

Dr. Shilpee Sachar

Contact

Department of Chemistry, University of Mumbai, Vidyanagari, Santacruz (E), Mumbai – 400 098, INDIA

Phone: +91-022-2654 35 94; Fax: +91-022-2652 85 47

Email: shilpee.sachar@chem.mu.ac.in

Educational Qualifications

B.Sc. (Chemistry Honours) 2000 1st Div. Kurukshetra University, Kurukshetra, India

M.Sc. (Chemistry Honours) 2002 1st Div. Panjab University, Chandigarh, India

Ph.D. (Chemistry) 2009 - Panjab University, Chandigarh, India

Title of the thesis: “Molecular complexation of Drugs with Cyclodextrins and Biological Surfactants: A Thermodynamic and Spectroscopic study”

Place of Research work: Departement of Chemistry, Panjab University, Chandigarh

Positions held

June 2011- August 2013 “**Assistant Professor**” School of Science, Narsee Monjee Institute of Management Studies, Mumbai, India

August 2013 to date “**Assistant Professor**”, Department of Chemistry, University of Mumbai, Santacruz (E), Mumbai- 400 098, India

Awards and Honors

2012 2nd prize for the Research Project Presentation entitled, “Novel Nanomaterials for Stem Cell Tracking”, at the ‘Research Colloquium’ organized at NMIMS University.

2006 “**Award for Best Poster**” titled “Micellar behavior of dodecyldimethylethylammonium bromide and dodecyltrimethylammonium chloride in aqueous media in the presence of Diclofenac Sodium” in International Conference on Structure & Dynamics: From Micro to Macro at University of Culcatta, Kolkata.

- 2005 Awarded with CSIR SRF (open) fellowship
 2000 First Rank in BSc. at Kurukshetra University.

Research Interest

- ❖ Solubility and stability properties of therapeutic drugs in the pre-formulation stage by complexing with cyclodextrin or by entrapping the drug within surfactant micelles.
- ❖ Surface modifications of nanoparticles.
- ❖ Colloidal Chemistry and its applications, e.g. in nanotechnology and bio-medical field.

Research Projects

S.No.	Title of the project	Investigators	Duration	Cost	Funding agency	Status
1	Synthesis and Characterization of novel nanoparticles and study of their interactions with stem cells	1. Dr. Aparna Khanna - Principal Investigator 2. Dr. Dharendra Bahadur - Co-Principal Investigator 3. Dr. Shilpee Sachar - Co- Investigator 4. Dr. Pritha Ray- Co- Investigator	3 years (2013-16)	45 Lakhs	DST Nanomission	On-going

Membership of Professional Societies

1. Life Member of CRSI

Publications

1. Cellular Internalization and Detailed Toxicity Analysis of Protein Immobilized Iron Oxide Nanoparticles” Purva Sangneria, **Shilpee Sachar**, Sudeshna Chandra, Dharendra Bahadur, Pritha Ray, Aparna Khanna, Journal of Biomedical Materials Research: Part B - Applied Biomaterials, DOI: 10.1002/jbm.b.33178, 2014
2. Energetically favorable interactions between Diclofenac Sodium and Cyclodextrin molecules in aqueous media, S.K.Mehta, K.K.Bhasin , **Shilpee Dham**, J. Colloid Interface Sci., 326, 374-381, 2008.
3. Interactions between Quaternary ammonium compounds and cyclodextrins in aqueous media, S.K.Mehta, K.K.Bhasin, **Shilpee Dham** and M.L.Singla, J. Colloid Interface Sci., 321, 442-451, 2008.

4. Micellar behavior of dodecyldimethylethyl ammonium bromide and dodecyltrimethyl ammonium chloride in aqueous media in the presence of Diclofenac Sodium. S.K.Mehta, K.K.Bhasin, Anil Kumar and **Shilpee Dham**, Colloids and Surfaces A: Physicochem. Eng. Aspects, 278, 17-25, 2006.
5. Effect of temperature on critical micelle concentration and thermodynamic behavior of dodecyldimethylethylammonium bromide and dodecyltrimethylammonium chloride in aqueous media, S.K. Mehta., K.K. Bhasin, Renu Chauhan, **Shilpee Dham**, Colloids and Surfaces A: Physicochem. Eng. Aspects, 255, 153–157, 2005.
6. Behavior of rifampicin in association with β -cyclodextrin in aqueous media: a spectroscopic and conductometric study, S. K. Mehta, K. K. Bhasin, Neena Mehta, **Shilpee Dham**, Colloid Polym Sci, 283, 532–538, 2005.

Contributions in symposia, conferences and reports

1. Participated and presented poster in International Conference on Structure & Dynamics: From Micro to Macro at Kolkata from Dec., 2006 University of Calcutta, Kolkata. The poster received the *Best Poster award*.
2. Participated and presented poster in The 59th Divisional Meeting on Colloid and Interface Chemistry, the Chemical Society of Japan:International symposium, Hokkaido University, N17W6, Kita-ku, Sapporo, Hokkaido, 001-0017, Japan, September 2006.
3. Participated and presented poster in Prof. Ram Chand Paul 1st National Annual Symposium & 15th one day Annual National Symposium in Department of Chemistry, Panjab University, Chandigarh, Feb 2005
4. Participated and presented poster in Prof. Ram Chand Paul 2nd National Annual Symposium & 16th one day Annual National Symposium in Department of Chemistry, Panjab University, Chandigarh. The poster received the *best poster award*.
5. Participated and presented poster in 91st Session Of Indian Science Congress Association, Chandigarh, 2004.
6. Participated and presented poster in National Symposium on Industrial Applications of Microemulsion Technology, New Delhi, 2004.
