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Name: Dr. Anamika Sindhu

Department: Chemistry

Current Designation: Assistant Professor (guest)

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Academic Qualifications (reverse chronological order): M.Sc, B.Sc

Research Degree(s) (reverse chronological order): Ph.D

Field of Specialization under the Subject/Discipline: Physical Chemistry

Total Teaching Experience: Since November 2022

Teaching at Miranda House since: November 2022

List of Publications (reverse chronological order):

(Articles in referred/peer-reviewed/UGC Care journals/ Books/Book Chapters)

1. Contemporary Advancement of Cholinium-Based Ionic Liquids for Protein Stability and Long-term Packaging: Past, Present and Future Outlook. **Anamika Sindhu**, Sumit Kumar and Pannuru Venkatesu, *ACS Sustainable Chem. Eng.* (ISSN: 2168-0485), 2022, 10, 4323–4344. DOI: [10.1021/acssuschemeng.1c08595](https://doi.org/10.1021/acssuschemeng.1c08595).
2. Cholinium-Based Ionic Liquids Attenuate the Amyloid Fibril Formation of Lysozyme: A Greener Concept of Antiamyloidogenic Ionic Liquids. **Anamika Sindhu**, Rajender S Verma and Pannuru Venkatesu, *ACS Sustainable Chem. Eng.* (ISSN: 2168-0485), 2022, 28, 9242–9253. doi.org/10.1021/acssuschemeng.2c02963.
3. Profiling the impact of Choline Chloride on the Self-Assembly of Collagen Mimetic Peptide (Pro-Hyp-Gly)₁₀, Anjeeta Rani, **AnamikaSindhu**, Tzu-JouYao, Jia-CherngHorng, PannuruVenkatesu, *Process Biochemistry* (ISSN 1359-5113), 2022, 121, 26-34.



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doi.org/10.1016/j.procbio.2022.06.024.

4. Preferential and Competitive Role of Hydrophilic/Hydrophobic Interactions Quantifying Amino Acid-based ILs for Papain Stabilization. Sumit Kumar, **Anamika Sindhu**, Thoti Vasantha, Ianatul Khoiroh, Nagaraju Devunuri, Pannuru Venkatesu, *Journal of Molecular Liquids* (ISSN: 0167-7322), 2022, 363, 119920. doi.org/10.1016/j.molliq.2022.119920.
5. Unprecedented Enhancement and Preservation of Cytochrome-C Peroxidase activity Packaged with Ionic Liquid-Modified Gold Nanoparticles by offsetting Temperature and Time Stresses. Sumit Kumar, **Anamika Sindhu**, Pannuru Venkatesu, *Physical Chemistry Chemical Physics* (ISSN: 1463-9076), 2022, Advance Article. doi.org/10.1039/D2CP03814E.
6. Refolding ability of ionic liquids against denatured proteins. **Anamika Sindhu**, Pannuru Venkatesu, *Book: Biocatalysts in Green Solvents*. Page: 85-104, Publisher: Academic Press.
7. Assessing the Compatibility of Mono-, Di-, and Tri-Cholinium Citrate Ionic Liquids for the Stability and Activity of α -Chymotrypsin. **Anamika Sindhu**, Meena Bisht, Indra Bahadur and Pannuru Venkatesu, *ACS Sustainable Chem. Eng.* (ISSN: 2168-0485), 2021, 9, 13, 4812-4822. DOI: [10.1021/acssuschemeng.1c00044](https://doi.org/10.1021/acssuschemeng.1c00044)
8. Exploring the Counteracting and Refolding Ability of Choline-Based Ionic Liquids toward Crowding Environment-Induced Changes in HSA Structure. Kavya Bhakuni, **Anamika Sindhu**, Meena Bisht, and Pannuru Venkatesu, *ACS Sustainable Chem. Eng.* (ISSN: 2168-0485), 2021, 9, 422-437. DOI: [10.1021/acssuschemeng.0c07550](https://doi.org/10.1021/acssuschemeng.0c07550)
9. Ionic Liquid-Modified Gold Nanoparticles for Enhancing Antimicrobial Activity and Thermal Stability of Enzymes. Sumit Kumar, **Anamika Sindhu** and Pannuru Venkatesu, *ACS Appl. Nano Mater.* (ISSN: 2574-0970), 2021, 4, 3, 3185–3196. DOI: [10.1021/acsanm.1c00401](https://doi.org/10.1021/acsanm.1c00401)
10. Implications of imidazolium-Based Ionic Liquids as Refolding Additives for Urea-Induced Serum Albumins. **Anamika Sindhu**, Kavya Bhakuni, Kamatchi Sankaranarayanan and Pannuru Venkatesu, *ACS Sustainable Chem. Eng.* (ISSN: 2168-0485), 2020, 8, 1, 604-612. doi.org/10.1021/acssuschemeng.9b06194
11. Protein Packaging in Ionic Liquid Mixtures: An Ecofriendly Approach towards the Improved Stability of β -lactoglobulin in Cholinium-Based Mixed Ionic Liquids. **Anamika Sindhu**, Sumit Kumar, Dibyendu Mondal, Indra Bahadur and Pannuru Venkatesu, *Phys. Chem. Chem. Phys.* (ISSN: 1463-9076), 2020, 22, 14811-14821. doi.org/10.1039/D0CP02151B.



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12. A Biophysical Strategy to Examine the Impact of Newly Synthesized Polymerizable Ammonium-based Ionic Liquids on the Structural Stability and Proteolytic Activity of Stem Bromelain. Navin Kumar Mogha, **Anamika Sindhu** and Pannuru Venkatesu, *International Journal of Biological Macromolecules* (ISSN: 0141-8130), 2020, 151, 957-966. DOI: [10.1016/j.ijbiomac.2019.10.208](https://doi.org/10.1016/j.ijbiomac.2019.10.208).
13. and molecular docking studies in understanding the biomolecular Interactions Between Stem Bromelain and Imidazolium-Based Ionic Liquids. Pannuru Kiran Kumar, Indrani Jha, **Anamika Sindhu**, Indra Bahadur, Eno Ebenso and Pannuru Venkatesu, *Experimental Journal of Molecular Liquids* (ISSN: 0167-7322), 2020, 297, 111785. doi.org/10.1016/j.molliq.2019.111785.
14. Can Stem Bromelain, A Pineapple Waste Product, be used as a Drug Alternative? A Mechanistic Insight into Protein–Protein Interactions. Samima Khatun, **Anamika Sindhu** and Pannuru Venkatesu, *New Journal of Chemistry* (ISSN:1144-0546 (print) 1369-9261 (web)), 2020, 2020, 44, 19450-19458. doi.org/10.1039/D0NJ02511A
15. Insight into Impact of Choline-based Ionic Liquids on Bovine β -lactoglobulin Structural Analysis: Unexpected High Thermal Stability of Protein. **Anamika Sindhu**, Navin Kumar Mogha and Pannuru Venkatesu, *International Journal of Biological Macromolecules* (ISSN: 0141-8130), 2019, 126, 1-10. doi: 10.1016/j.ijbiomac.2018.12.166. DOI: [10.1016/j.ijbiomac.2018.12.166](https://doi.org/10.1016/j.ijbiomac.2018.12.166)
16. Does Poly (ionic liquid) Modulates the Non-covalent Interactions of Hen Egg White Lysozyme: Elucidation of Biomolecular Interactions between Biomolecule and macromolecule solvent. Navin Kumar Mogha, Niketa Yadav, **Anamika Sindhu** and Pannuru Venkatesu, *New Journal of Chemistry* (ISSN:1144-0546 (print) 1369-9261 (web)), 2019, 43, 16759-16766. doi.org/10.1039/C9NJ04078A

Seminars/Workshops/Conferences attended (reverse chronological order):

1. Presented oral paper in National conference in Biophysica-2019 organized by Jamia Millia Islamia, Delhi on 4^h October 2019.



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2. Presented oral paper in National conference on Recent Trends in Chemical Sciences organized by Green Chemistry Network Centre & Department of Chemistry, Hindu College, University of Delhi on 30th August-1st September 2019.
3. Presented oral paper in National conference on Innovation in Applied Science and Engineering - 2019 organized by Department of chemistry, Dr. B.R Ambedkar National Institute of Technology, Jalandhar on 29-31st March 2019.
4. Presented oral paper in National conference on Recent Trends and Advancements in Chemical Science-2019 organized by Department of chemistry and Bhaskaracharya College of Applied Science, University of Delhi on 29-31st March 2019.
5. Presented oral paper in 2nd International Conference on Innovations in Chemical, Biological and Environmental Science (ICICBES-2019) organised by Arya P.G College, Panipat, Haryana on 27-28th February 2019.
6. Presented poster in International conference on Integrative Chemistry, Biology and Translational Medicine (ICBTM-2019) organised by Centre for Global Health, Hansraj College, University of Delhi, Delhi, India & Loyola University Chicago Stritch School of Medicine, USA on 25-26 February, 2019.
7. Presented oral paper in National conference on Chemistry for Human Health and Environment (CHHE) organised by Green Chemistry Network Centre (GCNC) University of Delhi and Royal Society of Chemistry London North India Section on 15-16th December 2018.
8. Presented poster in International conference on Emerging trends in drug development and natural products (ETDDNP-2018) organized by Department of chemistry, University of Delhi on 12-14th January 2018.
9. Presented oral paper on 36th annual national conference of Indian Council of Chemist organized by Andhra University, Visakhapatnam on 26-28th December 2017.