

Brief Profile

Name: Anuva Samanta

Designation: Assistant Professor

Department: Chemistry

Email: anuva.samanta25@gmail.com

Highest Qualification: PhD (2012 and University of Calcutta)

Teaching Experience: 8 years 11 months

Subjects Taught: Physical Chemistry

Vidwan id: 493345

Research Experience: 9 years

Research Interest: Spectroscopy on selected Aromatic compounds

Awards or Recognitions received (Achievements): Gold Medal (1st in M.Sc. University of Calcutta)

Member of Professional Bodies: Indian Chemical Society (Lifetime Member), Indian Science Congress Association (Lifetime Member)

List of Selected Publications:

1. P. J. Boruah, Venkatesh N, **A. Samanta**, A. K. Paul, A Detailed Theoretical Investigation on Intramolecular Charge Transfer Mechanism of Primary, Secondary, and Tertiary *p*-amino Substituted Benzaldehyde, Chem. Phys. Impact, 8 (2024) 100538
2. **A. Samanta**, Photophysical behavior of DNA staining dye propidium iodide with bio-mimetic micelle, genomic fish sperm DNA and bovine serum albumin. J. Inst. Chemists (India), 94 (2022) 107-116.
3. **A. Samanta**, N. Guchhait, S.C. Bhattacharya, Preferential Molecular Encapsulation of an ICT Fluorescence Probe in the Supramolecular Cage of Cucurbit[7]uril and β -Cyclodextrin: An Experimental and Theoretical Approach, J. Phys. Chem. B, 118 (2014) 13279-13289.

4. **A. Samanta**, N. Guchhait, S. C. Bhattacharya, A simple but highly selective and sensitive fluorescence reporter for toxic CdII ion via excimer formation, *Chem. Phys. Lett.*, 612 (2014) 251-255.
5. **A. Samanta**, N. Guchhait, S. C. Bhattacharya, Photophysical aspects of biological photosensitizer kynurenic acid from the perspective of experimental and quantum chemical study, *Spectrochim. Acta, Part A*, 129 (2014) 457-465.
6. **A. Samanta**, N. Guchhait, Evidence of lactim lactam photo-tautomerization through four-member intramolecular hydrogen bonded network in 5-(4-fluorophenyl)-2-hydroxynicotinonitrile, *J. Lumin.*, 151 (2014) 176-187.
7. **A. Samanta**, S. Jana, D. Ray, N. Guchhait, Modulated photophysics of a cationic DNA-staining dye inside protein Bovine Serum Albumin: Study of binding interaction and structural changes of protein, *Spectrochim. Acta, Part A*, 121 (2014) 23-34.
8. **A. Samanta**, B. K. Paul, N. Guchhait, Modulation of intramolecular charge transfer emission inside micelles: A fluorescence probe for studying microenvironment of micellar assemblies, *J. Fluoresc.*, 22 (2012) 289-301.
9. **A. Samanta**, B. K. Paul, N. Guchhait, Photophysics of DNA staining dye Propidium Iodide encapsulated in bio-mimetic micelle and genomic fish sperm DNA, *J. Photochem. Photobiol. B*, 109 (2012) 58-67.
10. **A. Samanta**, B. K. Paul, N. Guchhait, Reinvestigation of photoinduced intramolecular charge transfer reaction in p-Dimethylaminobenzaldehyde by spectroscopic method and Density Functional Theory (DFT) calculation, *J. Lumin.*, 132 (2012) 517-525.
11. **A. Samanta**, S. Jana, N. Guchhait, Spectral modulation of a charge transfer reaction of 2-methoxy-4-(N, N-dimethylamino)benzaldehyde inside cyclodextrin nanocage, *J. Incl. Phenom. Macro.*, (2012) 1-12.
12. **A. Samanta**, S. Dalapati, N. Guchhait, Selective anion recognition by inhibition of excited state intramolecular proton transfer process via hydrogen bonding interaction and efficient deprotonation: Spectroscopic and theoretical investigation, *J. Photochem. Photobiol. A*, 232 (2012) 64-72.
13. **A. Samanta**, B. K. Paul, S. Kar, N. Guchhait, Excited state lactim to lactam type tautomerization reaction in 5-(4-fluorophenyl)-2-hydroxypyridine: Spectroscopic study and quantum chemical calculation, *J. Fluoresc.*, 21 (2011) 95-104.
14. **A. Samanta**, B. K. Paul, N. Guchhait, Studies of bio-mimetic medium of ionic and non-ionic micelles by a simple charge transfer fluorescence probe N,N-dimethylaminonaphthyl-(acrylo)-nitrile, *Spectrochim. Acta, Part A*, 78 (2011) 1525-1534.
15. **A. Samanta**, B. K. Paul, N. Guchhait, Spectroscopic probe analysis for exploring probe-protein interaction: A mapping of native, unfolding and refolding of protein bovine serum albumin by extrinsic fluorescence probe, *Biophys. Chem.*, 156 (2011) 128-139.
16. **A. Samanta**, B. K. Paul, S. Mahanta, R.B. Singh, S. Kar, N. Guchhait, Evidence of acid mediated enhancement of photoinduced charge transfer reaction in 2-methoxy-4-(N,N-dimethylamino)benzaldehyde: Spectroscopic and quantum chemical study, *J. Photochem. Photobiol. A*, 212 (2010) 161-169.
17. **A. Samanta**, B. K. Paul, S. Jana, N. Guchhait, Transition metal ions or acid-induced suppression of photoinduced proton transfer and electron transfer reaction in 5-(4-Fluorophenyl)-2-hydroxypyridine: A molecule of dual mode fluorosensitivity, *Photochem. Photobiol.*, 86 (2010) 1022-1029.

18. **A. Samanta**, B. K. Paul, N. Guchhait, Novel proton transfer fluorescence probe 2-hydroxypyridine and 5-(4-fluorophenyl)-2-hydroxypyridine for studying native, denatured and renatured state of protein Bovine Serum Albumin, *J. Photochem. Photobiol. B*, 101 (2010) 304-312.