

Associate Professor Department Of Chemistry

Contact Information

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Specialization

Physical Chemistry



Biographical Sketch

Sugata Samanta is currently associated as Assistant Professor, in the Department of Chemistry, The Bhawanipur Education Society College, affiliated to University of Calcutta. Prior to joining this institution, he worked as a College Whole Time Teacher, in the Department of Chemistry, T.H.K. Jain College, Cossipore, Kolkata. He completed B.Sc and M.Sc. in Chemistry from Vidyasagar University, Medinipur. He qualified National Eligibility Test (NET) in chemical science. He was awarded Ph.D degree in Chemistry from University of Calcutta. He has presented his research papers in numerous conferences (both national and international) and published research papers in reputed journals as well. He has also participated in several national and international seminars / webinars / workshops / conferences.

Academic Qualifications

Abbreviation of the Degree	Name of the College / University	Area of Specialization	Year of Passing
Ph.D	University of Calcutta	Physical Chemistry	2018
M.Sc.	Vidyasagar University	Physical Chemistry	2009
B.Sc (H)	Vidyasagar University	Chemistry	2007

Position Holding (Full Time)

 Assistant Professor, Department of Chemistry, The Bhawanipur Education Society College, University of Calcutta, May 2018 - Present

Position Held (Full Time)

 College Whole Time Teacher in the Department of Chemistry, T.H.K. Jain College, 6 Ram Gopal Ghosh Road, Cossipore, Kolkata from August 2016 to July 2017.



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Guest Appointment

- Guest Lecturer in the Department of Chemistry, T.H.K. Jain College, 6 Ram Gopal Ghosh Road, Cossipore, Kolkata from September 2015 to July 2016.
- Guest Lecturer in the Department of Chemistry, Vidyasagar College for Women, 39 Sankar Ghosh Lane. Kolkata from December 2010 to March 2011.

Research Experience

• Worked as a Junior Research Fellow (JRF) and Senior Research Fellow (SRF) at the Department of Chemistry and Biochemistry, Presidency University, Kolkata-700073 from 2010 to 2016.

Research Interests

• Worked as a Junior Research Fellow (JRF) and Senior Research Fellow (SRF) at the Department of Chemistry and Biochemistry, Presidency University, Kolkata-700073 from 2010 to 2016.

Administrative Assignment

- Coordination and Mentorship of Chemistry Honors students, Department of Chemistry, The Bhawanipur Education Society College, University of Calcutta, 2018 to present.
- Executive Editor and Coordinator of "Coherence Committee", Science Section, The Bhawanipur Education Society College, Kolkata.
- Member of "Environment Development Committee", The Bhawanipur Education Society College, Kolkata.
- Member of "Seminar/ FDP/ Workshop Committee", Science Section, The Bhawanipur Education Society College, Kolkata.
- Member of "Cultural and Educational Trip Committee", Science Section, The Bhawanipur Education Society College, Kolkata





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Subjects Taught

• Various topics of Physical Chemistry (both for Honors and General courses) of under graduate Chemistry syllabus of University of Calcutta.

Research Interests

- Crystal Structure analysis and Photo Physical studies of Molecular Charge Transfer Complexes.
- Photo Physical aspects of Supra molecules and their Complexes with Lanthanide Ions.
- Photo Physics of ESIPT Probes in presence of the different organized assemblies like Cyclodextrins,
 Micelles and Reverse Micelles etc.

Journal Publications

- Sugata Samanta, Sagarika Sanyal, Manaranjan Maity, Muktimoy Chaudhury, Sanjib Ghosh*, "Unusual solvent effect of molecular charge transfer complexes: stacking interaction revealed by characterization of structure and photophysical aspects". Journal of Luminescence, 190 (2017) 403-412.
- Jaydeep Adhikary, Prateeti chakraborty, Sugata Samanta, Ennio Zangrando Sanjib Ghosh, Debasis Das*, "Thiocyanate mediated structural diversity in phenol based "end-off" compartmental ligand complexes of group 12 metal ions: Studies on their photophysical properties and phosphatase like activity". Spectrochimica Acta Part A 178 (2017) 114-124.
- Sugata Samanta, Swarna Kamal Samanta, Sagarika Sanyal, Moumita Mukherjee, Pinki Saha Sardar* and Sanjib Ghosh*. "Features of partial encapsulation of an ESIPT probe 3-hydroxy-2-naphthoic acid (3HNA) in the nano cavities of β- and γ-cyclodextrin: comparative study with sequestered 3HNA in micelles and reverse micelle." RSC Adv., 2016, 6, 110610.
- Sagarika Sanyal, Pinki Saha Sardar, Maitrayee Basu Roy, Swatilekha Pratihar, Sugata Samanta, Moumita Mukherjee, Pritam Roy, Swagata Dasgupta, Sanjib Ghosh*, "Exploring the nature of nanocavity and channels in Apoferritin and Apoferritin-SDS complex using enhanced antenna effect through encapsulation of Eu(III)-TC complex." Eur. J. Inorg. Chem. 2016, 4152-4161.
- Prateeti Chakraborty, Jaydeep Adhikary, Sugata Samanta, Ishani Majumder, Chiara Massera, Daniel Escudero*, Sanjib Ghosh*, Antonio Bauza, Antonio Frontera*, and Debasis Das*, "Influence of para substituents in controlling photophysical behaviour and different non-covalent weak interactions in zinc complexes of a phenol based "End-off" compartmental ligand". Dalton Trans 2015 Dec; 44(46):20032-44.

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Journal Publications

- Swarna kamal Samanta, Sagarika Sanyal, Sugata Samanta, Sanjib Ghosh, "Confirmation for Designing Hydrophobic Sheet Protected Eu(III)-Tetracycline Complex Using Long Chain Unsaturated Fatty Acid
 Efficient 'Antenna Effect' In Aqueous Medium". Journal of Luminescence 160 (2015) 262-270.
- Prateeti Chakraborty, Jaydeep Adhikary, Sugata Samanta, Daniel Escudero, Abril C. Castro, Marcel Swart, Sanjib Ghosh, Antonio Bauza, Antonio Frontera, Ennio Zangrando, Debasis Das, "Combined Experimental and Theoretical Investigation of Ligand and Anion Controlled Complex Formation with Unprecedented Structural Features and Photoluminescence Properties of Zinc(II) Complexes". Crystal Growth & Design, 14 (8), 4111-4123 (2014).

Paper Presentations At Conferences

- "Charge Transfer Dynamics in Organic Solar Cells" Sugata Samanta, Pinki Saha Sardar, Sanjib Ghosh*, "Nurturing Chemistry: Bonding and Beyond" held on 5th December, 2017, The Bhawanipur Education Society College, Kolkata.
- "Features of partial encapsulation of an ESIPT probe 3-hydroxy-2-napthoic acid (3HNA) in the nano cavities of β- and γ-cyclodextrin; comparative study with sequestered 3HNA in proteins, micelle and water soluble polymers" Sugata Samanta, Pinki Saha Sardar, Swarna Kamal Samanta, Sagarika Shyanal, Sanjib Ghosh*, "23RD. West Bengal State Science & Technology Congress 2016, 28 29 Feb 2016, Presidency University, Kolkata"
- "Photophysical and Crystallographic Study of Charge-Transfer Molecular Crystals", Sugata Samanta, Sagarika Sanyal, Swarna Kamal Samanta, Manaranjan Maity, Muktimoy Chaudhury, Sanjib Ghosh, "Advances in Spectroscopy and Ultrafast Dynamics (ASUD-2014)" Indian Association for the Cultivation of Science (IACS), Kolkata, India (December 12-14, 2014).
- "Investigation of the Interaction of Some Charge Transfer Complexes by Steady State and Time Resolved Studies and by Theoretical Calculation: Stacking/Non-stacking Interaction", Sugata Samanta, Sagarika Sanyal, Swarnakamal Samanta, Shyamal Kr. Ghorai, Manini Mukherjee, Pinki Saha Sardar, Sanjib Ghosh, UGC Sponsored and CSIR aided International Symposium (RTRC-2011) on "International Symposium on Recent Trends of Research in Chemistry", Midnapore College, West Bengal, 31st Oct-1st Nov, 2011.





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Participation In Seminars / Webinars / Workshops / Conferences

- Webinar on "Chem Voice' 21" organized by Dept. of Chemistry, The Bhawanipur Education Society College, Kolkata, held on 26th June, 2021.
- Webinar on "Scientists under Scanner: When they are stepping against the Ethics of Science" organized by Dept. of Chemistry, The Bhawanipur Education Society College, Kolkata, held on 1st August, 2020.
- Webinar on "Exploring New Facets of Organic Synthesis: From Metal to Metal-free catalysis" organized by Dept. of Chemistry, The Bhawanipur Education Society College, Kolkata, held on 18th July, 2020.
- Webinar on "The Enigma of Gravity: From The Apple to The Black Hole" organized by Dept. of Physics, The Bhawanipur Education Society College, Kolkata, held on 17th July, 2020.
- Webinar on "Pedagogical and Psycho-Social Challenges to The Students Amidst Covid-19 Catastrophe" organized by Dept. of Chemistry, The Bhawanipur Education Society College, Kolkata, held on 25th -26th June. 2020.
- Webinar on "The Sky & Beyond" organized by Department of Mathematics, The Bhawanipur Education Society College, Kolkata, held on 23rd June, 2020.
- International Seminar on "Itinerary of Classical to Modern Era of Chemistry", organized by Dept. of Chemistry, The Bhawanipur Education Society College, Kolkata, held on 4th November, 2019.
- Workshop on "Mentoring Techniques for Teachers" organized by IQAC of The Bhawanipur Education Society College on 9th September, 2019.
- UGC- sponsored two day workshop on "Maths and Computation for Chemistry" on 12-13 February, 2019 organized by Bankim Sardar College in collaboration with Physical Chemistry Teachers' Forum.
- Seminar on "Academic Administration" organised by Internal Quality Assurance Cell, The Bhawanipur Education Society College, Kolkata, held on 24th February, 2018.
- "52nd Annual Convention, Computer Society of India (CSI 2017)" held on 19-21 January, 2018, Science City, Kolkata.
- "Environmental Pollution: Cause Impacts and Control", held on 25th April, 2015, The Bhawanipur Education Society College, Kolkata.
- "National Conference on Photosciences: Contemporary Challenges and Future Perspectives", Dec 12-14, 2013 by Indian Photobiology Society & Dept. of Chemistry, Jadavpur University, Kolkata-700032.

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- "Trombay Symposium on Radiation & Photochemistry (TSRP-2012)" Training School Hostel, Anushaktinagar, Bhaba Atomic Research Centre (BARC), Mumbai, India (4th January 7th January, 2012).
- "UGC sponsored Celebration of International Year of Chemistry-2011" held on 14th-15th Dec, 2011, Department of Chemistry, Presidency University, Kolkata.
- "Current Trends in Chemical Research" (Celebration of International Year of Chemistry-2011) held on June 24, 2011, Department of Chemistry, Ramkrishna Mission Residential College (Autonomous), Narendrapur.
- Workshop on "New Arena in Photosciences" held on Aug 2010, Saha Institute of Nuclear Physics, Kolkata.
- Seminar on "Frontiers in chemistry series I" held on February 2010 at St. Xavier\subseteq College, Kolkata.
- "Chemical Analysis in the Age of Biology", held on 18th Dec, 2009, Department of Chemistry, Presidency College, Kolkata.
- "National Science Day Program" was organized by The Seminar/FDP/Workshop Committee, Science Department, The Bhawanipur Education Society College, Kolkata, on 28th February 2023.
- Seminar on "National Mathematics Day Celebration and Alumni Meet" organized by the Department of Mathematics, The Bhawanipur Education Society College, Kolkata, held on 22nd December 2022.
- Seminar on "Chemistry behind Phytochemicals used as Herbal Medicines for the Treatment of Diseases of Human Being" organized by the Department of Chemistry, The Bhawanipur Education Society College, Kolkata, held on 2nd December 2022.
- Inter-College Oral Competition by the Peer Students, "CHEM VOICE' 22" organized by the Department of Chemistry, The Bhawanipur Education Society College, Kolkata, held on 24th November 2022.
- "Lecture Series-1: Symposium on Artificial Intelligence and Machine Learning" organized by the Department of Computer Science, The Bhawanipur Education Society College, Kolkata, held on 25th June 2022.
- "EARTH DAY 2022" organized by The Environment Development Committee, The Bhawanipur Education Society College, Kolkata, held on 22nd April 2022.





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- "National Science Day Program" was organized by The Seminar/FDP/Workshop Committee, Science Department, The Bhawanipur Education Society College, Kolkata, on 28th February 2022.
- "FACULTY MENTORING WORKSHOP" organized by The Bhawanipur Education Society College, Kolkata, held on 27th December 2021.

Awards / Recognitions

- Awarded the Ph.D degree in Chemistry entitled "Photophysical aspects of some charge transfer complexes and some binary/ternary systems exploring stacking/non-stacking interaction" by University of Calcutta in the year 2018.
- Participated in the "UGC Sponsored Faculty Induction Programme" from 12th July 2022 to 10th August 2022, organized by HRDC, The University of Burdwan, and obtained Grade A.

Other Notable Activities

- Organized a one day webinar "ChemVoice'21" on Google meet Platform, held on 26th June, 2021.
- Organized a one day workshop on "Hands on Physical Chemistry Laboratory Experiments and Instrumentation: Maintenance and Use" at The Bhawanipur Education Society College on 20th July, 2019.
- Organized a National Seminar on "Chemistry Behind Phytochemicals and Their Medicinal Importance in Curing Various Diseases of Human Being" at The Bhawanipur Education Society College, Kolkata, held on 30th March 2023.





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Vision Statement

- Encourage students to embrace enterprise, self-confidence, creativity and social justice in all their endeavors.
- Inspiring free thinking among students, and teach them to be game changers in their chosen professions.
- Promote the virtues of research and scholarly inquiry, so that students can bring important critical thinking skills to their pursuits, both inside and outside the college.

Sugata Samanta

Signature of the Faculty Member

Date: 01st September, 2022

