

6. References

1. D. P. Egodage, H. T. S. Jayalath, A. M. P. B. Samarasekara, S. P. A. Madushani, and S. M. N. S. Senerath, "Novel antimicrobial nano coated polypropylene based materials for food packaging systems," in Engineering Research Conference (MERCon), 2017, pp. 88-92.
2. M.P.A. Nanayakkara, W. G. A. Pabasara, A. M. P. B. Samarasekara, D. A. S. Amarasinghe, and L. Karunananayake, "Novel Thermogravimetry Based Analytical Method for Cellulose Yield Prediction of Sri Lankan Rice Straw Varieties," in Moratuwa Engineering Research Conference (MERCon), 2018, pp. 185-190
3. A. M. P. B. Samarasekara, H. D. G. Sumudumalie, and K. H. R. Sajewani, "Extraction of photo activators using natural resources to develop photodegradable polymer products" in 17th ERU Symposium, 2013.
4. A. M. P. B. Samarasekara and P. Y Gunapala, "Effect of Papain on the biodegradability of polyethylene modified by Chitosan" in 14th ERU Symposium, 2013.
5. S. Umadaran,P. Somasuntharam. and A. M. P. B. Samarasekara, "Preparation and characterization of cellulose and hemicellulose based degradable composite material using sugarcane waste " presented at the Moratuwa Engineering Research Conference (MERCon), 2016,pp. 367-372.
6. A. M. P. B. Samarasekara,S. A. K. V. M. Piyathilake. and D. I. U. Kumarage,, " Utilization of fruit waste to produce biodegradable polymer composites," presented at the 17th ERU Symposium, 2013.
7. A. M. P. B. Samarasekara, P.Somasuntharam, and S.Umadaran, "Development of Environmentally Friendly Cellulose Containing Packaging Products From Waste Materials,"in Proceedings of the International Postgraduate Research Conference 2015 University of Kelaniya, pp.184, 2015.
8. A. M. P. B. Samarasekara, H. V. H. H. Senavirathne. and A. H. W. O. Sandaruwan, "Preparation of biodegradable polymer materials using agricultural waste," " in in Proceedings of International Forestry and Environment Symposium, vol. 17, 2012, pp. 54.
9. K. D. H. N. Kahawita and A. M. P. B. Samarasekara, "Extraction and characterization of cellulose fibers form sawmill waste," in Moratuwa Engineering Research Conference (MERCon), 2016, pp. 343-348.

10. A. M. P. B. Samarasekara, S. P. D. A. Kumara, A. J. S. Madhusanka, D. A. S. Amarasinghe, & L. Karunanayake, "Study of Thermal and Mechanical Properties of Microcrystalline Cellulose and Nanocrystalline Cellulose Based Thermoplastic Material", in oratuwa Engineering Research Conference (MERCon), 2018, pp. 465-470.
11. A. M. P. B. Samarasekara, A. W. C. Chamikara and W. W. H. P. Wijesundara, "Extraction and Usage of Starch from Banana Pseudostem to Develop Biodegradable Polymer Composites," in Proceedings of International Forestry and Environment Symposium, vol. 18, 2014.
12. A. M. P. B. Samarasekara. and. E. A. P. C. D. Jayasuriya, "Synthesis of Biodegradable Polyolefins Based Polymer Composites Using Degradable Natural Materials " in Proceedings of International Forestry and Environment Symposium, vol. 18, 2014, pp. 61.
13. A. M. P. B. Samarasekara, M. D. S. L. Wimalananda, and N. Muthugala, "Utilisation of Photo Activators to Produce of Low Density Polyethylene Based Photodegradable Composite Materials," in Proceedings of International Forestry and Environment Symposium, vol. 18, 2014.
14. D.A.S. Amarasinghe,A. M. P. B. Samarasekara, W.A.D.P.Madhuwanthi, and D.N.S. Dammage, , "Nano-Silver Impregnated Wrapping Film to Keep Fruit Fresh " presented at the Moratuwa Engineering Research Conference (MERCon) 2018, pp. 511-516.
15. M. P. A. Nanayakkara, W. G. A. Pabasara, A. M. P. B. Samarasekara, D. A. S. Amarasinghe, and L. Karunanayake, "Extraction and Characterisation of Cellulose Materials from Sri Lankan Agricultural Waste.," in Proceedings of International Forestry and Environment Symposium, vol. 22, 2017, pp. 47.
16. A. M. P. B. Samarasekara. K. D. H. N. Kahawita, "Extraction and Characterization of Cellulosic Fibers from Sawmill Waste," presented at the 2016 Moratuwa Engineering Research Conference (MERCon), 2016, pp. 343-348..
17. M.P.A. Nanayakkara, W. G. A. Pabasara. A. M. P. B Samarasekara, D. A.S.,Amarasinghe and L .Karunanayake, "Synthesis and Characterization of Cellulose from Locally Available Rice Straw," presented at the 2017 Moratuwa Engineering Research Conference (MERCon), 2017, pp. 176-181.

18. A.M.P.B Samarasekara, P. Somasuntharam. a. S. Umadaran. "Development of Environmentally Friendly Cellulose Containing Packaging Products From Waste Materials," in Proceedings of the International Postgraduate Research Conference 2015 University of Kelaniya, 2015, pp. 184.
19. A. M. P. B. Samarasekara, J. D. C. M. Jayakody. and A. G. S. Madurasangani, "Study and development of low density polyethylene (LDPE) based biodegradable polymer materials using Kitul flour," in Proceedings of International Forestry and Environment Symposium , vol. 17, 2012,pp. 41.
20. Beck-Candanedo, S., Roman, M., and Gray, D. G., "Effect of reaction conditions on the properties and behavior of wood cellulose nanocrystal suspensions", Biomacromolecules, 6, 1048- 1054, 2005.
21. Anuj Kumar , Yuvraj Singh Negi, Veena Choudhary , Nishi Kant Bhardwaj. "Characterization of Cellulose Nanocrystals Produced by Acid-Hydrolysis from Sugarcane Bagasse as Agro-Waste". Journal of materials physics and chemistry, 1-8,vol 2,2014.
22. Chang and Chih-Ping. "Preparation and Characterization of Nanocrystalline Cellulose by Acid Hydrolysis of Cotton Linter".Taiwan Journal of Forest Science, vol.25,pp.231-244,.2013.K. D. H. N. Kahawita, A. M. P. B. Samarasekara, D. A. S. Amarasinghe, & L. Karunanayake, "Fabrication of Nanofibrillated Cellulose (NFC) Based Composite Materials for Engineering Applications", in Proceedings of International Forestry & Environment Symposium, 2018.
23. P. Y. Gunapala and A. M. P. B. Samarasekara, "Extraction and modification of chitosan from fishery waste to develop biodegradable polyethylene films," in 12th ERU Symposium, pp. 38-39, 2013.
24. D.P.Egodage, H.T.S Jayalath, A.M.P.B Samarasekara and D.A.S. Amarasinghe, "Preparation of Nano Silver Based Antibacterial Coating for Food Packaging Applications", in Annual Transactions of Institution of Engineers Sri Lanka, 2016, pp 165-170.
25. L.D Rajapaksha, H. A. D. Saumyadi. A.M.P.B Samarasekara, D.A.S Amarasinghe and L .Karunanayake, "Development of Cellulose Based Light Weight Polymer Composites," presented at the 2017 Moratuwa Engineering Research Conference (MERCon), 2017, pp. 186-186.

26. A. M. P. B Samarasekara, K. D. H. N. Kahavita. D. A.S.,Amarasinghe and L .Karunananayake, "Fabrication and Characterization of Nanofibrillated Cellulose (NFC) Reinforced polymer composite," presented at the 2018 Moratuwa Engineering Research Conference (MERCon), 2018, pp. 449-454.
27. A. M. P. B. Samarasekara, J. D. C. M. Jayakody, and A. G. S. Madurasangani, "Zingibain-Pectin LDPE as a biodegradable composite material," in Proceedings of International Polymer Science and Technology Symposium, vol. 1, 2012.
28. H.P.S. Abdul Khalil *, A.H. Bhat, A.F. Ireana Yusra, "Green composites from sustainable cellulose nanofibrils: A review", Journal of Carbohydrate polymers 87, 963-979, 2012.
29. Mohanty, A. K., Misra, M., & Drzal, L. T, "Sustainable Bio-Composites from renewable resources: Opportunities and challenges in the green materials world", Journal of Polymers and the Environment, 10(1-2), pp19-26, 2002.
30. Wenshuai Chen, "Individualization of cellulose nanofibers from wood using high-intensity ultrasonication combined with chemical pretreatments", Volume 83, Issue 4, pp Pages 1804-1811, 1 February 2011.
31. Ouchi, A., Toida, T., Kumaresan, S. et al. A new methodology to recycle polyester from fabric blends with cellulose. Cellulose 17, 215–222, 2010.
32. G. M. El-Nouby, H. A. Azzam, S. T. Mohamed, and M. N. El-Sheikh, "Textile Waste-Material Recycling, Part I: Ways and Means, Textile Processing: State of the Art & Future Developments", Vol. 2, pp.394–407, 2nd International Conference of Textile Research Division, NRC, Cairo, Egypt, April 11–13, 2005.
33. Muthu, S.S., Li, Y., Hu, J.Y. et al. Carbon footprint reduction in the textile process chain: Recycling of textile materials. Fibers Polym 13, 1065–1070, 2012.
34. F. orhan and A. Durand "Quantitative Analysis of Cotton–Polyester Textile Blends from Near-Infrared Spectra", Applied Spectroscopy 60(5):539-44, June 2006.
35. Azizi Samir MAS, Alloin F, Dufresne A. "Review of recent research into cellulosic whiskers, their properties and their application in nanocomposite field".Biomacromolecules; 6, 612. PMID 2005.

36. Silva GG, Souza DA, Machado JC, Hourston DJ, "Mechanical and thermal characterization of native Brazilian Coir fiber", *J.Appl.Polym.Sci*, 76, pp 119. 2000.
37. Fan Y, Saito T, Isogai A." TEMPO-mediated oxidation of b-chitin to prepare individual nanofibrils.Carbohydr", *Polymer*, pp 77, 832 2009.
38. Rosa MF, Medeiros ES, Malmonge JA, Gregorski KS, Wood DF, Mattoso LHC, et al."Cellulose nanowhiskers from coconut husk fibers", Effect of preparation conditions on their thermal and morphological behavior.*Polymer*, pp 81, 83 2010.
39. Eichhorn, S. J., Dufresne, A., Aranguren, M., Marcovich, N.E., Capadona, J. R., Rowan, S. J., Weder, C., Thielemans, W., Roman, M., Renneckar, S., Gindl, W., Veigel, S., Keckes, J., Yano, H., Abe, K., Nogi, M., Nakagaito, A.N., Mangalam, A., Simonsen, J., Benight, A. S., Bismarck, A., Berglund, L.A., and Peijs, T., "Review: Current international research into cellulose nano nanofibres and nanocomposites", *J. Mater. Sci.*, 45, 1-33, 2010.
40. Pandey, J. K., Ahn, S. H., Lee, C. S., Mohanty, A. K., and Misra, M., "Recent advances in the application of natural fiber based composites", *Macromol. Mater. Eng.*, 295, 975-989, 2010.
41. H.P.S. Abdul Khalil *, A.H. Bhat, A.F. Ireana Yusra (2012). "Green composites from sustainable cellulose nanofibrils: A review", *Journal of Carbohydrate polymers* 87, 963-979.
42. Mohanty, A. K., Misra, M., & Drzal, L. T(2002). "Sustainable Bio-Composites from renewable resources: Opportunities and challenges in the green materials world", *Journal of Polymers and the Environment*, 10(1-2), pp19-26.
43. Wenshuai Chen. (2011). "Individualization of cellulose nanofibers from wood using high-intensity ultrasonication combined with chemical pretreatments", Volume 83, Issue 4, pp Pages 1804-1811.
44. Azizi Samir MAS, Alloin F, Dufresne (2000). "Review of recent research into cellulosic whiskers, their properties and their application in nanocomposite field".*Biomacromolecules*; 6, 612. PMID.
45. Hult EL, Larsson PT, Iversen T. (2000). A comparative CP/MAS ^{13}C NMR study of cellulose structure in spruce wood and Kraft pulp.*Cellulose*, pp7, 35.
46. Hult EL, Larsson PT, Iversen T (2001). "Cellulose fibril aggregation—an inherent property of kraft pulps".*Polymer*, pp 42, 3309.

47. Silva GG, Souza DA, Machado JC, Hourston DJ. (2000) "Mechanical and thermal characterization of native Brazilian Coir fiber", *J.Appl.Polym.Sci*, 76, pp 119.
48. Fan Y, Saito T, Isogai A. (2009)" TEMPO-mediated oxidation of b-chitin to prepare individual nanofibrils.Carbohydr", *Polymer*, pp 77, 832.
49. Eichhorn, S. J., Dufresne, A., Aranguren, M., Marcovich, N.E., Capadona, J. R., Rowan, S. J., Weder, C., Thielemans, W., Roman, M., Renneckar, S., Gindl, W., Veigel, S., Keckes, J., Yano, H., Abe, K., Nogi, M., Nakagaito, A.N., Mangalam, A., Simonsen, J., Benight, A. S., Bismarck, A., Berglund, L.A., and Peijs, T. (2010) "Review: Current international research into cellulose nano nanofibres and nanocomposites", *J. Mater. Sci.*, 45, 1-33.
50. De Silva, R., Byrne, N. Utilization of cotton waste for regenerated cellulose fibres: influence of degree of polymerization on mechanical properties. *Carbohydrate Polymers*, 174, 89-94: 2017
51. Vaeck, S. V. Chemical and Mechanical Wear of Cotton Fabric in Laundering. *Journal of the Society of Dyers and Colourists*, 82(10), 374-379. doi: 10.1111/j.1478- 4408. 1966.tb 02684: 1966.
52. Beck-Candanedo, S., Roman, M., and Gray, D. G. (2005) "Effect of reaction conditions on the properties and behavior of wood cellulose nanocrystal suspensions", *Biomacromolecules*, 6, 1048- 1054.
53. Pandey, J. K., Ahn, S. H., Lee, C. S., Mohanty, A. K., and Misra, M. (2010), "Recent advances in the application of natural fiber based composites", *Macromol. Mater. Eng.*, 295, 975-989.
54. Bondeson D, Mathew A, Oksman K (2006) Optimization of the isolation of nanocrystals from microcrystalline cellulose by acid hydrolysis. *Cellulose* 13(2):171–180
55. Brinchi L, Cotana F, Fortunati E, Kenny JM (2013) Production of nanocrystalline cellulose from lignocellulosic biomass: technology and applications. *Carbohydr Polym* 94(1):154–169
56. Cha R, He Z, Ni Y (2012) Preparation and characterization of thermal/pH-sensitive hydrogel from carboxylated nanocrystalline cellulose. *Carbohydr Polym* 88(2):713–718
57. Chen W, Yu H, Liu Y (2011a) Preparation of millimeter-long cellulose I nanofibers with diameters of 30–80 nm from bamboo fibers. *Carbohydr Polym* 86(2):453–461.

58. Deepa B, Abraham E, Cherian BM, Bismarck A, Blaker JJ, Pothan LA, Leao AL, de Souza SF, Kottaisamy M (2011) Structure, morphology and thermal characteristics of banana nano fibers obtained by steam explosion. *Bioresour Technol* 102(2):1988–1997.
59. Deniz B and Ismail H. “Modeling and optimization I: Usability of response surface methodology”. *Journal of Food Engineering*, vol.78, pp.836-845, Nov .2007.
60. Deniz B and Ismail H. “Modeling and optimization I: Usability of response surface methodology”. *Journal of Food Engineering*, vol.78, pp.836-845, Nov .2007.
61. Chang and Chih-Ping. “Preparation and Characterization of Nanocrystalline Cellulose by Acid Hydrolysis of Cotton Linter”.*Taiwan Journal of Forest Science*, vol.25,pp.231-244,March.2013.
62. D. Bondeson, A. Mathew and K. Oksman. “Optimization of the isolation of nanocrystals from microcrystalline cellulose by acid hydrolysis”. *Cellulose*, vol.13, pp.171-180, Feb.2006.
63. Bondeson, Daniel, Aji Mathew, and Kristiina Oksman. "Optimization of the isolation of nanocrystals from microcrystalline cellulose by acid hydrolysis." *Cellulose* 13.2 (2006): 171.
64. Chang, Chih-Ping, et al. "Preparation and characterization of nanocrystalline cellulose by acid hydrolysis of cotton linter." *Taiwan Journal for Science* 25.3 (2010): 251-64.
65. Kargarzadeh, Hanieh, et al. "Methods for extraction of nanocellulose from various sources." *Handbook of nanocellulose and cellulose nanocomposites* 1 (2017): 1-51.
66. Cao, J., Zhang, X., Wu, X., Wang, S. and Lu, C. (2016). Cellulose nanocrystals mediated assembly of graphene in rubber composites for chemical sensing applications. *Carbohydrate polymers*. 140, 88-95.
67. Dufresne, A. (2013). Nanocellulose: a new ageless bionanomaterial. *Materials Today*, 16, 220-227. Fan, M., Dai, D. and Huang, B. (2012). Fourier transform infrared spectroscopy for natural fibres. *Fourier transform-materials analysis*. 3, 45-68.

68. Quantitative Analysis of Cotton–Polyester Textile Blends from Near-Infrared Spectra, *Applied Spectroscopy* 60(5):539-44
69. Kalia, S., Kaith, B.S. and Kaur, I. (2009). Pretreatments of natural fibers and their application as reinforcing material in polymer composites—A review. *Polymer Engineering and Science*. 4,1253–1272.
70. Khalil, H. A., Davoudpour, Y., Islam, M. N., Mustapha, A., Sudesh, K., Dungani, R. and Jawaid, M. (2014). Production and modification of nanofibrillated cellulose using various mechanical processes: a review. *Carbohydrate polymers*. 99, 649-665. Kumar, A., Negi Y.S. and Choudhary, V. (2014).
71. Characterization of Cellulose Nanocrystals Produced by Acid-Hydrolysis from Sugarcane Bagasse as Agro-Waste. *Journal of Materials Physics and Chemistry*. 2, 1-8. Lee, H.V., Hamid, S.B.A. and Zain, S.K. (2014).
72. Conversion of Lignocellulosic Biomass to Nanocellulose: Structure and Chemical Process. *The Scientific World Journal*. 1-20.
73. Poletto, M., Pistor, V. and Zattera, A. J. (2013). Structural characteristics and thermal properties of native cellulose. *Cellulosefundamental aspects*. 2, 45-68.