



**Program Chair - Chemistry
Head - Research Cell
Associate Professor**

Dr. Sandeep Patil

School of Science



Qualifications

BSc, MSc, PhD, PG Diploma (Patents Law)

- PhD (Chemistry) from The Maharaja Sayajirao University of Baroda. His thesis is titled 'Physicochemical Properties of Ionic-Nonionic Surfactant Mixtures'.
- Post Doctoral Researcher, University College Dublin, Ireland (August 2006-December 2008)
- Post Doctoral Research Fellow, University of Pierre and Marie Curie, Paris, France (August 2005 - July 2006)
- MSc (Physical and Polymer Chemistry), The Maharaja Sayajirao University of Baroda
- PG Diploma in Patents Law, NALSAR University, Hyderabad

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Areas of Expertise

Proteomics, Structural Studies of Protein and Other Macromolecules, Cancer biology, Molecular and Cell Biology, Clinical biology

Profile

Dr. Sandeep R. Patil joined Navrachana University in April 2012 as an Assistant Professor. Currently, he is Associate Professor and Program-Chair, Chemistry. He is also the Head of Research Cell, Navrachana University, Vadodara. His teaching and research experience spans over 17 years.

Dr. Sandeep Patil is an active researcher. He is the recipient of Young Scientist Research Grant for a project entitled, 'Microemulsions with Ionic Liquids: Phase Behavior, Microstructure and Solubilization', Department of Science and Technology (DST), Government of India. His research interests revolve around Phase Studies of Microemulsions, Microemulsions as Template for Synthesis of Nanomaterials, Surfactant Ion Selective Electrode and its Applications.

He has also completed three consultancy projects. Two projects were for Beiersdorf (manufacturer of Nivea Brand of Cosmetics) Hamburg, Germany, and the work involved correlation between the formation of liquid crystalline (LC) phases and the performance of specific Beiersdorf products (e.g. shower gel, shampoo, conditioner for hair etc). He was also involved in setting up of Chemistry Laboratory for Infrastructure, Technology, Research and Management (IITRAM), Ahmedabad. This work also involved the preparation of a laboratory manual to be used as an aid to perform and learn Chemistry Experiments by B. Tech. Students at Institute of Infrastructure, Technology, Research and Management (IITRAM).

Dr. Sandeep Patil teaches Physical Chemistry to Engineering undergraduates as well as to undergraduate and post graduate students pursuing Bachelors of Science and Masters of Science, respectively. He exposes students to science fundamentals and has chosen teaching to as a way to conduct research in education. Recipient of three University Faculty Awards at Navrachana University, he is greatly enthused by the teaching-learning process and is highly inspired by work of students of Navrachana University.

He has been a resource person for Homi Bhabha Center for Science Education (HBCSE-TIFR), Trombay, Mumbai. He has also contributed as a Researcher for e-content development for Chemistry Subject as per UGC model Syllabus under NME-ICT Project, MHRD, Govt. of India. Dr. Patil has published extensively peer reviewed high impact factor journals of National and International repute. To date he has sixteen international research papers in peer reviewed high impact factor journals of international repute and one research paper in a national journal, with a total number of 457 citations for these papers.

Dr. Patil was a Convener of Second National Conference on Innovating for Development and Sustainability, Navrachana University Vadodara. Moreover, he has actively contributed as the Organizing committee member in two international conferences, namely, i) International Conference on Reproduction, Endocrinology and Development (ICRED)' and ii) International Conference on Eco health and Environment Sustainability (ICEES) held at Navrachana University Vadodara.

Publications

Peer Reviewed National and International Journals

Published - 18 | International - 17 | National - 01 | 'h' index - 10 | Total no. of Citations - 457

1. S.H. Solanki, S.R. Patil "Phase studies and efficient recovery of inorganic metal salts from the microemulsion system using a sugar-based non-ionic surfactant" published year 2021, named Tenside Surfactants Detergents, pg 04, impact factor 1.09
2. R. Najjar, L. Gharehbaba, M.Tazerout, S.R. Patil "Stable gasoil/sunflower oil fuel microemulsions prepared by using methylimidazolium based ionic liquids as surfactant" published year 2020, Journal of Molecular Liquids, 298, volume 11970, impact factor 5.06
3. S.H. Solanki, S.R. Patil, "Phase behavior and microstructure of sugar surfactant-ionic liquid microemulsions" published year 2020, Journal of Dispersion Science and Technology, 1-10, impact factor 1.61
4. S.H. Panjabi, R.L. Vekariya, H.P. Soni, S.R. Patil, N.V. Sastry, S.S. Soni "Nonelectrolyte Induced Micellar Shape Changes in Aqueous Solutions of Silicone Surfactants" published year 2014, Journal of Dispersion Science and Technology, 35, 1419, impact factor 1.61
5. S. Kumar, H. Patel, S.R. Patil "Test of Hofmeister-like series of anionic headgroups: Clouding and Micellar Growth" published year 2013, Colloid and Polymer Science, 291, 2069, impact factor 1.72
6. N. Bongartz, S. R. Patil, C. Stubenrauch, D. Blunk, "A New Mesomorphic Fluorinated Surfactant", published year 2012, Colloids Surfaces A, 414, 320, impact factor 2.84
7. G. Catanoui, E. Carey, S. R. Patil, S. Engelskirschen, C. Stubenrauch, "Partition Coefficients of Nonionic Surfactants in Water / n-Alkane Systems", published year 20011, Journal of Colloid and Interface Science, 355, 150, impact factor 3.98

8. S. R. Patil, N. Buchavzov, E. Carey, C. Stubenrauch, "Binary Mixtures of β -Dodecylmaltoside (β -C₁₂G₂) with Cationic and Non-Ionic Surfactants: Micelle and Surface Compositions" published year 2008, *Soft Matter*, 4, 840, impact factor 3.88
9. E. Carey, S. R. Patil, C. Stubenrauch, "Conductivity Measurements as a Method for Studying Ionic Technical Grade Surfactants" published year 2008, *Tenside Surfactants Detergents*, 45, 120, impact factor 0.98
10. V. Peyre, S. R. Patil, G. Durand, B. Pucci, "Mixtures of Hydrogenated and Fluorinated Lactobionamide Surfactants with Cationic Surfactants: Study of Hydrogenated and Fluorinated Chains Miscibility through Potentiometric Techniques" published year 2007, *Langmuir*, 23, 11465, impact factor 3.83
11. S. R. Patil, M. Turmine, V. Peyre, G. Durand, B. Pucci, "Study of β - cyclodextrin/fluorinated trimethyl ammonium bromide surfactant inclusion complex by fluorinated surfactant ion selective electrode", published year 2007, *Talanta*, 74, 72, impact factor 3.84
12. S. R. Patil, A. K. Rakshit, "Membrane electrode sensitive to a Cationic Surfactant in aquo-organic media" published year 2004, *Analytica Chimica Acta*, 518, 87, impact factor 4.84
13. K. S. Sharma, S. R. Patil, K. Glenn, M. Doiron, P. A. Hassan, R. M. Palepu, A. K. Rakshit, "Self-Aggregation of Cationic-Nonionic Surfactant Mixture in Aqueous Media: Tensiometric, Conductometric, Density, Light Scattering, Potentiometric and Fluorometric Studies", published year 2004, *Journal of Physical Chemistry B*, 108, 12804, impact factor 3.18
14. K. S. Sharma, S. R. Patil, A. K. Rakshit, "Study of the cloud point of C₁₂E_n nonionic surfactants: effect of additives", published year 2003, *Colloids Surfaces A*, 219, 67, impact factor 2.84
15. S. R. Patil, T. Mukaiyama, A. K. Rakshit, " α -Sulfonato Palmitic Acid Methyl Ester-Hexaoxyethylene monododecyl Ether Mixed Surfactant System: Interfacial, Thermodynamic and Performance Property Study" published year 2004, *Journal of Surfactants and Detergents*, 7, 87, impact factor 1.85
16. S. R. Patil, T. Mukaiyama, A. K. Rakshit, "Interfacial, Thermodynamic and Performance Properties of α -Sulfonato Myristic Acid Methyl Ester-Hexaoxyethylene monododecyl Ether Mixed Surfactants", published year 2003, *Journal of Dispersion Science and Technology*, 24, 659, impact factor 1.61
17. S. R. Patil, A. K. Rakshit, "Physicochemical properties of anionic-nonionic surfactant mixture: α -Sulfonato myristic acid methyl ester-nonaoxyethylene monododecyl ether", published year 2003, *Journal of Indian Chemical Society*, 80, 345, impact factor 0.17
18. K. S. Sharma, S. R. Patil, K. K. Rohit, A. C. Rana, A. K. Rakshit, "Physicochemical Studies of Nonionic Surfactants, C₁₂E₁₂ and C₁₂E₁₅ : Effect of pH and NaCl", published year 2003, *Journal of Surface Science and Technology*, 20, 89, impact factor N/A