



GOVERNMENT GENERAL DEGREE COLLEGE, RANIBANDH

FACULTY PROFILE

DEPARTMENT OF CHEMISTRY

Dr. Prosenjit Saha

Designation Assistant Professor (W.B.E.S.)

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Educational Qualification

Degree	Institution	Year
Ph.D.	Presidency University	2021
B.Ed.	Maharshi Dyanand University	2014
P.G.	Visva-Bharati	2012
U.G.	The University of Burdwan	2010

Research Areas

Synthesis of Nanomaterial, Study of Photoluminescence of nanomaterial, Study of Photo physical property of different flurophore in different environment and their interaction with biomolecules, Synthesis of quantum dot nanomaterial with tunable optical property.

Areas of Interest/ Specialization

My academic interests encompass the dynamic realms of Physical Chemistry, with a specialized focus on:

1. Spectroscopy: Exploring the interaction between matter and electromagnetic radiation to understand molecular structures and properties.
2. Excited State Dynamics: Investigating the behavior of molecules in electronically excited states, shedding light on complex chemical processes.
3. Chemical Thermodynamics: Delving into the study of energy changes during chemical reactions and the factors influencing their spontaneity and equilibrium.

4. Chemical Dynamics: Examining the kinetics of chemical reactions, unraveling the intricacies of reaction mechanisms and rates.

Career Profile

I have been serving as an Assistant Professor in Chemistry at GGDC, Ranibandh since November 5, 2020. In this role, I contribute to the academic and research activities of the institution, focusing on the field of chemistry. My responsibilities include delivering lectures, conducting research, and actively participating in the academic community to promote the advancement of knowledge in the discipline. Before joining here, I am also served as an Assistant Teacher (PG) in Chemistry in a government sponsored school for two years and contributed to the educational development of secondary and higher secondary students. Since transitioning to my current role, I continue to apply my expertise and passion for chemistry education and research, actively contributing to the academic and administrative community at GGDC, Ranibandh.

Administrative Assignments

In my current professional capacity, I am serving as the Nodal Officer for various scholarships, bringing forth a wealth of experience and dedication to the administrative landscape. As an Assistant Professor in Chemistry at GGDC, Ranibandh since November 5, 2020, I have seamlessly integrated my academic expertise with administrative responsibilities

Topics Taught In the Previous Academic Year

1. Solid State Chemistry
2. Atomic Structure
3. Basic Organic Chemistry
4. Gaseous State
5. Chemical thermodynamics
6. Redox Chemistry
7. Practical Chemistry
8. Environmental Chemistry

Publication

1. **“pH dependent tunable photoluminescence of Polyaniline grafted Graphene Oxide (GO-PANI) nanocomposite”** P. Saha, D. K. Pyne, M. Pal, S. Datta, P. K. Das, P. Dutta, A. Halder, Journal of Luminescence, 181(2017) 138-146.
2. **“Effect of an anionic surfactant (SDS) on the photoluminescence of graphene oxide (GO) in acidic and alkaline medium”** P. Saha, D. K. Pyne, S. Ghosh, S. Banerjee, S. Das, S. Ghosh, P. Dutta, A. Halder, RSC Advances 8 (2018) 584-595.
3. **“Tunable Luminescence of Graphene Oxide-Polyaniline nano-composite: Effect of an anionic surfactant”** P. Saha, D. K. Pyne, P. Dutta, A. Halder, Journal of Luminescence, 206 (2019) 218-226.

4. **“Photoluminescence of Graphene Oxide: Effect of pH, Surfactant and Polymer”**

D. K. Pyne, P. Saha, A. Halder, EPA Newsletter, 94, (2018), 11-21.

5. **“Photoluminescence amplification of cerium incorporated graphene oxide nano particles by photoinduced reduction: A mechanistic study highlighting structural**

orderliness” D. K. Pyne, S. Chatterjee, T. Biswas, P. Saha, P. Dutta, A. Halder, Journal of Luminescence, 235, (2021), 118019.

Research Paper Presentation in Conferences

1. **“UV fluorescence of Graphene Oxide-Polyaniline (GO-PANI) nanocomposite comparison with Graphene Oxide”** Poster presentation in State Conference at 23rd West Bengal State Science and Technology Congress, January 28-29, 2016 at Presidency University, Kolkata.

2. **“pH dependent tunable photoluminescence of Polyaniline grafted Graphene Oxide (GO-PANI) nanocomposite”** Poster presentation in National Conference on Recent Developments in Chemistry, October 4-6, 2016 at National Institute of Technology, Durgapur.

3. **“pH dependent tunable Fluorescence of Graphene Oxide (GO) by the interaction with a surfactant (SDS)”** Poster presentation in National Conference on Recent Trends in Chemistry Research, March 25-26, 2017 at Visva Bharati, Department of Chemistry, Santiniketan, West Bengal.

4. **“Fluorescence Modulation of Graphene Oxide (GO) by the surfactant and Polymer”** Poster presentation in International Conference on Chemistry for Human Development (ICCHD-2018), January 8-10, 2018, at Heritage Institute of Technology, Kolkata

5. **“Modulation of photoluminescence of Graphene Oxide (GO) by the interaction with an anionic surfactant”** Oral presentation in International Conference on Current Trends in Material Science and Engineering (CTMSE 2018), January 19-20, 2018, Organised by IEM, Kolkata and SN Bose National Centre for Basic Sciences, Kolkata.

Awards: CSIR Junior Research Fellow and Senior Research Fellow

Other Academic Achievements : Qualified NET-2013 Examination (CSIR), Qualified GATE -2017 Examination(All India rank 105) and Qualified SET 2017 Examination.

Visions

I envision a future where education becomes a transformative force, empowering individuals to reach their fullest potential. As an educator and administrative professional, my vision is to create inclusive and innovative learning environments that foster intellectual curiosity, critical thinking, and a passion for lifelong learning.