

APPENDIX D - Publications

Books

1. Dahman, Y. *"Recent Advances in Nanotechnology Applications"* John Wiley & Sons, Inc (Under Preparation –2014).

Chapters in Books

2. Dahman, Y. *"Production and Utilization of Bacterial Cellulose Nanofibres"* Encyclopedia of Nanoscience and Nanotechnology; (2009) 6th edition.
3. Hamood-ur-Rehman, M.; Ein-Mozafari, F. and Dahman, Y. *"Hydrodynamics of Pneumatically Agitated External Loop Airlift Bioreactors"* Ch.1219; Recent Developments in Biotechnology Vol. 12: Bioprocess/ Biochemical Engineering (2013).
4. Dahman, Y. *"Sustainable Biobutanol is the Green Gasoline of the Future"* Ch.1223; Recent Developments in Biotechnology Vol. 12: Bioprocess/ Biochemical Engineering (2013).

Articles in Refereed Journals (Published or Accepted)

5. Nakhoda, H. and Dahman, Y. *"Synthesis and Characterization of Novel Biodegradable Polyurethanes Reinforced With Green Nanofibers for Applications in Tissue Engineering"*, Journal of Applied Polymer Science, 2013 (Under revision).
6. Al-Abdallah, W. and Dahman, Y. *"Production of green biocellulose nanofibers by Gluconacetobacter xylinus through utilizing the renewable resources of agriculture residues"* Journal of Chemical Technology & Biotechnology, 2012, Published Online (in press).
7. Dahman, Y. and Jayasuriya, K. *"Preliminary Study of Binary Protein Adsorption System and Potential Bioseparation under Homogeneous Field of Shear in Airlift Biocontactor"*, Advances in Bioscience and Biotechnology, 2013, Accepted (will be online shortly).
8. Rehman, M.; F. Mozaffari, Dahman, Y. *"Dynamic and local gas holdup studies in external loop recirculating airlift reactor with two rolls of fiberglass packing using electrical resistance tomography"* Journal of Chemical Technology & Biotechnology, 2013, 88, 887 - 896.
9. Rehman, M, Dahman, Y., Mozaffari, F. *"Investigation of Mixing Characteristics in a Packed-Bed External Loop Airlift Bioreactor Using Tomography Images"* Chemical Engineering Journal, 2012, 213, 50-61.
10. Dahman, Y. Journal of Fermentation Technology *"Sustainable Biobutanol and Working towards the Green Gasoline of the Future"*, 2012, 1-3.
11. Khan, F. and Dahman, Y. *"Novel Approach for the Utilization of Biocellulose Nanofibres in Polyurethane Nanocomposites for Potential Applications in Bone Tissue Implants"* Journal of Designed Monomers and Polymers, 2011, 15, 1-29.
12. Dahman, Y.; Jayasuriya, K. E. and Oktem, T. *"Optically Transparent Nanocomposite Reinforced with Modified Cellulose Nanofibre"* Journal of Applied Polymer Science, 2011, 126, 188–196.
13. Thirnal, C. and Dahman, Y. *"Comparisons of Existing Pretreatment, Saccharification, and Fermentation Processes for Butanol Production from Agricultural Residues"* Canadian Chemical Engineering Journal, 2011, 90 (3), 745–761.
14. Volynets, B. and Dahman, Y. *"Assessment of Pretreatments and Enzymatic Hydrolysis of Wheat Straw as a Sugar Source for Bioprocess Industry"* Journal of International Energy and Environment, 2010, 2 (3), 427 - 442.

15. Yakubu-Gumery, F.; Ein-Mozaffari, F. and Dahman, Y. “*Macromixing hydrodynamic study in draft-tube airlift reactors using electrical resistance tomography*” *Journal of Bioprocess and Biosystems Engineering*, 2011, 34(2), 135-44.
16. Islam; M.Z.; Dhib, R., and Dahman, Y. “*Modeling of Infrared Drying of Polymer Solutions*” *Journal of Chemical Engineering & Processing*, 2010 (Manuscript 1488; Published Online on June 2010).
17. Thirmal, C. and Dahman, Y. “*Different Physical and Chemical Pretreatments of Wheat Straw for Enhanced Biobutanol Production in Simultaneous Saccharification and Fermentation*” *Journal of International Energy and Environment*, 2011, 2(4), 615 – 626.
18. Sani, A., Dahman, Y. “*Improvements in the Production of Bacterial Synthesized Biocellulose Nanofibers Using Different Culture Methods*” *Journal of Chemical Technology & Biotechnology*, 2009, 85(2), 151.
19. Dahman, Y, Jayasuriya, K. E., and Kalis, M. “*Potential of Biocellulose Nanofibers Production from Agricultural Renewable Resources: Preliminary Study*” *Journal of Applied Biochemistry and Biotechnology*, 2010, 162:1647–1659.
20. Yakubu-Gumery, F.; Ein-Mozaffari, F. and Dahman, Y. “*Characteristics of Local Flow Dynamics and Macro-Mixing in Airlift Column Reactors for Reliable Design and Scale-Up*” *International Journal of Chemical Reactor Engineering*, 2009, 7 (1).
21. Dahman, Y. “*Nanostructured Biomaterials and Biocomposites from Bacterial Cellulose Nanofibers*” *Journal of Nanoscience and Nanotechnology*, 2009, 9 (9), 5105.
22. Dahman, Y and Margaritis, A. “*Applicability of Airlift Draft-Tube Fluidized Bioreactors for Binary Protein Mixture Bioseparation*” *Bioprocess and Biosystems Engineering Journal*, 2008, 31, 335.
23. Puskas, J. E.; Dahman, Y; Margaritis, A; Cunningham, M. “*Novel Thymine – Functionalized Polystyrenes for Adsorption of Model Proteins*” *Biomacromolecules* 2004, 5, 1412.
24. Puskas, J.; Chen, Y.; Dahman, Y.; Padavan, D. “*Polyisobutylene-Based Biomaterials*” *Journal of Polymer Science. Part A: Polymer Chemistry*, 2004, 42, 3091.
25. Dahman, Y; Puskas, J. E.; Margaritis, A; Cunningham, M “*Novel Thymine – Functionalized Polystyrenes for Applications in Biotechnology. Polymer Synthesis and Characterization*” *Macromolecules*, 2003, 36(7), 2198.
26. Dahman, Y.; Puskas, J. E.; Margaritis, A.; Merali, Z.; Cunningham, M. “*Synthesis and Characterization of Functionalized Polystyrene*” *ACS Polymer Preprints* 2002, 43(1), 262.

Articles in Refereed Journals (Submitted)

27. Ugwu, C. and Dahman, Y. “*A Novel approach to Produce Green Biodegradable Plastics from Renewable Resources of Agro-industrial Residues by Simultaneous Saccharification and Fermentation Process*”, *Journal of Polymers and the Environment*, 2013.
28. Ugwu, C. and Dahman, Y. “*Production of Biodegradable Plastics of poly(3-hydroxybutyrate) from Renewable Resources of Agriculture Residues by Separate Hydrolysis and Fermentation Process*”, *Applied Biochemistry and Biotechnology*, 2013.
29. Al-Abdallah, W. and Dahman, Y. “*Production of green biocellulose nanofibers in SSF conducted with renewable resources of agriculture residues*” *Journal of Chemical Technology & Biotechnology*, 2013.
30. Nakhoda, H. and Dahman, Y. “*Mechanical and Morphological Study of Novel Biodegradable Polyurethanes Reinforced With Green Nanofibers for Applications in Tissue Engineering*”, *Journal of J. of Biomaterials Science*, 2013.
31. Ferhan, M. and Dahman, Y. “*Enhanced Biobutanol Production at Higher Temperature Using Protoplast Fusion of Clostridial strains*” *Journal of Journal of Bioprocess and Biosystems Engineering*, 2013.

32. Maki, M., Qin, W. and Dahman Y. “*Genetic Stability Study of Initial Generations of Fused Clostridial Strains for Biobutanol Production*” *Journal of Chemical Technology and Biotechnology*, 2013.
33. Sani, A., Dahman, Y. “*Biocellulose Nanofibers Production from Wheat Straws in Modified Airlift and Stirred Tank Bioreactor*” *Journal of Chemical Technology & Biotechnology*, 2013.
34. Sani, A., Dahman, Y. “*Study on Bacterial Cellulose Production Using Feedstock of Sugar Mixtures Using Different Cultivation Techniques*” *Journal of Industrial Microbiology & Biotechnology*, 2013.

Selected Peer Reviewed Industrial Technical Reports (total of 28 reports)

35. Dahman, Y. “*Production, Modification, and Utilization of B.C. Nanofibers*” Annual Report for NSERC–Industrial R&D Program; Jun 2006, London, Ontario.
36. Dahman, Y. “*Nanocomposites Based on B.C. Hydrogel Polymer Matrix*” Internal Technical Report for Axcelon Biopolymers Co.; Research Engineer, Jan 2006, London, Ontario.
37. Dahman, Y. “*Surface Modification of B.C. Nanofibers*” Internal Technical Report for Axcelon Biopolymers Co.; Research Engineer, Jun 2005, London, Ontario.
38. Dahman, Y. “*Biosynthesis of B.C. in Airlift Bioreactor*” Internal Technical Report for Axcelon Biopolymers Co.; Research Engineer, Jan. 2005, London, Ontario.
39. Dahman, Y. “*Novel Thymine Functionalized Polystyrene for Applications in Biotechnology*”. Ph.D. Dissertation – University of Western Ontario 2004.

Conference Proceedings

40. Nakhoda, H. and Dahman, Y. “*Synthesis and Characterization of Novel Biodegradable Polyurethanes Reinforced With Green Nanofibers for Applications in Tissue Engineering*”, 4th International Conference on Nanotechnology: Fundamental and Applications; August 2013, Toronto, Canada.
41. Al-Abdallah, W. and Dahman, Y. “*Production of Green Biocellulose Nanofibers in SHF Process from Renewable Resources*”, 4th International Conference on Nanotechnology: Fundamental and Applications; August 2013, Toronto, Canada.
42. Al-Abdallah, W. and Dahman, Y. “*Production of Green Biocellulose Nanofibers in SSF Process from Renewable Resources*”, 4th International Conference on Nanotechnology: Fundamental and Applications; August 2013, Toronto, Canada.
43. Kalis, M., Jayasuriya, K. and Dahman, Y. “*Production of Biocellulose Nanofibers Using Sugar Mixtures of Different Composition in the Feedstock*”, 4th International Conference on Nanotechnology: Fundamental and Applications; August 2013, Toronto, Canada.
44. Al-Abdallah, W. and Dahman, Y. “*Production of green biocellulose nanofibers by utilizing the renewable resources of agriculture residues*”, 4th International Conference on Nanotechnology: Fundamental and Applications; August 2013, Toronto, Canada.
45. Dahman, Y. and Sani, A. “*Biocellulose Nanofibers from Agriculture Wastes Using Different Culture Methods*”; TechConnect World Conference and Expo; 2010, Anaheim, California, USA.
46. Dahman, Y. and Oktem, T. “*Novel Class of Optically Transparent Nanocomposites*” International Conference on Nanotechnology: Fundamentals and Applications; 2010, Ottawa, Ontario.
47. Dahman, Y., Jayasuriya, K. E. and Kalis, M. “*Potential of Bacterial Cellulose Nanofibers production from Agriculture Residues*” 18th European Biomass Conference; 2010, Lyon, France.
48. Dahman, Y. “*Novel Class of Nanostructured Hydrogels Reinforced with Modified Cellulose Nanofibers*” 2009 AIChE Annual Meeting; Materials Engineering and Sciences Division; November 2009, TN, USA.
49. Dahman, Y. and Jayasuriya, K. E. “*Draft Tube Biocontactors and Potential Applications in Proteins Bioseparations*” AIChE Annual Meeting; Separations Division; Nov 2009, Nashville, TN, USA.
50. Dahman, Y. and Oktem, T. “*Optically Transparent Nanocomposite Reinforced with Modified*

- Cellulose Nanofibers*” 8th World Congress of Chem. Engineering; August 2009, Montreal, Quebec.
51. Dahman, Y. and Jayasuriya, K. E. “*Preliminary Study on Bioseparation of Binary Protein System in Airlift Biocontactor*” 8th World Congress of Chem. Engineering; August 2009, Montreal, Quebec.
 52. Dahman, Y.; Puskas, J. E.; Cunningham, M. “*Thymine Functionalized Polystyrenes for Applications in the Biomedical Fields*” 223rd ACS National Meeting, April 2002, Orlando, FL, USA.
 53. Dahman, Y.; Margaritis, A.; Puskas, J. E.; Cunningham, M. “*Novel Functionalized Polystyrenes for Selective Adsorption*” 22nd Canadian Biomaterials Society, June 2002, Toronto, Ontario.

Selected Conference Presentations and Posters

1. Al-Abdallah, W. and Dahman, Y. “Production of green biocellulose nanofibers by utilizing the renewable resources of agriculture residues”, 63rd Canadian Society of Chemical Engineering Conference, Oct 2012, Vancouver, British Columbia.
2. Al-Neddaff, H., Turcotte, G. and Dahman, Y. “*Optimal Sugar Compositions and Conditions for Enhanced Biobutanol Bioproduction*” Poster, 60th CSChE; Oct 2010, Saskatoon, Saskatchewan.
3. Thirmal, C. and Dahman, Y. “*Evaluation of Different Physical and Chemical Pretreatments of Wheat Straw for Maximum Sugar Yield*” Poster, 60th CSChE, Oct 2010, Saskatoon, Saskatchewan.
4. Sani, A. and Dahman, Y. “*Different Culture Methods for the Production of Biocellulose Nanofibers using Agriculture Waste as Feedstock*” Poster, 60th CSChE, Oct 2010, Saskatoon, Saskatchewan.
5. Al Neddaff, H., Turcotte, G. and Dahman, Y. “*Production of Biobutanol in SSF*”, Presentation, Agricultural Bioproducts Innovation Network Conference; 2010, London, Ontario.
6. Thirmal, C. and Dahman, Y. “*Different Pre-treatment Methods for Biobutanol Production*”, Presentation, Agricultural Bioproducts Innovation Network Conference; 2010, London, Ontario.
7. Sani, A., Ferhan, M. and Dahman, Y. “*Biocellulose Nanofibers from Agriculture Rediscues*”, Presentation, Agricultural Bioproducts Innovation Network Conference; 2010, London, Ontario.
8. Volynets, B. and Dahman, Y. “*Bioconversion of Crop Residues to Fermentation Sugars*”, Poster, Agricultural Bioproducts Innovation Network Conference; 2010, London, Ontario.
9. Dahman, Y. and Sani, A. “*Biocellulose Nanofibers from Agriculture Wastes Using Different Culture Methods*”; Presentation, TechConnect World Conference and Expo: Nanotech and BioNanotech; 2010, Anaheim, California, USA.
10. Dahman, Y. and Oktem, T. “*Novel Class of Nanostructured Hydrogels Reinforced with Modified Cellulose Nanofibers*” Presentation; 2009 AIChE Annual Meeting; Materials Engineering and Sciences Division; November 2009, Nashville, TN, USA.
11. Dahman, Y. and Jayasuriya, K. E. “*Draft Tube Biocontactors and Potential Applications in Proteins Bioseparations*” Oral Presentation; 2009 AIChE Annual Meeting; Separations Division; November 2009, Nashville, TN, USA.
12. Dahman, Y., Sani, A., and Oktem, T. “*Optically Transparent Nanocomposite Reinforced With Modified Cellulose Nanofibers*” Oral Presentation; 8th World Congress of Chemical Engineering; August 2009, Montreal, Quebec.
13. Jayasuriya, K. E. and Dahman, Y. “*Preliminary Study on Bioseparation of Binary Protein System in Airlift Biocontactor*” Oral Presentation; 8th World Congress of Chemical Engineering; August 2009, Montreal, Quebec.
14. Dahman, Y. and Al-Neddaff, H. “*Optimization of Feedstock Composition for Biobutanol Production*”: Oral Presentation; 17th European Biomass Conference & Exhibition; July 2009, Hamburg, Germany.
15. Dahman, Y. “*Advanced Nanoscale Composite Materials with Biocellulose Nanofibers as Reinforcement*”; 27th Canadian Biomaterials Society Conference; May 2009, Quebec, Quebec.
16. Sani, A. and Dahman, Y.; “*Acrylic Polymers Surface Grafting of Acetylated Bacterial Cellulose Nanofibers by Free Radical Polymerization*”, Poster; Institute for Polymer Research – Thirtieth Annual Symposium – May 2008, Kitchener, Ontario.

17. Azam, H. and Dahman, Y.; “*Polystyrene Based Ion Exchange Resin for Protein Bioseparation in Novel Fluidized Contactor*” 58th CSChE Conference, October 2008, Ottawa, Ontario.
18. Dhib, R.; Ul-Islam, Z.; Dahman, Y.; “*Dynamic Modeling of IR-Drying of Polymer Solution*”; Oral Presentation; 58th CSChE, October 2008, Ottawa, Ontario.
19. Azam, H. and Dahman, Y.; “*Polystyrene Based Ion Exchange Resin for Protein Bioseparation in Novel Fluidized Contactor*”; Poster; 30th Annual Symposium-Institute for Polymer Research, May 2008, Kitchener, Ontario.
20. Dhib, R.; Ul-Islam, Z.; Dahman, Y.; “*Modeling of Infrared Drying of Polymer Solution*”; Poster; Institute for Polymer Research – Thirtieth Annual Symposium – May 2008, Kitchener, Ontario.
21. Dahman, Y; Panchal, C.; Wan, W. K. “*Bacterial Cellulose Based Nano-Biocomposites*” 2006 Ontario Nano Symposium; Oral Presentation; May 19, 2006, Kitchener.
22. Dahman, Y; Margaritis, A “*Novel Air-Lift Bioreactors for Bioseparation Applications*”, 55th CSChE Conference; Oral Presentation; October 2005, Toronto, Ontario.
23. Dahman, Y; Panchal, C.; Wan, W. K. “*Synthesis and Characterization of Bacterial Cellulose Based Polymer Composites Containing Methacrylate-Based copolymers For Biomedical Application*” NRC-Integrated Manufacturing Technologies Meeting, Feb. 24, 2005, London.
24. Dahman, Y; Puskas, J. E.; Margaritis, A; Cunningham, M. “*Novel Thymine – Functionalized Polystyrenes for Applications in Biotechnology. Adsorption of Model Proteins*”, Europolymer Congress; Royal Swedish Institute of Technology, June 2003, Stockholm, SWEDEN.
25. Dahman, Y; Margaritis, A; Puskas, J. E.; Cunningham, M. “*Novel Thymine Functionalized Polystyrenes For Drug Delivery*”, 53rd CSChE Conference, September 2003, Hamilton, Ontario.
26. Dahman, Y; Margaritis, A; Puskas, J. E.; Cunningham, M. “*Novel Functionalized Polystyrenes for Selective Phenol removal by adsorption*”, 22nd Annual Conference of Canadian Biomaterials Society – June, 2002 Toronto.
27. Dahman, Y; Margaritis, A; Puskas, J. E.; Cunningham, M. “*Novel Thymine Functionalized Polystyrene By Free Radical Emulsion Polymerization*”, 223rd American Chemical Society (ACS) National Meeting – April 2003, Orland, USA.
28. Dahman, Y; Margaritis, A; Puskas, J. E.; Cunningham, M. “*Functionalized Polystyrene Resin for Selective Adsorption and Desorption of Phenols by Hydrogen Bonding Mechanism*”, 52nd CSChE Conference, September 2003, Vancouver.