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Department of chemistry
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Dr. Rumpa Saha

➤ **Academic Records:**

- **Ph. D. :** Chemistry
Dept. of Chemistry
The University of Burdwan
Burdwan, 713104
West Bengal, 2014
- **M. Sc. :** Chemistry (Organic Chemistry)
The University of Burdwan
Burdwan, 713104
West Bengal, 2009

➤ **Previous Experience**

- Lecturer in Chemistry
K. G. Engineering Institute, Bishnupur, Bankura,
(September 2012-March 2015)
- Assistant Professor in Chemistry
T.D.B. College, Raniganj, Burdwan
(March 2015-June 2017)

➤ **Fellowship**

- NET, Council of Scientific and Industrial Research (CSIR), JRF & SRF (December 2008)
- Graduate Aptitude Test in Engineering (GATE)

➤ **Research interest**

- Synthetic application of micellar catalysis on Organic Reactions
- Bioremediation of toxic metals
- Reaction mechanism

➤ **h-index:** Scopus: 20; Google scholar:20

➤ **Research Experience:**

Sl. No.	Name & Address of the Institute	Designation	From	To	Research Area
1.	Dept. of Chemistry The University of Burdwan Burdwan, 713104 West Bengal	Junior Research Fellow JRF	2009	2011	Removal of Hexavalent Chromium from Contaminated Water by Raw and Modified Agricultural By-Products
2.	Dept. of Chemistry The University of Burdwan Burdwan, 713104 West Bengal	Senior Research Fellow SRF	2011	2012	Removal of Hexavalent Chromium from Contaminated Water by Raw and Modified Agricultural By-Products
3.	Dept. of Chemistry The University of Burdwan Burdwan, 713104 West Bengal	Part-time Research Fellow	2012	2014	Micellar catalysis on Organic Reactions

➤ **Research Project:**

- UGC sponsored a minor research project titled “*Role of surfactant for Cr(VI) oxidation of organic substrates in presence of promoter*”(2016-2017).

➤ **Reviewer of the journals:**

- Research on Chemical Intermediates (Springer)
- Desalination and Water Treatment (Taylor & Francis)
- Journal of Environmental Chemical Engineering (Elsevier)
- Journal of Industrial and Engineering Chemistry (Elsevier)

➤ List of Publications :

1. Sources and toxicity of hexavalent chromium. R. Saha, R. Nandi and B. Saha. *J. Coord. Chem.* 64 (2011) 1782
2. Micellar catalysis on 1, 10-phenanthroline promoted hexavalent chromium oxidation of ethanol. R. Saha, A. Ghosh and B. Saha. *J. Coord. Chem.* 64 (2011) 3729
3. Effect of some non functional surfactants and electrolytes on the hexavalent chromium reduction by glycerol: A mechanistic study. A. Basu, S. K. Ghosh, R. Saha, R. Nandi, T. Ghosh and B. Saha. *Tenside Surf. Det.* 48 (2011) 453
4. Micellar catalysis on 1, 10-phenanthroline promoted chromic acid oxidation of propan-2-ol in aqueous media. A. Ghosh, R. Saha, K. Mukherjee, S. K. Ghosh, S. S. Bhattacharyya and B. Saha. *J. Chem. Res.* 36 (2012) 347
5. Micellar catalysis on picolinic acid promoted hexavalent chromium oxidation of glycerol. S. K. Ghosh, A. Basu, R. Saha, A. Ghosh, K. Mukherjee and B. Saha. *J. Coord. Chem.* 65 (2012) 1158
6. Micellar catalysis on 1, 10-phenanthroline promoted chromic acid oxidation of propanol in aqueous media. S. K. Ghosh, R. Saha, K. Mukherjee, A. Ghosh, S. S. Bhattacharyya and B. Saha. *J. Kor. Chem. Soc.* 56 (2012) 164
7. Micellar catalysis on pentavalent vanadium ion oxidation of ethanol in aqueous acid media. S. K. Ghosh, A. Ghosh, R. Saha and B. Saha. *Tenside Surf. Det.* 49 (2012) 296
8. Micellar catalysis on 1, 10-phenanthroline promoted chromic acid oxidation of glycerol in aqueous media. S. K. Ghosh, R. Saha, A. Ghosh, K. Mukherjee and B. Saha. *Tenside Surf. Det.* 49 (2012) 370
9. Kinetic studies of glutamic acid oxidation by hexavalent chromium in presence of surfactants. A. Basu, S. K. Ghosh, R. Saha, A. Ghosh, T. Ghosh, K. Mukherjee, S. S. Bhattacharyya and B. Saha. *Tenside Surf. Det.* 49 (2012) 481
10. Micellar catalysis on 1, 10 phenanthroline promoted chromic acid oxidation of ethane-1, 2-diol in aqueous media at room temperature. S. K. Ghosh, R. Saha, A. Ghosh, K. Mukherjee, A. Basu, S. S. Bhattacharyya and B. Saha. *J. Kor. Chem. Soc.* 56 (2012) 720
11. Selection of suitable combination of nonfunctional micellar catalyst and hetero-aromatic nitrogen base as promoter for chromic acid oxidation of ethanol to acetaldehyde in aqueous medium at room temperature. A. Ghosh, R. Saha, K. Mukherjee, S. K. Ghosh, S. S. Bhattacharyya, S. Laskar and B. Saha. *Int. J. Chem. Kinet.* 45 (2013) 175
12. Application of Chattim tree (Devil tree, *Alstonia scholaris*) saw dust as a biosorbent for removal of hexavalent chromium from aqueous solution. R. Saha, I. Saha, R. Nandi, A. Ghosh, A. Basu, S. K. Ghosh and B. Saha. *Can. J. Chem. Eng.* 91 (2013) 814
13. Choice of a suitable hetero-aromatic nitrogen base as promoter for chromic acid oxidation of dl-mandelic acid in aqueous media at room temperature. R. Saha, S. K. Ghosh, A. Ghosh, I. Saha, K. Mukherjee, A. Basu and B. Saha. *Res. Chem. Intermed.* 39 (2013) 631
14. Removal of hexavalent chromium from water by adsorption using mosambi peel (*Citrus limetta*) R. Saha, K. Mukherjee, I. Saha, A. Ghosh, S. K. Ghosh and B. Saha. *Res. Chem. Intermed.* 39 (2013) 2245
15. Chromium removal technologies, K. Mukherjee, R. Saha, A. Ghosh and B. Saha. *Res. Chem. Intermed.* 39 (2013) 2267
16. Combination of best promoter and micellar catalyst for chromic acid oxidation of D-mannitol to mannose in aqueous media. A. Basu, S. K. Ghosh, R. Saha, A. Ghosh, K.

- Mukherjee, B. Saha. *Tenside Surf. Det.* 50 (2013) 249
17. Micellar catalysis of chromic acid oxidation of methionine to industrially important methylthiol in aqueous media at room temperature. A. Basu, S. K. Ghosh, R. Saha, A. Ghosh, K. Mukherjee and B. Saha. *Tenside. Surf. Det.* 50 (2013) 94
 18. Combination of best promoter and catalyst for hypervalent chromium oxidation of l-sorbose to lactone of C 5 aldonic acid in aqueous media at room temperature. K. Mukherjee, R. Saha, A. Ghosh, S. K. Ghosh and B. Saha. *J. Mol. Liq.* 179 (2013)
 19. Efficient combination of promoter and catalyst for chromic acid oxidation of propan-2-ol to acetone in aqueous acid media at room temperature. K. Mukherjee, R. Saha, A. Ghosh, S. K. Ghosh and B. Saha. *Spectrochim. Acta Part A.* 101 (2013) 294
 20. A Review on Biphase Hydroformylation for Long Chain Substrates. C. Dey, R. Saha, S. K. Ghosh, A. Ghosh, K. Mukherjee, S. S. Bhattacharyya and B. Saha. *Res. Chem. Intermed.* 39 (2013) 3463
 21. Selection of promoter and micellar catalyst for chromic acid oxidation of tartaric acid in aqueous medium at room temperature. K. Mukherjee, S. K. Ghosh, R. Nandi, A. Ghosh, I. Saha, R. Saha and B. Saha. *Tenside Surf. Det.* 50 (2013) 441
 22. Suitable combination of promoter and micellar catalyst for kilo fold rate acceleration on benzaldehyde to benzoic acid conversion in aqueous media at room temperature: a kinetic approach. A. Ghosh, R. Saha, K. Mukherjee, S. K. Ghosh and B. Saha. *Spectrochim. Acta Part A.* 109 (2013) 55
 23. Combination of best promoter and micellar catalyst for more than kilo-fold rate acceleration in favor of chromic acid oxidation of D-galactose to D-galactonic acid in aqueous media at room temperature. R. Saha, A. Ghosh, P. Sar, I. Saha, S. K. Ghosh, K. Mukherjee and B. Saha. *Spectrochim. Acta Part A* 116 (2013) 524
 24. Rate enhancement via micelle encapsulation for room temperature metal catalyzed Ce(IV) oxidation of formaldehyde to formic acid in aqueous medium at atmospheric pressure: A kinetic approach. A. Ghosh, R. Saha, P. Sar and B. Saha. *J. Mol. Liq.* 186 (2013) 122
 25. Selection of suitable micellar catalyst for 1,10-phenanthroline promoted chromic acid oxidation of formic acid in aqueous media at room temperature. A. Ghosh, R. Saha, S. K. Ghosh, K. Mukherjee and B. Saha. *J. Kor. Chem. Soc.* 57 (2013) 703
 26. Kinetics of micellar catalysis on oxidation of p-anisaldehyde to p-anisic acid in aqueous medium at room temperature. R. Saha, A. Ghosh and B. Saha. *Chem. Eng. Sci.* 99 (2013) 23
 27. Suitable combination of promoter and micellar catalyst for kilo fold rate acceleration on propanol to propionaldehyde conversion in aqueous media. A. Ghosh, R. Saha and B. Saha. *J. Ind. Eng. Chem.* 20 (2014) 345
 28. Best combination of promoter and micellar catalyst for the rapid conversion of sorbitol to glucose. K. Mukherjee, A. Ghosh, R. Saha, P. Sar, S. Malik and B. Saha. *Spectrochim. Acta Part A* 122 (2014) 204
 29. Rate enhancement via micelle encapsulation for room temperature metal catalyzed Ce(IV) oxidation of p-chlorobenzaldehyde to p-chlorobenzoic acid in aqueous medium at atmospheric pressure. A. Ghosh, R. Saha, K. Mukherjee, P. Sar, S. K. Ghosh, S. Malik, S. S. Bhattacharyya and B. Saha. *J. Mol. Liq.* 190 (2014) 81
 30. Surfactant-assisted bioremediation of hexavalent chromium by use of an aqueous extract of sugarcane bagasse. K. Mukherjee, R. Saha, A. Ghosh, S. K. Ghosh, P. K. Maji and B. Saha. *Res. Chem. Intermed.* 40 (2014) 1727
 31. Effect of CHAPS and CPC micelles on Ir(III) catalyzed Ce(IV) oxidation of aliphatic alcohols at room temperature and pressure. A. Ghosh, R. Saha and B. Saha. *J. Mol. Liq.* 196 (2014) 223
 32. Combination of best promoter and micellar catalyst for chromic acid oxidation of 1-butanol to 1-butanal in aqueous media at room temperature. R. Saha, A. Ghosh and B. Saha. *Spectrochim. Acta Part A* 124 (2014) 130

33. A review on sources, toxicity and remediation technologies for removing arsenic from drinking water. Res. Chem. Intermed. A. Basu, D. Saha, R. Saha, T. Ghosh and B. Saha. 40 (2014) 447
34. Removal of hexavalent chromium from contaminated water by adsorption using mango leaves (*Mangifera indica*). R. Saha and B. Saha. Des. Wat. Treat. 52 (2014) 1928
35. Effect of CPC micelle on N-hetero-aromatic base promoted room temperature permanganate oxidation of 2-butanol in aqueous medium. A. Ghosh, K. Sengupta, R.Saha and B. Saha. J. Mol. Liq. 198 (2014) 369
36. A review on toxic cadmium biosorption from contaminated wastewater. D. Ghosh, R. Saha, A. Ghosh, R. Nandi and B. Saha. Des. Wat. Treat. 53 (2015) 413
37. Choice of suitable micellar catalyst for 2, 2'-bipyridine promoted chromic acid oxidation of glycerol to glyceraldehyde in aqueous media at room temperature. A. Ghosh, R. Saha, K. Mukherjee, S. K. Ghosh, P. Sar, S. Malik and B. Saha. Res. Chem. Intermed 41 (2015) 3057
38. Toxicity of Inorganic vanadium compounds. S. K. Ghosh, R. Saha and B. Saha. Res. Chem. Intermed. 41 (2015) 4873
39. Suitable combination of promoter and micellar catalyst for chromic acid oxidation of formaldehyde to formic acid in aqueous acid media at room temperature. S. K. Ghosh, A. Ghosh, R. Saha and B. Saha. Phys. Chem. Liq. 53 (2015) 146
40. Micellar effect on pentavalent vanadium oxidation of formaldehyde to formic acid in aqueous acid media at room temperature. P. Sar, A. Ghosh, R. Saha and B. Saha. Res. Chem. Intermed. 41 (2015) 5331
41. A review on natural surfactants. S. Dey, S.Malik, A. Ghosh, R. Saha and B. Saha. RSC Advances 5 (2015) 65757
42. Modernization of surfactant chemistry in the age of Gemini and bio- surfactants: A Review. M. H. Mondal, S. Malik, A. Roy, R. Saha and B. Saha. RSC Advances 5 (2015) 92707
43. A review on aldol reaction. S. Mandal, S. Mandal, S. K. Ghosh, A. Ghosh, R. Saha, S. Banerjee and B. Saha. Synth. Commun. 46 (2016)1327
44. A Review on Advancement of Ether Synthesis from Organic Solvent to Water. S. Mandal, S. Mandal, S. K. Ghosh, A. Ghosh, P. Sar, R. Saha and B. Saha. RSC Advances. 6 (2016) 69605