organised by University of Delhi on 13 December 2022.
3. **Participated in workshop** on Implementation of NEP 2022: Implications for Undergraduate Colleges by Dr. Leena Gahane held on 23 September 2022.
4. **Participated in webinar** “Green Approach to Chemistry Experiments” held on 18 December 2021, organised by Department of Chemistry, Guru Nanak College of Arts, Science and Commerce, G.T.B. Nagar, Sion, Mumbai under the aegis of STAR-DBT.
5. **Participated in National Webinar** on First Help in Medical Emergence organized by Health & Hygiene Committee, Maitreyi College, University of Delhi on 27th December, 2020 through Zoom.
6. **Participated in National Webinar:** Learnings from the Corona Pandemic organised by Department of Chemistry, Miranda House, University of Delhi on 24 and 25 September 2020.
7. **Participated in webinar** “Pedagogical Challenges in Pandemic Period: Response and Contribution of Academia” organised by Amity school of applied sciences, Amity



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University, Haryana and J. C. Bose University of Science and Technology, Y,CA, Faridabad in association with Vigyan Bharti on 05 September 2020.

8. **Attended and successfully completed the evaluation in Five days International E-Workshop** on "Principles and Applications of Analytical Instruments for Analysis of Organic/Inorganic molecules" jointly organized by Department of Chemistry & Department of Botany, Govt. R. R. M. P.G. College, Surajpur (C.G.) and Department of Chemistry, Govt. Shivnath Science College, Rajnandgaon (C.G.), India from 25-29 August 2020.
9. **Participated in webinar** entitled "Combining Chemistry & Biology in anti-cancer Drug Discovery" organized by Department of Chemistry, SRM University Delhi-NCR, Sonapat on 30th June 2020.
10. **Presented a paper in UGC sponsored national seminar** "Recent Innovations In Chemical Science And Environment Technology" at Sri Aurobindo College, University of Delhi, held on 3rd-4th March, 2017.