

|   |   |   |
|---|---|---|
|    | <p><b>MAUSUMI MUKHOPADHYAY</b><br/>Associate Professor<br/>Department of Chemical Engineering<br/>Ph. D. IIT Bombay, 2007<br/>M.Tech IIT Kharagpur, 1995<br/>B.Tech Calcutta University, 1992<br/>Phone no.: 91-261-2201645<br/>E-mail: <a href="mailto:mmu@ched.svnit.ac.in">mmu@ched.svnit.ac.in</a><br/><a href="mailto:mausumi_mukhopadhyay@yahoo.com">mausumi_mukhopadhyay@yahoo.com</a></p> | <p><b>PROFESSIONAL UPDATES</b><br/><b>Visiting Scientist (May 2016-July 2016)</b><br/>Universität Duisburg-Essen, Germany<br/><b>Visiting Scholar (May 2017-July 2017)</b><br/>University of Idaho, USA</p> |
| <p><b>CURRENT RESEARCH</b></p> <ul style="list-style-type: none"> <li>• Nanocomposite as Super Capacitor (Energy Storage)</li> <li>• Nanocomposite as Biosensor and as Therapeutics</li> <li>• Nanocomposite as UF and NF Membrane</li> </ul>   | <p><b>RESEARCH AREA</b></p> <ul style="list-style-type: none"> <li>• Nanoconposites</li> <li>• Separation/Sorption/ bioseparation</li> <li>• Waste water treatment</li> </ul>   |   |
| <p><b>SPONSORED PROJECTS UNDERTAKEN</b></p> <ul style="list-style-type: none"> <li>• BRNS (Completed, Investigator): Polymer blend nanocomposite membranes heavy metal removal from aqueous system.</li> <li>• DST (Completed, Investigator): Water analysis.</li> <li>• MHRD Thrust Area (Completed, Co-investigator): Metal removal by membrane separation</li> <li>• IEI –R &amp; D (Completed, Investigator): Metal removal by biosorption</li> </ul> | <p><b>INDUSTRIAL PROJECTS UNDERTAKEN</b></p> <ul style="list-style-type: none"> <li>• M/s. Vandana Tex Dyes, Ankleshwar: Cleaner production of dyestuff</li> <li>• KRIBHCO, SURAT: Removal of urea and ammonia</li> </ul>   |   |
| <p><b>POST GRADUATE THESIS SUPERVISION</b></p> <ul style="list-style-type: none"> <li>• M.TECH STUDENT/S GUIDED:14/GUIDING: 01 (Including the one which won the Indian National Academy of Engineering-Innovative Student Projects Award – 2010).</li> <li>• PhD STUDENT/S: Degree Awarded 5, Ongoing: 5</li> </ul>   | <p><b>PUBLICATIONS*: 112</b></p> <ul style="list-style-type: none"> <li>• JOURNAL: 63</li> <li>• CONFERENCE PROCEEDINGS: 49</li> <li>• h-Index:16</li> </ul>  |   |
| <p><b>MEMBER OF TECHNICAL SOCIETIES</b></p> <ul style="list-style-type: none"> <li>• AIChE (Senior Member)</li> <li>• Indian Institute of Chemical Engineers (LM)</li> <li>• Indian Society of Technical Education (LM)</li> <li>• Institute of Engineers India (AM)</li> </ul>   | <p><b>PAPER PRESENTED: 39</b></p> <ul style="list-style-type: none"> <li>• International Conference: 22</li> <li>• National Conference: 17</li> </ul>   |   |
| <p><b>REVIEWED/ING TECHNICAL PAPERS IN INTERNATIONAL JOURNAL/S:41</b></p>   |   |   |
| <p><b>EXPERT LECTURES DELIVERED: 14; * LIST OF PUBLICATIONS ATTACHED</b></p>  |   |   |
| <p><b>AWARDED and ONGOING PhD and MASTER’S STUDENTS LIST</b></p>  |   |   |

## LIST OF PUBLICATIONS: PUBLISHED/ACCEPTED IN JOURNALS

### 2018

63. MausumiMukhopadhyay, Sonia R. Lakhotia, A. K. Ghosh and R. C. Bindal (2018), "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

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. Lakhotia, **Mausumi Mukhopadhyay** and Premlata Kumari, (2018). "A short review: Surface modified nanocomposite membrane", *Separation and Purification Reviews*, 47, 288-305.  
doi:10.1080/15422119.2017.1386681

60. Gourav Mishra and **Mausumi Mukhopadhyay** (2018), "Enhanced antifouling performance of halloysite nanotubes (HNTs) blended poly (vinyl chloride)(PVC/HNTs) ultrafiltration membranes: for water treatment" *Journal of Industrial and Engineering Chemistry*, 63, 366-379.  
doi:10.1016/j.jiec.2018.02.037

59. Sonia R. Lakhotia, **Mausumi Mukhopadhyay** and Premlata Kumari, (2018), "Cerium oxide nanoparticles embedded thin-film nanocomposite nanofiltration membrane for water treatment", *Scientific Reports- Nature*, 8(1) 4976.  
doi: 10.1038/s41598-018-23188-7 (www.nature.com/articles/s41598-018-23188-7)

58. Dharmesh H. Sur and **Mausumi Mukhopadhyay** (2018), "Process parametric study for COD removal of electroplating industry effluent", *3 Biotech*, 8 (2) 84.

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.  
doi: 10.1007/s00449-017-1852-5

### 2017

56. Gourav Mishra and **Mausumi Mukhopadhyay** (2017), "Flux improvement, rejection, surface energy and antibacterial study with synthesized TiO<sub>2</sub>-Mo.HNTs/PVC nanocomposite ultrafiltration membrane", *New Journal of Chemistry*, 41,15049-15057.  
doi: 10.1039/C7NJ02774E

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.  
doi:10.1016/j.jece.2017.06.052

54. Dharmesh H. Sur and **Mausumi Mukhopadhyay** (2017), "COD reduction of textile effluent in Three-phase fluidized bed bioreactor using *Pseudomonas aureofaciens* and *Escherichia coli*", *3 Biotech*, 7, 141:1-11.  
doi: 10.1007/s13205-017-0771-0.

## 2016

53. Preeti Dauthal and **Mausumi Mukhopadhyay** (2016), “Noble metal nanoparticles: Plant mediated synthesis, mechanistic aspects of synthesis and applications”, *Industrial and Engineering Chemistry Research*. 55, 9557–9577.

doi: 10.1021/acs.iecr.6b00861

52. Abhishek Kumar Singh and **Mausumi Mukhopadhyay** (2016). “Enzymatic Synthesis of Mono- and Diglyceride Using Lipase From *Candida rugosa* Immobilised onto Cellulose Acetate-Coated Fe<sub>2</sub>O<sub>3</sub> Nanoparticles”, *The Arabian Journal for Science and Engineering*, 41, 2253-2561

doi:10.1007/s13369-016-2036-3

51. Preeti Dauthal and **Mausumi Mukhopadhyay** (2016), “Phyto-synthesis and structural characterization of catalytically active gold nanoparticles”, *3 Biotech*, 6, 1-9.

doi:10.1016/j.jiec.2015.12.005

50. Nishant Srivastava and **Mausumi Mukhopadhyay** (2016). “Green synthesis and structural characterization of CdO nanoparticles”, *Advanced Science Letters*, 22, 929-934.

doi: <http://dx.doi.org/10.1166/asl.2016.6964>

49. Abhishek Kumar Singh and **Mausumi Mukhopadhyay** (2016). “Lipase-catalyzed glycerolysis of olive oil in organic solvent medium: Optimized by response surface methodology”. *Korean Journal of Chemical Engineering*, 33, 1247-1254.

doi: 10.1007/s11814-015-0272-y

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.

doi:10.1016/j.jiec.2015.12.005

## 2015

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.

doi: 10.2166/wst.2015.269

46. Nishant Srivastava and **Mausumi Mukhopadhyay** (2015). “Biosynthesis and Structural Characterization of Selenium Nanoparticles using *Gliocladium roseum*” *Journal of Cluster Science* , Article in Press

doi: 10.1007/s10876-014-0833-y

45. Nishant Srivastava and **Mausumi Mukhopadhyay** (2015). “Green synthesis and Structural Characterization of Selenium Nanoparticles and Assessment of their Antimicrobial Property” *Bioprocess and Biosystem Engineering*, 38, 1723-1730.

Doi: 10.1007/s00449-015-1413-8

44. Preeti Dauthal and **Mausumi Mukhopadhyay** (2015), “Agro-industrial waste mediated synthesis and characterization of gold and silver nanoparticles and their catalytic activity for 4-nitroaniline hydrogenation”. *Korean Journal of Chemical Engineering*. 32, 837-844, 2015.

doi:10.1007/s11814-014-0277-y

43. Nishant Srivastava and **Mausumi Mukhopadhyay** (2015). "Biosynthesis and Characterization of Gold Nanoparticles Using *Zooglea ramigera* and Assessment of Its Antibacterial Property". *Journal of Cluster Science*, 26, 675-692, 2015.

doi: 10.1007/s10876-014-0726-0

42. Preeti Dauthal and **Mausumi Mukhopadhyay** (2015), "Biofabrication, characterization and possible bio-reduction mechanism of platinum nanoparticles mediated by agro-industrial waste and their catalytic activity". *Journal of Industrial and Engineering Chemistry*. 22, 185-191, 2015.

doi:10.1016/j.jiec.2014.07.009.

41. Nishant Srivastava and **Mausumi Mukhopadhyay** (2015). "*Ralstonia eutropha* (*Cupriavidus metallidurans*) mediated biosynthesis of gold nanoparticles and catalytic treatment of 2, 4 dichlorophenol". *Synthesis and Reactivity in Inorganic, Metal-Organic and Nano-Metal Chemistry*, 45, 238-247

doi: 10.1080/15533174.2013.831879

## 2014

40. Nishant Srivastava and **Mausumi Mukhopadhyay** (2014). "Biosynthesis of SnO<sub>2</sub> nanoparticles using bacterium *Erwinia herbicola* and its photocatalytic activity for degradation of dyes". *Industrial and Engineering Chemistry Research*, (Accepted for publication in August 2014). Available online

doi: 10.1021/ie5020052

39. Abhishek Kumar Singh and **Mausumi Mukhopadhyay** (2014). "Response surface methodology for optimizing the glycerolysis reaction of olive oil by *Candida rugosa* lipase". *Chemical Industry & Chemical Engineering Quarterly*, 20, 127-134.

doi:10.2298/CICEQ120626117S

38. Swati Sharma, **Mausumi Mukhopadhyay** and Z. V. P. Murthy (2014), "UV/Peroxyacetic acid mediated chlorophenol congener degradation," *Clean-Soil, Air Water*. 42, 276-283.

doi. 10.1002/clen.201200440

37. Dhiraj P. Daswat and **Mausumi Mukhopadhyay** (2014), "Effect of UV input on degradation of 4-chlorophenol by peroxy acetic acid" *The Arabian Journal for Science and Engineering*, 39, 5873-5881.

doi:10.1007/s13369-014-1257-6

36. Abhishek Kumar Singh and **Mausumi Mukhopadhyay** (2014). "Immobilization of *Candida antarctica* lipase onto cellulose acetate-coated Fe<sub>2</sub>O<sub>3</sub> nanoparticles for olive oil glycerolysis", *Korean Journal of Chemical Engineering*, 31, 1225-1232.

doi: 10.1007/s11814-014-0020-8

35. **Mausumi Mukhopadhyay** and Dhiraj P. Daswat (2014), "Kinetic and mechanistic study of photochemical degradation of 4-chlorophenol using peroxy acetic acid (PAA)" *Desalination and Water Treatment*, 52, 5704-5714.

doi. 10.1080/19443994.2013.813924

34. Swati Sharma, **Mausumi Mukhopadhyay** and Z. V. P. Murthy (2014), "Photolytic degradation of chlorophenols from industrial wastewaters by organic oxidants PAA, PNBA and MEKP: Identification of reaction products" *Water Science & Technology* 69, 1259-1266.

doi:10.2166/wst.2014.001.

33. Abhishek Kumar Singh and **Mausumi Mukhopadhyay** (2014). "Optimization of lipase-catalyzed glycerolysis for mono and diglyceride production using response surface methodology". *The Arabian Journal for Science and Engineering*, 39, 2463-2474.  
doi:10.1007/s13369-013-0919-0

## 2013

32. Preeti Dauthal and **Mausumi Mukhopadhyay**, (2013), "Biosynthesis of palladium nanoparticles using *Delonix regia* leaf extract and its catalytic activity for nitroaromatics hydrogenation" *Industrial and Engineering Chemistry Research*, 52, 18131-18139.  
doi: 10.1021/ie403410z

31 Nishant Srivastava and **Mausumi Mukhopadhyay** (2013). "Biosynthesis and structural characterization of selenium nanoparticles mediated by *Zooglea ramigera*". *Powder Technology*, 244, 26-29.  
doi:http://dx.doi.org/10.1016/j.powtec.2013.03.050

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.  
doi: 10.2166/wst.2013.131

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.  
doi: 10.2166/wst.2012.591

28. Swati Sharma, **Mausumi Mukhopadhyay** and Z. V. P. Murthy (2013), "UV/ Methyl ethyl ketone peroxide mediated chlorophenol congener degradation in basic media," *Water, Air & Soil Pollution*, 224, 1-9.  
doi: 10.1007/s11270-012-1376-1

27. Preeti Dauthal and **Mausumi Mukhopadhyay**, (2013), "In-vitro free radical scavenging activity of biosynthesized gold and silver nanoparticles using *Prunus armeniaca* (apricot) fruit extract" *Journal of Nanoparticle Research*, 15, 1366-76.  
doi: 10.1007/s11051-012-1366-7

26. Swati Sharma, **Mausumi Mukhopadhyay** and Z. V. P. Murthy (2013), "Treatment of chlorophenols from wastewaters by advanced oxidation processes: A review", *Separation and Purification Reviews*, 42, 263-295.  
doi:10.1080/15422119.2012.669804

## 2012

25. Vishal Jadav, **Mausumi Mukhopadhyay**, Z.V.P. Murthy (2012), Separation of methanol from methanol-toluene mixtures using polydimethylsiloxane hydrophobic membrane, *Journal of Polymer Materials*, 29, 301-308.

24. Preeti Dauthal and **Mausumi Mukhopadhyay**, (2012), "Prunus domestica fruit extract mediated synthesis of gold nanoparticles and its catalytic activity for 4-nitrophenol reduction" *Industrial and Engineering Chemistry Research*, 51, 12993-13328.  
doi: 10.1021/ie300369g

23. Vishal Jadav, **Mausumi Mukhopadhyay** and Z. V. P. Murthy (2012), “Comparative study of separation of acetonitrile from aqueous solutions by pervaporation using different membranes”, *Separation Science and Technology*, 47, 2299-2304.  
doi:10.1080/01496395.2012.672512.

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.  
doi: 10.1016/j.cej.2012.07.122

21. Mehali J. Mehta, **Mausumi Mukhopadhyay**, R. A. Christian and N. J. Mistry (2012). “Synthesis and characterization of MgO nanocrystals using strong and weak bases”. *Powder Technology*, 226, 213-221.  
doi: 10.1016/j.powtec.2012.04.044

20. Abhishek Kumar Singh and **Mausumi Mukhopadhyay** (2012). “Olive oil glycerolysis by immobilized lipase *Candida antarctica* in solvent free system”, *Grasas y Aceites, International Journal of Fat and Oil*, 63, 202-208.  
doi:10.3989/gya.094811

19. Nilesh S. Dumore and **Mausumi Mukhopadhyay** (2012). “Removal of oil and grease using immobilized triacylglycerin lipase”, *International Biodeterioration & Biodegradation*, 68, 65-70.  
doi:10.1016/j.ibiod.2011.12.005

18. Abhishek Kumar Singh and **Mausumi Mukhopadhyay** (2012). “Overview of fungal lipase: A review”. *Applied Biochemistry and Biotechnology*, 166, 486–520.  
doi: 10.1007/s12010-011-9444-3

17. Swati Sharma, **Mausumi Mukhopadhyay** and Z. V. P. Murthy (2012), “Rate parameter estimation for 4-chlorophenol degradation by UV and organic oxidants”, *Journal of Industrial Engineering Chemistry*, 18, 249-254.  
doi:10.1016/j.jiec.2011.11.033

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.  
doi: 10.1002/cjce.20608

## 2011

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)  
doi:10.1155/2011/752191

14. **Mausumi Mukhopadhyay**, S. B. Noronha and G. K. Suraishkumar (2011). “A review on experimental studies of biosorption of heavy metals by *Aspergillus niger*”. *The Canadian Journal of Chemical Engineering*, 89, 889-900.  
doi 10.1002/cjce.20460

## 2010

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.  
ISSN-0975-6337 (www.iupindia.in)

12. Swati Sharma, **Mausumi Mukhopadhyay**, Z.V.P. Murthy (2010). "Degradation of 4-chlorophenol in waste water by organic oxidants". *Industrial and Engineering Chemistry Research*, 49, 3094-3098.  
doi:10.1021/ie9018066

## 2009

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.  
ISSN 09 74-6552

## 2008

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.  
doi:10.1016/j.colsurfa.2008.06.052

9. **Mausumi Mukhopadhyay**, S. B. Noronha and G. K. Suraishkumar (2008). "Copper biosorption in a column of pretreated *A. niger* biomass". *Chemical Engineering Journal*, 144, 386-390.  
doi:10.1016/j.cej.2008.02.007

## 2007

8. **Mausumi Mukhopadhyay**, S. B. Noronha and G. K. Suraishkumar (2007). "Kinetic modeling for the biosorption of copper by pretreated *A. niger* biomass". *Bioresource Technology Journal*. 98, 1781-1787.  
doi:10.1016/j.biortech.2006.06.025

## 2006 or before

7. Vekariya, A. C., Lakhani, A. J. and **Mukhopadhyay, M.** (2005). "Bio-diesel production by using waste vegetable oil". *Offshore World*, 3 (1), 69-72. [www.oswindia.com/](http://www.oswindia.com/)

6. Ghori, H. L. and **Mukhopadhyay, M.** (2005). "Food from waste". *Beverage & Food World*, 32 (12), 32-34.  
[www.beverageandfoodworld.com/](http://www.beverageandfoodworld.com/)

5. **Mukhopadhyay, M.** (2004). "Reverse micellar separation of protein". *Chemical Engineering World*, 39 (3), 81-83. [www.cewindia.com/](http://www.cewindia.com/)

4. Grace, T. A. and **Mukhopadhyay, M.** (2003). "Object oriented distillation column". *Chemical Engineering World*, 38 (12), 167-169. [www.cewindia.com/](http://www.cewindia.com/)

3. Garg, S and **Mukhopadhyay, M.** (2002). "Biodegradation of PTA waste stream: A case study". *Chemical Weekly*, September 10, 179-184. [www.chemicalweekly.com/](http://www.chemicalweekly.com/)

2. **Mukhopadhyay, M.** (2002). "Biofiltration: A case study". *Chemical Industry Digest*, May-June, 88-92.  
[www.chemindigest.com/](http://www.chemindigest.com/)

1. **Mukhopadhyay, M** and Murthy, Z. V. P. (2002). "Ultrafiltration, assuming importance in biotechnology". *Chemical Engineering World*, April, 61-63. [www.cewindia.com/](http://www.cewindia.com/)

## PUBLISHED in CONFERENCE PROCEEDINGS

### 2017

49. Dharmesh H. Sur and **Mausumi Mukhopadhyay** (2017), “Biotechnological application of three phase fluidized bed for Cod reduction”, Abstract Published in Proceeding of International Conference on Emerging Trend in Biotechnology for Water Conversion (ETBWC-2017), NEERI, Nagpur, India. Abstract ID: NB144, pp. 360.

48. Nishant Srivastava and **Mausumi Mukhopadhyay** (2017). “Assessment of antifungal property of gold nanoparticles biosynthesized using *Erwinia herbicola*”, Published in Proceeding of International Conference on Nanomaterials and Nanotechnology (ICNANO 2017) [www.vbripress.com/icnano](http://www.vbripress.com/icnano), doi: [10.5185/icnano2017](https://doi.org/10.5185/icnano2017)

47. **Mausumi Mukhopadhyay**, Sonia R. Lakhota, R. N. Joshi, A. K. Ghosh and P. K. Tewari (2017), “Removal of arsenic from aqueous media using zeolite/chitosan nanocomposite membrane”, Published in Proceeding of International Conference on Nanotechnology Applications: Chemical, Energy and Environment (NACEE-2017), SVNIT Surat, India. S2\_7,

46. Pathikrit Saha and **Mausumi Mukhopadhyay** (2017), “Pilot plant design and scale up of the plant mediated biosynthesis of nanoparticles using simulation approach”, Published in Proceeding of International Conference on Nanotechnology Applications: Chemical, Energy and Environment (NACEE-2017), SVNIT Surat, India. Poster\_008,

45. **Mausumi Mukhopadhyay**, Gourav Mishra and Deepti patil (2017), “Study of properties of synthesized silica blended cellulose acetate-polyamide nanocomposite membrane”, Published in Proceeding of International Conference on Nanotechnology Applications: Chemical, Energy and Environment (NACEE-2017), SVNIT Surat, India. S3\_9,

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,

### 2015

42. Niraj Kulkarni, Preeti Dauthal and **Mausumi Mukhopadhyay**, (2015), “Green synthesis of iron complex nanoparticles using *Delonix regia* leaf” Published in Proceeding of 68<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2015), IIT Guwahati, India. NT-097, 30-35.

41. Nilesh S. Dumore, Abhishek Kumar Singh and **Mausumi Mukhopadhyay**, (2015), “Degradation of oil and grease using immobilized *Aspergillus niger* lipase”, Published in Proceeding of 68<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2015), IIT Guwahati, India. BE-056,41-46.

40. Gaurav Mishra and **Mausumi Mukhopadhyay**, (2015), “Study of surface morphology and role of extracellular polymeric substances in membrane biofouling”, Published in Proceeding of 68<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2015), IIT Guwahati, India. WW-199, 179-184.



39. Nishant Srivastava, Sonia Lakhotia, and **Mausumi Mukhopadhyay**, (2015), “Iron oxide nanocomposite membrane for salt rejection”, Published in Proceeding of the Trombay Symposium on Desalination and Water Reuse (TSDWR 2015), Homi Bhaba Centre for Science Education, Mumbai, India. 199-205.

## 2014

38. Nishant Srivastava and **Mausumi Mukhopadhyay**, (2015), “Photocatalytic degradation of 2,4 dichlorophenol using biosynthesized SnO<sub>2</sub> nanoparticles”, Published in Proceeding of 67<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2014), Panjab University, Chandigarh, India. 1197-1198.

37. Swati Sharma, **Mausumi Mukhopadhyay** and Z. V. P. Murthy (2014). “Identification of reaction products in UV-organic oxidant assisted CP congener degradation in wastewater”. Published in Proceeding of 67<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2014), Panjab University, Chandigarh, India. 597-598.

36. Preeti Dauthal and **Mausumi Mukhopadhyay**, (2014), “Optimization of green synthesis of gold nanoparticles using *Delonix Regia* leaf extract and evaluation of their catalytic activity”, AICHE 2014 Annual Meeting, Atlanta, USA.

35. Nishant Srivastava and **Mausumi Mukhopadhyay**, (2014), “Bacteria mediated biosynthesis of FeO nanoparticles for desalination of sea water using thin film nanocomposite membrane”, AICHE 2014 Annual Meeting, Atlanta, USA.

34. Nishant Srivastava and **Mausumi Mukhopadhyay**, (2014), “Green synthesis and structural characterization of CdO nanoparticles”, 3<sup>rd</sup> international conference Nanocon 014, Pune, India.

## 2012

33. **Mausumi Mukhopadhyay** (2012), “Removal of ammonia and urea from urea plant wastewater by pervaporation”, Published in International Conference of IWA Regional Conference on Wastewater Purification & Reuse in Greece, in Heraklion of Crete, March 2012.

32. R. N. Joshi, **Mausumi Mukhopadhyay**, A.K. Ghosh and P.K.Tewari, (2012), “Removal of arsenic using chitosan- silica nanocomposite material”, National Conference on Water Purification Technologies and Management, InDACON 2012, Navi Mumbai, India, SV-10.

31. Sonia Lakhotia, **Mausumi Mukhopadhyay** and S. Prabhakar, (2012), “Treatment of Tapi river water using commercial candle filters”, National Conference on Water Purification Technologies and Management, InDACON 2012, NaviMumbai, India, SV-11.

## 2011

30. Preeti Dauthal and **Mausumi Mukhopadhyay**, (2011), “In-vitro free radical scavenging activity of biosynthesized gold and silver nanoparticles using apricot (*Prunus armeniaca*) fruit”, International Symposium on Clusters and Nanostructures (Energy, Environment and Health), Richmond, Virginia, USA, W-7.

29. Nishant Srivastava and **Mausumi Mukhopadhyay**, (2011), “*Ralstonia eutropha* mediated biosynthesis of gold nanoparticles”, International Symposium on Clusters and Nanostructures (Energy, Environment and Health), Richmond, Virginia, USA, W-6.

28. Abhishek Kumar Singh and **Mausumi Mukhopadhyay**, (2011), “Glycerolysis of olive oil using immobilized lipase”, *International Conference on Innovations in Oils, Fats and Allied Products Towards Sustainability and Lipids Expo-2011, Hyderabad, India, PP-11.*

## 2009

27. **Mukhopadhyay, M.**, Kaur, T and Khanna, R. (2009). “Continuous column modeling of copper biosorption using pretreated *Aspergillus niger* biomass”. *AICHE 2009 Annual Meeting, Nashville, USA, 311.*

## 2008

26. Kumar, A. and **Mukhopadhyay, M.** (2008). “Treatment of fertilizer industry waste water – A theoretical approach”, Published in the proceedings of National Conference on sustainable Urban Environment: Issues and Management Strategies (SUIEMS), Department of Civil Engineering, SVNIT, Surat, pp. 111-116..

25. Kumar, A. and **Mukhopadhyay, M.** Das, A. K. and Mandal, D. K. (2008). “Treatment of ammoniacal wastewater”, Published in the proceedings of National Conference on Emerging Trends in Chemical Engineering (ETCE-08), Department of Chemical Engineering, SVNIT, Surat, pp. 68-71.

## 2007

24. Kumar, A. and **Mukhopadhyay, M.** (2007). “Fertilizer effluents: Its problem and solution”, Published in the proceedings of International Conference on Environmental Management: Scenario and Strategies to 2020 (EMASS), Department of Chemical Engineering, Ujjain Engineering College, Ujjain, pp. 235-241.

23. Rashmita, D. P., **Mukhopadhyay, M** and Upasani, C. B. (2007). “Energy efficient cost effective cleaner production of Fast Bordeaux GP base- a dye intermediate”. Published in Proceedings of All India Seminar on Energy, Environment & Economics, EEE 2007, November 3<sup>rd</sup> - 4<sup>th</sup>, 2007, National Institute of Technology, Rourkela, Orissa, India.

## 2006

22. **Mukhopadhyay, M.**, Noronha, S. B. and Suraishkumar, G. K. (2006). “Copper removal from industrial wastes”. *Proceeding of the International Workshop on RD Frontiers in Water and Wastewater Management, NEERI, Nagpur, India, 593-602.*

21. **Mukhopadhyay, M.**, Noronha, S. B. and Suraishkumar, G. K. “Copper removal from wastewater by biosorption”. *Published in 2006 Spring National Meeting and the World Congress on particle Technology-5 Proceeding, Orlando, FL, USA, AIChE. 2006.*

20. **Mukhopadhyay, M.**, (2006). “Thermodynamic characterization of copper biosorption process by pretreated *A. niger* biomass”. *AICHE 2006 Annual Meeting, San Francisco, USA.*

19. **Mukhopadhyay, M.** (2006). “System parameters evaluation of a copper biosorption process assisted with artificial neural network”. *Proceeding of the International Workshop on Neural Network and Genetic Algorithm in Material Science and Engineering, BESU, Shibpur, India, 346-355.*

18. Patel, A., Jadav, V. and **Mukhopadhyay, M.** (2006). “Removal of C4G and 5BN dyes by bagasse from textile effluent”. *Proceeding of the International Workshop on RD Frontiers in Water and Wastewater Management, NEERI, Nagpur, India, 648-657.*

17. Patel, A., Jadav, V. and **Mukhopadhyay, M.** “Potential utilization of sugar industry waste for removal of color from textile industry effluent”. *Published in World Water and Resources Congress-2006 Proceeding, Omaha, Nebraska, USA, ASCE. 2006.*

16. Vekariya, A. C., Lakhani, A. J. and **Mukhopadhyay, M.** (2006). "Green chemicals for process industries". *Proceeding of the 2<sup>nd</sup> International Symposium on Green/Sustainable Chemistry, University of Delhi, Delhi, India.* 83.

15. Vaddadi, J. S., Pavitra, G. and **Mukhopadhyay, M.** (2006). "Comparison of different methods used for removal of violet 5BN dye from textile effluent-experimental study". *Proceeding of the International Symposium on Desalination and Water Purification: Water resources and Management, MNIT, Jaipur, India.* 107.

#### **2005 or before**

14. Vekariya, A. C., Lakhani, A. J. and **Mukhopadhyay, M.** (2005). "Waste vegetable oil as a potential source of bio-diesel". Published in *Proceeding of 58<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2005), IIT Delhi, Delhi, India.* 1, 387.

13. Patel, A., Jadav, V. and **Mukhopadhyay, M.** (2005). "Dehumidification of Psyllium husk- a preliminary study". Published in *Proceeding of 58<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2005), IIT Delhi, Delhi, India.* 2, 19.

12. **Mukhopadhyay, M.** (2004). "Minimization of makeup entrainer volume in azeotropic distillation using MATLAB". Published in *Proceeding of 57<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2004), Hotel Hyatt, Mumbai, India.* 11-4.

11. Garg, S., Ghori, H. L. and **Mukhopadhyay, M.** (2003). "Pilot plant study of PTA waste water by UASB reactor". Published in *Proceeding of 56<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2003), Regional Research Laboratory, Bhubaneswar, India.* 79.

10. Reddy, G. V. and **Mukhopadhyay, M.** (2003). "Activated sludge process". Published in *Proceeding of 56<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2003), Regional Research Laboratory, Bhubaneswar, India.* 283.

9. **Mukhopadhyay, M.** (2002). "Simulation of pressure swing distillation by Aspen Plus". Published in *Proceeding of 55<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2002), Osmania University, Hyderabad, India.* 68.

8. Grace, T. A. and **Mukhopadhyay, M.** (2002). "Design of heat exchanger using SQL\*Plus". Published in *Proceeding of 55<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers (CHEMCON 2002), Osmania University, Hyderabad, India.* 74.

7. Rai, S. and **Mukhopadhyay, M.** (2002). "Rating calculation of compact heat exchanger using 'C'". Published in *Proceeding of 55<sup>th</sup> 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 54<sup>th</sup> 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 53<sup>th</sup> 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). "Computerized rating of air cooled heat exchanger". Published in Proceeding of 52<sup>th</sup> 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 CO<sub>2</sub> in amine blends of MEA and AMP using N<sub>2</sub>O analogy". Published in Proceeding of 47<sup>th</sup> 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 SnO<sub>2</sub> 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**