

## Publications

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### *Journals:*

**1) Interaction of BSA with proflavin: A spectroscopic approach**

**Brotati Chakraborty** and Samita Basu

Journal of Luminescence 129 (2009) 34–39.

**2) Study of interaction of proflavin with triethylamine in homogeneous and micellar media: Photoinduced electron transfer probed by magnetic field effect**

**Brotati Chakraborty** and Samita Basu

Chemical Physics Letters 477 (2009) 382–387.

**3) A comparative study of astaxanthin level in mangrove species**

Kakoli Banerjee, Debajyoti Ray, Samita Basu, **Brotati Chakraborty**, Abhijit Mitra

Proceedings of the National Academy of Sciences India Section B-Biological Sciences 79 (2009) 135-142.

**4) Interaction of proflavin with aromatic amines in homogeneous and micellar media: Photoinduced electron transfer probed by magnetic field effect**

**Brotati Chakraborty** and Samita Basu

Chemical Physics Letters 487 (2010) 51–57.

**5) Magnetic field effect on electron transfer reactions of acridine yellow with amines of varied structures in homogeneous medium**

**Brotati Chakraborty** and Samita Basu

Chemical Physics Letters 493 (2010) 76-82.

**6) Magnetic field effect corroborated with docking study to explore photoinduced electron transfer in drug-protein interaction**

**Brotati Chakraborty**, Atanu Singha Roy, Swagata Dasgupta and Samita Basu

Journal of Physical Chemistry A 114 (2010) 13313–13325.

**7) Deciphering the host-guest chemistry of Acridine Yellow and Cucurbit[7]uril: An integrated spectroscopic and calorimetric study**

**Brotati Chakraborty** and Samita Basu

Chemical Physics Letters 507 (2011) 74-79.

**8) Magnetic field effect on photoinduced electron transfer reaction associated with hydrogen bond formation in homogeneous medium**

**Brotati Chakraborty** and Samita Basu

Applied Magnetic Resonance 42 (2012) 5-15.

**9) Excimer of 9-aminoacridine hydrochloride hydrate in confined medium: An integrated experimental and theoretical study**

Piyali Mitra<sup>¶</sup>, **Brotati Chakraborty**<sup>¶</sup>, Dhananjay Bhattacharyya, Samita Basu

<sup>¶</sup> Both the authors have equal contribution

Journal of Physical Chemistry A 117 (2013) 1428-1438.

**10) A spectroscopic investigation of the photophysical behaviour of 9-aminoacridine hydrochloride hydrate in presence of organic amines in homogeneous and heterogeneous media**

Piyali Mitra, **Brotati Chakraborty**, Samita Basu

Journal of Luminescence 149 (2014) 221-230.

**11) Exploring photoinduced electron transfer and excited-state proton transfer reactions involving 9-aminoacridine hydrochloride hydrate and methyl viologen using laser flash photolysis**

Piyali Mitra, **Brotati Chakraborty**, Samita Basu  
Chemical Physics Letters 610-611 (2014) 108-114.

**12) Spectroscopic exploration of drug–protein interaction: a study highlighting the dependence of the magnetic field effect on inter-radical separation distance formed during photoinduced electron transfer**

**Brotati Chakraborty\***, Piyali Mitra, Samita Basu\*  
RSC Advances 5 (2015) 81533-81545.

**13) Acridone in a biological nanocavity: detailed spectroscopic and docking analyses of probing both the tryptophan residues of bovine serum albumin**

**Brotati Chakraborty\***, Chaitrali Sengupta, Uttam Pal, Samita Basu  
New Journal of Chemistry 41 (2017) 12520-12534.

**14) Preferential photochemical interaction of Ru (III) doped carbon nano dots with bovine serum albumin over human serum albumin**

Arnab Maity, Uttam Pal, **Brotati Chakraborty**, Chaitrali Sengupta, Abhishek Sau, Swatadipta Chakraborty, Samita Basu  
International Journal of Biological Macromolecules 137 (2019) 483-494.

**15) Interaction of proflavin with tryptophan in reverse micellar microenvironment of AOT: Photoinduced electron transfer probed by magnetic field effect**

Banabithi Koley Seth\*, Abhishek Sau, Uttam Pal, Samita Basu, **Brotati Chakraborty\***  
Journal of Luminescence 220 (2020) 116953

**16) Probing the hydrogen bond involving Acridone trapped in a hydrophobic biological nanocavity: Integrated spectroscopic and docking analyses**

**Brotati Chakraborty\***, Chaitrali Sengupta, Uttam Pal, and Samita Basu  
Langmuir 36 (2020) 1241-1251.

**17) Revisiting magnetic field effects in homogeneous medium and heterogeneous bio-mimicking environments with emphasis on acridine derivatives**

**Brotati Chakraborty** and Samita Basu  
Journal of the Indian Chemical Society 98 (2021) 10057

**18) A systematic computational study of acridine derivatives through conceptual density functional theory**

Prabhat Ranjan, **Brotati Chakraborty\***, Tanmoy Chakraborty\*  
Molecular Diversity 27 (2023) 1271-1283

**19) Advances in exploration of photoinduced electron transfer reactions involving small molecules probed by magnetic field effect**

**Brotati Chakraborty\***, Chaitrali Sengupta, Samita Basu  
Journal of Photochemistry and Photobiology 21 (2024) 100238.

**20) A systematic progress in probing the excited state using fluorescence spectroscopy**

**Brotati Chakraborty\***, Samita Basu  
Chemical Physics Impact 8 (2024) 100636.

***Book Chapter in edited volumes:***

***1) Electron Transfer and Hydrogen Abstraction in biologically relevant systems***

**Brotati Chakraborty**, Adity Bose, Samita Basu

in "Selectivity, Control, and Fine Tuning in High-Energy Chemistry" Edited by Dmitri V. Stass & Vladimir I. Feldman (2011), Chapter 4, Research Signpost, India, ISBN: 978-81-308-0432-3, Pages 93-116.