List of Publications:

Publications (Total # 41, H-index=15), $ cor. Auth.; * undergrad

1. *Prospect of Bioflavonoid Fisetin as quadruplex ligand*, **Bidisha Sengupta$**, Biswapathik Pahari, Laura Blackmon*, Pradeep K. Sengupta, ***PLOS one,*** 8 (2013) e65383,1-11.
2. *Biophysical characterization of Genistein in its natural carrier human hemoglobin using spectroscopic and computational approaches*, Biswapathik Pahari, Sandipan Chakraborty, **Bidisha Sengupta$,** Sudip Chaudhuri, William Martin*, Jasmine Taylor*, Jordan Henley*, Donald Davis*, Pradip Biswas, Amit K. Sharma, Pradeep K. Sengupta, ***Food and Nutrition Science***, 4 (2013) 83-92.
3. *Interactions of dietary polyphenols with proteins: Insights from fluorescence spectroscopic and other related biophysical studies*, Sudip Chaudhuri, **Bidisha Sengupta**, Jasmine Taylor*, *Biswa Pathik Pahari, Pradeep K. Sengupta*, ***Current Drug Metabolism*** *14 (2013) 491-503.*
4. *Contrasting Binding of Fisetin and Daidzein in γ-cyclodextrin nanocavity*, Biswapathik Pahari, **Bidisha Sengupta**$, Sandipan Chakraborty, Briannica Thomas*, Dyffreon Mcgowan*, Pradeep K. Sengupta***, J. Photochem. Photobiol. B.*** 118 (2013) 33-41.
5. *Characterization of Diadzein-Hemoglobin Binding using Optical Spectroscopy and Molecular Dynamics Simulations*, **Bidisha Sengupta**, Sandipan Chakraborty, Maurice Crawford, Jasmine M. Taylor, Laura E. Blackmon, Pradip K. Biswas, Wolfgang H. Kramer, ***Int. J. Biol. Macromol***. 51 (2012) 250– 258.
6. *Mechanistic insight into the Structure and Dynamics of lambda phage DNA. Sandipan Chakraborty, Takashi Uematsu, Christer Svanberg, Per Jacobsson, Michael Zach, Jan Swenson*, Rajender Trehan, George Armstrong and **Bidisha Sengupta**, ***J. Physical Chemistry A*** 116 (2012) 4274–4284.
7. *A critical study on the interactions of hesperitin with human hemoglobin: Fluorescence spectroscopic and molecular modeling approach.* Sandipan Chakrabarty, Sudip Chaudhuri, Biswapathik Pahari, Jasmine Taylor, Pradeep K. Sengupta and **Bidisha Sengupta,** ***J. of Luminescence*** 132 (2012) 1522–1528.
8. *Optical Sensing by Transforming Chromophoric Silver Clusters in DNA Nanoreactors.* Jeffrey T. Petty, Sandra P. Story, Selina Juarez, Samuel Votto, Austin Herbst, Natalya N. Degtyareva and **Bidisha Sengupta**, ***Analytical Chemistry***, 84 (1), 2012, pp 356–364.

9. *Binding and antioxidant properties of therapeutically important plant flavonoids in biomembranes: Insights from spectroscopic and quantum chemical studies.* Pradeep K. Sengupta, Biswa P Pahari, Sandipan Chakraborty, Sudip Chaudhuri, **Bidisha Sengupta.** ***Chemistry and Physics of Lipids*** 165 (2012) 488– 496.
10. DNA Sensing by Amplifying the Number of Near-Infrared Emitting, Oligonucleotide-Encapsulated Silver Clusters. Jeffrey T. Petty, **Bidisha Sengupta**, Sandra P. Story, and Natalya N. Degtyareva ***Anal. Chem.*** 83 (15) (2011) 5957-5964.
11. *Optically-Enhanced, Near-IR, Silver Cluster Emission Altered by Single Base Changes in the DNA Template.* Jeffrey T. Petty, Chaoyang Fan, Sandra P. Story, **Bidisha Sengupta**, Matthew Sartin, Jung-Cheng Hsiang, Joseph W. Perry, and Robert M. Dickson. ***J. Phys. Chem. B,*** 2011, 115 (24), 7996–8003.
12. *DNA Encapsulation of 10 Silver Atoms Producing a Bright, Modulatable, Near-Infrared-Emitting Cluster*. Jeffrey T. Petty, Chaoyang Fan, Sandra P. Story, **Bidisha Sengupta**, Ashlee St. John Iyer, Zachary Prudowsky and Robert M. Dickson. ***J. Phys. Chem. Lett.*** 1 (2010) 2524–2529.
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14. *Ag^+ Mediated Assembly of 5'-Guanosine Monophosphate*. Kristine Loo, Natalya Degtyreva, Jihae Park, **Bidisha Sengupta**, Andrea Bryant, Michael Reddish, Christopher Johnson, and Jeffrey T. Petty ***J. Phys. Chem. B*** *114* (12) (2010) 4320–4326.
15. *Context Dependence of Trinucleotide Repeat Structures.* Natalya Degtyreva, Courtney Barber, **Bidisha Sengupta** and Jeffrey T. Petty. ***Biochemistry*** *49* (14) (2010) 3024–3030.
16. *Structural studies of a trinucleotide repeat sequence using 2-Aminopurine*. Natalya Degtyareva, Michael Reddish, **Bidisha Sengupta** and Jeff Petty, ***Biochemistry*** 48 (11) (2009) 2340-2346.
17. *Base-Directed formation of fluorescent silver clusters.* **Bidisha Sengupta**, Caroline M. Ritchie, Kenneth Johnsen, Jenna Buckman and Jeffrey T. Petty, ***J. Phys.Chem. C***. 112 (48) (2008) 18776–18782.
18. *Ground and excited sate proton transfer and antioxidant activity of 3- hydroxyflavone in egg yolk phosphatidylcholine liposomes: absorption and fluorescence spectroscopic studies*. Sudip Chaudhuri, Kaushik Basu, **Bidisa Sengupta**, Anwesha Banerjee, and Pradeep K. Sengupta, ***Luminescence*** 23(6) (2008) 397 – 403.
19. *Effect of glycation on the structure and dynamics of DNA: A critical spectroscopic approach.* **Bidisa Sengupta**, Takashi Uematsu, Per Jacobsson and Jan Swenson, ***J. Phys. Chem. B.*** 111*(3) (2007) 646-651*.
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21. *Exploring the interactions of therapeutically active plant flavonoids with biological targets: Insights from fluorescence spectroscopy*. Pradeep K Sengupta, Anwesha Banerjee and **Bidisa Sengupta**, ***Photo/electrochemistry & Photobiology in Environment, Energy, and Fuel,*** (2006) 207-227.
22. *Encapsulation of Prodan in beta-cyclodextrin environments: An experimental and theoretical study via electronic spectroscopy and molecular mechanics.* Anwesha Banerjee, **Bidisa**

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24. *Properties of normal and glycated human hemoglobin in presence and absence of antioxidant*. **Bidisa Sengupta** and Jan Swenson, ***Biochem Biophys. Res. Commun*.** 334 (2005) 954-959.
25. *Interactions of the plant flavonoid fisetin with macromolecular targets. Insights from fluorescence spectroscopic studies*. **Bidisa Sengupta**, Anwesha Banerjee, and Pradeep K. Sengupta, ***J. Photochem. Photobiol. B***, 80 (2005) 79-86.
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31. *The interaction of Quercetin with Human Serum Albumin: A fluorescence spectroscopic study.* **Bidisa Sengupta** and Pradeep K. Sengupta. ***Biochem. Biophys. Res. Commun***., 299 (2002) 400-403.
32. *Low temperature luminescence behaviours of 7-azatryptophan, 5-hydroxytryptophan and their chromophoric moieties.* **Bidisa Sengupta**, Jayanti Guharay, Ajoy Chakraborty and Pradeep K. Sengupta. ***Spectrochim. Acta Part A (Biomolecular Spectroscopy Section)***, 58 (2002) 2005-2012.
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34. *Studies on the interaction of quercetin with bovine serum albumin: A fluorescence spectroscopic approach.* **Bidisa Sengupta** and Pradeep K. Sengupta. ***Proceedings of the National Seminar on Recent Advances in Molecular Physiology***, Kalyani University, Feb 4-6, 2002. Page 151-155.
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36. *5-hydroxyindole: Usefulness as a novel optical probe*. **Bidisa Sengupta**, Jayanti Guharay and P. K. Sengupta. **J. Mol. Struct.** 559 (2001) 347-353.

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