Faculty Details proforma for DU Web-site

Title	Prof./Dr./Mr./Ms./ Mrs.	First Name	**Venkatesu**	Last Name	**Pannuru**	Photograph
Designation		**Assistant Professor**				
Address		**R.No. 002, Multi-storey building Department of Chemistry, University of Delhi, Delhi 110 007**				
Phone No	Office					
	Residence	**F6, Teacher Transit Hostel, Dhaka Land, Bhai Parmanand colony, Mukharjee Nagar Delhi 110 009**				
	Mobile	**+91-9958270948**				
Email		**pvenkatesu@chemistry.du.ac.in, pannuruv@yahoo.com**				
Web-Page						

Educational Qualifications		
Degree	Institution	Year
Ph.D.	**Sri Venkateswara University, Tirupati**	**1995**
PG	**Sri Venkateswara University, Tirupati**	**1989**
UG	**Sri Venkateswara University, Tirupati**	**1987**
Any other qualification		

Career Profile

April, 2008 – till date working as Assistant Professor, Department of Chemistry**, University of Delhi,** Delhi, India.

May 2004 - March 2008: Post-Doctoral Fellow, Department of Chemical Engineering, **National Taiwan University of Science & Technology**, Taipei, **Taiwan**.

May 2003 - April 2004: Post-Doctoral Fellow**,** Institute of Physics, Academia Sinica**, Taipei, Taiwan.**

February 2002 - February 2003: Post-Doctoral Fellow, Department of Human Biological Chemistry, The University of Texas Medical Branch (UTMB), **Galveston, TX, USA.**

January 2001 - January 2002: Post-Doctoral Fellow, Department of Chemical Engineering, **National Taiwan University of Science & Technology**, Taipei, **Taiwan**.

October 1997 - April 1998: Post-Doctoral Fellow, Department of Chemistry, Warsaw University of Technology, 00-664 Warsaw, **Poland.**

Administrative Assignments

Currently working as a Member, DRC, Department of Chemistry, University of Delhi, Delhi.

Areas of Interest / Specialization

(i) Thermodynamic and physicochemical properties of novel class of liquids/ionic liquids and liquid/ionic liquid mixtures
(ii) Co-solvents effect on protein folding/unfolding
(iii) Polymer behavior in coexisting liquid phases

Subjects Taught

Quantum Chemistry and Advanced Chemical Kinetics

Research Guidance

List against each head (If applicable)

1. **Doctoral Thesis: 2 awarded 1 students submitted and 3 are working**
2. **Awarded M. Phil. dissertations: 1**

Publications Profile (in last five years)

Publication (Total Profile) In Indexed/ Peer Reviewed Journals

100 publications in internationally reputed journals

Awanish Kumar and **P. Venkatesu**; Overview of the stability of α-chymotrypsin in different solvent media; ***Chemical Reviews*****,** 2012, ***112***, **4283-4307,** *ISI Impact Factor:* ***40.197****.*

T. Vasantha, Awanish Kumar, Pankaj Attri, **P. Venkatesu**, R.S. Rama Devi; The solubility and stability of amino acids in biocompatible ionic liquids; *Protein and Peptide Letters*, Accepted, 2013, *ISI Impact Factor: 1.985*

Pankaj Attri and **P. Venkatesu**; Exploring the thermal stability of α-chymotrypsin in protic ionic liquids; *Process Biochemistry*, **2013**, *48*, 462-470, *ISI* ***Impact Factor: 2.627***
Effect of anion variation on the thermophysical properties of triethylammonium based protic ionic liquids with polar solvent, *Thermochimica Acta* **2013**, *556*, 75-88, ***ISI Impact Factor: 2.020.***

P. M. Reddy, M. Taha, A. Kumar, **P. Venkatesu** and M. J. Lee; Interruption of hydration state of thermoresponsive polymer, poly(N-isopropylacrylamide) in guanidinium hydrochloride; *Polymer*, **2013**, *54*, 791-797, ***ISI Impact Factor: 3.438****.*

Awanish Kumar and **P. Venkatesu**; Prevention of Insulin Self-aggregation by Protic Ionic Liquid; *RSC Advances* (Communication) **2013**, *3*, 362-367.

V. Govinda, P. M. Reddy, Pankaj Attri, **P. Venkatesu** and P. Venkateswarlu; Influence of anion on thermophysical properties of ionic liquids with polar solvent; *J. Chem. Thermodynamics* **2013**, *58*, 269-278. ***ISI Impact Factor: 2.794.***

T. Vasantha, P. Attri, **P. Venkatesu**, R. S. Rama Devi; Structural Basis for the Enhanced Stability of Protein Model Compounds and Peptide Backbone Unit in Ammonium Ionic Liquids; *Journal of Physical Chemistry B* **2012**, *116*, 11968-11978, **ISI *Impact Factor:*** 3.696.

Pankaj Attri, **P. Venkatesu** and Anil Kumar
Water and a protic ionic liquid acted as refolding additives for chemically denatured enzymes; ***Organic & Biomolecular Chemistry*** (**Communication**), 2012, ***10*, 7475-7478,** Highlighted on Cover page, ISI *Impact Factor: 3.696.*

Awanish Kumar, P. M. Reddy and **P. Venkatesu**; Effect of structural variations in cation of ionic liquids on the coexistence curve of isobutyric acid and water; *New Journal of Chemistry*, **2012**, *36*, 2266-2279, ***ISI Impact Factor: 2.605.***

T. Kavitha, Pankaj Attri, **P. Venkatesu**, R. S. Rama Devi and T. Hofman; Influence of Alkyl Chain Length and Temperature on Thermophysical Properties of Ammonium Based Ionic Liquids and Molecular Solvent *Journal of Physical Chemistry B* **2012**, *116*, 4561- 4574. ***ISI Impact Factor:*** 3.696.

T. Vasantha, A. Kumar, Pankaj Attri, **P. Venkatesu,** R. S. Ramadevi; Influence of biocompatible ammonium ionic liquids on the solubility of L-alanine and L-valine in water; *Fluid Phase Equilibria*, **2012**, *335*, 39-45, ***ISI Impact Factor: 2.197.***

T. Vasantha, Pankaj Attri, **P. Venkatesu,** R. S. Ramadevi; Ammonium based ionic liquids act as compatible solvents for glycine peptides; *J. Chem. Thermodynamics* **2013**, *56*, 21-31. ***ISI Impact Factor: 2.794.***

T. Kavitha, Pankaj Attri, **P. Venkatesu**, R. S. Rama Devi and T. Hofman
Influence of temperature on thermophysical properties of ammonium ionic liquids with N-methyl-2-pyrrolidone; *Thermochimica Acta* **2012**, *545*, 131-140. ***ISI Impact Factor: 2.020.***

P. M. Reddy, M. Taha, A. Kumar, **P. Venkatesu** and M. J. Lee; Destruction of hydrogen bonds of poly(N-isopropylacrylamide) aqueous solution by trimethylamine *N*-oxide; *J. Chem. Phys.* **2012**, *136*, 234904-234914. ***ISI Impact Factor: 3.333.***

Awanish Kumar, P. M. Reddy and **P. Venkatesu**, Polyacrylic acid polymer modulates the UCST - type phase behavior of ionic liquid and water, *RSC Advances* **2012**, (Accepted).

Pankaj Attri and **P. Venkatesu,** Influence of Protic Ionic Liquids on the Structure and Stability of Succinylated Con A *International Journal of Biological Macromolecules*, **2012**, *51*, 119-128. ***ISI Impact Factor: 2.608***

Awanish Kumar and **P. Venkatesu**, An Overview of the Stability of α-Chymotrypsin in Different Solvent Media ***Chemical Reviews*** **2012** (Accepted); Doi.org/10.1021/cr2003773 ***ISI Impact Factor: 40.197.***

P. Attri, **P. Venkatesu**, N. Kaushik and E. H. Choi, TMAO and sorbitol attenuate the deleterious action of atmospheric-pressure non-thermal plasma jet on α-Chymotrypsin, *RSC Advances* **2012**, (Accepted).

T. Kavitha, Pankaj Attri, **P. Venkatesu**, R. S. Rama Devi and T. Hofman, Influence of Alkyl Chain Length and Temperature on Thermophysical Properties of Ammonium Based Ionic Liquids and Molecular Solvent *Journal of Physical Chemistry B* **2012**, *116*,4561- 4574. ***ISI Impact Factor:*** 3.603.

T. Kavitha, Pankaj Attri, **P. Venkatesu**, R. S. Rama Devi and T. Hofman, Temperature dependence measurements and molecular interactions for ammonium ionic liquid with N-methyl-2-pyrrolidone *J. Chem. Thermodynamics* **2012**, (Accepted). ***ISI Impact Factor: 2.794. Citation: over***

Pankaj Attri and **P. Venkatesu**, Ammonium ionic liquids as convenient co-solvents for the structure and stability of succinylated con A, *J. Chem. Thermodynamics* **2012**, *52*, 78-88 ***ISI Impact Factor: 2.794. Citation: over***

P. Madhusudhana Reddy and **P. Venkatesu**. , Ionic Liquid Modifies the Lower Critical Solution Temperature (LCST) of Poly(*N*-isopropylacrylamide) in Aqueous Solution. *Journal of Physical Chemistry B*. **2011**, *115*, 4752-4757

V. Govinda, Pankaj Attri, **P. Venkatesu**, P. Venkateswarlu**,** Thermophysical properties of dimethylsulfoxide with ionic liquids at various Temperature, *Fluid Phase Equilibria*, **2011,** *304*, 35-43.

Pankaj Attri and **P. Venkatesu,** Biocompatible ionic liquid effect on stability of protein model compounds and their functional groups**,** *Physical Chemistry Chemical Physics*, **2011**, *13*, 6566-6575.

Pankaj Attri, **P. Venkatesu** and Anil Kumar**,** Activity and stability of α-chymotrypsin in biocompatible ionic liquids: enzyme refolding by triethyl ammonium acetate**,** *Physical Chemistry Chemical Physics*, **2011**, *13*, 2788-2796.

P. Venkatesu, Review: Thermophysical contribution of N,N-Dimethylformamide in the molecular interactions with other solvents. *Fluid Phase Equilibria*, **2010,** *298*, 173-191.

Pankaj Attri, **P. Venkatesu** and Anil Kumar**;** Temperature effect on the molecular interactions between ammonium ionic liquids and N,N-dimethylformamide.**,** *Journal of Physical Chemistry B*. **2010,** *114*, 13415-13425.

Awanish Kumar**,** Pankaj Attri, **P. Venkatesu,** Trehalose protects urea-induced unfolding of α-chymotrypsin. *International Journal of Biological Macromolecules* **2010**, *47*, 540-545.

Attri, P, P M Reddy, P Venkatesu**,** A Kumar and T Hofman. 2010. Measurements and molecular interactions for N,N-dimethylformamide with ionic liquid mixed solvents. *Journal of Physical Chemistry B.* 114: 6126-6133.

Attri, P, P Venkatesu and M J Lee. 2010. The influence of osmolytes and denaturants on the structure and enzyme activity of α-chymotrypsin. *Journal of Physical Chemistry B.* 114: 1471-1478.

Attri, P, P M Reddy and P Venkatesu. 2010. Density and ultrasonic sound speed measurements for N,N-dimethylformamide with ionic liquids. *Indian Journal of Chemistry*. 49A: 736-742.

Kumari, P G, P Venkatesu, T Hofman and M V P Rao. 2010. Excess molar enthalpies and vapor liquid equilibrium for N-methyl-2-pyrrolidone with ketones. *J. Chem. Eng. Data.* 55: 69-73.

Venkatesu, P, M J Lee and H M Lin. 2009. Counteracting effects of trimethylamine N-oxide and betaine on the interactions of urea with zwitterionic glycine peptides. *Thermochimica Acta*. 491: 20-28.

Venkatesu, P, M J Lee and H M Lin. Osmolyte counteracts urea-induced denaturation of α-chymotrypsin. 2009. *Journal of Physical Chemistry B.* 113: 5327-5338.

Kumari, P G**,** P Venkatesu, M V P Rao, M J Lee and H M Lin. 2009. Excess molar volumes and ultrasonic studies of N-methyl-2-pyrrolidone with ketones at T = 303.15 K. *J. Chem. Thermodynamics.* 41: 586-590.

Kumari, P G, P Venkatesu, C T Hsieh, M V P Rao, M J Lee and H M Lin. 2009. Isobaric vapor-liquid equilibrium for N-methyl-2-pyrrolidone with branched alcohols. *J. Chem. Thermodynamics.* 41: 184-188.

Venkatesu, P, M J Lee and H M Lin. 2008. Effect of osmolyte or GdnHCl on volumetric properties aqueous solutions containing cyclic dipeptides. *Biochemical Engineering Journal*. 38: 326-340.

Radhamma, M, P Venkatesu, M V P Rao, M J Lee and H M Lin. 2008. Excess molar volumes and ultrasonic studies of dimethylsulfoxide with ketones at T = 303.15 K. *J. Chem. Thermodynamics.* 40 492-497.

Radhamma, M, C T Hsieh, P Venkatesu, M V P Rao, M J Lee and H M Lin. 2008. Isobaric vapor-liquid equilibrium for dimethylsulfoxide with chloroethanes and chloroethenes. *J. Chem. Eng. Data.* 53: 374-377.

Radhamma, M, W C Liao, P Venkatesu, M V P Rao, M J Lee and H M Lin. 2008. Excess enthalpies of dimethylsulfoxide with substituted benzenes at 298.15 K. *Fluid Phase Equilibria*. 264: 23-28.

Radhamma, M, W C Liao, P Venkatesu, M V P Rao, M J Lee and H M Lin. 2007. Excess enthalpies of dimethylsulfoxide with chloroethanes and chloroethenes at 298.15 K. *Thermochimica Acta.* 465: 1-5.

Venkatesu, P, M J Lee and H M Lin. 2007. Thermodynamic characterization of the osmolyte effect on protein stability and the effect of GdnHCl on protein denatured state. *Journal of Physical Chemistry B.* 111: 9045-9056.

Venkatesu, P, M J Lee and H M Lin. 2007. Trimethylamine N-Oxide counteracts the denaturing effects of urea or GdnHCl on protein denatured state. *Archives of Biochemistry and Biophysics*, 466, 106-115.

Venkatesu, P, M J Lee and H M Lin. 2007. Densities of aqueous solutions containing model compounds of amino acids and ionic salts at 298.15 K. *J. Chem. Thermodynamics.* 39: 1206-1216.

Radhamma, M, P Venkatesu, M V P Rao and D H L Prasad. 2007. Excess enthalpies and vapor liquid equilibrium data for the binary mixtures of dimethylsulfoxide with ketones. *J. Chem. Thermodynamics*. 39: 1661-1666.

Radhamma, M, P Venkatesu, T Hofman and M V P Rao. 2007. Vapor-liquid equilibrium for the binary mixtures of dimethylsulfoxide with substituted benzenes. *Fluid Phase Equilibria*. 262: 32-36.

Gnanakumari, P, P Venkatesu, K Rama Mohan, M V P Rao and D H L Prasad. 2007. Excess volumes and excess enthalpies of N-methyl-2-pyrrolidone with branched alcohols. *Fluid Phase Equilibria*. 252: 137-142.

Venkatesu, P, M J Lee and H M Lin. 2006. Transfer free energies of peptide backbone unit from water to aqueous electrolyte solutions at 298.15 K. *Biochemical Engineering Journal*. 32, 157-170.

Venkatesu, P. 2006. Polymer modifies the critical region of the coexisting liquid phases. *Journal of Physical Chemistry B*. 110, 17339-17346.

Venkatesu, P, G C Sekhar, M V P Rao and T Hofman. 2006. Excess molar volumes of *N*,*N*-dimethylformamide + 2-pentanone + alkan-1-ols mixed solvent systems at 303.15K. *Thermochimica Acta.* 443: 62-71.

Venkatesu, P, G C Sekhar and M V P Rao. 2006. Ultrasonic studies of N,N-dimethylformamide + cyclohexanone + 1-alkanols at 303.15 K. *Phys. Chem. Liqs*. 44: 287-291.

Venkatesu, P. 2005. Effect of polymer chain in coexisting liquid phases by refractive index measurements. *J. Chemical Physics*. 123: 024902-024910.

Venkatesu, P, M J Lee and H M Lin. 2005. Volumetric properties of (N,N-dimethylformamide + aliphatic diethers) at temperatures ranging from (298.15 to 358.15) K. *J. Chem. Thermodynamics.* 37: 996-1002.

Conference Organization/ Presentations (in the last three years)

Venkatesu, P. **Indo-Brazil-South Africa (IBSA) Workshop on Ionic Liquids,** June 29, 2011, **Department of Chemistry, Durban University of Technology, Durban, South Africa .**

Venkatesu, P. **4th Congress on Ionic Liquids (COIL-4),** June 15-18, 2011**, Hilton Crystal City at Washington, DC, Arlington, USA**.

Venkatesu, P. **International Conference on Chemistry: Frontiers and Challenges,** March 5-6, 2011, **Aligarh Muslim University, Aligarh, India .**

Venkatesu, P. **7th Asian Biophysics Association (ABA) Symposium** & **Annual Meeting of the Indian Biophysical Society (IBS)**, January 30-February 2, 2011, **New Delhi, India**.

Venkatesu, P. **21st IUPAC International Conference on Chemical Thermodynamics (ICCT-2010),** July 31-August 6, 2010**, Tsukuba, Japan.**

Venkatesu, P. National Conference on Chemistry in Our Lives, March 29, 2011, **Arya P G College, Panipat, India .**

Venkatesu, P. 3rd National Conference on Recent Advances in Chemical & Environmemtal Sciences, February 28-March 1, 2011, **Multani Mal Modi College, Patiala, India** .

Venkatesu, P. 98th Indian Science Congress, January, 3-7, 2011, **SRM University, Chennai**, India .

Venkatesu, P. 47th Annual Convention of Chemists (The Indian Chemical Society), December 23-27, 2010, **Pt. Ravishankar Shukla University, Raipur**, India.

Venkatesu, P. 79th Annual Meeting of the Society of Biological Chemists (India), December 13-15, 2010, **Indian Institute of Science, Bangalore**, India .

Venkatesu, P. **5th** National Conference on Thermodynamics of Chemical and Biological Systems, November 18-19, 2010, **Manipur University**, **Manipur**, India .

National Seminar on Membranes, Microemulsions and self-assembled systems (MMASA-2010), September 28-30, 2010, SMIT, Majtar, **Sikkim (Invited Talk)**.

Venkatesu, P. 2010. UGC-SAP sponsored National symposium on recent trends in chemical sciences, Aligarh Muslim University, Aligarh.

Venkatesu, P. 2010. Symposium on Recent Trends in Biophysics, Banaras Hindu University, Varanasi.

Venkatesu, P. 2010. 14th ISCB International Conference (ISCB-2010), Central Drung Research Institute, Lucknow.

Venkatesu, P. 2010. 97th Indian Science Congress, Indian Space Research Organisation & University of Kerala, Thiruvananthapuram.

Venkatesu, P. 2009. 4th National Conference on Thermodynamics of Living and Non-Living Systems, D D U Gorakpur University, Gorakhpur.

Venkatesu, P. 2008. 3rd National Conference on Thermodynamics of Chemical and Biological Systems, Nagpur.

Venkatesu, P. 2008. The joint Biophysical Society 52nd Annual Meeting and 16th IUPAB International Biophysics Congress, Long Beach, California, USA.

Venkatesu, P. 2007. Taiwan-US soft materials symposium, Taipei, Taiwan.

Research Projects (Major Grants/Research Collaboration)

Name of Project: ***Influence of novel kind stimuli on thermo-responsive polymer behaviour in aqueous medium***
Position in Project: Principal Investigator.
Period: 2013-2016
Funding Agency: Department of Science and Technology (DST).
Grant: 36 Lakhs

Name of Project: ***Thermal stability of proteins in the presence of biocompatible ionic liquids***.
Position in Project: Principal Investigator.
Period: 2013-2016
Funding Agency: Council of Scientific & Industrial Research (CSIR).
Grant: 23 Lakhs

Name of Project: ***Fundamental understanding of activity and stability of proteins in nontoxic ionic liquids***.
Position in Project: Principal Investigator.
Period: 2013-2016
Funding Agency: Department of Biotechnology (DBT), New Delhi.
Grant: 40 Lakhs

Awards and Distinctions

University Merit Fellowship, September, 1990

Research Associateship awarded by Council of Scientific and Industrial Research (CSIR).

Fast Track Young Scientist project awarded by Department of Science and Technology (DST).

Best paper presentation award by UGC-SAP sponsored National symposium on recent trends in chemical sciences, Aligarh Muslim University, Aligarh

Association With Professional Bodies

Reviewing

Reviewer of J Phys Chem B, J Chem Phys, J Chem Thermodynamics, FEBS, Fluid Phase Equilibria, J Molecular Liquids, protein-peptide letters, PCCP, J. Soln. Chem, International Journal of Biological Macromolecules

Committees and Boards

Committee of Courses for Post-Graduate including Honors Courses

Memberships

- Member in **American Chemical Society**
- Member in **Royal Society of Chemistry**
- Life member in **Indian Chemical Society**
- Life member and **Executive Member** in **Indian Thermodynamics Society**
- Life member in **Indian Science Congress**
- Life member in **Indian Biophysical Society**
- Life member in **Indian Society for Surface Science and Technology**
- Life member in **Indian Council of Chemists**
- Life member in **Ultrasonics Society of India**
- Life member in **Society of Biological Chemists (INDIA)**

Other Activities

Signature of Faculty Member