

# Curriculum Vitae

## Debajyoti Goswami

Assistant Professor, Department of Chemical Engineering, University of Calcutta

### Personal Details

**Date of Birth:** 18.03.1975  
**Religion:** Hinduism  
**Contact No.:** 9433312510  
**E-mail:** dgoswami2@rediffmail.com  
goswami.debajyoti@gmail.com  
**Address:** Department of Chemical Engineering, University of Calcutta  
92, A. P. C. Road, Kolkata-700009

### Educational Qualification

Doctor of Philosophy, Chemical Engineering Indian Institute of Technology Kharagpur, India	2011		
Master of Technology, Chemical Engineering University of Calcutta, Calcutta, India	2001	1st class	76.33%
Bachelor of Technology, Chemical Engineering University of Calcutta, Calcutta, India	1999	1 <sup>st</sup> class	75.16%
Bachelor of Science, Honours (Chemistry) University of Calcutta, Calcutta, India	1996	1 <sup>st</sup> class	64.12%
Higher Secondary Examination, West Bengal Council of Higher Secondary Education, West Bengal, India	1993	1 <sup>st</sup> division with star marks	82.6%
Secondary Examination, West Bengal Board of Secondary Education, West Bengal, India	1991	1 <sup>st</sup> division with star marks	84.2%

**Title of PhD Dissertation:** Surfactant Enhanced Lipase Catalyzed Oil Hydrolysis  
(Abstract published in Dissertation Abstracts International, Volume 72, No. 10).

## **Research Area**

Biochemical Engineering, Statistical Optimization, Surfactants in Biocatalysis.

## **Experience**

### *Research Experience*

**1. No. of Ph.D. students (continuing): 0**

**2. No. of M. Tech. students guided (completed): 6 (ongoing): 0**

**3. No. of B. Tech. students guided (completed): 19 (ongoing): 2**

**4.** worked for 9 months (08.04.2002 to 31.12.2002) as ‘Project Associate’ in a UGC major research project in Department of Chemical Engineering, University of Calcutta, Calcutta, India

### *Teaching Experience*

Presently working (since 29.12.2015) as ‘Assistant Professor’ in Department of Chemical Engineering, University of Calcutta, Kolkata, West Bengal, India

2.5 years (15.07.2013 to 28.12.2015) as ‘Assistant Professor’ in Department of Chemical Engineering, Heritage Institute of Technology, Kolkata, West Bengal, India

Worked as ‘Guest Faculty’ in Department of Chemical Technology, University of Calcutta (August–December, 2014)

Faculty for ‘Remedial Class’ in ‘Department of Chemical Technology, University of Calcutta’ in 2014 under TEQIP II Scheme.

2.5 years (12.01.2011 to 11.07.2013) as ‘Assistant Professor’ in Department of Chemical Engineering, Calcutta Institute of Technology, Uluberia, West Bengal, India

2 years (07.07.2003 to 20.07.2005) as ‘Lecturer’ and ‘H.O.D.’ in Department of Engineering Chemistry, Bengal College of Engineering and Technology, Durgapur, West Bengal, India

### *Chemical Engineering subjects taught*

#### *In M. Tech.*

Reaction Engineering

Petrochemicals (under specialization: Petrochemicals and Petroleum Refinery Engineering)

Petroleum Science (under specialization: Petrochemicals and Petroleum Refinery Engineering)

#### *In B. Tech.*

Chemical Reaction Engineering

Project Engineering

Biotechnology and Biochemical Engineering

Instrumentation and Process Control

Fluid Mechanics  
Separation Processes  
Polymer Science and Engineering  
Materials Science  
Total Quality Management

## Professional Development Programmes

1. Orientation Programme in HRDC, University of Calcutta from 04.02.2019 to 04.03.2019
2. Interdisciplinary Refresher Course in Chemical Sciences, Engg. and Technology in HRDC, University of Calcutta from 26.08.2019 to 09.09.2019
3. Interdisciplinary Refresher Course in Environmental Studies in HRDC, University of Calcutta from 08.12.2023 to 21.12.2023

## Publications

### Journal

1. A. L. Bose, D. Bhattacharjee, **D. Goswami**, Process Parameters Influence Product Yield and Kinetic Parameters in Lipase Catalysis, **ChemBioEng Reviews**, 2024 (IF 4.8), 11 (2), 178–196.
2. **D. Goswami**, Lipase Catalysis in Mixed Micelles, **ChemBioEng Reviews**, 2022 (IF 4.8), 9 (4), 409–418. (Cited by 6)
3. A. L. Bose, D. Bhattacharjee, **D. Goswami**, Mixed Micelles and Bicontinuous Microemulsions: Promising Media for Enzymatic Reactions, **Colloids and Surfaces B: Biointerfaces**, 2022 (IF 5.8), 209 (Part 1), Article 112193. (Cited by 20)
4. D. Bhattacharjee, **D. Goswami**, Surfactant Assisted Production of Ricinoleic Acid Using Cross-Linked and Entrapped Porcine Pancreas Lipase, **Journal of Dispersion Science and Technology**, 2021 (IF 2.042), 42 (7), 947–955. (Cited by 5)
5. **D. Goswami**, Lipase Catalysis in Presence of Nonionic Surfactants, **Applied Biochemistry and Biotechnology**, 2020 (IF 2.926), 191 (2), 744–762. (Cited by 31)
6. A. L. Bose, **D. Goswami**, Biocatalytic Production of Ricinoleic Acid from Castor Oil: Augmentation by Ionic Liquid, **Chemical Engineering Communications**, 2020 (IF 2.494), 207 (7), 972–984. (Cited by 2)
7. **D. Goswami**, Lipase Catalyzed Modification of Mustard Oil: A Review, **Current Biochemical Engineering**, 2017, 4 (2), 99–108. (Invited Review) (Cited by 2)
8. **D. Goswami**, Recent Patents on Lipase Catalyzed Vegetable and Fish Oil Modification, **Recent Patents on Engineering**, 2013, 7 (2): 87–97. (Invited Review)

9. **D. Goswami, J. K. Basu, S. De, Lipase Applications in Oil Hydrolysis with a Case Study on Castor Oil: A Review, *Critical Reviews in Biotechnology*, 2013 (IF 7.837), 33 (1): 81–96. (Cited by 128)**
10. **D. Goswami, J. K. Basu, S. De, Optimal Hydrolysis of Mustard Oil to Erucic Acid: A Biocatalytic Approach, *Chemical Engineering Journal*, 2012 (IF 3.473), 181–182: 542–548. (Cited by 20)**
11. **D. Goswami, S. De, J. K. Basu, Effects of Process Variables and Additives on Mustard Oil Hydrolysis by Porcine Pancreas Lipase, *Brazilian Journal of Chemical Engineering*, 2012 (IF 0.894), 29 (3): 449–460. (Cited by 31)**
12. **D. Goswami, S. De, J. K. Basu, Kinetics Study of Surfactant Enhanced Lipase Catalyzed Oil Hydrolysis, *Journal of Biochemistry and Biotechnology* (ISSN 0976-6235), 2011, 2 (1): 7–13.**
13. **D. Goswami, J. K. Basu, S. De, Erucic Acid Production using Porcine Pancreas Lipase: Enhancement by Mixed Surfactants, *Biotechnology and Bioprocess Engineering*, 2011 (IF 1.278), 16 (2): 327–336. (Cited by 8)**
14. **D. Goswami, R. Sen, J. K. Basu, S. De, Surfactant Enhanced Ricinoleic Acid Production using *Candida rugosa* Lipase, *Bioresource Technology*, 2010 (IF 4.365), 101 (1): 6–13. (Cited by 40)**
15. **D. Goswami, R. Sen, J. K. Basu, S. De, Maximization of Bioconversion of Castor Oil into Ricinoleic Acid by Response Surface Methodology, *Bioresource Technology*, 2009 (IF 4.253), 100 (18): 4067–4073. (Cited by 57)**
16. **D. Goswami, J. K. Basu, S. De, Optimization of Process Variables in Castor Oil Hydrolysis by *Candida rugosa* Lipase with Buffer as Dispersion Medium, *Biotechnology and Bioprocess Engineering*, 2009 (IF 1.412), 14 (2): 220–224. (Cited by 43)**
17. **D. Goswami, R. Shekhar, M. K. Purkait, J. K. Basu, S. De, Micellar Enhanced Base Catalyzed Hydrolysis of Ethyl Acetate using TTAB, *International Journal of Chemical Reactor Engineering* (IF 0.881), 2009, 7: 1–18. DOI: 10.2202/1542-6580.1855.**
18. **D. Goswami, A. D. Patil, A. V. Patwardhan, J. K. Basu, S. De, Hydrolysis of Castor Oil using Lipase with Oil as Dispersion Medium, *International Journal of Chemical Sciences* (ISSN 0972-768 X), 2007, 5 (4): 1487–1496.**

### **Conference**

1. **D. Goswami, J. K. Basu, S. De, Effect of Additives and Process Parameters on Lipase Catalyzed Ricinoleic Acid Esterification and Castor Oil Hydrolysis, *YRC-2009*, Mumbai.**

2. **D. Goswami**, C. Das, S. DasGupta, J. K. Basu, S. De, Process Condition Optimization of Micelle Catalyzed Isopropyl Myristate Hydrolysis, **CHEMCON 2007**, Kolkata.
3. **D. Goswami**, A. D. Patil, C. Das, A. V. Patwardhan, S. DasGupta, J. K. Basu, S. De, Selection of Suitable Lipase and Process Condition Optimization of Lipase Catalyzed Castor Oil Hydrolysis, **CHEMCON 2007**, Kolkata.
4. **D. Goswami**, A. D. Patil, A. V. Patwardhan, J. K. Basu, S. De, Hydrolysis of castor Oil using lipase with oil as dispersion medium, **NCFCE 2007**, Guwahati.
5. **D. Goswami**, R. Shekhar, S. DasGupta, S. De, Micellar Enhanced Base Catalyzed Hydrolysis of Ethyl Acetate Using TTAB, **ISSCS 2007**, Kolkata.
6. C. Das, **D. Goswami**, S. DasGupta, S. De, Treatment of Deliming-bating Effluent from tannery using Coagulation and Membrane Separation, **CHEMCON 2007**, Kolkata.
7. C. Das, **D. Goswami**, S. DasGupta, S. De, Treatment of Dyeing Effluent from Tannery using Pretreatment and Nanofiltration, **CHEMCON 2007**, Kolkata.
8. C. Das, S. Pasupuleti, **D. Goswami**, S. DasGupta, S. De, Simultaneous Separation of Cationic and Anionic Pollutants Using Mixed Micellar System, **ISSCS 2007**, Kolkata.

### **Role as Reviewer of Journals**

1. Chemical Science (**Journal from Royal Society of Chemistry**)
2. Applied Biochemistry and Biotechnology (**Journal from Springer**)
3. Colloids and Surfaces A: Physicochemical and Engineering Aspects (**Journal from Elsevier**)
4. Colloids and Surfaces B: Biointerfaces (**Journal from Elsevier**)
5. Journal of Dispersion Science and Technology (**Journal from Taylor and Francis**)
6. Chemical Engineering Communications (**Journal from Taylor and Francis**)
7. Preparative Biochemistry and Biotechnology (**Journal from Taylor and Francis**)
8. FEMS Yeast Research (**Journal from Wiley**)
9. Biotechnology and Bioprocess Engineering (**Journal from Springer**)
10. International Journal of Environment and Waste Management
11. International Journal of Environmental Engineering
12. American Chemical Science Journal
13. Pakistan Journal of Scientific and Industrial Research

### **Honours and Awards**

1. Institute Scholarship for pursuing Ph.D. in Indian Institute of Technology Kharagpur (July 2005 to June, 2009)
2. GATE scholarship for pursuing M. Tech. (1999 to 2001)
3. National Scholarship for B. Sc., Higher Secondary and Secondary Examinations

**Membership of Learned Societies**

Life member of 'Indian Institute of Chemical Engineers'.

*Debajyoti Goswami*