

	<p>MAUSUMI MUKHOPADHYAY Associate Professor Department of Chemical Engineering Ph. D. IIT Bombay, 2007 M.Tech IIT Kharagpur, 1995 B.Tech Calcutta University, 1992 Phone no.: 91-261-2201645 E-mail: mmu@ched.svnit.ac.in mausumi_mukhopadhyay@yahoo.com</p>	<p>PROFESSIONAL UPDATES Visiting Scientist (May 2016-July 2016) Universität Duisburg-Essen, Germany Visiting Scholar (May 2017-July 2017) University of Idaho, USA</p>
<p>CURRENT RESEARCH</p> <ul style="list-style-type: none"> • Nanocomposite as Super Capacitor (Energy Storage) • Nanocomposite as Biosensor and as Therapeutics • Nanocomposite as UF and NF Membrane 	<p>RESEARCH AREA</p> <ul style="list-style-type: none"> • Nanoconposites • Separation/Sorption/ bioseparation • Waste water treatment 	
<p>SPONSORED PROJECTS UNDERTAKEN</p> <ul style="list-style-type: none"> • BRNS (Completed, Investigator): Polymer blend nanocomposite membranes heavy metal removal from aqueous system. • DST (Completed, Investigator): Water analysis. • MHRD Thrust Area (Completed, Co-investigator): Metal removal by membrane separation • IEI –R & D (Completed, Investigator): Metal removal by biosorption 	<p>INDUSTRIAL PROJECTS UNDERTAKEN</p> <ul style="list-style-type: none"> • M/s. Vandana Tex Dyes, Ankleshwar: Cleaner production of dyestuff • KRIBHCO, SURAT: Removal of urea and ammonia 	
<p>POST GRADUATE THESIS SUPERVISION</p> <ul style="list-style-type: none"> • M.TECH STUDENT/S GUIDED:14/GUIDING: 01 (Including the one which won the Indian National Academy of Engineering-Innovative Student Projects Award – 2010). • PhD STUDENT/S: Degree Awarded 5, Ongoing: 5 	<p>PUBLICATIONS*: 118</p> <ul style="list-style-type: none"> • JOURNAL: 65 • CONFERENCE PROCEEDINGS: 53 • h-Index:17 	
<p>MEMBER OF TECHNICAL SOCIETIES</p> <ul style="list-style-type: none"> • AIChE (Senior Member) • Indian Institute of Chemical Engineers (LM) • Indian Society of Technical Education (LM) • Institute of Engineers India (AM) 	<p>PAPER PRESENTED: 39</p> <ul style="list-style-type: none"> • International Conference: 26 • National Conference: 17 	
<p>REVIEWED/ING TECHNICAL PAPERS IN INTERNATIONAL JOURNAL/S:41</p>		
<p>EXPERT LECTURES DELIVERED: 14; * LIST OF PUBLICATIONS ATTACHED</p>		
<p>AWARDED and ONGOING PhD and MASTER’S STUDENTS LIST</p>		

LIST OF PUBLICATIONS: PUBLISHED/ACCEPTED IN JOURNALS

2019

65. Dharmesh H. Sur and **Mausumi Mukhopadhyay** (2019), "Role of zinc oxide nanoparticles for effluent treatment using *Pseudomonas putida* and *Pseudomonas aureofaciens*" *Bioprocess and Biosystem Engineering*, 1-12, Available online.
doi:10.1007/s00449-018-2024-y

64. Mausumi Mukhopadhyay, Sonia R. Lakhota, A. K. Ghosh and R. C. Bindal (2019), "Removal of Arsenic from Aqueous media using Zeolite/Chitosan Nanocomposite Membrane" *Separation Science and Technology*, 1-7, Available online.
doi: 10.1080/01496395.2018.1459704

63. Sonia R. Lakhota, **Mausumi Mukhopadhyay** and Premlata Kumari, (2019). "Iron oxide (FeO) nanoparticles embedded thin-film nanocomposite nanofiltration (NF) membrane for water treatment" *Separation and Purification Technology*, 211, 98-107.
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62. Preeti Dauthal and **Mausumi Mukhopadhyay** (2018), "Antioxidant activity of phytosynthesized biomatrix-loaded noble metallic nanoparticles", *Chinese Journal of Chemical Engineering*, 26, 1200-1208.
doi: 10.1016/j.cjche.2017.12.014

61. Sonia R. Lakhota, **Mausumi Mukhopadhyay** and Premlata Kumari, (2018). "A short review: Surface modified nanocomposite membrane", *Separation and Purification Reviews*, 47, 288-305.
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57. Abhishek Kumar Singh and **Mausumi Mukhopadhyay** (2018). "Immobilization of lipase on carboxylic acid-modified silica nanoparticles for olive oil glycerolysis", *Bioprocess and Biosystem Engineering*, 41, 115-127.
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55. Dharmesh H. Sur and **Mausumi Mukhopadhyay** (2017), "Process aspects of three-phase inverse fluidized bed bioreactor: A review", *Journal of Environmental Chemical Engineering*, 5, 3518-3528.
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51. Preeti Dauthal and **Mausumi Mukhopadhyay** (2016), "Phyto-synthesis and structural characterization of catalytically active gold nanoparticles", *3 Biotech*, 6, 1-9.
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48. Preeti Dauthal and **Mausumi Mukhopadhyay** (2016), "AuPd bimetallic nanoparticles: single step biofabrication, structural characterization and catalytic activity", *Journal of Industrial and Engineering Chemistry*. 35, 45-53.
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47. Swati Sharma, **Mausumi Mukhopadhyay*** and Z. V. P. Murthy, (2015) "Investigation of photo-assisted and crude peroxidase mediated transformations of chlorinated phenols (CPs) from spiked and industrial wastewaters: identification of reaction products", *Water Science and Technology*, Article accepted for publication in August 2015.

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30. Swati Sharma, **Mausumi Mukhopadhyay** and Z. V. P. Murthy (2013), "Investigation of UV assisted chlorophenol congeners' degradation by organic oxidant *p*-nitrobenzoic acid in basic media," *Water Science and Technology*, 67, 2418-2427.

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29.**Mausumi Mukhopadhyay** and Dhiraj P. Daswat (2013), "Photochemical degradation of 4-chlorophenol in aqueous phase using peroxy acetic acid (PAA)" *Water Science & Technology*, 67, 440-445.

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22. Dhiraj P. Daswat and **Mausumi Mukhopadhyay** (2012), "Photochemical degradation of chlorophenol industry wastewater using peroxy acetic acid (PAA)", *Chemical Engineering Journal*, 209, 1-6.
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16. **Mausumi Mukhopadhyay**, T. Kaur and R. Khanna (2012). "Fixed bed and reduced lumped diffusion model parameter estimation of copper biosorption using *Aspergillus niger* biomass". *The Canadian Journal of Chemical Engineering*, 90, 1011-1016.
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15. **Mausumi Mukhopadhyay** and Rashmita Patel (2011). "Cleaner production assessment of Fast Bordeaux GP Base". *Organic Chemistry International*, Article ID 752191, 1-7. (By invitation)
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13. Mehali J. Mehta, R. A. Christian, N. J. Mistry and **Mausumi Mukhopadhyay** (2010). "Plasma gasification: A waste treatment technology". *The IUP Journal of Chemical Engineering*, 2, 43-53.
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11. **Mausumi Mukhopadhyay** (2009). Removal of violet 5BN dye from textile wastewater- comparison of different methods, *The ICFAI University Journal of Chemistry*, 2, 31-37.
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10. **Mausumi Mukhopadhyay** (2008) "Role of surface properties during biosorption of copper by pretreated *A. niger* biomass". *Colloids and Surfaces A: Physicochemical and Engineering Aspects Journal*. 329, 95-99.
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51. **Mausumi Mukhopadhyay**, Niraj Kulkarni, Preeti Dauthal (2018), "Optimization and Green synthesis (Delonix regia mediated) of zero valent iron nanoparticles" AICHE 2018, Annual Meeting, Pittsburgh, USA.
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44. Parvathy S Chandran and **Mausumi Mukhopadhyay** (2017), “Synthesis and characterization of magnetite (Fe_3O_4) nanoparticles by co-precipitation method and sol-gel method - a comparative study”, Published in Proceeding of International Conference on Nanotechnology Applications: Chemical, Energy and Environment (NACEE-2017), SVNIT Surat, India. S4_9,

43. Mehali J. Mehta, R. A. Christian, N. J. Mistry and **Mausumi Mukhopadhyay** (2017), “Regeneration and reuse of magnesium oxide (MgO) nano-crystallites” Published in Proceeding of International Conference on Nanotechnology Applications: Chemical, Energy and Environment (NACEE-2017), SVNIT Surat, India. S2_10,

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7. Rai, S. and **Mukhopadhyay, M.** (2002). "Rating calculation of compact heat exchanger using 'C' Published in Proceeding of 55th Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2002), Osmania University, Hyderabad, India. 133.
6. **Mukhopadhyay, M., Murthy, Z.V.P. and Sadhu, A.** (2001). "*Biofiltration design and scale up*". Published in *Proceeding of International Conference on Industrial Pollution And Control Technologies, ICIPACT –2001, Centre For Environment, Institute of Post Graduate Studies And Research, JNTU, Hyderabad, India.18 (ABN 039).*
5. **Lad, V. N., Mukhopadhyay, M. and Murthy, Z. V. P.** (2001). "*Vermicomposting- An effective method for solid waste management*". Published in *Proceeding of International Conference on Industrial Pollution And Control Technologies, ICIPACT –2001, Centre For Environment, Institute of Post Graduate Studies And Research, JNTU, Hyderabad, India. 38 (ABN-094).*
4. **Mukhopadhyay, M** and Murthy, Z. V. P. (2001). "Computer- aided design of cost-effective azeotropic distillation column sequencing". Published in Proceeding of 54th Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2001), Central Leather Research Institute, Adyar, Chennai, India. 67.
3. **Mukhopadhyay, M,** Shaikh, B. and Sutariya, H. (2000). "Computerized calculations for optimum vapor pipe sizing". Published in Proceeding of 53th Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2000), Calcutta Regional Center, Indian Institute of Chemical Engineers, Kolkata, India. 41.
2. **Mukhopadhyay, M.,** Shaikh, B. and Subarhmanyam, N. (1999). "Cmputerized rating of air cooled heat exchanger". Published in Proceeding of 52th Annual Session of Indian Institute of Chemical Engineers (CHEMCON 1999), Chandigarh Regional Center, Indian Institute of Chemical Engineers, Chandigarh, India. 197.
1. **Mukhopadhyay, M.,** Tarafdar, R. N., Basu, J. K., Ghar, R. N. and Biswas, A. K. (1994). "Determination of physical and chemical solubility of CO₂ in amine blends of MEA and AMP using N₂O analogy". Published in Proceeding of 47th Annual Session of Indian Institute of Chemical Engineers (CHEMCON 1994), Kharagpur Regional Center, Indian Institute of Chemical Engineers, Kharagpur, India. 135.

Graduate Students

A. PhD: 5 Degree awarded and 5 Ongoing

10. **Mr. Nilesh S. Dumore: (2017-201e):** Nanocomposite as advance material.
9. **Mr. Chirag Chamanlal Mevada: (2017-201d):** Nanocomposite as advance material.
8. **Mr. Gaurav Mishra: (2014-201c):** Study of membrane biofouling and its control in filtration system.
7. **Ms. Lakhotia Sonia Rajendra Prasad: (2014-201b):** Preparation and characterization of thin-film nanocomposite (TFN) membrane and its application for water treatment.
6. **Mr. Dharmesh H Sur: (2011-201a):** Study of inverse three-phase fluidized bed bioreactor in batch mode.
5. **Dr. Mehali Mehta: 2017 October:** Adsorptive study on Dye removal by synthesized MgO nanocrystallites. (Co-Supervisor: **Dr. R. A. Christian and Dr. N. J. Mistry**)
4. **Dr. Preeti Dauthal: 2016 October:** Plant mediated synthesis of noble metal nanoparticles and their applications.
3. **Dr. Nishant Srivastava: 2014 November:** Biosynthesized nanoparticles for environmental applications.
2. **Dr. Abhishek Kumar Singh: 2014 January:** Studies of immobilized lipase from *Candida* sp. and its activity study for glycerides production.
1. **Dr. Swati Sharma: 2014 January:** Degradation of chlorophenols from wastewaters. (Co-Supervisor: **Dr. Z.V.P. Murthy**)

B. M.Tech: 14 Degree Awarded and 1 Ongoing

C.

15. **Mr. Manu Saji: 2018-2019:** Nanocomposite and its surface property
14. **Ms. Neha: 2017-2018:** PVC/ZnO Nanocomposite ultrafiltration membrane: synthesis, characterization and applications.
13. **Ms. Parvathy S Chandran: 2016-2017:** Synthesis, Characterization and applications of SnO₂ nanoparticles.
12. **Mr. Parikshit Saha: 2015-2016:** Scale up study of biosynthesized nanoparticles.
11. **Mr. Niraj Jayant Kulkarni: 2014-2015:** Nanocatalyzed conversion of agricultural waste.
10. **Mr. Bhavik B. Vyas: 2011-2012:** Removal of heavy metal ions from synthetic water using zero valent Ni nanoparticles.
9. **Mr. Rahul R. Pathade: 2011-2012:** Photocatalytic Degradation of 2, 4-Dichlorophenol Using Magnetic Nanoparticles.
8. **Mr. Dhiraj P. Daswat: 2010-2011:** Degradation of 4-Chlorophenols by UV assisted organic oxidants.
7. **Ms. Dipti Patil: 2010-2011:** Study of particle-surface dynamics of polymer blend nanocomposite membranes.
6. **Mr. Nilesh S. Dumore: 2010-2011:** Synthesis of immobilized lipase and its activity study.
5. **Ms. Swati Sharma: 2009-2010:** Degradation of 4-chlorophenol in wastewater by organic oxidants. (Co-Supervisor: **Dr. Z. V. P. Murthy**)
4. **Mr. Gaurav Singh: 2009-2010:** Optimization of liquid-liquid extraction process using stochastic algorithm.
3. **Mr. Vishal Jadav: 2008-2009:** Organic separation by pervaporation. (Co-Supervisor: **Dr. Z. V. P. Murthy**)

2. Mr. Anil Kumar: 2007-2008: Ammonia removal from fertilizer industry wastewater.

1. Ms. Rashmita D. Patel: 2006-2007: Cleaner production in chemical industry -*Case Study*

Reviewed/reviewing technical papers for the following Journals: 41

1. **Applied Biochemistry and Biotechnology** (Springer) (SCI/SCIE Journal)
2. **Bioresource Technology** (Elsevier Scientific Publication, UK) (SCIE Journal)
3. **Catalysis Communications** (Elsevier Scientific Publication) (SCI/SCIE Journal)
4. **Chemosphere** (Elsevier Scientific Publication) (SCI/SCIE Journal)
5. **Chemical Engineering Journal** (Elsevier Scientific Publication, Switzerland) (SCI/SCIE Journal)
6. **Chemical Industry & Chemical Engineering Quarterly** (Association of Chemical Engineers, Serbia) (SCIE Journal)
7. **Colloids and Surface A: Physicochemical and Engineering Aspects** (Elsevier Scientific Publication) (SCI/SCIE Journal)
8. **Desalination** (Elsevier Scientific Publication, The Netherlands) (SCI/SCIE Journal)
9. **Desalination and Water Treatment** (Desalination Publications, USA) (SCIE Journal)
10. **Environmental Science and Technology** (American Chemical Society, USA) (SCI/SCIE Journal)
11. **Environmental Technology** (Taylor & Francis Group Publication, UK) (SCI/SCIE Journal)
12. **Industrial & Engineering Chemistry Research** (American Chemical Society, USA) (SCI/SCIE Journal)
13. **International Journal of Food Science and Technology** (Wiley) (SCI/SCIE Journal)
14. **Letters of Applied Microbiology** (Wiley) (SCI/SCIE Journal)
15. **Material Science and Engineering C** (Elsevier Scientific Publication) (SCI/SCIE Journal)
16. **Powder Technology** (Elsevier Scientific Publication, Switzerland) (SCI/SCIE Journal)
17. **Research on Chemical Intermediates** (Springer) (SCI/SCIE Journal)
18. **RSC Advances** (Royal Society of Chemistry, UK) (SCI/SCIE Journal)
19. **Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy** (Elsevier Scientific Publication, Switzerland) (SCI/SCIE Journal)
20. **Applied Nanoscience** (Springer)
21. **The Institution of Engineers (India) Journal**