


1	Name of Faculty	Dr. RUPAM SINHA	
2	Designation	Assistant Professor	
3	Nature of Job/Appointment	Regular	
4	Date of Joining	27 – 12 - 2022	
5	E-mail	rupamsinha_chem@cbit.ac.in	
6	Education Qualifications	Name of the Degree	Class
	Ph. D	Doctor of Philosophy (Chemical Engineering, IIT Guwahati))	Awarded
	PG	M. Tech (Chemical Engineering, NIT Agartala)	Distinction
	UG	B. Tech (Chemical Engineering, NIT Agartala)	Distinction
7	Work Experience		
	Teaching	4 Months	
	Research	6 Months	
	Industry	--	
	Others	--	
8	Area of Specialization	Nanoscience and nanotechnology, Sensing, Photodiodes, Supercapacitor, Photodetection, Carbon dots, Material science, ZnO synthesis and applications, Electrochemistry, CO ₂ reduction.	
9	Professional Memberships	--	
10	Responsibilities held at Institution Level		
11	Responsibilities held at Department Level		
12	Research Guidance	--	
13	Awards Received	--	
14	Courses Handled at Under Graduate / Post Graduate Level.	Transport Phenomena, Interfacial Science	
15	No. of Papers Published	National Journals – Nil	International Journals – 07
		National Conference – 02	International Conference – 05
16	Projects Carried out	--	
17	Patents	1 (Abstract Published)	
18	Technology Transfer	--	
19	Invited Speaker	<ol style="list-style-type: none"> Invited Speaker on “Growth of Carbon Dot-Decorated ZnONanorods on a Graphite-Coated Paper Substrate to Fabricate a Flexible and Self-Powered Schottky Diode for UV Detection” in Indo-UK Joint Webinar on Current Trends in Chemical Technology and Materials Development, jointly organized by Indian Institute of Technology Guwahati, Assam, India and University of Aberdeen, United Kingdom, 19-20 August, 2020. Invited Speaker on “Carbon Dots: A new yet versatile member in the realm of Nanoscience and Nanotechnology” in a 6 days workshop on “Recent trends in Engineering and Emerging Technologies” organised by the Department of Chemical Engineering, National Institute of Technology Agartala, 17-22 October 2022. 	
20	No. of Books/Chapter Published with details		
	Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops.Other Trainings (Attended and/or Organized).		
21	Details of Journal Publications/Conferences (National and International)		
22	International Journal		
	1. Rupam Sinha , Nirmal Roy, and Tapas K. Mandal, SWCNT/ZnO nanocomposite decorated with carbon dots for photoresponsive supercapacitor applications. Chem. Eng. J., 431, 133915, 2022.		

- DOI: 10.1016/j.cej.2021.133915; I.F: 16.744
2. **Rupam Sinha**, Nirmal Roy, RavulaRajasekhar, AabhasKarnawat and Tapas K. Mandal, N-Doped Carbon Dot from Cigarette-Tobacco: Picric Acid Sensing in Real Water Sample and Synthesis of CD-MWCNT Nano-Composite for UV-Photodetection. *J. Env. Chem. Eng.*, 9, 104971, 2021. DOI: 10.1016/j.jece.2020.104971; I.F: 7.968
 3. **Rupam Sinha**, Nirmal Roy and Tapas K. Mandal, Growth of Carbon Dot-Decorated ZnONanorods on a Graphite-Coated Paper Substrate to Fabricate a Flexible and Self-Powered Schottky Diode for UV Detection. *ACS Appl. Mater. Interfaces*, 12, 33428-33438, 2020. DOI: 10.1021/acsami.0c10484; I.F: 10.383
 4. Nirmal Roy, **Rupam Sinha**, Thomas T. Daniel, Harshal B. Nemade and Tapas K. Mandal, Highly sensitive room temperature CO gas sensor based on MWCNT-PDDA composite. *IEEE Sens. J.*, 2020. DOI: 10.1109/JSEN.2020.3004994; I.F: 4.325
 5. **Rupam Sinha**, AgamBisht, SaptakRarotra and Tapas K. Mandal, Continuous Semi-Micro Reactor Prototype for the Electrochemical Reduction of CO₂ into Formic Acid. *Ind. Eng. Chem. Res.*, 59, 1737-1745, 2020. DOI: 10.1021/acs.iecr.9b03304; I.F: 4.326
 6. **Rupam Sinha**, Anil P. Bidkar, RavulaRajasekhar, Siddhartha S. Ghosh and Tapas K. Mandal, A facile synthesis of nontoxic luminescent carbon dots for detection of chromium and iron in real water sample and bio-imaging. *Can. J. Chem. Eng.*, 98, 194-204. DOI: 10.1002/cjce.23630; I.F: 2.5
 7. Nirmal Roy, **Rupam Sinha**, Harshal B. Nemade and Tapas K. Mandal, Synthesis of MoS₂-CuO nanocomposite for room temperature acetone sensing application. *J. Alloy. Compd.*, 910, 164891. DOI: 10.1016/j.jallcom.2022.164891; I.F: 6.371

International /National Conferences

1. **Rupam Sinha**, Nirmal Roy and Tapas K Mandal, Paper based flexible and self-powered UV photodetector. *Advances in Sustainable Research for Energy and Environmental Management (ASREEM 2021)*, 2021, SVNIT Surat, India.
 2. **Rupam Sinha**, Nirmal Roy, RavulaRajasekhar and Tapas K Mandal, Cigarette: A source of photoluminescent N-doped carbon dots showing potential in photo- responsive application and explosive material sensing, *International Conference on Advances in Chemical Engineering- 2020 (AdChE-2020)*.
 3. **Rupam Sinha**, RavulaRajasekhar and Tapas K. Mandal, Carbon dots photoluminescence technique to detect total Chromium in industrial wastewater, *The International Nanotech & nanoscience Conference and Exhibition Nanotech France 2019*. DOI: <https://doi.org/10.26799/cp-nanotechfrance2019>.
 4. **Rupam Sinha**, Nirmal Roy, RavulaRajasekhar and Tapas K Mandal, Synthesis of N-doped carbon dots from cigarette and its applications in picric acid and UV detection, *6th International Conference on Advanced Nanomaterial and Nanotechnology (ICANN-2019)*, IIT Guwahati, Guwahati, India, 2019.
 5. **Rupam Sinha**, RavulaRajasekhar and Tapas K. Mandal, A Facile Synthesis of Nontoxic Luminescent Carbon Dots for Simultaneous Detection of Cr⁶⁺ and Fe³⁺ Ions, *TEQIP III Sponsored 1st National Student Conference on Advances in Chemical Engineering 2019*, AEC, India.
 6. **Rupam Sinha**, RavulaRajasekhar and Tapas K. Mandal, Utilization of photoluminescent carbon dots for detecting Cr⁶⁺ ions. *12th International Conference on Complex Fluids and Soft Matter (COMPFLU -2018)*, December 6 – 9, 2018, IIT Roorkee, India.
 7. **Rupam Sinha**, AgamBisht and Tapas K. Mandal, Electrochemical reduction of CO₂ into formic acid using Sn electrocatalyst as a cathode: A study on pH effect. *Research Conclave 2018*, March 8 – 11, 2018, IIT Guwahati, India.
23. **Details of the patent(s)**

Rupam Sinha, Nirmal Roy, and Tapas K. Mandal, Paper based flexible and self-powered UV photodetector. 202031051178 A. Date of application: 24/11/2020. Date of Abstract publication: 27/05/2022. **(Indian)**