

	<p><b>MAUSUMI MUKHOPADHYAY</b>  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: <a href="mailto:mmu@ched.svnit.ac.in">mmu@ched.svnit.ac.in</a>  <a href="mailto:mausumi_mukhopadhyay@yahoo.com">mausumi_mukhopadhyay@yahoo.com</a></p>	<p><b>PROFESSIONAL UPDATES</b>  <b>Visiting Scientist (May 2016-July 2016)</b>  Universität Duisburg-Essen, Germany  <b>Visiting Scholar (May 2017-July 2017)</b>  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*: 118</b></p> <ul style="list-style-type: none"> <li>• JOURNAL: 65</li> <li>• CONFERENCE PROCEEDINGS: 53</li> <li>• h-Index:17</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: 26</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

### 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.  
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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.  
doi:10.1016/j.seppur.2018.09.034

### 2018

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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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.  
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59. Sonia R. Lakhota, **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.  
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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.  
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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.  
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  
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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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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.  
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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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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.  
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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.  
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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.  
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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  
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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  
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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.

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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.

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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.

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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.

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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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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.

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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.

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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.  
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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.  
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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.  
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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.  
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.  
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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.  
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19. Nilesh S. Dumore and **Mausumi Mukhopadhyay** (2012). "Removal of oil and grease using immobilized triacylglycerin lipase", *International Biodeterioration & Biodegradation*, 68, 65-70.  
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18. Abhishek Kumar Singh and **Mausumi Mukhopadhyay** (2012). "Overview of fungal lipase: A review". *Applied Biochemistry and Biotechnology*, 166, 486-520.  
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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

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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)  
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.  
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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.  
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.  
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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.  
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.  
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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.  
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## 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/

6. Ghori, H. L. and **Mukhopadhyay, M.** (2005). "Food from waste". *Beverage & Food World*, 32 (12), 32-34.  
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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**

### **2018**

53. Gourav Mishra and **Mausumi Mukhopadhyay** (2018), "Improved performance of halloysite nanotubes mixed matrix poly(vinyl chloride) ultrafiltration membrane for humic acid separation", IWA Regional Membrane Technology Conference (IWA-RMTC 2018, Vadodara, Gujarat, India.
52. *Sonia R. Lakhotia, Mausumi Mukhopadhyay and Premlata Kumari* (2018), "Self cleaning cerium oxide-TFN NF membrane for water treatment", IWA Regional Membrane Technology Conference (IWA-RMTC 2018, Vadodara, Gujarat, India.
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.
50. Gourav Mishra and **Mausumi Mukhopadhyay** (2018), "Interfacial surface energy study of the PVC/TiO<sub>2</sub>-HNTs ultrafiltration membrane for its suitability as an antifouling membrane" AICHE 2018, Annual Meeting, Pittsburgh, USA.

### **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. Lakhotia, 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 Lakhota, 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 Bhabha Centre for Science Education, Mumbai, India. 199-205.

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38. Nishant Srivastava and **Mausumi Mukhopadhyay**, (2015), “Photocatalytic degradation of 2,4 dichlorophenol using biosynthesized  $SnO_2$  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.

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## 2011

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## 2008

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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.

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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.
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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). "Cmputerized 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**