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Educational Qualifications

- M. Sc. Ph. D.

Academic Experience

1. Professor since 27-02-2005
2. Reader 27-02-1997 to 26-02-2205
3. Lecturer (Senior Scale) 1-03-1991 to 26-02-1997
4. Lecturer 1-03-1986 to 29-02-1991

Research Area

- Ionic Liquids, Nonreactive Non associating Chemical systems, Soft Matter, Polymer Chemistry

Expertise

Colloidal Aspects of Ionic Liquids and Block Copolymers: Physical Chemistry and Formulations

No. of Publication : 96

Citation indices	All	Since 2011
Citations	3261	1271
h-index	37	20
i10-index	66	36

List of Publications

A. List of Published Research Papers in Refereed Journals (Dr. N. V. Sastry) With Impact Factors (Scopus Indexed)

Title, authors, Journal, Vol, pp, (Year) (Impact Factor) (No. of Citations)

1. Micellar catalysed hydroxylation of 1,2,3-trichloro -4,6dinitrobenzene: Role of cationic Headgroup $-\pi$ interaction, A. Ravani, A. Shukla, N. V. Sastry, D. O. Shah, M. K. Mishra, **J. Mol. Liquids**, **301**, **1 -11 (2020) (I. F. 3.648)**.
2. Hybrid hydrogels systems of micelles of drug anion containing ionic liquid and biopolymers: Rheological behaviour and drug release, N. V. Sastry, D. K. Singh, P. A. Trivedi, **Colloids and Surfaces, A**, **555**, **668 – 678 (2018) (I. F. 2.829)**(01)
3. Studies on micellar behaviour of PEO-PPO, or PEO-PBO-PPO copolymers or surface active ionic liquids in aqueous media and exploration of their micellar solutions for solubilization of dexamethasone and its delayed release, Nandhibatla V Sastry, Dipak K Singh, Pooja A Trivedi, **Journal of Surfactants and Detergents**, **21**, **65 -79 (2018) (I. F. 1.45)**.
4. Self organization of mixtures of sodium oleate and imidazolium based surface active ionic liquids studied by tensiometry, rheology and neutron scattering, S. Padsala, N. Dhariya, D. Ray, V. K. Aswal, N. V. Sastry and P. Bahadur, **Journal of Molecular Liquids**, **249**, **573 – 582 (2018) (I. F. 3.648)** (03)
5. Different pH triggered aggregate morphologies in sodium oleate – cationic surfactants mixed systems, N. Dhariya, U. Patel, D. Ray, V. K. Aswal, N. V. Sastry and P. Bahadur, **New J Chem.**, **41**, **9142 – 9151 (2017) (I. F. 3.269)**.
6. Amphiphilic copolymers and surface active ionic liquid systems in aqueous media – surface active and aggregation characteristics, D. K. Singh, N. V. Sastry, P. A . Trivedi, **Colloids and Surf. A**, **524**, **111 – 126 (2017) (I. F. 2.714)**(03)

7. Effect of hydrocarbon surfactants on dexamethasone solubilization into silicone surfactant micelles in aqueous media and its release from agar films as carriers, N. V. Sastry, D. K. Singh, A. D. Thummar, G. Verma, P. A. Hassan, **Journal of Molecular Liquids**, **225**, 11 – 19 (2017) (I. F. 3.648). (03)
8. Surface activity, micellization, and solubilization of cationic Gemini surfactant – conventional surfactants mixed systems, U. Patel, P. Parekh, N. V. Sastry, V. K. Aswal, P. Bahadur, **Journal of Molecular Liquids**, **225**, 888 – 896 (2017).(I.F. 3.648). (14)
9. Microstructural morphologies of CTAB Micelles Modulated by Aromatic Acids, S. Padsalia, N. Dhariya, N. V. Sastry, V. K. Aswal, P. Bahadur, **RSC Adv.**, **6**, 105035 – 105045 (2016) (I. F. 3.108). (01)
10. Densities, Speeds of Sound, and Excess and Partial Excess Properties of Room Temperature Ionic Liquids of Type $[C_nPy][X]$ or $[C_n4mpy][X]$ (where $n = 6$ or 9 , $[X] = Cl^-$ or Br^-) + Water Binary Mixtures at $T = (308.15$ and $318.15)$ K, N. V. Sastry and I. R. Ravalji, **J. Chem. Eng. Data**, **61**, 3834 – 3848 (2016) (I. F. 2.323). (01)
11. Surfactant and Gelation Properties of Acetylsalicylate Based Room Temperature Ionic Liquid in Aqueous Media, Nandhibatla V. Sastry and Dipak K. Singh, **Langmuir**, **32**, 10000 – 10016 (2016) (I. F. 3.833). (06)
12. Formulation of pyridinium based RTIL –in – cyclohexane microemulsions: Investigations on size, conductivity and molecular interactions, B. Bharatiya, P. A. Hassan, N. V. Sastry, **Journal of Molecular Liquids**, **218**,586-594 (2016).(I.F. 1.649) (02)
13. Nonelectrolyte Induced Micellar Shape Changes in Aqueous Solutions of Silicone Surfactants, S. S. Soni, R. L. Vekharia, N. V. Sastry, H. P. Soni, S. R. Patil, S. H. Panjabi, **J. Dispersion Science and Technology**, **35**, 1419 – 1426 (2014). (I. F. 0.720) (03)
14. Mixed Micelles of Trisiloxane Based Silicone and Hydrocarbon Surfactants Systems in Aqueous Media : Dilute Aqueous Solution Phase Diagrams, Surface Tension Isotherms, Dilute Solution Viscosities, Critical Micelle Concentrations and Application of Regular Solution Theory, N. V. Sastry, Amit Thummar, Sanjay H Punjabi, **Journal of Surfactants and Detergents**, **16**, 829 – 840 (2013). (I. F. 1.545)
15. Densities and partial molar volumes for water + 1-butyl- or, 1-hexyl- or, 1-octyl-3-methylimidazolium halide ionic liquids at $T = (298.15$ and $308.15)$ K, Nandhibatla V. Sastry*, Nilesh M. Vaghela and Pradip M Macwan, **J. Mol. Liquids**, **180**, 12 – 18 (2013). (I. F. 1.649). (46)
16. Effect of t-Octylphenoxy polyethoxyethanol (TX-100) on the Dilute Aqueous Solution Phase Diagrams, Surface Activity and Micellization Behavior of Non-ionic Silicone Surfactants (SS) in Aqueous Media, N. V. Sastry*, S. H. Punjabi and I. R. Ravalji, **J. Mol. Liquids**, **177**, 215 – 224 (2013).(I. F. 1.649) (08)

17. Excess molar volumes, excess viscosities, relative permittivities and molar polarization deviations for methyl acetate +, ethyl acetate + $T=(298.15$ and $303.15)$ K, *Nandhibatla V. Sastry*, Sunil R. Patel, Saurabh S. Soni*, **J. Mol. Liquids**, **183**, **102 – 112. (I. F. 1.649) (57)**
18. Effect of alkyl chain length and head group on surface active and aggregation behavior of ionic liquids in water, *Nandhibatla V Sastry*, Nilesh M Vaghela and Vindo K Aswal, **Fluid Phase Equilibria**, **327**, **22 -29 (2012) (I. F. 2.253)**
19. Aggregation Behavior of Pyridinium Based Ionic Liquids in Water – Surface Tension, ^1H NMR Chemical Shifts, SANS and SAXS Measurements, *N. V. Sastry*, N. M. Vaghela, P. M. Macwan, S. S. Soni, V. K. Aswal and A. Gibaud, **Journal of Colloid and Interface Science**, **371**, **52 – 61 (2012) (I. F. 3.066) (52)**
20. Effect of hydrophilic additives on volumetric and viscosity properties of amino acids in aqueous solutions at T (283 to 333.15) K, *N. V. Sastry*, P. H. Valand, P. M. Macwan, **Journal of Chemical Thermodynamics**, **49**, **14 – 23 (2012). (I. F. 2.794) (26)**
21. Small Angle Neutron Scattering and Viscosity Measurements on Silicone-, Ionic and Nonionic Surfactant Mixed Systems in Aqueous Solutions, *N. V. Sastry*, S. H. Punjabi, V. K. Aswal and P. S. Goyal, **J. Disp. Sci. Technol**, **33** (2), **245 – 253 (2012). (I. F. 0.720) (07)**
22. Effect of Surfactants on Association Characteristics of Diblock and Triblock Copolymers of Ethylene Oxide and Butylene Oxide in Aqueous Solutions: Dilute Solution Phase Diagrams, SANS and Viscosity Measurements at Different Temperatures, Sanjay H Punjabi, *Nandhibatla V. Sastry*, Vinod K Aswal and Prem S. Goyal, **International Journal of Polymer Science**, **2011**, **1 – 13 (2011). (04)**
23. Aqueous Block Copolymer - Surfactant Mixtures - Surface Tension, DLS and Viscosity Measurements and Their Utility in Solubilization of Hydrophobic Drug and Its Controlled Release, A. D. Thummar, *N. V. Sastry*, G. Verma, P. A. Hassan, **Colloids and Surfaces A: Physicochemical and Engineering Aspects**, **386**, **54 – 64 (2011) (I. F. 2.130) (17)**
24. Effect of Electrolyte Additives on Micellization and Clouding Behavior of Silicone Surfactant in Aqueous Solutions, S. S. Soni, S. H. Punjabi, *N. V. Sastry*, **Colloids and Surfaces A: Physicochemical and Engineering Aspects**, **377**, **205 – 211 (2011) (I. F. 2.130) (15)**
25. Densities, Partial Molar Volumes at Infinite Dilution, Side Chain Partial Molar Volumes and Transfer Volumes of Dipeptides in Sucrose and 2,3- Butanediol Aqueous Solutions at $T = (283.15$ to $333.15)$ K, *Nandhibatla V Sastry**, Pinakin H Valand and Pradip M Macwan, **J. Chem. Eng. Data**, **56**, **627 – 637 (2011). (I. F. 2.089) (05)**
26. Densities, Speeds of Sound, Excess Molar Volumes, and Excess Isentropic compressibilities at $T = (298.15$ and $308.15)$ K for Methyl Methacrylate + 1 –

- Alkanols (1-Butanol, 1- Pentanol, 1-Heptanol)) + Cyclohexane, + Benzene, + Toluene, + *p*-Xylene, and Ethylbenzene, *Nandhibatla V Sastry*, Sunil R Patel, and Saurabh S Soni, **J. Chem. Eng. Data**, **56**, 142 – 152 (2011). (I. F. 2.089)
27. Effect of Additives on the Surface Active and Morphological Features of 1-Octyl-3-Methylimidazolium Halide Aggregates in Aqueous Media, Nilesh M Vaghela, *Nandhibatla V Sastry* and Vinod K Aswal, **Colloids and Surfaces A: Physicochemical and Engineering Aspects**, **373**, 101 – 109 (2011). (I. F. 2.130)
 28. Surface Active and Aggregation Behavior of Methylimidazolium Based Ionic Liquids of Type [C_nmim] [X], n = 4,6,8 and [X] = Cl⁻, Br⁻ and I⁻ in Water, Nilesh M Vaghela *Nandhibatla V. Sastry* and Vinod K Aswal, **Colloids and Polymer Science**, **289**, 309 – 322 (2011). (I. F. 2.130) (64)
 29. Excess Molar Volumes, Excess Isentropic Compressibilities and Relative Permittivities for the Ternary Mixtures of Esters + Glycol + Organic Solvents at different temperatures, *Nandhibatla V Sastry*, Mitesh C Patel, Rakesh R Thakor and Saurabh S Soni, **Journal of Molecular Liquids**, **157**, 25 – 33 (2010). (I. F. 1.649) (02)
 30. Synthesis and evaluation of functional polymeric additives with urethane linkages as dispersing agents for preparation of pigment concentrates with high solid loading, *Nandhibatla V. Sastry* and Rakesh R Thakor*, **J. Coating Technol. and Research**, **6**, 11 - 25 (2009). (07)
 31. Excess molar volumes, viscosity deviations, excess isentropic compressibilities and deviations in relative permittivities of (alkyl acetates (methyl-, ethyl-, butyl- and isoamyl-) + n-hexane, + benzene, + toluene, + (*o*-, *m*-, *p*-) xylenes, + (chloro-, bromo-, nitro-) benzenes between 298.15 and 313.15 K, *Nandhibatla V Sastry**, *Rakesh R Thakor and Mitesh C Patel*, **Journal of Molecular Liquids**, **144**, 13 – 22 (2009). (I. F. 1.649) (124)
 32. Thermophysical Properties For Diethylene Glycol + Nitrobenzene, Triethylene Glycol +(Chloro-, Bromo-, Nitro-) benzenes Systems at Different Temperatures, *Nandhibatla V Sastry**, Rakesh R Thakor and Mitesh C Patel, **Int. J. Thermophys.**, **29**, 610 – 618 (2008). (I. F. 0.750) (33)
 33. Design of novel polymeric dispersants for resin minimal pigment concentrates strategies And evaluation (*N. V. Sastry* and R. R. Thakore) **Proceedings of National Symposium on Emerging Trends in Polymer Science and Technology**, pp 97 – 104, IIT Kharagpur, September 2006.
 34. Functional Polyurethanes as Wetting and Dispersing Agents for Coating Applications – Tailoring by Novel Synthetic Strategy (*N. V. Sastry*, M. P. Patel, R. R. Thakor and K. R. Shah), In **Proceedings of National Seminar of Polymer Research in India (Ed. P. K. Dutta)**, pp 37 – 44, Dubey Printers and Graphics, Allahabad, September 2004.
 35. Interaction of Amphiphilic Block Copolymer Micelles with Surfactants (N. V. Sastry and H. Hoffmann), **Colloids and Surfaces**, **250**, 247 – 261 (2004). (I. F. 2.130) (72)

36. Thermal and Morphological Studies on γ -Fe₂O₃Polystyrene Composites and the Effect of Additives (B. Govindaraj, *N. V. Sastry* and A. Venkataraman), **Journal of Applied Polymer Science**, **93**, 778 – 789 (2004). (I. F. 1.240) (19)
37. Studies on γ -Fe₂O₃ - High Density Polyethylene Composites and Their Additives (B. Govindraj, *N. V. Sastry*, A. Venkataraman), **Journal of Applied Polymer Science**, **92**, 1527 - 1530 (2004).(I. F. 1.240) (07)
38. Densities, Excess Molar Volumes (at T= (298.15 to 313.15) K), Speeds of Sound, Excess Isentropic Compressibilities, Relative Permittivities, Excess Molar Electrical Susceptibilities and Deviations in Molar Polarizations at (T = (298. 15 and 308.15) K) for Methyl Methacrylate + 2-Butoxyethanol or + Dibutyl Ether + Benzene + Toluene and + p-Xylene. (*John George and N. V. Sastry*). **Journal of Chemical and Engineering Data**, **49**, 1116 –1126 (2004) . (I. F. 2.089) (46)
39. Densities, Viscosities, Speeds of Sound, and Relative Permittivities for Water + Cyclic Amides (2- Pyrrolidinone, 1-Methyl-2-pyrrolidinone and 1-Vinyl-2-pyrrolidinone) at Different Temperatures (*John George and Nandhibatla V. Sastry*). **Journal of Chemical and Engineering Data**, **49**, 235 – 242(2004). (I. F. 2.089) (109)
40. Partial Excess Molar Volumes, Partial Excess Isentropic Compressibilities and Relative Permittivities of Water + Ethane-1, 2 -diol, derivative and water + 1, 2-dimethoxyethane at Different Temperatures. (*John George and N. V. Sastry*), **Fluid Phase Equilibria**, **216**,307-321 (2004). (I. F. 2.253) (51)
41. Molecular Interpretation of Water Structuring and Destructuring Effects: Hydration of Alkanediols (M. M. Deshmukh, *N. V. Sastry*, S. R. Gadre), **Journal of Chemical Physics**,**121**, 12402 – 12410 (2004). (I. F. 2.2.920) (35)
42. Dynamic Light Scattering and Viscosity Studies on the Association Behavior of Silicone Surfactants in Aqueous Solutions. *S.S. Soni, N. V. Sastry, John George and H. B.Bohidar*, **J. Phys. Chem. B**, **107**(22), 5382 – 5390 (2003). (I. F. 4.520) (34)
43. Surface Active and Association Behavior of Oxybutylene – Oxyethylene and Oxyethylene –Oxybutylene – Oxyethylene Copolymers in Aqueous Solutions. *S. S. Soni, N. V. Sastry, John George and H. B. Bohidar*, **Langmuir**, **19** (11), 4597 – 4603 (2003). (I. F. 4.268) (06)
44. Study on the Effects of Nonelectrolyte Additives on the Phase, Thermodynamic, Structural Changes in Micelles of Silicone Surfactants in Aqueous Solutions from Surface Activity, Small Angle Neutron Scattering and Viscosity Measurements. *Saurabh S. Soni, Nandhibatla V. Sastry, Ekta Seth, Jayant V. Joshi and Prem S. Goyal*, **Langmuir**, **19**(17), 6668- 6677 (2003). (I. F. 4.268) (26)
45. Densities, Speed of Sound, Excess Volumes and Excess Isentropic Compressibilities of Methyl Acrylate + 1-Propanol (or 1-Butanol) + Hydrocarbons (n- Hexane, n-Heptane, Cyclohexane, Benzene and Toluene) at 308.15 K (*N. V. Sastry and P. Bahadur*), **International Journal of Thermophysics**, **24**, 447 – 462 (2003). (I. F. 0.750)

46. Excess molar enthalpies and Excess molar volumes of methyl methacrylate + benzene, + toluene, +p- xylene, + cyclohexane and + aliphatic diethers (diethyl, diisopropyl and dibutyl). (*John George, N. V. Sastry and D. H. L. Prasad*), **Fluid Phase Equilibria**, **214**, 39 – 51 (2003). (I. F. 2.253) (21)
47. Densities, Excess Molar Volumes, Viscosities, Speeds of Sound, Excess Isentropic Compressibilities and Relative Permittivities for $C_mH_{2m+1}(OCH_2CH_2)_nOH$ (m= 1 or 2 or 4 and n = 1) + Benzene, + Toluene, + (o-, m- and p-) Xylenes, + Ethylbenzene and + Cyclohexane. (*John George and N. V. Sastry*), **Journal of Chemical Engineering Data**, **48**, 977 – 989 (2003). (I. F. 2.089) (174)
48. Densities, Excess Molar Volumes, Viscosities, Speeds of Sound, Excess Isentropic Compressibilities, Relative Permittivities and Excess for Alkyl (Methyl, Ethyl, Butyl and Isoamyl) Acetates + Glycols at Different Temperatures. (*Nandhibatla. V. Sastry and Mitesh C. Patel*), **Journal of Chemical and Engineering Data**, **48**, 1019 – 1027 (2003).(I. F. 2.089) (131)
49. Thermophysical Properties of Nonelectrolyte Mixtures, Densities, Viscosities and Speed of Sound of Binary Mixtures of Methyl Methacrylate + Branched Alcohols (Propane-2-ol, 2- Methylpropan-1-ol, Butan-2-ol and 2-Methylpropan-2-ol) at T = 298.15 and 308.15 K), (*John George, N. V. Sastry*), **International Journal of Thermophysics**, **24**, 1089 – 1104 (2003). (I. F. 0.750) (13)
50. Thermophysical Properties of Binary Mixtures of Methyl Methacrylate + Di-ethers (Ethyl, Isopropyl and Butyl) at (298.15 and 308.15) K. (*John George and N. V. Sastry*). **International Journal of Thermophysics**, **24**, 1697 – 1719 (2003) (I. F. 0.750) (29)
51. Measurements of densities, viscosities, speeds of sound and relative permittivities and excess molar volumes, excess isentropic compressibilities and deviations in relative permittivities and molar polarizations for dibutyl ether + benzene, + toluene and p-xylene at different temperatures. (*John George and N. V. Sastry*), **Journal of Chemical Thermodynamics**, **35**, 1837 – 53 (2003). (I. F. 2.089) (34)
52. Densities, Dynamic Viscosities, Speeds of Sound and Relative Permittivities For Water +Alkanediols (Propane-1,2-, -1,3-diol, Butane-1,2-, -1,3-, -1,4-, and -2,3 diol) at Different Temperatures. (*John George and Nandhibatla V. Sastry*), **Journal of Chemical and Engineering Data**, **48**, 1529 - 1539(2003). (I. F. 2.794) (177)
53. Micellar Structure of Silicone Surfactants in Water from Surface Activity, SANS and Viscosity Studies (*Saurabh S. Soni, Nandhibatla V. Sastry, V. K. Aswal, P. S. Goyal*), **Journal of Physical Chemistry**, **B**, **106** (10), 2606 – 2617 (2002). (I. F. 4.520) (93)
54. Surface Activity, SANS, Viscosity Studies in Aqueous Solutions of Oxyethylene and Oxybutylene Di- and Tri-block Copolymers (*S.S. Soni, N. V. Sastry, A. K. Patra, J. V Joshi, P. S. Goyal*), **Journal of Physical Chemistry**, **B**, **106**, 13069 – 13077 (2002).(I. F. 4.520) (21)

55. Densities, Viscosities, Speed of Sound and Relative Permittivities for Methyl Acrylate + 1-Alcohols (C₁- C₆) at T= 308.15 K and 318.15 K (*N. V. Sastry, M. K. Valand, J. George and S. R. Patel*), **Journal of Chemical & Engineering Data**, **47**, 262-269 (2002). (I. F. 2.089) (80)
56. Volumetric Behaviour of Acrylic Esters (Methyl-, Ethyl-, and Butyl Acrylate) + 1-Alcohols (Heptanol, Octanol, Decanol and Dodecanol) at 298.15 K and 308.15 K. (*N. V. Sastry and M. K. Valand*), **Physics and Chemistry of Liquids**. **38**, 61– 72 (2000). (I. F. 0.555) (60)
57. Measurements and theoretical analysis of excess enthalpies and excess volumes of methyl methacrylate + n-alkanes (n-pentane, n-hexane, n-heptane, n-decane and n-dodecane) at 298.15 K (*N. V. Sastry, S. R. Patel and D. H. L. Prasad*), **Thermochimica Acta**, **359**, 169-180 (2000). (I. F. 1.899) (27)
58. Densities, viscosities and speed of sound and excess properties of binary mixtures of Methyl methacrylate with alkoxyethanols and 1-alcohols at 298.15 and 308.15 K. (*N. V. Sastry and S. R. Patel*), **International Journal of Thermophysics**, **21**, 1153 – 1173 (2000). (I. F. 0.750) (65)
59. Excess thermodynamic and dielectric functions of the binary liquid mixtures of methyl methacrylate + alkoxyethanols (2-methoxyethanol, 2-ethoxyethanol and 2-butoxyethanol) and + 1-alcohols (1-butanol, 1-pentanol and 1-heptanol), (*N. V. Sastry, S. R. Patel, J. George and D. H. L. Prasad*), **Indian Journal Chemistry**, **39A**, 1270-1279 (2000). (I. F. 0.617) (32)
60. 37. Excess volumes and dielectric properties for (methyl methacrylate + a branched alcohol) at T = 298.15 and T = 308.15 K. (*N. V. Sastry and S. R. Patel*), **Journal of Chemical Thermodynamics**, **32**, 1669 - 1682, (2000). (I. F. 2.794) (24)
61. Dilute solution behaviour of polyacrylamides in aqueous media, (*N. V. Sastry, P. N. Dave, M. K. Valand*), **European Polymer Journal**, **35**, 517-525, (1999). (I. F. 2.517) (40)
62. Adsorption Behaviour of Surfactant - Polyacrylamide mixtures on Kaolin (*N. V. Sastry and P. N. Dave*), **Journal of Surfactants and Detergents**, **2**, 459-472 (1999). (13)
63. Excess Volumes of 1-Alcohol - Heptane Mixtures at 298.15 and 308.15 K- Application of an Association Model with Flory Interaction Term. (*N. V. Sastry and M. K. Valand*), **Physics and Chemistry of Liquids**, **37**, 381-394 (1999). (I. F. 0.555) (05)
64. Ultrasonic behaviour of methyl methacrylate + hydrocarbon mixtures at 298.15 K and 308.15 K, (*N. V. Sastry, M. C. Patel and S. R. Patel*) **Fluid Phase Equilibria**, **155**, 261 – 276 (1999). (I. F. 2.253) (23)
65. Excess Volumes , relative permittivity increments and excess molar polarizations of {xCH₂CCH₃CO₂CH₃ + (1- x) (C₆H₆, or C₇H₈, or o-C₈H₁₀, or m-C₈H₁₀, or p-C₈H₁₀, or C₈H₁₀, or c-C₆H₁₂)} Methyl Methacrylate + Aromatic Hydrocarbons , (*N. V. Sastry, S.*

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66. Densities, Relative Permittivity, Excess Volumes and Excess Molar Polarizations for Alkyl Ester (Methyl Propanoate, Methyl Butanoate, Ethyl Propanoate, and Ethyl Butanoate) +Hydrocarbons (n- Heptane, Benzene, Chlorobenzene, and 1,1,2,2-Tetrachloroethane) at 308.15 K and 318.15K (*N. V. Sastry, Alex George, N. J. Jain and P. Bahadur*),**Journal of Chemical & Engineering Data**, **44**,456 – 464 (1999). (I. F. 2.089) (52)
 67. Viscosities, speeds of sound , excess isentropic compressibilities of binary mixtures of alkylalkanoates – hydrocarbons at 308.15 K and 318.15 K (*N. V. Sastry, N. J. Jain, A. George and P. Bahadur*), **Fluid Phase Equilibria**, **163**, 275 – 289 (1999). (I. F. 2.253) (28)
 68. Dielectric constants, Refractive Indexes and Polarizations for Acrylic Esters + 1- Alcohol Binary Mixtures. at 298.15 and 308.15 K (*N. V. Sastry and M. K. Valand*), **Berichte der BunsengesellschaftPhysikalischeChemie**, **102**, 686 – 694 (1998). (27)
 69. Densities, Viscosities, Relative Permittivities for Pentane + 1- Alcohols(C₁ to C₁₂) at 298.15 K, (*N. V. Sastry and M. K. Valand*), **Journal of Chemical & Engineering Data**, **43**, 152 –157 (1998).(I. F. 2.089) (95)
 70. Excess Volumes and Relative Permittivity increments for { x CH₂=CHCO₂CH₃+ (1-x) C_nH_{2n+2} (n = 5,6,7,10&12)} at 298.15 K (*N. V. Sastry and M. K. Valand*), **Journal of Chemical Thermodynamics**, **30**, 929 – 938 (1998). (I. F. 2.794) (33)
 71. Dielectric behaviour of acrylic ester-organic solvent mixtures. (*N. V. Sastry and P. N. Dave*), **Proceedings of Indian Academy of Sciences (Chemical Sciences)**, **109**, 211 – 220 (1997). (I. F. 1.08) (82)
 72. Densities, excess volumes, speeds of sound and excess isentropic compressibilitites for 2- butoxyethanol + hexane and + heptane at 303.15 and 313.15 K. (*N.V. Sastry*), **Fluid Phase Equilibria**, **128**, 173-181 (1997). (I. F. 2.253) (14)
 73. Dielectric Constants, Refractive Indexes and Polarizations for 1-Alcohol + Heptane Mixtures. at 298.15 and 308.15 K (*N. V. Sastry and M. K. Valand*), **Berichte der BunsengesellschaftPhysikalischeChemie**, **101**, 243-250 (1997) (41)
 74. Thermodynamics of Acrylic Ester - Organic Solvent Mixtures V. Viscosities and Excess Viscosities of Alkyl Acrylates- 1-Alcohol Binary Mixtures at 298.15 and 308.15 K, (*N. V. Sastry and M. K. Valand*), **International Journal of Thermophysics**, **18**, 1387 – 1403 (1997) (47)
 75. Tegoprenes in the anaerobic digestion of a mixture of cheese whey, poultry waste and cattle dung for mprovedbiomethanation, (*C. Patel, N. V. Sastry and D. Madamwar*), **Applied Biochemistry & Biotechnology**, **56**, 89-94 (1996). (I. F. 1.214)
 76. Excess viscosity functions of methyl methacrylate + methanol, + 1-propanol, + 1-butnaol, + 1-pentanol and + 1-hexanol at 303.15 and 313.15 K (*N.V. Sastry and M. M. Raj*), **Indian Journal of Chemistry**, **35A**, 49 – 52 (1996). (I. F. 0.617) (15)

77. Dielectric constants, molar polarizations and refractive indexes for 2- butoxyethanol + hexane and + heptane 30 and 40 °C. (*N. V. Sastry and M. M. Raj*), **Journal of Solution Chemistry**, 25, 1137 – 1149 (1996). (I. F. 1.335) (31)(31)
78. Densities, speeds of sound, viscosities, dielectric constants and molar polarizations for 1- heptanol + hexane and + heptane at 303.15 and 313.15 K. (*N. V. Sastry and M. M. Raj*), **Journal of Chemical and Engineering Data**, 41, 612 - 618 (1996). (I. F. 2.089) (67)
79. Thermodynamics of acrylic esters containing binary liquid mixtures. I. Excess volumes and Isentropic compressibilities of alkylmethacrylates + n-hexane, + n-heptane, + carbon tetrachloride, + chloro benzene and + o-dichlorobenzene at 303.15 K. (*N. V. Sastry and P. N. Dave*), **International Journal of Thermophysics**, 17, 1289 - 1304 (1996). (I. F. 0.750) (45)
80. Thermodynamics of acrylic ester – organic solvent mixtures II. Viscosities of mixtures of methyl methacrylate, ethyl methacrylate or butyl methacrylate with n-hexane, n-heptane, carbon tetrachloride, - chlorobenzene and o- dichlorobenzene at 303.15 K. (*N. V. Sastry and P. N. Dave*), **Thermochimica Acta**, 286, 119 – 130 (1996). (I. F. 1.889) (22)
81. Densities, speeds of sound, viscosities and relative permittivities for 1- propanol + and 1- butanol + heptane at 298.15 K and 308.15 K, (*Nandhibatla V. Sastry and Mahendra . K . Valand*), **Journal of Chemical & Engineering Data**, 41, 1421 – 1425 (1996). (I. F. 2.089) (60)
82. Viscosities and densities for heptane + 1-pentanol , + 1-hexanol, + 1-heptanol, +1-octanol, + 1-decanol and + 1-dodecanol at 298.15 K and 308.15 K. (*Nandhibatla V. Sastry and Mahendra. K. Valand*), **Journal of Chemical & Engineering Data**, 41, 1426 – 1428 (1996). (I. F. 2.089) (60)
83. Adsorption of polyacrylic acid and sodium dodecylbenzenesulfonate on kaolinite (*N. V. Sastry, J. M. Sequaris and M. J. Schwuger*, **Journal of Colloid and Interface Science**. 171, 224 - 233 (1995). (I. F. 3.066) (77)
84. Excess molar volumes and excess isentropic compressibilities of binary mixtures containing methyl methacrylate – n-alcohols at 303.15 and 313.15 K, (*N.V. Sastry and M. M. Raj*), **Thermochimica Acta**, 257, 39 - 50 (1995). (I. F. 1.889) (22)
85. Viscosity behavior of 2-butoxyethanol + n-hexane and + n-heptane mixtures at 303.15 and 313.15 K, (*N. V Sastry and M. M. Raj*), **Physics and Chemistry of Liquids**, 30, 47 - 57 (1995). (I. F. 0.555) (09)
86. Dilute solution behaviour of styrene-ethylene oxide copolymers in methanol (*N.V. Sastry*) **Tenside Detergents**, 30, 346-348 (1993).
87. Effect of mixture of surfactants and adsorbents on anaerobic digestion of water hyacinth cattle dung (*D.Madamwar , A. Patel, V. Patel, and N. V. Sastry*), **Applied Biochemistry & Biotechnology**, 36, 163 - 169 (1992). (I. F. 1.214)

88. Studies on the mechanism of thermal dehydration of cobalt oxalate dehydrate (A. Venkatraman,, *N. V. Sastry, and A. K. Ray*), **Physics and Chemistry of Solids**, **53**, **681 - 685 (1992)**.(I. F. 1.349) (18)
89. Micellization of styrene-ethylene oxide block copolymers in solution. Bahadur, P.; Saimbi, J. J.; Sastry, N. V **Journal of Surface Science and Technology****7(4)**, **357-365 (1991)**. (01)
90. Dilute solution behaviour of styrene - ethylene oxide copolymers in aqueous solutions (P. Bahadur and *N. V. Sastry*), **European Polymer Journal**, **24**, **285-288 (1988)**. (I. F. 2.517) (12)
91. Interaction of styrene - ethylene oxide copolymers with ionic surfactants in aqueous solutions (P. Bahadur, *N. V. Sastry and G. Riess*), **Colloids & Surfaces**,**29**,**343-358 (1988)**.(I. F. 2.130) (50)
92. Micellar behaviour of styrene - ethylene oxide copolymers in aqueous solutions and their interaction with ionic surfactants (P. Bahadur, *N. V. Sastry and G. Riess*), **In Surfactants Modern Trends** (Ed. K. L. Mittal), **7**, **329 - 340 (1988)**. (60)
93. Temperature effect on micellar behaviour of styrene - isoprene copolymers in selective solvents (P. Bahadur and *N. V. Sastry*), **Journal of Macromolecular Science Chemistry**, **A23**, **1007-1023 (1986)**. (I. F. 0.790) (02)
94. Effect of organic counter ions on the micellar behaviour of tetradecyltrimethylammonium bromide, (P.H. Kothwala, *N. V. Sastry and P. Bahadur*),**Tenside Detergents**, **22**, **182- 185 (1985)**. (Impact Factor: 0.62) (01)
95. Micellar behaviour of styrene - isoprene block copolymers in selective solvents (P. Bahadur, *N. V. Sastry, S. Marti and G. Riess*), **Colloids & Surfaces**, **16**, **337- 346 (1985)**. (I. F. 2.130)
96. The effect of some hydroxy compounds on the conductance behaviour of micellar solutions of ionic surfactants in water (S. C. Gupta, *N. V. Sastry and P. Bahadur*), **Tenside Detergents**, **21**, **84-86 (1984)** (Impact Factor: 0.62) (01)

B. Participation and scholarly presentations in conferences:

B.I National

Indian Institute of Technology, New Delhi

1. Interaction Studies of Block Copolymer Micelles with Ionic Surfactants Presented at 6th International Symposium on Surfactant In Solution, **Aug. 1986**. – **Paper Presented**,

Sardar Patel University, Vallabh Vidyanagar

2. Colloidal Characteristics of Polymeric Silicone Surfactants In Solution, National Symposium On Polymer Chemistry, S.P. University, V.V. Nagar, February 1990 – **Paper Presented**

University of Jammu, Jammu

3. Excess Volumes and Isentropic Compressibilities of Methyl Methacrylate Alcohol Mixtures. ICC Conference, 1994 - **Paper Presented**

Institute of Science, Bombay

4. Adsorption behaviour of polyacrylamides on mineral oxides, ICC Conference, 1995, **Paper Presented**

Guru Nanak Dev University, Amritsar

5. Thermodynamics of 1-alcohol + n-heptane mixtures at 298.15 and 308.15 K, International Conference on Chemical and Biological Thermodynamics, 5 – 8, January 1997 – **Paper Presented**

Indian Institute of Technology, Madras, Chennai

6. Dielectric behavior of 1-alcohol – hydrocarbon mixtures, X-National Seminar on Ferroelectrics and Dielectrics, 1998 - **Paper Presented**

University of Mysore, Mysore

7. Excess volumes, excess isentropic compressibilities and structural correlation factor for glycol – water systems, Twentieth Conference of Indian Council of Chemists, December 22 - 24, 2001 – **Paper Presented**

University of Mysore, Mysore

8. Surface active and colloidal chemical behavior of oxybutylene – oxyethylene copolymer aqueous solutions, Twentieth Conference of Indian Council of Chemists, December 22 - 24, 2001 – **Paper Presented**

University of Calcutta, Kolkata

9. Stability of charged particle dispersions in presence of adsorbing polyacrylamides, International Conference on progress in disperse systems, Department of Chemistry, 16 – 18, January 2002 - **Paper Presented**

Rani Durgawati University, Jabalpur

10. Dynamic Light Scattering (DLS) Measurements for Studying the Effect of Molecular Architecture on the Structure of Micelles of Hydrophobic – Hydrophilic Copolymer in Aqueous Solutions, Twenty First Conference of Indian Council of Chemists, 22-24, December 2002 – **Paper Presented**

University Institute of Chemical Technology, University of Mumbai, Mumbai

11. Self Assembly Characteristics of Block Copolymer Micelles from SANS Measurements at Eleventh National Conference on Surfactants, Emulsions and Bio Colloids, December 11-13, 2003 - **Paper Presented**

Bhabha Atomic Research Center, Mumbai

12. Micellar Characteristics of Amphiphilic Silicone Comb Copolymers in Aqueous Solutions –SANS Investigations at Conference on Neutron Scattering at, 2 - 4 January 2004, **Paper Presented**

Motilal Nehru National Institute of Technology, Allahabad

13. Functional Polyurethanes – Tailoring by Novel Synthetic Strategy, National Seminar on Polymer Research in India: Opportunity and Challenges, 25th September 2004 – **Paper Presented.**

Center for Surface Science and Technology, Jadavpur University, Kolkata

14. Small Angle Neutron Scattering Studies on Mixed Systems of Silicone and Hydrocarbon Surfactants, International Conference on Soft Matter, November 18 - 20, 2004- **Paper Presented**

University of Calicut, Calicut

15. Novel Urethane Based Polymers as High Value Paint Additives, UGC Sponsored National Seminar on Emerging Trends and New Vistas in Chemistry (EMTIC 2005), 29 - 30, November 2005 at Department of Chemistry - **Paper Presented**

B. II International

University of Bristol, Bristol, U. K.

16. Competitive Cooperative Adsorption of Polycarboxylates and Ionic Surfactants on Na-Kaolinite, VII European Colloid and Interface Sci. Conference. Bristol, U.K. September 1993 – **Paper Presented**

Tsukuba University, Tsukuba, Japan

17. Aggregation Behavior of Pyridinium Based Ionic Liquids in Water – Surface Tension and Small Angle Neutron Scattering (SANS) Measurements, 1st Asia - Oceania Conference on Neutron Scattering (1st AOCNS), EPOCHAL TSUKUBA, Tsukuba, International Congress Center, 2-20-3, Takezone, Tsukuba, Ibaraki, Japan, November 2011 - **Oral Talk**

List of Minor/ Major projects carried out

Sr. No.	Title of the Project	Funding Agency	Duration	Present Status
1.	Nanoaggregates in Mixed Micellar Systems of Amphiphilic Copolymer and Conventional Ionic or Nonionic Surfactants – A Search for Synergistic Behaviour and Their Utility As Drug Solubilizing and Release Systems Based On Hydrogels	University Grants Commission, New Delhi	2011-2014	Completed
2.	Studies on Aggregation Behavior of Pyridinium based Amphiphilic Ionic Liquids in Water and in Presence of Aggregate Growth Promoters	UGC – DAE Consortium for Scientific Research, Mumbai Center BARC, Mumbai	2011-2014	Completed June 2014
3.	Microstructures of Micelles in Mixed Systems of Amphiphilic Copolymer and Hydrocarbon Surfactants	Board of Research in Nuclear Sciences, DAE, BARC , Mumbai	2006-2010	Completed December 2010
4.	Exploration of Mixed Hybrid Micelles of Amphiphilic Copolymer and Hydrocarbon Surfactants as Nanoreactors for Synthesis of Nanostructured Materials and Their Property Evaluation	Council of Scientific and Industrial Research (CSIR), New Delhi	2005-2008	Completed May 2008
5.	Surfactant Like Ionic Liquids – Surface and Micellar Structural Properties in Aqueous Solutions	UGC – DAE Consortium for Scientific Research, Mumbai Center, R-5 Shed, BARC, Mumbai	2007-2010	Completed March 2010
6.	Novel side armed polymers as wetting and dispersing agents for resin minimal pigment concentrates	Department of Science and Technology (DST) New Delhi	2003-2006	Completed Sept. 2006
7.	Probing of Structural Characteristics of Silicone Surfactants in Aqueous and Non-	Inter University Consortium (IUC) for Department of Atomic	2003-2005	Completed

	aqueous Solutions	Energy Facilities, BARC, Bombay		
8.	Studies on solute – solvent, - cosolvent interactions in dilute solutions of di- and tri-peptides with side amino acid chains that model proteins	University Grants Commission, New Delhi	2001-2004	Completed
9.	Studies on Colloidal Chemical Aspects and Phase Changes of Polymeric Surfactants by Spectral Change, Ultrasonic and Small Angle Neutron Scattering Methods	Inter University Consortium (IUC) for Department of Atomic Energy Facilities, BARC, Bombay	1998-2001	Completed
10.	Studies on volumetric, transport, ultrasonic and permittivity properties of acrylic esters with polar and nonpolar solvents	Department of Science and Technology (DST), New Delhi	1994-1997	Completed
11.	Physico – chemical interactions of cationic polyelectrolytes at aqueous / solid interface	University Grants Commission, New Delhi	1994-1997	Completed
12.	Studies on transport and volumetric properties of acrylic esters - alcohol mixtures	University Grants Commission, New Delhi	1993-1994	Completed
13.	Colloidal behavior of hydrophobic – hydrophilic copolymers in aqueous solutions and their use as surfactants	University Grants Commission, New Delhi	1989-1990	Completed

Others

International Academic and Research Experience

Sr. No.	Post/ Assignment	Organization/ University	Area of Assignment	Duration		
				From	To	In Years & Months.
1.	James Chair of Pure and Applied Science	St Francis Xaviers Univ. Antigonish, Canada	NMR studies on Micellar Systems	January 2015	March 2016	Three Months

2.	DAAD Fellow (Re-invitation Program)	DAAD, Bonn, Germany Institute of Physical and theoretical Chemistry, Univ. Regensburg, Germany	IL/Oil Micro-emulsions	July 2010	Sept. 2010	3 Months
3.	INSA – DFG Fellow	Inidan National Sci. Academy and German Research Soc., / Univ. Bayreuth, Germany	Soft Matter	July 2003	Sept. 2003	3 Months
4.	DAAD Scholar	UGC – DAAD, Germany Institute for Applied Physical Chemistry, Forschungszentrum, Julich, Germany	Adsorption of Polymers and Surfactants on Clay	Oct. 1991	Sept. 1993	Two Years Preceded by 4 months German language course)

Honors

- Top 2 % in the World Ranking of Scientists in Chemical Engineering, **Rank 791 world wide out of 55,677 By Stanford Univ Survey 2020**
- **One among only 1594** scientists ranked in India and One among 21 from State of Gujarat

S.No.	Name of Award/Fellowship etc.	Elected Honorary Fellow	Awarded by	Year of Award
1.	Fellow	Elected	Gujarat Science Academy	2014
2.	ShikshaRatan	Nominated	INDIA INTERNATIONAL FREIENDSHIP SOCIETY, NEW DELHI	2008
3.	Award of Excellence	Nominated	The International Association of Lions Club, Anand Dist.	2018

Details of the awards/ recognition/ fellowships received during 2018-19

Name of the faculty	Name of the awards/ recognition/ fellowships	Details of awards/ recognition/ fellowships(conferring agency, date, category, etc.)
Dr. N. V. Sastry	The International Association of Lions Club, Dist. Anand	Award of Excellence for Services in Higher Education and Efforts for the Betterment of Society, September 2018

Highlights of achievements

Academics: As a member of Board of Studies in Chemistry in this university as well as several other universities in the state, **lot of reforms and changes are made to the structure, syllabus and examination pattern etc.** The recasting of the above in the light of **semesterization and CBCS** has been a challenging job and as a senior member guided the other colleagues for the transformation. Several courses in the subject of Physical Chemistry (both theory and practicals) have been designed in the light of UGC model curricula, CBCS template and also other competitive examinations. I have been invited as **paper setter and examiner in the SET exams of Maharashtra and Gujarat besides UPSC, New Delhi.**

As a leader of the team, helped the university **to establish a novel and innovative Center for Interdisciplinary Studies in Science and Technology (CISST) to start futuristic Programs of M. Sc. In Biomedical Science, Earth Science and Defense Science.** Motivation for this initiative was taken from then Hon. Chief Minister Sh. Narendra Modi sir who suggested for such programs during his visit to our university. These programs are developed with active **collaboration from scientists from PRL, Ahmadabad, SAC, Ahmadabad, AIIMS, New Delhi and PSM College, Karamsad.** DST, New Delhi appreciated this initiative. A philanthropist with the help from SPU Alumni donated handsomely for construction of **a separate building, the work is in progress.** The stone laying ceremony of this construction was done by Hon. Education Minister in March 2016

Research: Published research papers in journals of national and international repute with high impactful contribution as judged by citations and h-index. More than **3000 citations have been received with a h-index of 37**, one of the highest in this university and top five in the state of Gujarat. In recognition of this, invited as Reviewer for many reputed international and national journals to recommend papers for publication. As a nodal officer of DST – PURSE program **visualized and established a Central Instrumentation Facility housing sophisticated equipment for research to all the research scholars of this university.** The **PMB of DST, New Delhi rated this as Excellent Implementation.** Created similarly a sophisticated central

facility in the department of Chemistry, under UGC CAS and UGC – CPEPA programs program and also CPEPA program. These efforts resulted in the improvement of h-index of our university and its standing among other Indian universities.

Administration:

As a coordinator of Internal Quality Assurance Cell (IQAC), prepared the SSR in the third cycle, defended it before the peer team members of NAAC, Bengaluru to win A Grade with 3.25 CGPA, the highest among state universities in Gujarat in January 2017 for the period of five years.

As a Govt. Nominee by the Govt. of Gujarat on the Syndicate (2006 – 2009 and 2015 to 2018), Senate (2007 – 2012 and 2012 to 2014), several initiatives on the affiliation process, examination process and purchase of consumables etc are being taken so that the whole exercise of academic process becomes student friendly, economical and effective.

As a Head of the department of chemistry, developed a participatory management through set up several committees for smooth functioning of teaching, research and extension activities. Formulated and defended major research funding programs such as UGC CAS and CPEPA programs. Created an ecosystems of mutual trust and responsibility.

Strength (in 100 Words)

Besides teaching and research at PG level I have been exposed to a good and rich administrative and coordinating experience at department and university levels. I can conceptualize, implement and deliver novel academic programs, establish specialized centers and also present the university profile before national agencies for getting funds and also other recognitions. Can identify the members and formulate teams for task specific functions. I can develop an administrative model that involves minimum of administration and maximum of delivery through decentralized decision making and paperless administration methods.