



## GOVERNMENT GENERAL DEGREE COLLEGE, RANIBANDH

### FACULTY PROFILE

#### DEPARTMENT OF CHEMISTRY

#### DR. ATANU MAHATA

**Designation** ASSISTANT PROFESSOR (W.B.E.S.)  
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#### Educational Qualification

Degree	Institution	Year
Ph.D.	Jadavpur University	2013
B.Ed.	Netaji Subhas Open University	2015
P.G.	Vidyasagar University	2008
U.G.	Jhargram Raj College, Vidyasagar University	2006

#### Research Areas

- Supramolecular Chemistry
- Heterogeneous Catalysis
- Photophysical Study of Fluorophores in Biomimicking Environments.

#### Areas of Interest/ Specialization

- Photochemistry
- Transition metals assisted carbon-chalcogenide cross-coupling and C-H activation
- Fluorometric detection of anions

#### Career Profile

- Serving as an Assistant Professor of Chemistry at Government General Degree College, Ranibandh since 17<sup>th</sup> December, 2019.
- Serving as an Assistant Teacher of Chemistry at Gopali I. M. High School (H.S.) from 2<sup>nd</sup> August, 2010 to 16<sup>th</sup> December, 2019.

#### Administrative Assignments

## Topics Taught in the Previous Academic Year

- Kinetic Theory of Gases and Real Gases
- Liquids
- Solids
- Chemical Kinetics
- Acids and Bases
- Redox Reactions
- Thermodynamics
- Renewable Energy and Energy Harvesting
- Quantum Mechanics and Applications
- Thermal Physics

## Publications

- B. Jana, M. Mondal, S. Halder, A. Mahata, S. Saurav, and S. Paladhi, Recent Advancement on the Organocatalyzed Asymmetric Conjugate Addition using Maleimide as a Potential Substrate, *Asian J. Org. Chem.* 2023, e202300387.
- S. Das, A. Mahata, M. Garai and, P. Sikder, Present Society in the light of e-learning, 2023, 4, 155-160.
- A. Mahata, M. Garain, T. Roy, D. Gorai, and D. Kundu, Transition Metals Catalyzed Direct C—H Chalcogenation of Arenes and Heteroarenes, 2023 (in press).
- T. Roy, A. Mahata and D. Kundu, Recent Advances in Copper-Catalyzed Carbon Chalcogenides Cross-Coupling Reactions, *Curr. Org. Synth.*, 2023, 20, 267-277.
- D. Kundu, A. Mahata and T. Roy, Synthesis of Aryl/Heteroaryl Selenides Using Transition Metals Catalyzed Cross-Coupling and C—H Activation, *Curr. Org. Chem.*, 2022, 26, 1470-1484.
- A. Mahata, D. Bose, D. Ghosh, B. Jana, B. Bhattacharya, D. Sarkar, N. Chattopadhyay, Studies of Triton X-165- $\beta$ -cyclodextrin interactions using both extrinsic and intrinsic fluorescence. *J. Colloid Interface Sci.*, 2010, 347, 252-259.
- D. Sarkar, D. Bose, A. Mahata, D. Ghosh, N. Chattopadhyay, Differential interaction of  $\beta$ -cyclodextrin with lipids of varying surface charges: A spectral deciphering using a cationic phenazinium dye. *J. Phys. Chem. B*, 2010, 114, 2261-2269.
- D. Bose, D. Sarkar, A. Girigoswami, A. Mahata, D. Ghosh, N. Chattopadhyay, Photophysics and rotational relaxation dynamics of cationic phenazinium dyes in anionic reverse micelles: Effect of methyl substitution. *J. Chem. Phys.*, 2009, 131.
- D. Sarkar, A. Mahata, P. Das, A. Girigoswami, D. Ghosh, N. Chattopadhyay, Deciphering the perturbation of serum albumins by a ketocyanine dye: A spectroscopic approach. *J. Photochem. Photobiol. B: Biol.*, 2009, 96, 136-143.
- A. Mahata, D. Sarkar, D. Bose, D. Ghosh, A. Girigoswami, P. Das, N. Chattopadhyay, Photophysics and rotational dynamics of a  $\beta$ -carboline analogue in nonionic micelles: Effect of variation of length of the headgroup and the tail of the surfactant. *J. Phys. Chem. B*, 2009, 113, 7517-7526.
- D. Sarkar, A. Mahata, P. Das, A. Girigoswami, N. Chattopadhyay, Excited state proton transfer promoted fluorescence resonance energy transfer: Modulation within cyclodextrin nanocavity. *Chem. Phys. Lett.*, 2009, 474, 88-92.

- A. Mahata, D. Sarkar, D. Bose D. Ghosh, P. Das, N. Chattopadhyay, Photophysics and rotational relaxation dynamics of a  $\beta$ -carboline based fluorophore in cationic alkyltrimethylammonium bromide micelles, *J. Colloid Interface Sci.*, 2009, 335, 234-241.

### **Research Paper Presentation in Conferences**

- Binding Interaction of a  $\beta$ -Carboline Analogue with Cationic Alkyltrimethyl Ammonium Bromide Micelles. *J. Colloid Interface Sci.*, 2009, 335, 234-241.
- Binding Interaction of a Ketocyanine Dye with Serum Albumins. *J. Photochem. Photobiol. B: Biol.*, 2009, 96, 136-143.

### **Awards and Distinction**

- Recipient of CSIR-JRF fellowship

### **Other Academic Achievements**

- Qualified NET-2007 Examination (CSIR)
- Qualified GATE -2008 Examination (All India rank 253)

### **Visions**

As an Assistant Professor, my vision is to develop a forward-looking, technologically enhanced, and motivating learning environment which would be a positive and constructive role model for all the students. I envision myself as a mentor to support, guide and encourage the students in their academic and professional pursuits. I am also dedicated in stimulating the college community through active participation in various academic committees and community engagement activities.