

Profile Page

Research Interests :

Green Chemistry, Ionic Liquids, Solution Thermodynamics of binary mixtures

Physicochemical Studies on Biopolymer model compounds and proteins, Micellization behaviour of Surfactants and their applications in material chemistry, Thermodynamic Investigations of Pure compounds and mixtures

Other Profile Links :

Google Scholar Link :

Harsh Kumar [Click Here](#)

Journal Publications :

Year	Journal	Publication
2022	Journal of Molecular Liquids, 347, 117996	RekhaGaba, SapnaDevi, AmalenduPal, DinkarSharma, HarshKumar ; Solvation properties of l-lysine and l-arginine in aqueous solutions of 1-heptyl-3-methyl imidazolium tetrafluoroborate [C7mim][BF ₄]at different temperatures
2022	Journal of Molecular Liquids, 351, 118556	Gagandeep Kaur, Harsh Kumar, Meenu Singla ; Diverse applications of ionic liquids: A comprehensive review Author links open overlay
2022	Journal of Molecular Liquids, 349, 118479	Gagandeep Kaur, Harsh Kumar, Meenu Singla; Mixed micellization behavior of 1-dodecyl-3-methylimidazolium chloride [C12mim][Cl] and benzyldimethyl-n-hexadecylammonium chloride (16-BAC) under the influence of gelatin in aqueous media Author links open overlay
2021	Journal of Chemical Thermodynamics; 154; Page no. 106326	Nabaparna Chakraborty, K. C. Juglan, Harsh Kumar; Volumetric and Ultrasonic study of polyethylene glycols in aqueous solutions of Niacin at different temperatures
2021	Journal of Solution Chemistry, 50, page no. 1079-1102	Harsimran Kaur, Nabaparna Chakraborty, K. C. Juglan, Harsh Kumar; Volumetric and Acoustic Behavior of PEG-200 and PEG-600 in Aqueous D-Mannitol solutions at Different Temperatures
2021	Journal of Chemical Thermodynamics, 163, page no. 106584	Nabaparna Chakraborty, K. C. Juglan, Harsh Kumar; Effect of ethylene glycol/diethylene glycol/triethylene glycol on the thermodynamics of the aqueous biotin solutions at various temperatures
2021	Chemical Papers , 75, page no. 1497-1506	Chawla Diksha, Nabaparna Chakraborty, Kailash Chandra Juglan, and Harsh Kumar; Temperature-dependent physicochemical studies of some glycols in aqueous d-mannitol solution.
2021	Journal of Chemical Engineering and Data	Nabaparna Chakraborty, K. C. Juglan, Harsh Kumar; Volumetric and Ultrasonic Studies of Molecular Interactions of PEG 400 and PEG 4000 in Aqueous Niacin Solutions at Different Temperatures
2021	Journal of Molecular Liquids, 344, page no. 117645	Harsh Kumar, Ramanjeet Kaur; Studies on thermodynamics of micellization of imidazolium-based surface-active ionic liquid [C15mim][Br] in aqueous media: Effect of D(+)-Xylose and D(+)-Glucose
2021	Journal of Chemical Thermodynamics, 152, page no. 106268	Harsh Kumar, Ravinder Sharma; Solvation properties of glycine and glycylglycine in aqueous 1-hexyl-3-methylimidazolium bromide solution at different temperatures

2021	Frontiers in Chemistry, 6, page no. 667941	Harsh Kumar, Gagandeep Kaur; Scrutinizing self-assembly, surface activity and aggregation behavior of mixtures of imidazolium based ionic liquids and surfactants: A comprehensive review
2021	Journal of Dispersion Science and Technology	Harsh Kumar, Gagandeep Kaur; Alterations induced in the micellization behavior of dioctyl sodium sulfosuccinate in the presence of imidazolium-based surface-active ionic liquids in aqueous medium
2021	Journal of Surfactants and detergents, 24, page no. 209-227	Harsh Kumar, Gagandeep Kaur; Aggregation Behavior of Mixed Micellar System of Dodecyl Sulfate-Based Surface-Active Ionic Liquids and Anionic Surfactant in Aqueous Media
2021	Journal of Dispersion Science and Technology, 42, page no. 970-983	Harsh Kumar, Gagandeep Kaur; Effect of changing alkyl chain in imidazolium based ionic liquid on the micellization behavior of anionic surfactant sodium hexadecyl sulfate in aqueous media
2021	Journal of Molecular Liquids, 336, page no. 116872	Harsh Kumar, Gagandeep Kaur; Influence of sodium bis(2-ethylhexyl) sulfosuccinate on the self-assembly of AOT based surface-active ionic liquids having different pharmacologically active cations in the aqueous medium
2021	Colloids and Surfaces A: Physicochemical and Engineering Aspects, 630, page no. 127563	Harsh Kumar, Pooja Sharma; Unraveling the micellization behavior and thermodynamic characteristics of imidazolium-based ionic liquid in presence of vitamins thiamine hydrochloride and ascorbic acid
2021	Journal of Physical Organic Chemistry	Harsh Kumar, Arjuna Katal; Thermodynamic analysis of micelles formation of anionic surfactant SDS in the presence of aqueous and aqueous solution of ionic liquid 1-butyl-3-methylimidazolium chloride
2021	Journal of Molecular Liquids, 338, page no. 116642	Harsh Kumar, Jasmeet Kaur, Pamita Awasthi; Scrutinizing the Micellization Behaviour of 14-2-14 Gemini Surfactant and Tetradecyltrimethylammonium Bromide in Aqueous Solutions of Betaine Hydrochloride Drug
2021	Journal of Chemical and Engineering Data, 66, page no. 915-927	Harsh Kumar, Monisha Sharma, Vaneet Kumar; Interactional Behavior and Hydration Characteristics of Polyhydroxysolutes (d (+)-Xylose and d (?) -Ribose) in Aqueous Solutions of Dipotassium Oxalate at Different Temperatures
2021	Journal of Chemical Thermodynamics, 158, page no. 106433	Harpreet Kaur, Ramesh Chand Thakur, Harsh Kumar, Arjuna Katal; Effect of α -amino acids (glycine, L-alanine, L-valine and L-leucine) on volumetric and acoustic properties of aqueous 1-Butyl-3-propylimidazolium bromide at T = (288.15, 298.15, 308.15, 318.15) K
2021	Journal of Molecular Liquids, 322, page no. 114851	Harsh Kumar, Pooja Sharma; Investigations on the micellization behavior and thermodynamic characteristics of synthesized surface active ionic liquids [C14mim] [Br] and [C15mim] [Br] in the presence of oral antidiabetic drug metformin hydrochloride
2021	Journal of Chemical Thermodynamics, 155, page no. 106350	Harsh Kumar, Vaneet Kumar, Seema Sharma, Arjuna Katal, Asma A Alothmann; Volumetric and acoustic properties of amino acids L-Leucine and L-Serine in aqueous solution of ammonium dihydrogen Phosphate (ADP) at different temperatures and concentrations
2021	Journal of Molecular Liquids, 324, page no. 114664	Harsh Kumar, Ravinder Sharma, Vaneet Kumar, Asma A Alothman; Exploration of the solvation behavior of the synthesized 1-hexyl-3-methylimidazolium bromide [C6mim][Br] ionic liquid with L-cysteine and N-acetyl L-cysteine in aqueous medium at different temperatures
2021	Journal of Chemical Thermodynamics, 154, page no. 106340	Harsh Kumar, Ravinder Sharma, Vaneet Kumar, Manawwer Alam; Investigations of (solute-solute) and (solute-solvent) interactions in ternary {amino acids + 1-dodecyl-3-methylimidazolium bromide [C12mim] [Br] + water} mixtures at different temperatures

2021	Chemical Papers, 75, page no. 1497-1506	Diksha Chawla, Nabaparna Chakraborty, Kailash Chandra Juglan, Harsh Kumar; Temperature dependent physicochemical studies of some Glycols in aqueous D-Mannitol solution
2021	Journal of Chemical Thermodynamics, 152, page no. 106268	Harsh Kumar, Ravinder Sharma; Solvation properties of glycine and glycyglycine in aqueous 1-hexyl-3-methylimidazolium bromide solution at different temperatures
2020	Journal of Dispersion Science and Technology, 1-12	Harsh Kumar, Gagandeep Kaur, Shweta Sharma: Investigation of surface adsorption and thermodynamic properties of 1-tetradecyl-3-methylimidazolium bromide in absence and presence of tetrabutylammonium bromide in aqueous medium
2020	Journal of Dispersion Science and Technology, 1-20	Harsh Kumar, Arjuna Katal: Analysis of the micellar properties of surfactants dodecyl trimethylammonium bromide and dodecyl trimethylammonium chloride in aqueous ionic liquids solution
2020	Journal of Molecular Liquids, 315, 113763	Parminder Kaur, Nabaparna Chakraborty, K. C. Juglan, Harsh Kumar: Volumetric and ultrasonic studies of molecular interactions of glycols in aqueous glutaraldehyde solutions at different temperatures
2020	Journal of Chemical Thermodynamics, 150, 106211	Harpreet Kaur, R C Thakur, Harsh Kumar; Effect of proteinogenic amino acids L-serine/L-threonine on volumetric and acoustic behavior of aqueous 1-butyl-3-propyl imidazolium bromide at T = (288.15, 298.15, 308.15, 318.15) K
2020	Journal of Molecular Liquids, 313, 113448	Harsh Kumar, Akanksha; Studies on the interactional behaviour of binary liquid mixtures of tripropylene glycol monomethyl ether and butyl amines at different temperatures
2020	Journal of Molecular Liquids, 313, 113431	Harsh Kumar, Gagandeep Kaur, Priya Influence of Tetra Ethyl Ammonium Bromide (C ₂ H ₅) ₄ NBr on the Aggregation Behavior of Surface Active Ionic Liquid 1-Tetradecyl-3-methylimidazolium Bromide [C ₁₄ mim][Br] Journal of Molecular Liquids
2020	Results in Chemistry, 2, 100049	Ashima, K C Juglan, Harsh Kumar; Ultrasonic and volumetric behaviour of glycols with sodium ethylparaben in aqueous medium from T=?293.15 to 308.15?K at atmospheric pressure Results in Chemistry
2020	Journal of Chemical Thermodynamics, 149, 106166	Harsh Kumar, Akanksha; Exploration of molecular interaction in binary liquid mixtures of dipropylene glycol dimethyl ether with methyl acetoacetate and ethyl acetoacetate at different temperatures using physicochemical approach Journal of Chemical Thermodynamics
2020	Zeitschrift für Physikalische Chemie, 234, 1603-1621	Harsh Kumar, Arjuna Katal, Naval Kishore Rawat Modulations in self-organization properties of surfactant in aqueous ionic liquids media
2020	Journal of Dispersion Science and Technology, 42	Harsh Kumar, Gagandeep Kaur; Effect of Changing Alkyl Chain in Imidazolium Based Ionic Liquid on the Micellization Behavior of Anionic Surfactant Sodium Hexadecyl Sulfate in Aqueous Media.
2020	Journal of Molecular Liquids, 305, 112855	Rekha Gaba, Navneet Kaur, Amalendu Pal, Dinkar Sharma, Harsh Kumar; Molecular interactions and taste perception of an artificial sweetener saccharin sodium in aqueous and in aqueous solutions of choline chloride at different temperatures
2020	Journal of Chemical and Engineering Data, 65, 1473-1487	Harsh Kumar, Arjuna Katal, Priyank Kumar Sharma Temperature Dependent Thermodynamic Properties of Amino Acids in Aqueous Imidazolium Based Ionic Liquid
2020	Journal of Chemical and Engineering Data, 65, 1435-1446	Nabaparna Chakraborty, Kirandeep Kaur, K.C. Juglan, Harsh Kumar; Volumetric and ultrasonic studies on interactions of glycol in aqueous solutions of xylitol at different temperatures
2020	Journal of Molecular Liquids, 304, 112666	Harsh Kumar, Ravinder Sharma Influence of 1-hexyl-3-methylimidazolium bromide ionic liquid on the volumetric and acoustic properties of amino acids (L-alanine and L-phenylalanine) at different temperatures.

2020	Journal of Molecular Liquids, 303, 112392	Harsh Kumar, Gurpreet Singh, Ramesh Kataria, Suresh Kumar Sharma; Volumetric, acoustic and infrared spectroscopic study of amino acids in aqueous solutions of pyrrolidinium based ionic liquid, 1-butyl-1-methyl pyrrolidinium bromide
2020	Journal of Molecular Liquids, 298, 112000	Ashima, K C Juglan, Harsh Kumar; Intermolecular investigation of polyethylene glycols with butyl paraben in methanol medium attributing volumetric, ultrasonic and thermo-physical properties
2020	Journal of Molecular Liquids, 298, 111949	Harsh Kumar, Gagandeep Kaur Deciphering aggregation behavior and thermodynamic properties of anionic surfactant sodium hexadecyl sulfate in aqueous solutions of ionic liquids [C5mim][Br] and [C6mim][Br]
2020	Journal of Chemical Thermodynamics, 140, 105916	Ashima, K C Juglan, Harsh Kumar; Volumetric and ultrasonic investigation of polyethylene glycols (PEG-200 and PEG-600) in aqueous solutions of sodium methylparaben at various temperatures
2019	J. Chem. Thermodyn. 2019, 130, Pages 213-227	Suresh Kumar Sharma, Gurpreet Singh, Ramesh Kataria, Harsh Kumar; Temperature and concentration dependence towards physicochemical and FTIR spectral studies of glycine, L-alanine and L-valine in aqueous solutions of nortriptyline hydrochloride
2019	Phys. Chem. Liqs. 2019, 57, 139-150	Ravi Sharma, Ramesh Chand Thakur, Harsh Kumar; Study of viscometric properties of L-ascorbic acid in binary aqueous mixtures of D- glucose and D-fructose
2019	J Agric Food Chem. 2019, 67, 7786-7797	Divya Mandial, Poonam Khullar, Vikas Gupta, Harsh Kumar, Narpinder Singh, Gurinder Kaur Ahluwalia, Mandeep Singh Bakshi; Role of Gluten in Surface Chemistry: Nanometallic Bioconjugation of Hard, Medium, and Soft Wheat Protein
2019	Journal of Chemical Thermodynamics, 2019, 139, 105877	Harsh Kumar, Monisha Sharma, Vaneet Kumar: Exploration of solute-solvent interactions in aqueous mixtures of monosaccharides and triammonium citrate (TAC) at different temperatures: Volumetric and acoustic approach
2019	J. Mol. Liqs. 2019, 276, 562-569	Harsh Kumar, Akanksha; Mixing properties of binary liquid mixtures of dipropylene glycol dimethyl ether (DPGDME) with 2-propanol, 1-butanol and 2-butanol at different temperatures
2019	J. Chem. Thermodyn. 2019, 132, 1-8	Gyan Prakash Dubey, Seema Rani, Harsh Kumar; Acoustic, volumetric and spectral studies of binary liquid mixtures of aliphatic dialkylamine and 2-alkanols at different temperatures
2019	J. Mol. Liqs. 2019, 279, 711-718	Rekha Gaba, Amalendu Pal, Dinkar Sharma, Harsh Kumar, Ashish Kumar; Molecular interactions of some non-essential amino acids in aqueous solutions of 1-methylimidazolium chloride at different temperatures
2019	J. Mol. Liqs. 2019, 288, 111014	Ashima Thakur, K C Juglan, Harsh Kumar, Kirandeep Kaur; Investigation on molecular interaction of glycols in methanol solutions of methylparaben (methyl 4 – hydroxybenzoate) at different temperatures through thermo-acoustical analysis
2019	J. Chem. Thermodyn. 2019, 138, 229-239	Harsh Kumar, Sumit Kumar, Isha Behal; Investigations on the temperature dependent volumetric and ultrasonic properties of structural isomers D(+)-glucose and D(-)-fructose in aqueous potassium oxalate solutions
2018	J. Chem. Eng. Data. 2018, 63, 3769-3783	Harsh Kumar, Monisha Sharma, Vaneet Kumar; Effect of Citrate Salts on the Volumetric and Ultrasonic Properties of Sucrose in Aqueous Solutions at Temperatures T = (288.15318.15) K
2018	Int. J. Biol. Macromol. 2018, 120, 394-404	Divya Mandial, Poonam Khullar, Aabroo Mahal, Harsh Kumar, Narpinder Singh, Gurinder Kaur Ahluwalia, Mandeep Singh Bakshi; Applications of rice protein in nanomaterials synthesis, nanocolloids of rice protein, and bioapplicability

2018	J. Mol. Liqs. 2018, 256, 148-162	Harsh Kumar and Arjuna Katal; Temperature dependent physicochemical and spectroscopic (FT-IR) studies of citrate salts (trilithium citrate and triammonium citrate) in aqueous ionic liquid [C4mim][BF4] (1-butyl-3-methyl imidazolium tetrafluoroborate) solutions
2018	J. Mol. Liqs. 2018, 251, 273-285	Harsh Kumar and Arjuna Katal; Temperature dependent physicochemical and spectroscopic (FT-IR) studies of citrate salts (trilithium citrate and triammonium citrate) in aqueous ionic liquid [C4mim][BF4] (1-butyl-3-methyl imidazolium tetrafluoroborate) solutions
2018	J. Chem. Eng. Data. 2018, 63, 3257-3251	Kirandeep Kaur, K C Juglan, Harsh Kumar, Isha Behal; Thermodynamic Interactions Study of Some Ethylene Glycols in Aqueous Aniline Solutions at Different Temperatures: An Acoustical and Volumetric Approach
2018	J. Mol. Liqs. 2018, 268, 700-706	Kirandeep Kaur, K C Juglan, Harsh Kumar; Temperature dependent physicochemical studies of polyethylene glycols (PEG-400 and PEG-4000) in aqueous sorbitol
2018	J. Chem. Thermodyn. 2018, 127, 8-16	Kirandeep Kaur, K.C. Juglan, Harsh Kumar; Acoustical and volumetric investigation of polyethylene glycol 400 and polyethylene glycol 4000 in aqueous solutions of glycerol at different temperatures
2018	J. Chem. Thermodyn. 2018, 126, 137-146	Nabaparna Chakraborty, Harsh Kumar, Kirandeep Kaur, K.C. Juglan; Acoustic and thermodynamic study of D-Panthenol in aqueous solutions of glycol at different temperatures
2018	J. Mol. Liqs. 2018, 266, 252-258	Harsh Kumar, Arjuna Katal; Interaction of cationic surfactant cetyltrimethylammonium bromide (CTAB) with hydrophilic ionic liquid 1-butyl-3-methylimidazolium chloride [C4mim][Cl] at different temperatures – Conductometric and FT-IR spectroscopic study
2018	J. Chem. Thermodyn. 2018, 125, 93-106	Kirandeep Kaur, Isha Behal, Kailash Chandra Juglan, Harsh Kumar; Volumetric and ultrasonic studies on interactions of ethylene glycol, diethylene glycol and triethylene glycol in aqueous solutions of glycerol at temperatures $T = (293.15\text{K} - 308.15)\text{K}$
2018	J. Chem. Thermodyn. 2018, 125, 17-31	Harsh Kumar, Seema Kumari, Isha Behal, Suresh Kumar Sharma; Analysing the molecular interactions of sucrose in aqueous triammonium citrate and trilithium citrate solutions at different temperatures $T = (288.15-318.15)\text{K}$ through volumetric and ultrasonic investigations
2018	J. Mol. Liqs. 2018, 258, 285-294	Harsh Kumar, Nidhi Sharma, Arjuna Katal ; Aggregation behaviour of cationic (cetyltrimethylammonium bromide) and anionic (sodium dodecylsulphate) surfactants in aqueous solution of synthesized ionic liquid [1-pentyl-3-methylimidazolium bromide] -Conductivity and FT-IR spectroscopic studies
2018	J. Mol. Liqs. 2018, 251, 273-285	Harsh Kumar, Arjuna Katal; Spectroscopic and temperature dependent physicochemical studies on interactional behaviour of phosphate salts in aqueous ionic liquid (1-butyl-3-methyl imidazolium tetrafluoroborate) solutions
2018	J. Chem. Thermodyn. 2018, 119, 1-12	Harsh Kumar, Vaneet Kumar, Monisha Sharma, Isha Behal; Studies on the interactions behaviour of polyhydroxy solutes d(+)-glucose and d(?)-fructose in aqueous triammonium citrate solutions over temperature range $T = (288.15-318.15)\text{K}$
2018	J. Mol. Liqs. 2018, 249, 227-232	Harsh Kumar, Arjuna Katal, Pradeep Rawat; FT-IR spectroscopic and micellization studies of cetyltrimethylammonium bromide in aqueous and aqueous solution of ionic liquid (1-butyl-3-methylimidazolium bromide) at different temperatures
2017	J. Chem. Eng. Data. 2017, 62, 3769-3782	Kirandeep Kaur, Kailash Chandra Juglan, Harsh Kumar; Investigation on temperature dependent volumetric and acoustical properties of homologous series of glycols in aqueous sorbitol solutions

2017	Russian J. Phys. Chem. A. 2017, 91, 2389-2396	Ravi Sharma, R.C.Thakur, Balwinder Sani, Harsh Kumar ;Volumetric and Acoustic studies of L-ascorbic acid in water and binary aqueous mixtures of D-glucose and D-fructose at different temperatures
2017	J. Chem. Eng. Data. 2017, 62, 3138-3150	Harsh Kumar, Isha Behal; Effect of some α -amino acids on aqueous solution behavior of ammonium dihydrogen phosphate by volumetric and ultrasonic methods at different temperatures
2017	J. Mol. Liqs. 2017, 244, 27-38	Isha Behal, Harsh Kumar; Exploring molecular interactions of aliphatic α -amino acids glycine, L-alanine, L- valine in aqueous potassium oxalate solutions from 288.15 K to 318.15 K through thermo-acoustical analysis
2017	J. Chem. Thermodyn. 2017, 115, 318-331	Suresh Kumar Sharma, Gurpreet Singh, Harsh Kumar, Ramesh Kataria; Effect of 1- butyl-3-methyl pyridinium iodide, [C4mpy][I], ionic liquid on hydration behaviour of aqueous solutions of glycine, L-alanine and L-valine at different temperatures through volumetric and acoustic study
2017	J. Mol. Liqs. 2017, 242, 739-746	Rekha Gaba, Amalendu Pal, Harsh Kumar, Dinkar Sharma, Navjot; Change in solvation properties and taste behavior of amino acids in aqueous ionic liquid solution: A volumetric and acoustic approach
2017	J. Mol. Liqs. 2017, 242, 560-570	Harsh Kumar, Chanda Chadha, Akanksha Verma, Meenu Singla;Synthesis and Study of Interactions of Ionic Liquid 1-methyl-3-pentylimidazolium bromide with Amino Acids at Different Temperatures
2017	J. Mol. Liqs. 2017, 241, 751-763	Harsh Kumar, Isha Behal; Volumetric and ultrasonic properties of α -amino acids (glycine, L-alanine and L- valine) in aqueous diammonium hydrogen phosphate at different temperatures and concentrations
2017	J. Chem. Thermodyn. 2017, 113, 52-63	Harsh Kumar, Sheetal, Isha Behal, Sanjay Sharma; Temperature dependence of the volumetric and acoustic behavior of aqueous mixtures of monosaccharides and trilithium citrate
2017	J. Chem. Thermodyn. 2017, 111, 238-249	Harsh Kumar, Akanksha Verma, Chanda Chadha;Synthesis and thermodynamics studies of ionic liquid 1-methyl-3- pentylimidazolium bromide ([C5mim][Br]) with amino acids (L-cysteine and N-acetyl-L-cysteine) at different temperatures
2017	J. Chem. Thermodyn. 2017, 105, 94-104	Suresh Kumar Sharma, Gurpreet Singh, Ramesh Kataria, Harsh Kumar, Sanjay Sharma;Investigations on molecular interaction of some amino acids with the drug levofloxacin in aqueous solution by volumetric and acoustic methods at different temperatures
2017	J. Chem. Thermodyn. 2017, 110, 137-153	Suresh Kumar Sharma, Gurpreet Singh, Harsh Kumar, Ramesh Kataria ;Study of solvation consequences of α -amino acids in aqueous 1-butyl-4-methyl pyridinium chloride ionic liquid solutions probed by physicochemical approach in the temperature interval (288.15-308.15) K
2017	ACS Sustain Chem Eng. 2017, 5, 1082-1093	Poonam Khullar, Manoj Kumar Goshisht, Lovika Moudgil, Gurinder Singh, Divya Mandial, Harsh Kumar, Gurinder Kaur Ahluwalia, Mandeep Singh Bakshi;
2017	J. Mol. Liqs. 2017, 229, 417-423	Rekha Gaba, Amalendu Pal, Harsh Kumar, Dinkar Sharma, Rajat Saini Thermodynamic properties of glycine and diglycine in aqueous solutions of 1- pentyl-3-methylimidazolium chloride at different temperatures
2017	J. Chem. Thermodyn. 2017, 106, 59-70	Harsh Kumar, Sheetal, Isha Behal;Study of interactions of D(+)-Glucose and D(-)-Fructose with Trilithium Citrate in aqueous medium through volumetric and ultrasonic properties over the temperature range T = (288.15-318.15) K
2016	J. Chem. Thermodyn. 2016, 94, 74-84	Suresh Kumar Sharma, Gurpreet Singh, Harsh Kumar, Ramesh Kataria;Thermodynamic study of N-acetyl glycine in aqueous tetraethylammonium iodide solutions in the temperature interval (288.15-308.15) K: Volumetric and Ultrasonic Study

2016	J. Chem. Thermodyn. 2016, 94, 204- 220	Harsh Kumar, Meenu Singla and Heena Mittal; Volumetric, acoustic and viscometric behavior of dipotassium hydrogen phosphate and disodium hydrogen phosphate in aqueous solution of N-acetyl glycine at different temperatures
2016	J. Chem. Thermodyn. 2016, 95, 1-14	Harsh Kumar, Isha Behal, Meenu Singla; Effect of L-serine and L-threonine on volumetric and acoustic behavior of aqueous metformin hydrochloride solutions at T = (305.15, 310.15 and 315.15) K
2016	J. Mol. Liqs. 2016, 214, 145- 148	Khushboo, Aarti Devi, Praveen Malik, Harsh Kumar; Thermodynamic and Acoustical Study of zinc oxide-Nematic Liquid Crystals mixtures
2016	J Solution Chem. 2016, 45, 1-27	Harsh Kumar, Sheetal and Suresh Kumar Sharma; Studies on volumetric and acoustic behavior of monosaccharides D(+)-glucose and D(-)-fructose in aqueous trisodium citrate solutions at different temperatures
2016	J. Thermophy. 2016, 37, 21	Harsh Kumar, Meenu Singla, and Rajeev Jindal; Solvation behaviour of glycine, l-alanine, and l-valine in aqueous solutions of triammonium citrate at different temperatures with reference to speeds of sound measurements
2016	J. Chem. Thermodyn. 2016, 96, 143-152	Suresh Kumar Sharma, Gurpreet Singh, Harsh Kumar, Ramesh Kataria; Effect of N-acetyl glycine on volumetric and acoustic behaviour of aqueous tetrabutylammonium iodide solutions at different temperatures
2016	J. Mol. Liqs. 2016, 216, 516-525	Suresh Kumar Sharma, Gurpreet Singh, Harsh Kumar, Ramesh Kataria; Effect of temperature on viscometric properties of aliphatic amino acids glycine/L- alanine/L-valine in aqueous solutions of tetraethylammonium iodide
2016	J. Mol. Liqs. 2016, 218, 68-82	Chanda Chadha, Meenu Singla, Harsh Kumar; Interionic interactions of glycine, L-alanine, glycylglycine and phenylalanine in aqueous 1-hexyl-3-methylimidazolium chloride ionic liquid solutions at T = (288.15 to 308.15) K: Volumetric, acoustic and viscometric measurements
2016	J. Chem. Thermodyn. 2016, 98, 214-230	Suresh Kumar Sharma, Gurpreet Singh, Harsh Kumar, Ramesh Kataria; Solvation behaviour of some amino acids in aqueous solutions of non-steroidal anti- inflammatory drug sodium ibuprofen at different temperatures analyzed by volumetric and acoustic methods
2016	J. Chem. Thermodyn. 2016, 99, 16-29	Harsh Kumar, Isha Behal; Volumetric, ultrasonic and UV absorption studies on interactions of antibiotic drug chloramphenicol with glycine and its dipeptide in aqueous solutions at T= (298.15- 318.15) K
2016	J. Mol. Liqs. 2016, 219, 756-764	Harsh Kumar, Isha Behal; Volumetric and ultrasonic investigation of molecular interactions of L-serine and L- threonine in aqueous nicotinamide solutions at T = (298.15-318.15) K
2016	RSC Advances, 2016, 6, 38238-38251	Chanda Chadha, Gurbir Singh, Gurpreet Singh, Harsh Kumar, Tejwant Singh Kang; Modulating the Mixed Micellization of CTAB and an Ionic Liquid 1-Hexadecyl-3- methylimidazolium Bromide via Varying Physical States of Ionic Liquid
2016	J. Mol. Liqs. 2016, 221, 526-534	Harsh Kumar, Kirtanjot Kaur, Sonika Arti, Meenu Singla; Study of thermodynamic properties of sodium dodecyl sulphate in aqueous solutions of alkoxyalkanols at different temperatures
2016	J. Chem. Thermodyn. 2016, 102, 48-62	Harsh Kumar, Isha Behal; Thermodynamics of (solute+solute) and (solute+solvent) interactions of homologous series of amino acids with thiamine hydrochloride in aqueous medium at T = (305.15, 310.15, 315.15) K: A volumetric and acoustic approach

2016	J. Chem. Eng. Data. 2016,61, 2244-2259	Harsh Kumar, Sheetal;Densities and Speeds of Sound of D(+)-Glucose, D(-)-Fructose, D(+)-Xylose and D(-)-Ribose in Aqueous Tripotassium Citrate Solutions at Different Temperatures
2016	J. Chem. Eng. Data. 2016, 61, 3740-3751	Harsh Kumar, Isha Behal;Physicochemical Studies of Antibiotic Drug Chloramphenicol with L-Leucine and Glycyl-L-Leucine in Aqueous Medium at T = (288.15-298.15) K: A Volumetric, Ultrasonic and UV Absorption Study
2015	Phys. Chem. Liq. 2015, 53, 390-402	Amalendu Pal, Harsh Kumar, Ritu Maan, Harish Kumar Sharma;Thermophysical properties of alkyl acetates in aqueous solutions of ionic liquid { 1- butyl-3-methylimidazolium bromide [bmim][Br] at different temperatures
2015	J. Mol. Liqs. 2015, 206, 343-349	Rajeev Jindal, Meenu Singla and Harsh Kumar; Transport Behaviour of Aliphatic Amino Acids Glycine/L-Alanine/L-Valine and Hydroxyl Amino Acids L-Serine/L-Threonine in Aqueous Trilithium Citrate Solutions at Different Temperatures
2015	Thermochim Acta, 2015, 607, 1-8	Suresh Kumar Sharma, Gurpreet Singh,Harsh Kumar,Ramesh Kataria;Study of solute-solute and solute-solvent interactions of N-acetyl glycine in aqueous fructose solutions at different temperatures
2015	J. Mol. Liqs. 2015, 208, 170-182	Harsh Kumar, Meenu Singla, and Rajeev Jindal;Studies of interionic interactions of L-serine / L-threonine + water + trilithium citrate mixtures using density and speeds of sound measurements at different temperatures
2015	J. Chem. Eng. Data. 2015, 60, 1217-1226	Amalendu Pal, Harsh Kumar, Ritu Maan, Harish Kumar Sharma;Solute–Solvent Interactions of Glycine, L-Alanine, and L-Valine in Aqueous { 1- Ethyl-3-Methylimidazolium Chloride [emim][Cl]}Ionic Liquid Solutions in the Temperature Interval (288.15 - 308.15) K
2015	J. Mol. Liqs. 2015,211,604-612	Harsh Kumar, Sheetal;Solute solvent interactions of mono saccharides D(-)-ribose and D(+)-xylose in aqueous trisodium citrate solutions at different temperatures
2015	J. Chem. Thermodyn. 2015, 91, 146-155	Amalendu Pal, Harsh Kumar, Ritu Maan, Harish Kumar Sharma, Sanjay Sharma;Solute-Solvent Interactions of Glycine, L-Alanine, and L-Valine in Aqueous 1- Methyl imidazolium Chloride Ionic Liquid Solutions in the Temperature Interval (288.15-308.15) K
2015	J. Mol. Liqs. 2015, 211, 1018-1025	Harsh Kumar, Chanda Chadha;Conductometric and spectroscopic studies of cetyltrimethylammonium bromide in aqueous solutions of imidazolium based ionic liquid 1-butyl-3-methylimidazolium tetrafluoroborate
2015	J. Chem. Eng. Data. 2015, 60, 2600-2611	Suresh Kumar Sharma, Gurpreet Singh, Harsh Kumar, Ramesh Kataria;Densities, Sound Speed and Viscosities of Some Amino Acids with Aqueous Tetra-Butyl Ammonium Iodide Solutions at Different Temperatures
2015	J. Chem. Thermodyn. 2015, 91, 346-359	Suresh Kumar Sharma, Gurpreet Singh, Ramesh Kataria, Harsh Kumar;Investigation on solute-solvent interactions of glycine, L-alanine and L-valine in aqueous tetraethylammonium iodide solutions at different temperatures with reference to volumetric and acoustic measurements
2015	J. Chem. Eng. Data. 2015, 60, 2937-2950	Harsh Kumar, Chanda Chadha; Interionic interactions of aqueous mixtures of ionic liquid 1-hexyl-3- methylimidazolium chloride [C6mim][Cl] with phosphate salts at T = (288.15 to 308.15) K: Volumetric, acoustic and UV absorption studies

2015	ACS Sustainable Chem. Eng. 2015, 3, 3175-3187	Manoj Kumar Goshisht, Lovika Moudgil, Poonam Khullar, Gurinder Singh, Aman Kaura, Harsh Kumar, Gurinder Kaur, Mandeep Singh Bakshi; Surface Adsorption and Molecular Modeling of Biofunctional Gold Nanoparticles for Systemic Circulation and Biological Sustainability
2015	National Journal-J. Pure Appl. Phys. 2015, 53, 436-446	Amalendu Pal, Harsh Kumar, Ritu Maan, Harish Kumar Sharma; Thermophysical properties of alkyl acetates in aqueous solutions of ionic liquid { 1-butyl-3-methylimidazolium chloride } [bmim][Cl] at different temperatures

Conference Publications :

Year	Conference	Publication
2020	2nd International Conference on Recent Advances in Fundamental and Applied Sciences RAFAS-2019	Theoretical and experimental ultrasonic velocities Comparison of binary mixtures of triethylene glycols and glycerol at different temperatures
2020	2nd International Conference on Recent Advances in Fundamental and Applied Sciences RAFAS-2019	Molecular interactions in ternary system of ethane-1, 2-diol with methanol and methyl 4-hydroxybenzoate at 298 K: An acoustic approach
2020	2nd International Conference on Recent Advances in Fundamental and Applied Sciences RAFAS-2019	Acoustic and viscometric studies of ternary liquid mixtures of aqueous sodium methyl p-hydroxybenzoate with polyethylene glycols at 250C
2020	2nd International Conference on Recent Advances in Fundamental and Applied Sciences RAFAS-2019	Self-Organization of Cationic Surfactant in Hydrophilic Ionic Liquid in Aqueous Media at Various Concentrations
2020	2nd International Conference on Recent Advances in Fundamental and Applied Sciences RAFAS-2019	Modulating Effect of Drug Chloramphenicol on the Aggregation Behavior of the Ionic Liquid 1-tetradecyl-3-methylimidazolium Bromide: A Conductometric Study
2020	2nd International Conference on Recent Advances in Fundamental and Applied Sciences RAFAS-2019	Influence of Electrolyte and Temperature on the Aggregation Behaviour of Mixed System Consisting Drug and Anionic Surfactant
2020	2nd International Conference on Recent Advances in Fundamental and Applied Sciences RAFAS-2019	Investigations on the interactions in the Binary Mixtures of Tripropylene Glycol Monomethyl Ether (TPGMME) and 1-Heptanol at Different Temperatures
2020	2nd International Conference on Recent Advances in Fundamental and Applied Sciences RAFAS-2019	Study on Interactions Between Imidazolium Based Surface Active Ionic Liquid and Drug at Different Temperature and Concentrations
2020	2nd International Conference on Recent Advances in Fundamental and Applied Sciences RAFAS-2019	Induced Alterations in the Aggregation Behavior and Thermodynamic Properties of Anionic Surfactant Sodium Tetradecyl Sulfate (STS) in presence of Imidazolium Based Ionic Liquid in Aqueous Media: A Conductometric Study
2020	2nd International Conference on Recent Advances in Fundamental and Applied Sciences RAFAS-2019	Study of intermolecular interaction of binary mixture of adrenaline and KOH
2017	AIP conference proceedings	Thermo-acoustical molecular interaction study in binary mixtures of glycerol and ethylene glycol
2015	10th National Conference on Thermodynamics of Pharmaceutical, Chemical and Biological Systems organized by Indian Thermodynamics Society at University of Pharmaceutical Sciences, Panjab University, Chandigarh	Effect of L-serine and L-threonine on volumetric and acoustic behavior of aqueous metformin hydrochloride solutions at T = (305.15, 310.15 and 315.15) K

2015	10th National Conference on Thermodynamics of Pharmaceutical, Chemical and Biological Systems organized by Indian Thermodynamics Society at University of Pharmaceutical Sciences, Panjab University, Chandigarh	Densities and speeds of sound of dipropylene glycol diethyl ether with alkyl acetoacetate at different temperatures.
2015	10th National Conference on Thermodynamics of Pharmaceutical, Chemical and Biological Systems organized by Indian Thermodynamics Society at University of Pharmaceutical Sciences, Panjab University, Chandigarh	Investigation on molecular interactions of D(+)-glucose, D(-)-fructose, in aqueous tripotassium citrate solutions at different temperatures with reference to volumetric and acoustic measurements.
2015	10th National Conference on Thermodynamics of Pharmaceutical, Chemical and Biological Systems organized by Indian Thermodynamics Society at University of Pharmaceutical Sciences, Panjab University, Chandigarh	Conductometric and spectroscopic studies of cetyltrimethylammonium bromide in aqueous solutions of imidazolium based ionic liquid 1-butyl-3-methylimidazolium tetrafluoroborate.
2015	10th National Conference on Thermodynamics of Pharmaceutical, Chemical and Biological Systems organized by Indian Thermodynamics Society at University of Pharmaceutical Sciences, Panjab University, Chandigarh	Volumetric, acoustic and UV absorption studies on solute-solvent interactions of dipeptides of glycine with aqueous amoxicillin solutions
2015	10th National Conference on Thermodynamics of Pharmaceutical, Chemical and Biological Systems organized by Indian Thermodynamics Society at University of Pharmaceutical Sciences, Panjab University, Chandigarh	Interionic interactions of glycine and glycylglycine in aqueous 1-hexyl-3-methylimidazolium chloride ionic liquid solutions at T = (288.15 to 308.15) K: Volumetric measurements
2015	International conference on Green Chemistry: Catalysis, Energy and Environment (ICGC-2015) organized by Department of Chemistry, Goa University	10. Intermolecular interaction in mixtures of green solvents like imidazolium based ionic liquid with citrate salts: Thermodynamic and spectral approach
2015	17th CRSI National Symposium in Chemistry organized by Chemical Research Society of India and National Chemical Laboratory of India, Pune	Volumetric and Acoustic Studies of Amino Acids in Aqueous 1-Hexyl-3-Methylimidazolium Chloride Ionic Liquid Solutions at T = (288.15 to 308.15) K
2015	International conference on Green Chemistry: Catalysis, Energy and Environment (ICGC-2015) organized by Department of Chemistry, Goa University, Goa	Volumetric, acoustic and UV absorption studies for aqueous mixtures of ionic liquid 1-hexyl-3-methylimidazolium chloride [C6mim][Cl] with phosphate salts at T = (288.15 to 308.15) K
2015	International conference on Green Chemistry: Catalysis, Energy and Environment (ICGC-2015) organized by Department of Chemistry, Goa University, Goa from January 22-24, 2015.	9. Thermophysical properties of ionic liquid 1-butyl-3-methylimidazolium bromide with alkoxypropanol mixtures at different temperatures

Book/Chapter Publications :

Type	Title	Publisher	Authors	ISBN/ISS N No.	Year
Book	Manufacturing and Characterization of Carbon-Based Nanocomposite Membrane for Water Cleaning.	Environmental Remediation Through Carbon Based Nano Composites Springer, Singapore	Bhalla, Gunjan, Anupamdeep Sharma, Vaneet Kumar, Barjinder Bhalla, and Harsh Kumar.		2021

Book	Use of Carbon Nanomaterials as Potential Ion-Exchange	Environmental Remediation Through Carbon Based Nano Composites Springer, Singapore	Gunjan Bhalla, Anupam Deep Sharma, Dr. Vaneet Kumar, Barjinder Bhalla, Dr. Saruchi, Harsh Kumar		2020
Book	Engineering Chemistry fully solved question papers (B.Tech)	Ishan Publications Ambala			2008
Book	Laboratory Manual cum Practical Note Book	Ishan Publications Ambala			2007
Book	Ishan's Engineering Chemistry	Ishan Publications Ambala			2004
Book	Quick Glance at a Viva-Voce	S K Kataria & Sons, New Delhi			2004
Book	A Complete and Comprehensive Engineering Chemistry (Fully Solved)	Ishan Publications Ambala			2003

Research Projects :

Role	Project Type	Title	Funding Agency	From	To	Amount	Status	Co-Investigator
Principal Investigator	Major	Investigations on the Effect of Ionic Liquids on Self-Assembly of Various Surfactants in Aqueous Media	DST-SERB, New Delhi	July 2016	June 2019	Rs 30 lakhs	ongoing	
Co-Principal Investigator	Major	SYNTHESIS OF FUNCTIONALIZED BIOMATERIALS WITH BIOLOGICAL APPLICATIONS TO UNDERSTAND PROTEIN-PROTEIN INTERACTIONS	DST Nano Mission	2016	2019	Rs 54 Lakhs	ongoing	

Events Organized :

Category	Type	Title	Venue	From	To	Designation
STC	National	Current Opportunities and New Directions in Chemical Sciences and Technology	NIT Jalandhar	07-12-15	13-12-15	Coordinators
STC	National	Advances in Material Science and Material Engineering	NIT Jalandhar	08-08-16	14-08-16	Coordinator
STC	National	Advances of Statistics in Science and Engineering	NIT Jalandhar	19-09-16	25-09-16	Coordinator
STC	National	Advance Material and Characterization Techniques	NIT JALANDHAR	01-06-2015	07-06-2015	Coordinator
STC	National	Innovations and future perspectives in chemical sciences and technology	NIT Jalandhar	16-04-2019	20-04-2019	Coordinator
STC	National	Frontiers in Chemical Sciences and Technology		08-12-2014	08-14-2014	Coordinator
Conference	International	International Conference Chemical Constellation Cheminar – 2012 [CCC-2012]	NIT Jalandhar	10-09-2012	12-09-2012	Organizing Secretary
Conference	National	National Chemical Constellation Cheminar	NIT Jalandhar	20-08-2011	21-08-2011	Organizing Secretary
Conference	National	National Conference on Recent Trends and Developments in Applied Sciences in Engineering and Technology [RTDASET – 2006]	Chitkara Institute of Engineering and Technology, Rajpura	06-07-2006		Convener
Workshop	National	Modeling and Simulation in Chemistry (MSC-2008)	NIT Jalandhar	01-02-2008	02-02-2008	Organizing Secretary
Conference	National	1st National Conference of Innovations in Applied Science and Engineering [NCIASE-2019]	NIT Jalandhar	27-04-2019	28-04-2019	Chairman

Professional Affiliations :

Designation	Organization
Member	American Chemical society
Life Member	Indian Science Congress Association, Kolkata
Life Member	Indian Chemical Society, Kolkata
Life Member	Indian Council of Chemists
Member	Royal Society of Chemistry

Member	American Association for the Advancement of Science (AAAS)
Life Member	Indian Science Congress Association (L16455)
Life Member	Chemical Research Society of India (LM1348)
Life Member	Indian Chemical Society (F/7181)
Life Member	Indian Thermodynamics Society (LM30)
Life Member	Indian Council of Chemists (LF/1347)
Life Member	Association of Chemistry Teachers (L735)
Life Member	Punjab Academy of Sciences (L1069)
Life Member	Indian Society of Chemists and Biologists (L635/2012)
Life Member	Ultrasonics Society of India

PhD Supervised :

Scholar Name	Research Topic	Status	Year	Co-Supervisor
Akanksha	Thermodynamic Properties of Binary Liquid Mixtures of Alkoxypropanols/Polyethers + Organic Solvents	Completed	2021	
Arjuna Katal	Solvation Behaviour of Mixtures Containing Aqueous Solutions of Imidazolium Based Ionic Liquids and organic Additives	Completed	2021	
Divya Mandial	Applicability of Rice protein, wheat protein and flavanoids in designing bionanomaterials	Completed	2021	
Isha Behl	Solvation behaviour of biologically active compounds (Amino acids and their peptides) in aqueous solutions of drugs and salts at different temperatures	Completed	2019	
Sheetal	Solute-Solvent Interactions of Mixtures Containing Aqueous Solutions of Saccharides and Organic Salts	Completed	2018	
Chanda Chadha	Effect of Additives on Solvation Behavior of Imidazolium Based Ionic Liquids in Aqueous Solutions	Completed	2017	
Manoj Kumar	Synthesis, characterization and biological applications of bioconjugated nanomaterials	Completed	2017	
Aabroo Mahal	Applications of zein protein in the synthesis of biofunctional nanomaterials	Completed	2016	
Ritu Maan	Thermodynamic and spectroscopic properties of mixtures containing ionic liquids	Completed	2015	
Kirtanjot Kaur	Studies of molecular interactions of amino acids in aqueous solutions of various organic salts	Completed	2012	
Jasmeet Kaur	Unraveling the micellization behavior of surfactants in presence of different additives	Going on		Dr. Pamita Awasthi
Ravinder Sharma	Understanding the effects of Amino Acids/ Dipeptides on the Aqueous Imidazolium based Ionic Liquids: Volumetric, Acoustic and Spectroscopic Behavior	Going on		
Gagandeep Kaur	Investigations on the self assembly and micellization behavior of Ionic Liquids with various additives and their applications	Going on		
Ramanjeet Kaur	Investigations on the self assembly of ionic liquids with different additives	Going on		

Pooja Sharma	Micellization behavior of surface active ionic liquids with various additives	Going on		
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PG Dissertation Guided :

Student Name	Dissertation Title	Status	Year	Co-Supervisor
Komal		Going on	2022	
priyanshi		Going on	2022	
Vikas Chandra Mishra		Going on	2022	
Shubra Yadav	Influence of morpholinium based ionic liquid on the aggregation behavior of tetradecyltrimethylammonium bromide (TTAB) and 1- tetradecyl-3-methylimidazolium bromide [C14mim]Br	Completed	2021	
Brijesh Kumar	Unraveling the interactions and micellization behaviour of imidazolium and morpholinium based IL with L-methionine	Completed	2021	
Rupali Singla	Effect of paracetamol drug concentrations on the micellization behavior of imidazolium based ionic liquids	Completed	2021	
Kirti gupta	Influence of Ionic Liquid Addition on The Aggregation Behavior of Anionic Surfactant	Completed	2020	
Shweta	Modulation of Micellization behaviour of surface active ionic liquid in the presence of tetrabutylammonium bromide	Completed	2019	
Priya	Influence of tetraalkylammonium salts on the aggregation behaviour of surface active ionic liquid	Completed	2019	
Priyank Kumar Sharma	Effect of imidazolium based ionic liquid on the volumetric and acoustic behaviour of amino acids (L-Leucine and N-acetyl-L-Leucine)	Completed	2019	
Shilpi	Study of solvation behavior of dipeptides of glycine in aqueous solutions of anti-microbial drug thiamine hydrochloride at different temperatures T = (305.15, 310.15, 315.15) K	Completed	2018	
Rashmi	Analysing the solvation behavior of biologically active compounds (amino acids) in aqueous solutions of antibiotic drug chloramphenicol at different temperatures T= (288.15-318.15) K	Completed	2018	
Ritesh Sharma	FT-IR spectroscopic and micellization studies of cetyltrimethylammonium bromide in aqueous 1-propyl-3-methylimidazolium bromide	Completed	2018	
Nawal Kishor Rawat	Micellization and FT-IR spectroscopic studies of sodium dodecyl sulphate in aqueous solution of ionic liquid (1-butyl-3-methylimidazolium bromide) at different temperature	Completed	2018	
Shrestha Siraswar	Study of interactions of sucrose in aqueous solutions of ammonium dihydrogen phosphate and diammonium hydrogen phosphate	Completed	2017	
Pradeep Rawat	Spectroscopic and micellization studies of cetyltrimethylammonium bromide in aqueous 1-butyl-3-methylimidazolium bromide	Completed	2017	

Sumit Kumar	Investigating the temperature dependent volumetric and ultrasonic properties of structural isomers D(+)-glucose and D(-) fructose in aqueous potassium oxalate solutions	Completed	2017	
Seema Kumari	Analysing the molecular association of sucrose in aqueous triammonium citrate and trilithium citrate solutions at different temperature T= (288.15-318.15) K	Completed	2017	
Ravinder Sharma	Intermolecular interactions of binary mixtures of tripropylene glycol monomethyl ether (TPGMME) and primary alcohols	Completed	2016	
Akanksha Verma	Synthesis and studies of interionic interactions in aqueous mixtures of ionic liquid [C5MIM][Br] and amino acids	Completed	2016	
Nidhi Sharma	Conductometric and Spectroscopic Studies of aggregation of cationic and anionic surfactant in Imidazolium based Ionic Liquid [1-Pentyl-3-Methyl Imidazolium Bromide]	Completed	2016	
Yesleen Gupta	Thermodynamic studies of amino acids in ionic liquid 1-butyl-3-methyl imidazolium tetrafluoro borate [C4mim][BF4] aqueous solutions	Completed	2015	
Manu Gautam	Solvation behaviour of acetaminophen (paracetamol) with aqueous solutions of glycine and its dipeptide at different temperatures	Completed	2015	
Khyati	Effect of pH on volumetric and acoustic properties of paracetamol and ascorbic acid using sodium and phosphate buffers	Completed	2015	
Rupinder Kaur	Thermodynamic and spectroscopic studies of mixtures containing imidazolium based ionic liquid with triammonium citrate and trilithium citrate	Completed	2014	
Heena	Volumetric, acoustic and viscometric behaviour of disodium hydrogen phosphate and dipotassium hydrogen phosphate in aqueous solutions of N-acetylglycine at different temperatures	Completed	2014	
Pooja Devi	Studies on the interactions of alkoxypropanols with tert-butyl acetate at different temperatures by density and speeds of sound measurements	Completed	2013	
Arjuna Katal	Effect of N-acetyl glycine on volumetric, acoustic and viscometric behaviour of aqueous amoxicillin solutions.	Completed	2013	
Varun kundi	Temperature dependence of the volumetric and acoustic properties of alkoxypropanols with branched alkanols	Completed	2012	
Surinder Pal Kaur	Studies on alkali metal citrates in aqueous mixtures of n-acetyl glycine by density and speeds of sound measurements	Completed	2012	
Neeti Gulati	Interaction of cyclopentane with branched alcohols analysed by viscometric studies	Completed	2012	
Pooja Sharma	Thermophysical Properties of 1-Butyl-3-Methyl Imidazolium Bromide with Alkoxyalkanols Mixtures	Completed	2011	

Sonika Arti	Effect of n-alkoxyethanols on the thermodynamic properties of sodium dodecyl sulphate	Completed	2011	
Chanda Chadha	Mixing properties of binary liquid mixtures of cyclopentane with branched alkanols at different temperatures	Completed	2011	
Meenu Singla	Viscosities of binary liquid mixtures of cyclopentane +2-propanol,+1-butanol,+2-butanol binary liquid mixtures at 298.15K and 308.15K	Completed	2010	
Akanksha	Volumetric and acoustic behavior of alkoxyethanols with branched alcohols at different temperatures	Completed	2010	
Mandeep Kaur	Non-ideal behaviour of cyclopentane with propan-2-ol, butan-1-ol and butan-2-ol binary liquid mixtures	Completed	2009	
Gurpreet Kaur	Viscosities of binary liquid mixtures of cyclopentane +2-propanol,+1-butanol,+2-butanol binary liquid mixtures at 298.15K and 308.15K	Completed	2009	
Ashvinder Kumar, Bhupinder Kumar, Surekha Yadav, Tenzin Angmo	Thermodynamic and physicochemical properties of binary liquid mixtures deduced from density, speed of sound and refractive index measurements	Completed	2008	

Admin. Responsibilities :

Position Held	Organization	From	To
Head, Department of Chemistry	NIT Jalandhar	24-01-2017	24-01-2019
Faculty Incharge Institute Guest House	NIT Jalandhar	01-02-2015	09-03-2017
Warden Boys Hostel No. 6	NIT Jalandhar	24-09-2014	March 2017
Member of the Institute Proctorial Cell as Assistant Proctor	NIT Jalandhar	2008	2012

Award and Honours :

Title	Activity	Given by	Year
Prof Shantilal Oswal Young Scientist Award	Chemical Sciences	Indian Thermodynamics Society	2016
Dr Arvind Kumar Memorial Young Scientist Award	Chemical Sciences	Indian Council of Chemists	2015
INSA Visiting Scientist Fellowship 2014	Visiting Scientist	Indian National Science Academy, new Delhi	2014