

Dr. Kshirabdhitanaya Dhal



Designation: Assistant Professor (Guest faculty)

Qualification: Ph.D. in chemistry

Date of Birth: 06.05.1997

Date of Joining: 04.07.2024

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➤ **Area of Interest**

Physical chemistry, Solution chemistry, Environmental chemistry

➤ **Courses taught**

Physical Chemistry, Inorganic Chemistry, Organic Chemistry, Analytical Chemistry, Polymer Chemistry, Green Chemistry, Environmental Chemistry.

➤ **Career**

Assistant Professor (Guest Faculty), Rama Devi Women's University, Bhubaneswar

➤ **Teaching Experience**

1 year teaching experience as chemistry Lecturer in Gayatri +3 science college, Bhubaneswar.

➤ **Research Experience**

4 years of research experience (Ph. D) and 3 months experiences in IICT, Hyderabad

✓ **Publications**

Total Publication: 12

Total citation: 71 ; H-index: 5 ; i10 -index: 3

✓ **Journal publications**

1. K. Dhal, S. Singh, M. Talukdar, Elucidation of molecular interactions of aspartic acid with aqueous potassium sorbate and sodium benzoate: Volumetric, viscometric and FTIR spectroscopic investigation, J. Mol. Liq. 352, (2022) 118659.

2. K. Dhal, S. Singh, M. Talukdar, Volumetric, viscometric and spectroscopic studies molecular interactions of glutamic acid with potassium sorbate and sodium benzoate in aqueous medium at $T = 293.15\text{--}313.15\text{ K}$, *J. Mol. Liq.* 361, (2022) 119578.
3. K. Dhal, S. Singh, M. Talukdar, Ultraacoustic and conductometric studies on the interactions of L-glutamic acid with potassium sorbate and sodium benzoate in aqueous media, *J. Mol. Liq.* 368, (2022) 120761.
4. K. Dhal, P. Das, S. Singh, M. Talukdar, Analysis of ultraacoustic behavior of L-aspartic acid in aqueous sodium benzoate and ammonium acetate media, *J. Mol. Liq.* 376, (2023) 121413.
5. K. Dhal, S. Singh, M. Talukdar, Investigation on volumetric and viscometric properties of aqueous solutions of L-aspartic acid and L-glutamic acid in presence of sodium acetate, *Russian journal of physical chemistry A*, 97(13), (2023) 81–95.
6. K. Dhal, S. Singh, M. Talukdar, Ultrasonic and conductometric studies on L-glutamic acid and L-aspartic acid in aqueous solutions of sodium acetate, *Journal of solution chemistry*, 52(4), (2023) 1415–1445.
7. K. Dhal, S. Singh, M. Talukdar, A Comprehensive Review on Acoustic Properties of Amino Acids in Various Solvent Systems, *Russian Journal of Physical Chemistry A*, 97(14), (2023) 1–18.
8. S. Singh, K. Dhal, M. Talukdar, A Comparative Study on the Effect of Temperature and Concentration on Density, Sound Velocity and their Derived Properties for Diclofenac Potassium in Aqueous Urea Media, *Biointerface Research in Applied Chemistry*, 10 (5), (2020) 6377 – 6388.
9. M. Talukdar, K. Dhal, S. K. Dehury, Investigation on Molecular Interactions of Multicharged Electrolytes Potassium Pyrophosphate and Potassium Dichromate in Aqueous D-Sorbitol Media at 298.15K Densimetric and Acoustic Methods, *Biointerface Research in Applied Chemistry*, 11 (1), (2021) 8075 – 8086.

✓ **Publication of Books/book chapters**

K. Dhal, S. Singh, M. Talukdar, Study of ultraacoustic behavior of aspartic acid in water and aqueous potassium sorbate: An insight into interactional features, *Waste Recovery and Management: An Approach Towards Sustainable Development Goals*, Taylor Francis, CRC Press, 2022 Chapter number – 19.

✓ ***Full paper in conference proceedings***

1. K. Dhal, S. Singh, M. Talukdar, Effects of food preservatives on body proteins of aquatic organisms, *Materials Today: Proceedings* 67, (2022) 1218–1224.
2. S. Singh, K. Dhal, M. Talukdar, Exegesis of volumetric properties of aspirin in aqueous ethanol to predict solute–solute and solute–solvent interactions, *Materials Today: Proceedings*, Available online 16 October 2023.