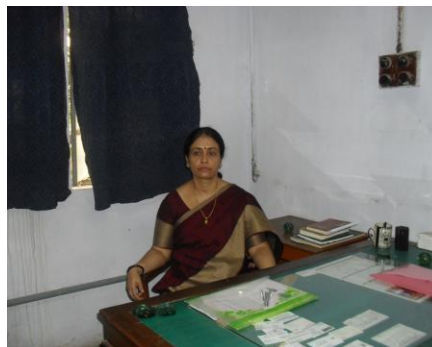


Dr. Swati De-Profile



- Name :** Prof. Swati De
- Designation :** Professor
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- Department :** Chemistry
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- E-mail :** deswati1@gmail.com ; swati_de1@rediffmail.com
- Qualifications :** M.Sc (Jadavpur University) , Ph.D (IACS, Kolkata)
- Post Doctoral experience (abroad)**
1. Dept. of Chemical Physics, Lund University, SWEDEN (2005-2006)
 2. Guest Researcher (Swedish Institute Program) Dept. of Chemical Physics, Lund University, SWEDEN (2007)
- Areas of Interest / Specialization :** Teaching – Molecular Spectroscopy, Nanomaterials
- Research (i) Plasmonic nanomaterials, TiO₂ based nanomaterials and Quantum dots – novel synthesis and some applications.
(ii) Fluorescence-based studies in restricted media.
(iii) Excited–state Dynamics in materials used for flexible photovoltaics
- Experience :** Teaching at the Post Graduate Level – 15 years
- Research – 16 years (after Ph.D)

Awards & Honours :

| S.No. | Recognition / Award / Fellowship received | Awarding / Involved Authority | Period |
|-------|---|-------------------------------|------------------|
| 1. | National Talent Search Scholarship based on a 3-level evaluation : District level - State level - National Level. | NCERT, New Delhi | 1986 - 1993 |
| 2. | NET (CSIR) Fellowship | CSIR, New Delhi | 1993 – 1998 |
| 3. | Qualified GATE | MHRD, New Delhi | 1993 |
| 4. | BOYSCAST Fellow | DST, New Delhi | 2005 – 2006 |
| 5. | Guest Researcher at Lund University, Sweden | Swedish Institute, Stockholm | May – July, 2007 |
| 6. | Academic Award | University of Kalyani | 2014 |

International Collaboration :

| Nature of project | Project Title | Funding Agency | Period | International Partner, Institute |
|---|---|-------------------------------------|-------------|---|
| Collaborative Indo-Swedish project under SIDA program | Control of TiO ₂ Nanoparticle Morphology for Optimization of Electron Injection, Recombination and Charge Transfer in Dye-sensitized Solar Cells | Swedish Research Council, Stockholm | 2009 - 2012 | Prof. Villy Sundstrom, Dept. of Chemical Physics, Lund University, Sweden |

Publications since joining University of Kalyani (1999-2014)**Book Chapters**

1. Invited Book Chapter entitled “*Self-assembled Cell-mimicking Vesicles composed of Amphiphilic Molecules – Structure and Applications*” in the *Encyclopedia of Biocolloid and Biointerface Science* edited by Hiroyuki Ohshima, John Wiley & Sons, Inc. (To be published soon).

Journal Publications

Average impact factor- 3.382 H-index (scopus) : 16

1. Ultraslow recombination in AOT-Capped TiO₂ Nanoparticles Sensitized by Protoporphyrin IX, Sudipta Biswas, Swati De* and Arunkumar Kathiravan; Dalton Transactions 43 (2014) 15065-15074
2. Green Synthesis of Gold nanoparticles for staining Human Cervical Cancer Cells and DNA binding assay, Swati De*, Rikta Kundu, Atanu Ghorai, Ranju Prasad Mandal and Utpal Ghosh; Journal of Photochemistry and Photobiology B: Biology 140 (2014) 130-139
3. Silver Nanoparticles in Hydrogels and Microemulsions – A Comparative Account of their Properties and Bio-activity, Debajyoti Ray, Saptarshi Chatterjee, Keka Sarkar and Swati De*; Materials Research Express 1 (2014) 035022
4. Facile synthesis of luminescent TiO₂ nanorods using an anionic surfactant: Their photosensitization and photocatalytic efficiency, Sudipta Biswas, Villy Sundstrom, Swati De*; Materials Chemistry and Physics 147 (2014) 761–771
5. The synthesis and optical properties of novel triphenylamine containing 1,3,4-oxadiazole derivatives- K.C. Majumdar*, Pranab K. Shyam, Avijit Biswas, Swati De*, Journal of Luminescence 143 (2013) 321–327
6. Control of the size and shape of TiO₂ nanoparticles in restricted media, Abhijit Biswas, Alice Corani, Arunkumar Kathiravan, Yingyot Infahsaeng, Arkady Yartsev, Villy Sundstrom and Swati De*; Nanotechnology 24 (2013) 195601
7. Surfactant-assisted shape control of copper nanostructures, Swati De*, Suman Mandal, Colloids and Surfaces A: Physicochemical and Engineering Aspects 421 (2013), 72–83
8. Synthesis of gold nanoparticles in niosomes, Swati De*, Rikta Kundu, Abhijit Biswas; Journal of Colloid and Interface Science 386 (2012) 9–15
9. Spectroscopic studies with fluorescein dye - Protonation, aggregation and interaction with nanoparticles, Swati De*, Rikta Kundu; Journal of Photochemistry and Photobiology A: Chemistry 223 (2011) 71–81
10. Controlling J aggregation in fluorescein by bile salt hydrogels- Susmita Das, Asoke P. Chattopadhyay, Swati De*; Journal of Photochemistry and Photobiology A: Chemistry 197 (2008), 402-414
11. Exciton dynamics in alternating polyfluorene/fullerene blends- Swati De, Tero Kesti, Manisankar Maiti, Fengling Zhang, Olle Inganäs, Arkady Yartsev, Torbjörn Pascher, Villy Sundström; Chemical Physics 350 (2008), 14-22
12. Geminate Charge Recombination in Alternating Polyfluorene Copolymer/Fullerene Blends-Swati De , Torbjörn Pascher , Manisankar Maiti , Kim G. Jespersen , Tero Kesti , Fengling Zhang , Olle Inganäs , Arkady Yartsev and Villy Sundström; J. Am. Chem. Soc. 129 (2007), 8466–8472
13. Spectroscopic probing of bile salt–albumin interaction- Swati De, Susmita Das, Agnishwar Girigoswami; Colloids and Surfaces B: Biointerfaces 54 (2007) 74-81.
14. Fluorescence and dynamic light scattering studies of niosomes-membrane mimetic systems- Agnishwar Girigoswami, Susmita Das, Swati De; Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 64 (2006) 859-866
15. A fluorimetric and circular dichroism study of hemoglobin—Effect of pH and anionic amphiphiles- Swati De, Agnishwar Girigoswami; Journal of Colloid and Interface Science 296(2006) 324-331.

16. Environmental effects on the aggregation of some xanthene dyes used in lasers-Swati De, Susmita Das, Agnishwar Girigoswami; *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 61 (2005) 1821-1833
17. Fluorescence probing of albumin–surfactant interaction- Swati De, Agnishwar Girigoswami, Susmita Das; *Journal of Colloid and Interface Science* 285(2005) 562-573.
18. Fluorescence resonance energy transfer—a spectroscopic probe for organized surfactant media- Swati De, Agnishwar Girigoswami; *Journal of Colloid and Interface Science* 271 (2004) 485-495
19. Energy transfer—a tool for probing micellar media- Swati De, Agnishwar Girigoswami, Anil Kumar Mandal; *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 59 (2003) 2487-2496
20. Enhanced fluorescence of triphenylmethane dyes in aqueous surfactant solutions at supramicellar concentrations—effect of added electrolyte- Swati De, Agnishwar Girigoswami, Suchismita Mandal; *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 58 (2002) 2547-2555
21. Molecular Photonic Switches Employing Ions and Nanoparticles of Coinage and Platinum Metals- Swati De, Anjali Pal and Tarasankar Pal; *Langmuir* 16 (2000), 6855–6861
22. Anion effect in linear silver nanoparticle aggregation as evidenced by efficient fluorescence quenching and SERS enhancement- Swati De, Anjali Pal, Nikhil Ranjan Jana, Tarasankar Pal; *Journal of Photochemistry and Photobiology A: Chemistry* 131 (2000) 111-123

Ph.D guidance : 4 (completed)

1. Dr. Agnishwar Girigoswami ; 2. Dr. Susmita Das
3. Dr. Rikta Kundu ; 4. Dr. Suman Mandal

5 (continuing)

Research funding :

1. DST, New Delhi.
2. C.S.I.R, New Delhi.
3. Swedish Research Council, SIDA program
4. UGC-DAE CSR