

**Name:** Rimpa Mondal

**Date of Joining:** 04.08.2018

**Teaching Experience:** Have 6 Years of teaching experience.

**Biography:** B.Sc. Chemistry (The University of Burdwan), M.Sc. Chemistry (University of Kalyani), Qualified CSIR-UGC National Eligibility Test held in December 2019 (All India Rank-124) in Chemistry.

Pursuing Ph.D. under the supervision of [Dr. Nillohit Mukherjee](#), Assistant Professor (Indian Institute of Engineering Science and Technology, Shibpur, An Institute of National Importance) & [Prof. \(Dr.\) Sk. Faruque Ahmed](#) (Aliah University, Newtown, Kolkata)

**Academic Activities/Duties:** Examiner of B.Sc. Chemistry (Honours & General) and Environmental Science (ENVS) of The University of Burdwan.

**Teaching Area:** Physical Chemistry (as Honours subject) & Chemistry (in General course), Environmental Science (ENVS).

**Administrative Experience(s):**

- I. Chemistry Departmental Co-ordinator (January, 2024 – August, 2024),
- II. Joint Convener of college Website Committee,
- III. Member of Computer Maintenance and Internet Committee.

**Research Experience and Topic:**

- I. **Total 05 (FIVE)** years (since 2019) of research experience as a Doctoral candidate.
- II. Served as a **Project Assistant** in the project “Nanostructured Materials and Interfaces for Enzymeless Electrochemical Sensing of Serotonin and Dopamine” funded by Department of Science, Technology and Biotechnology (DSTB), Government of West Bengal, India (Grant ID: T/P/S&T/16G-49/2017) from 2019 to 2021 at Indian Institute of Engineering and Science Technology, Shibpur, Howrah, West Bengal, India.

III. Currently working as a “**Research Scholar**” (since 2021) at Aliah University, Newtown, Kolkata, India; & Indian Institute of Engineering and Science Technology, Shibpur, Howrah, West Bengal, India in Synthesis of functionalized nanomaterials and semiconductor thin films for their applications in sensitive and selective electrochemical sensing of bio-analytes. [Google Scholar](#), [Research Gate](#)

**Publication Details:** Total 05 (Five)

Serial No.	Title	Book/Journal	ISBN/ISSN/DOI	UGC-Care Listed or Peer Reviewed	Published By	Date of Publication
1.	<u>Highly sensitive, selective and rapid in-vitro electrochemical sensing of dopamine achieved on oxygen deficient nickel oxide/partially reduced graphene oxide (NiOx/p-rGO)</u>	<u>Inorganic Chemistry Communications</u>	<u><a href="https://doi.org/10.1016/j.inoche.2024.113575">https://doi.org/10.1016/j.inoche.2024.113575</a></u>	Yes	<u>Elsevier</u>	20 <sup>th</sup> November, 2024

	<u>nanocomposite platform</u>					
2.	<u>Ultrafast, Selective, and ppb Level In Vitro Electrochemical Sensing of Dopamine in a Simulated Interfering Environment: Comparative Study on the Effect of Carrier Type of Electrode Materials</u>	<u>ACS Applied Electronic Materials</u>	<a href="https://doi.org/10.1021/acsaelm.4c00947">https://doi.org/10.1021/acsaelm.4c00947</a>	Yes	<u>American Chemical Society (ACS)</u>	31 <sup>st</sup> July, 2024
3.	<u>Electrochemically Grown Hole-Rich NiO(OH) Thin Films toward Hole-Mediated Very Fast and Selective Enzyme-Free Electrochemical Sensing of Dopamine under Simulated Environment</u>	<u>ACS Applied Bio Materials</u>	<a href="https://doi.org/10.1021/acsabm.4c00400">https://doi.org/10.1021/acsabm.4c00400</a> ISBN: 2576-6422	Yes	<u>American Chemical Society (ACS)</u>	3 <sup>rd</sup> June, 2024
4.	<u>Ultrafast and selective detection of dopamine by DC sputtered highly oriented CuO thin</u>	<u>Microchemical Journal</u>	<a href="https://doi.org/10.1016/j.microc.2024.110729">https://doi.org/10.1016/j.microc.2024.110729</a> ISBN: 1095-9149	Yes	<u>Elsevier</u>	10 <sup>th</sup> May, 2024

	<a href="#">films: Effect of electroactive interfering agents and temperature</a>					
5.	<a href="#">Electrochemically selective detection of dopamine over serotonin by CuO/Cu<sub>2</sub>O bulk heterostructure electrode</a>	<a href="#">Bulletin of Materials Science</a>	<a href="https://doi.org/10.1007/s12034-023-03131-x">https://doi.org/10.1007/s12034-023-03131-x</a> ISBN: 0973-7669	Yes	<a href="#">Springer Nature</a>	23 <sup>rd</sup> March, 2024
6.	<a href="#">Electrochemically Deposited Cu(II)/Cu(I) Oxide Heterostructure as Highly Sensitive Platform for Electrochemical Detection of Glucose and Methanol</a>	<a href="#">J. Inst. Eng. India Ser. D</a>	<a href="https://doi.org/10.1007/s40033-023-00588-2">https://doi.org/10.1007/s40033-023-00588-2</a> ISBN: 2250-2122	Yes	<a href="#">Springer Nature</a>	22 <sup>nd</sup> January, 2024

**Invited Talk:** Total 01 (One)

- 13th Prof S.P Sengupta Memorial Function & One day Seminar on Multifunctional Materials: Technology & Applications, August 09, 2024 at Indian Association for the Cultivation of Science Jadavpur, Kolkata.

**Paper Title:** Development of advanced semiconducting electrodes/systems for the selective and fast detection of the neuro-

transmitter dopamine.

**Paper/Poster Presentation Details: Total 04 (Four)**

<b>Serial No.</b>	<b>Title</b>	<b>Organized By</b>	<b>Date</b>	<b>Online/Offline</b>
1.	Electrochemically deposited CuO/Cu <sub>2</sub> O bulk heterostructures for efficient electrochemical sensing of organomolecules.	Young Scientist Colloquium, 2022, Materials Research Society of India (Kolkata Chapter) at CSIR-CGCRI, Kolkata.	16.12.2022	Offline
2.	Electrochemically deposited metal oxide thin film for competitive enzymeless detection of neurotransmitter.	Govt. Engineering Collge, Bikaner in joint auspices of Condensed Matter Research Society (CMRS).	09.10.23 & 10.10.23	Online
3.	Nickel-oxy-hydroxide [NiO(OH)] thin film as a potential platform for electrochemical detection of dopamine over serotonin.	Young Scientist Colloquium, 2023, Materials Research Society of India (Kolkata Chapter) at Jadavpur University, Kolkata.	01.012.2023	Offline
4.	A competitive study on the electrochemical sensing of dopamine and serotonin with p and n-type semiconductors as the working electrodes.	4 <sup>th</sup> Internatinal Conference on Material Science (ICMS-2024), Tripura University (A Central University), Agartala, India.	31.01.2024 & 02.02.2024	Offline