DR. SUDIP BANDYOPADHYAY

E-mail: sbphysical@gmail.com

Designation: Associate Professor of Chemistry

Qualifications:

B.Sc. (1997) & M.Sc. (1999) (Calcutta University), GATE-99, NET – CSIR (1999), Ph.D. (2005) (Jadavpur University)

Title of thesis (Ph.D.) with year: "*Laser Induced Fluorescence from some selected jet-cooled molecules*"(2005)

About Me:

Experience / Expertise:

Joined as Lecturer of Chemistry in Government College of Engineering and Textile Technology, Berhampur, later on, served Maulana Azad College, Kolkata as an Associate Professor. Did my research/Ph.D. work as a research scholar (CSIR-NET) from Indian Association for the Cultivation of Science, Jadavpur. Presently engaged in teaching Physical Chemistry in A. P. C. Roy Government College, Siliguri.

Specialisation, Area of Interests & Current Teaching:

- Specialisation – Physical Chemistry
- Areas of Interest – Quantum Chemistry, Molecular Spectroscopy, Application of Computers in Chemistry.
- Research Interests: Molecular spectroscopy, ab-initio calculations related to molecular structure and PES.
- Current Teaching: Undergraduate Chemistry (specially topics related to Physical Chemistry)

Selected publications:

Research paper:

1. S. Banerjee, N. Guchhait, A. Chakraborty, D. N. Nath and M. Chowdhury, "Low-frequency large-amplitude vibrations of julolidine in the S0 and S1 states" Chemical Physics Letters, 346, 387 (2001)
2. A. Chakraborty, N. Guchhait, S. Banerjee, D. N. Nath, G. N. Patwari and M. Chowdhury, "Spectroscopic investigation of tetrahydroisoquinoline in supersonic jet" Journal of Chemical Physics, 115, 5184 (2001)
3. M. Chowdhury, S. Banerjee and A. Chakraborty, "Spectroscopy of molecules seeded in cold jet: study of conformers", Journal of Indian Chemical Society (Special issue), 78, 649 (2001)
4. S. Banerjee, N. Guchhait, D. N. Nath, M. Chowdhury, P. S. Meenakshi, S. J. Wategaonkar, A. Das and T. Chakraborty, "Discrimination of two low-energy conformers of octahydroanthracene in supersonic jet", Chemical Physics Letters, 366, 211 (2002)

5. N. Guchhait, S. Banerjee, A. Chakraborty, D. N. Nath, G. N. Patwari and M. Chowdhury, "Structure of hydrated clusters of tetrahydroisoquinoline $[THIQ-(H_2O)_{n=1-3}]$ investigated by jet spectroscopy" Journal of Chemical Physics, 120, 9514 (2004)
6. S. Banerjee, S. Chakraborty, P.P.Parui, D.N.Nath, T. Chakraborty and M. Chowdhury, "Identification of two conformers of 5-indanol in a supersonic free jet", Chemical Physics Letters, 442 (1-3). pp. 21-27 (2007),
7. P. P. Parui, N. Manoj, S. Banerjee and M. Chowdhury, "Specific spin-correlation dependent magnetic field effects on radical pairs photo-generated by electron transfer from biphenyl to phenyl-pyrilium salts in micelle", Chemical Physics Letters, 479 (1-3). pp. 70-75 (2009).
8. S. Mukherjee, S. Bandyopadhyay, A. K. Paul, and S. Adhikari, "Construction of Diabatic Hamiltonian Matrix from ab Initio Calculated Molecular Symmetry Adapted Nonadiabatic Coupling Terms and Nuclear Dynamics for the Excited States of Na_3 Cluster" J. Phys. Chem. A, 117 (16), pp 3475–3495 (2013)
9. S. Mukherjee, S. Bandyopadhyay, A. K. Paul, and S. Adhikari, "The molecular symmetry adapted non – adiabatic coupling terms and diabatic Hamiltonian matrix", Journal of Physics: Conference Series 428, 012008 (2013)
10. S. Bandyopadhyay "Electronic spectra of Hydrogen-bonded clusters of 5-indanol in a supersonic free jet", MAC Journal of Basic and applied sciences, 2(1), pp 41-45 (2015).

Book

1. Fundamentals of Engineering Chemistry – S. Bandyopadhyay and Nirmal Hazra, Chhaya Prakashani Pvt. Ltd. 2009 (1st Edition), 2010 (2nd Edition)
2. BPUT Engineering Chemistry - S. Bandyopadhyay, Chhaya Prakashani Pvt. Ltd., 2010
3. Chhaya Chemistry (Class XI) – R. Maiti, D.Chakraborty, N.Tewari, S.Roy and S. Bandyopadhyay, Chhaya Prakashani Pvt. Ltd. 2013

Participated in

1. UGC sponsored Orientation Programme (59th), Academic Staff College, The University of Burdwan, from 19th August to 15th September, 2006.
2. Short Term Programme: "Nanomaterials and their applications". National Institute of Technical Teachers' Training and Research, Department of Applied Science, Chandigarh. (12-16) November, 2007
3. UGC sponsored Refresher Course (Chemistry), Academic Staff College, The University of Calcutta. From 16th August to 6th September, 2013
4. UGC sponsored Refresher Course (Water Resources Development and Management), Academic Staff College, The University of Jadavpur. From 25th August to 13th September, 2014.