

CURRICULUM VITAE

Dr. MI LI

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EDUCATION

- 2010–2014 **Ph.D., Wood Science**, *Auburn University*, Auburn, AL. USA
2006–2009 **M.S., Chemical Engineering**, *Northeast Forestry University*, Harbin, China
2000–2004 **B.S., Chemical Engineering**, *Northeast Forestry University*, Harbin, China

PROFESSIONAL APPOINTMENTS

- 2020–present **Assistant Professor**, *The University of Tennessee*, Knoxville, TN. USA
2018–2019 **Post-Doctoral Fellow**, *The University of Tennessee*, Knoxville, TN. USA
2015–2017 **Post-Doctoral Fellow**, *Oak Ridge National Laboratory*, Oak Ridge, TN. USA
U.S. DOE BioEnergy Science Center (BESC)
2010–2014 **Graduate Research Assistant**, *Auburn University*, Auburn, AL. USA
2004–2010 **Lecturer/Staff**, *Northeast Forestry University*, Harbin, China

RESEARCH INTERESTS

- Development of lignocellulose-based fuels, polymers, materials, and nanocomposites
- Synthesis, functionalization, and engineering of bio-derived smart materials and polymers
- Green biorefinery technology for nanocellulose, hemicellulose, and lignin

CURRENT AND PAST GRANTS

- 06/2021–06/2022, Synthesize and Develop Smart Materials Using Nanocellulose, *ORAU Ralph E. Powe Junior Faculty Enhancement Grant*, PI, \$10,000
- 02/2021–08/2024, Lignin-based Polyester Vitrimers. *USDA Sun Grant SER*, co-PI, \$342,230
- 02/2021–08/2024, Development of Crystalline Nanocellulose (CNC) Based Flexible Piezoelectric Materials for Energy Harvest. *USDA Sun Grant SER*, co-PI, \$342,000
- 01/2021–12/2021, Conversion of Glucose to Glucaric Acid Employing Efficient and Recyclable Catalysts. *TCPB*, PI, \$30,000
- 01/2021–12/2021, Research Instrumentation Grant (RIG): iGC-SEA. *UT Internal*, PI, \$54,721
- 05/2020–07/2020, One-pot biphasic biomass fractionation. *UT Internal*, PI, \$2,300
- 01/2020–12/2020, Integrated Production of Value-added Chemicals from Corn. *TCPB*, PI, \$20,000

AWARDS/HONORS

- 06/2021 Ralph E. Powe Junior Faculty Enhancement Award 2021-2022, ORAU
09/2017 Research Distinguished Achievement Award, Biosciences Division, ORNL
07/2017 Research highlighted online by Biological and Environmental Research of US DOE
12/2014 Research featured in the cover page of Auburn University Graduate School Magazine

- 03/2014 Outstanding International Graduate Student Award, Auburn University
02/2014 Drummond award for outstanding Ph.D., School of Forestry & Wildlife Science
02/2014 Meriwether award of School of Forestry and Wildlife Science, Auburn University
11/2013 Outstanding Three Minute Thesis Presentation (rank 5th/52), Auburn University
03/2013 Outstanding Oral Presentation, Graduate Scholars Forum, Auburn University
07/2008 Distinguished Paper Award, China Society of Forestry, China
04/2004 Outstanding Undergraduate Award, Northeast Forestry University, China

PUBLICATIONS (accessible IF by the time at acceptance)

1. V Patil, S Adhikari, H Jahromi, **M Li**, AJ Ragauskas. Reinventing the capping agent strategy for lignin depolymerization with prior phenolation. Submitted to *ACS Sust Energ Fuels*.
 2. J Wang, J Jiang, Y Sun, X Wang, **M Li**, R Ruan, AJ Ragauskas. (2020) Catalytic pyrolysis of polybutadiene rubbers over modified HY to produce aromatic hydrocarbons: Effect of selected metal promoters.
- Accepted & Published Manuscript-----
3. J Wang, J Jiang, Y Sun, X Wang, **M Li**, S Pang, R Ruan, YS Ok, AJ Ragauskas, YS Ok, D Tsang. (2021) Catalytic degradation of waste rubbers and plastics over zeolites to produce aromatic hydrocarbons. *J Cleaner Prod.* 309, 127469 (2019 **IF 7.25**)
 4. X Li, **M Li**, Y Pu, AJ Ragauskas, N. Tharayil, J. Huang, Y Zheng. (2021) Degradation of aromatic compounds and lignin by marine protist *Thraustochytrium striatum*. *Proc Biochem.* 107, 13–17. (2019 **IF 2.95**)
 5. S Zhang, S Bhagia, **M Li**, X Meng, AJ Ragauskas. (2021) Wood-reinforced Composites by Stereolithography with the Stress-whitening Behavior. *Compos B*. Accepted. (2019 **IF 6.29**)
 6. S Wasti, E Triggs, R Farag, M Auad, S Adhikari, D Bajwa, **M Li**, AJ Ragauskas. (2021) Influence of plasticizers on thermal and mechanical properties of biocomposite filaments made from lignin and polylactic acid for 3D printing. *Compos B.* 205, 108483. (2019 **IF 7.64**)
 7. **M Li**, Y Pu, F Cheng, AJ Ragauskas. (2021) Synthesis and characterization of lignin-grafted-poly(ϵ -caprolactone) from different biomass sources. *New Biotechnol.* 60, 189–99. (2019 **IF 4.67**)
 8. C Huang, Y Zhan, X Hao, Z Wang, **M Li**, X Meng, G Fang, AJ Ragauskas. (2020) Synergistic enhancement of nanocellulose foam with dual in situ mineralization and crosslinking reaction. *Intl J Biolog Macromol.* 165, 3198–205. (2019 **IF 5.16**)
 9. N Kothari, S Bhagia, Y Pu, CG Yoo, **M Li**, S Venketachalam, S Pattathil, R Kumar, CM Cai, MG Hahn, AJ Ragauskas, and CE Wyman. (2020) The effect of switchgrass plant cell wall properties on its deconstruction by thermochemical pretreatments coupled with fungal enzymatic hydrolysis or *Clostridium thermocellum* consolidated bioprocessing. *Green Chem.* 22, 7924–45. (2019 **IF 9.48**)
 10. J Wang, J Jiang, X Wang, S Pang, Y Sun, X Meng, **M Li**, R Ruan, AJ Ragauskas. (2020) Enhanced BTEX formation via catalytic fast pyrolysis of styrene-butadiene rubber: Comparison of different catalysts. *Fuel.* 278, 118322. (2019 **IF 5.58**)
 11. C Huang, G Fang, Y Zhou, X Du, L Yu, X Meng, **M Li**, CG Yoo, B Chen, S Zhai, Q Guan, Q Yong, AJ Ragauskas. (2020) Increasing the carbohydrate output of bamboo using a combinatorial pretreatment. *ACS Sust Chem Eng.* 8, 7380–93. (2019 **IF 7.63**)
 12. J Wang, J Jiang, X Meng, **M Li**, X Wang, S Pang, K Wang, Y Sun, Z Zhong, R Ruan, AJ

- Ragauskas. (2020) Promoting aromatic hydrocarbon formation via catalytic pyrolysis of polycarbonate wastes over Fe- and Ce-loaded aluminum oxide catalysts. *Environ Sci Technol.* 54, 8390–400. (2019 **IF 7.86**)
13. W Li, N Wanninayake, X Gao, **M Li**, Y Pu, DY Kim, AJ Ragauskas, J Shi. (2020) Mechanistic insight into lignin slow pyrolysis by evolved gas analysis and heart-cutting GC/MS. *ChemSusChem.* 8, 15843–54
 14. B Ai, W Li, J Woomer, **M Li**, Y Pu, Z Sheng, L Zheng, A Adedeji, AJ Ragauskas, J Shi. (2020) Natural deep eutectic solvents mediated extrusion for continuous high-solid pretreatment of lignocellulosic biomass. *Green Chem.* 22, 6372–83. (2018 **IF 9.41**)
 15. **M Li**, Y Pu, VM Thomas, CG Yoo, S Ozcan, Y Deng, K Nelson, AJ Ragauskas. (2020) Recent advancements of plant-based natural fiber–reinforced composites and their applications. *Compos B.* 200, 108254 (2019 **IF 7.64**).
 16. J Zhuang, **M Li**, Y Pu, AJ Ragauskas, CG Yoo. (2020) Observation of potential contaminants in processed biomass using Fourier Transform Infrared Spectroscopy. *Appl Sci.* 10(12), 4345. (2019 **IF 2.47**)
 17. X Meng, Y Pu, **M Li**, AJ Ragauskas. (2020). A novel green biomass pretreatment using cellulose-derived solvent Cyrene. *Green Chem.* 22, 2862–72. (2018 **IF 9.41**)
 18. J He, C Huang, C Lai, C Huang, M Li, Y Pu, AJ Ragauskas, Q Yong. (2020). The effect of lignin degradation products on the generation of pseudo-lignin during dilute acid pretreatment. *Ind. Crops Prod.* 146, 112205. (2019 **IF 4.19**)
 19. X Meng, B Scheidemantle, **M Li**, YY Wang, X Zhao, M Toro-González, P Singh, Y Pu, CE Wyman, S Ozcan, CM Cai, AJ Ragauskas. (2020). Synthesis, characterization, and utilization of a lignin-based adsorbent for effective removal of Azo dye from aqueous solution. *ACS Omega.* 5 (6), 2865–77 (2018 **IF 2.58**)
 20. L Liang, S Bhagia, **M Li**, C Huang, AJ Ragauskas. (2020) Cross-linked nanocellulosic materials and their applications. *ChemSusChem.* 13 (1), 78–87 (2019 **IF 7.08**)
 21. X Li, **M Li**, Y Pu, AJ Ragauskas, Y Zheng. (2020) Black liquor valorization by using marine protist *Thraustochytrium striatum* and preliminary metabolic mechanisms study. *ACS Sustain. Chem. Eng.* 8 (4), 1786–96. (2019 **IF 6.97**)
 22. X Li, **M Li**, Y Pu, AJ Ragauskas, Y Zheng. (2020) Simultaneous depolymerization and fermentation of lignin into value-added products by the marine protist, *Thraustochytrium striatum*. *Algal Res.* 46: 101773. (2019 **IF 3.72**)
 23. J Zhang, M Xie, **M Li**, J. Ding, Y Pu, AC Bryan, W. Rottmann, KA Winkeler, et al. (2019) Overexpression of a prefoldin β subunit gene reduces biomass recalcitrance in the bioenergy crop *Populus*. *Plant Biotechnol.* 18, 859–71. (2019 **IF 6.84**)
 24. S Zhang, **M Li**, N Hao, AJ Ragauskas. (2019) Stereolithography 3D printing of lignin-reinforced composites with significantly enhanced mechanical properties. *ACS Omega.* 4, 20197–204. (2019 **IF 2.58**)
 25. **M Li**, CG Yoo, Y Pu, AK Biswal, AK Tolbert, D Mohnen, AJ Ragauskas. (2019) Downregulation of pectin biosynthesis gene *GAUT4* leads to reduced ferulate and lignin-carbohydrate cross-linking in switchgrass. *Commun. Biol.* 2: 22. Doi: 10.1038/s42003-018-0265-6
 26. J Zhang, **M Li**, AC Bryan et al. (2019) Overexpression of a serine hydroxymethyltransferase increases biomass production and reduces recalcitrance in the bioenergy crop *Populus*. *Sustain. Energ Fuels.* 3, 195–207. (2019 **IF 4.91**)

27. J Wang, C Xu, Z Zhong, A Deng, N Hao, **M Li**, X Meng, AJ Ragauskas. (2019) Catalytic conversion of bamboo sawdust over ZrO₂-CeO₂/γ-Al₂O₃ to produce ketonic hydrocarbon precursors and furans. *Energ. Conv. Manag.* 180, 60–71. (2019 **IF 7.18**)
28. J Wang, J Jiang, Z Zhong, K Wang, X Wang, B Zhang, R Ruan, **M Li**, AJ Ragauskas. (2019) Catalytic fast co-pyrolysis of bamboo sawdust and waste plastics for enhanced aromatic hydrocarbons production using synthesized CeO₂/γ-Al₂O₃ and HZSM-5. *Energ. Conv. Manag.* 196, 759–767. (2019 **IF 7.18**)
29. J Wang, Z Zhong, K Ding, **M Li**, N Hao, X Meng, R Ruan, AJ Ragauskas. (2019) Catalytic fast co-pyrolysis of bamboo sawdust and waste tire using a tandem reactor with cascade bubbling fluidized bed and fixed bed system. *Energ. Conv. Manag.* 180, 60–71. (2019 **IF 7.18**)
30. W Li, Y Zhang, L Das, Y Wang, N Wanninayake, **M Li**, et al. (2018) Linking lignin source with structural and electrochemical properties of lignin-derived carbon materials. *RSC Adv.* 8, 38721–38732. (2018 **IF 3.05**)
31. W Li, K Amos, **M Li**, Y Pu, S Debolt, AJ Ragauskas, J Shi. (2018) Fractionation and characterization of lignin streams from unique high-lignin content endocarp feedstocks. *Biotech. Biofuels.* 11:304, 1–14. (2018 **IF 5.45**)
32. C Huang, N Hao, S Bhagia, **M Li**, X Meng, Y Pu, Q Yong, AJ Ragauskas. (2018) Porous artificial bone scaffold synthesized from a facile in situ hydroxyapatite coating and crosslinking reaction of crystalline nanocellulose. *Materialia.* 4, 237–46.
33. L Yao, C Chen, CG Yoo, X Meng, **M Li**, Y Pu, AJ Ragauskas, C Dong, H Yang. (2018) Insights of ethanol organosolv pretreatment on lignin properties of *Broussonetia papyrifera*. *ACS Sustain. Chem. Eng.* Doi: 10.1021/acssuschemeng.8b03290. (2018 **IF 6.97**)
34. Y-Y Wang, **M Li**, C Cai, AJ Ragauskas. (2018) Fast fractionation of technical lignins by organic co-solvents. *ACS Sustain. Chem. Eng.* 6 (5), 6064–72. (2018 **IF 6.97**)
35. L Das, **M Li**, J Stevens, W Li, Y Pu, AJ Ragauskas, J Shi. (2018) Characterization and catalytic transfer hydrogenolysis of deep eutectic solvent extracted sorghum lignin to phenolic compounds. *ACS Sustain. Chem. Eng.* 6 (8), 10408–20. (2018 **IF 6.97**)
36. E Liu, **M Li**, L Das, Y Pu, T Frazier, B Zhao, M Crocker, AJ Ragauskas, J Shi. (2018) Understanding lignin fractionation and characterization from engineered switchgrass treated by an aqueous ionic liquid. *ACS Sustain. Chem. Eng.* 6 (5), 6612–23. (2018 **IF 6.97**)
37. R Xiao, L Yang, **M Li**, X Li, Y Wei, M Cao, AJ Ragauskas, M Thies, J Ding, Y Zheng. (2018) Investigation of composition, structure and bioactivity of extracellular polymeric substances from original and stress-induced strains of *Thraustochytrium striatum*. *Carbohydr. Polym.* 195, 515–24. (2018 **IF 5.16**)
38. M Mazarei, HL Baxter, **M Li**, AK Biswal, K Kim et al. (2018) Functional analysis of cellulose synthase Cesa4 and Cesa6 genes in switchgrass (*Panicum virgatum*) by overexpression and RNAi-mediated gene silencing. *Front. Plant Sci.* 9, 1114. (2018 **IF 3.68**)
39. L Yao, CG Yoo, X Meng, **M Li**, Y Pu, H Yang, AJ Ragauskas. (2018) A structured understanding of *Cellobiohydrolases I* binding to poplar lignin after dilute acid pretreatment. *Biotechnol. Biofuels.* 11 (1): 96. (2018 **IF 5.45**)
40. X Li, **M Li**, Y Pu, AJ Ragauskas, AS Klett, M Thies, Y Zheng. (2018) Inhibitory effects of lignin on enzymatic hydrolysis: the role of lignin chemistry and molecular weight. *Renew. Energ.* 123: 664–74. (2018 **IF 5.44**)
41. AK Biswal, MA Atmodjo, **M Li** et al (42 authors). (2018) Sugar release and growth of biofuel crops are improved by downregulation of pectin biosynthesis. *Nat. Biotech.* 36, 249. (2018 **IF**

35.72)

42. **M Li**, CG Yoo, Y Pu, AJ Ragauskas. (2017) ^{31}P NMR chemical shifts of solvents and products impurities in biomass pretreatments. *ACS Sustain. Chem. Eng.* 6 (1): 1265–70. (2017 **IF 6.14**)
43. CG Yoo, A Dumitrache, W Muchero, J Natzke, H Akinosho, **M Li**, R Sykes, SD Brown, BH Davison, GA Tuskan, Y Pu, AJ Ragauskas. (2017) Significance of lignin S/G ratio in biomass recalcitrance of *Populus trichocarpa* variants for bioethanol production. *ACS Sustain. Chem. Eng.* 6 (2): 2162–8. (2017 **IF 6.14**)
44. V Thomas, N Kothari, S Bhagia, H Akinosho, **M Li**, Y Pu, CG Yoo, S Pattathil, MG Hahn, AJ Ragauskas, R Kumar, C Wyman. (2017) Comparative evaluation of *Populus* variants total sugar release and structural features following pretreatment and digestion by two distinct biological systems. *Biotech. Biofuels.* 10 (292): 1–16. (2017 **IF 5.50**)
45. **M Li**, S Cao, X Meng, M Studer, C Wyman, Y Pu, AJ Ragauskas. (2017) The Effect of liquid hot water pretreatment on the chemical structural alteration and the reduced recalcitrance in poplar. *Biotech. Biofuels.* 10 (1): 237. (2017 **IF 5.50**)
46. V Thomas, B Donohue, **M Li**, Y Pu, AJ Ragauskas, R Kumar, TY Nguyen, C Cai, C Wyman. (2017) Adding tetrahydrofuran to dilute acid pretreatment provides new insights into substrate changes that greatly enhance biomass deconstruction by *Clostridium thermocellum* and fungal enzymes. *Biotech. Biofuels.* 10 (1): 252. (2017 **IF 5.50**)
47. H Akinosho, K Yee, M Rodriguez, W Muchero, CG Yoo, **M Li**, O Thompson, Y Pu, S Brown, J Mielenz, AJ Ragauskas. (2017) Lignin exhibits recalcitrance-associated features following the consolidated bioprocessing of *Populus trichocarpa* natural variants. *Chemistry Select.* 2 (33): 10642–7.
48. X Meng, Y Pu, P Sannigrahi, **M Li**, S Cao, AJ Ragauskas. (2017) The nature of hololignin. *ACS Sustain. Chem. Eng.* 6 (1): 957–64. (2017 **IF 6.14**)
49. **M Li**, Y Pu, TJ Tschaplinski, AJ Ragauskas. (2017) ^{31}P NMR Characterization of tricetin and its structurally similar flavonoids. *Chemistry Select.* 2 (12):3557–61.
50. L Yao, H Yang, CG Yoo, **M Li**, Y Pu, AJ Ragauskas, RW Sykes. (2017) Adsorption of *Cellobiohydrolases I* onto lignin fractions from dilute acid pretreated *Broussonetia papyrifera*. *Biores. Technol.* 244 (2017): 957–62. (2017 **IF 5.81**)
51. **M Li**, Y Pu, CG Yoo, E Gjersing, SR Decker, C Doepcke, T Shollenberger, TJ Tschaplinski, NL Engle, RW Sykes, MF Davis, HL Baxter, M Mazarei, C Fu, RR Dixon, Z-Y Wang, N Stewart, AJ Ragauskas. (2017) Study of traits and recalcitrance reduction of field-grown *COMT* down-regulated switchgrass. *Biotechnol. Biofuels.* 10 (12):1–12. (2017 **IF 5.50**)
52. Q Wu, N Hao, T Wells, X Meng, **M Li**, Y Pu, S Liu, AJ Ragauskas. (2017) Characterization of products from hydrothermal carbonization of pine. *Biores. Technol.* 244 (1) 78–83. (2017 **IF 5.81**)
53. CG Yoo, **M Li**, X Meng, Y Pu, AJ Ragauskas. (2017) Effects of organosolv and ammonia pretreatments on lignin properties and its inhibition for enzymatic hydrolysis. *Green Chem.* 19: 2006–16. (2017 **IF 9.41**)
54. **M Li**, Y Pu, AJ Ragauskas. (2016) Current understanding of the correlation of lignin structure with biomass recalcitrance. *Front. Chem.* 4: 45. (2017 **IF 4.16**)
55. X Meng, Y Pu, CG Yoo, **M Li**, G Bali, G. et al. (2016) An in-depth understanding of biomass recalcitrance using natural poplar variants as the feedstock. *ChemSusChem.* 10 (1): 139–50. (2016 **IF 7.23**)
56. R Mahadevan, S Adhikari, R Shakya, K Wang, D Dayton, **M Li**, Y Pu, AJ Ragauskas. (2016)

- Effect of torrefaction temperature on lignin macromolecule and product distribution from fast pyrolysis, *J. Anal. Appl. Pyrolysis*. 122: 95–105. (2016 **IF 3.47**)
57. Y Pu, X Meng, CG Yoo, **M Li**, AJ Ragauskas. (2016) Analytical methods for biomass characterization during pretreatment and bioconversion. Book Chapter in *Valorization of Lignocellulosic Biomass in a Biorefinery: From Logistics to Environmental and Performance Impact*. Editors: Rajeev Kumar et al. Nova Science. ISBN: 978-1-63485-827-4
58. CG Yoo, Y Pu, **M Li**, AJ Ragauskas. (2016) Elucidating structural characteristics of biomass using solution-state 2D-NMR with DMSO-*d*₆/HMPA-*d*₁₈. *ChemSusChem*. 9(10), 1090–5. (2016 **IF 7.23**)
59. **M Li**, Y Pu, CG Yoo, AJ Ragauskas. (2016) The occurrence of triclin and its derivatives in plants. *Green Chem*. 18 (6):1439–54. (2016 **IF 9.13**)
60. X Meng, CG Yoo, M Li, AJ Ragauskas. (2016) Physicochemical structural changes of cellulosic substrates during enzymatic saccharification. *J Appl Biotechnol Bioeng*. 1(3):87–94
61. PS Bass, L Blue, L Zhang, **M Li**, ZY Cheng, M Tu. (2015) Modeling of the time-dependent strain response of electroactive NCC-PEO and PVDF composites. *Proc. SPIE 9430, Electroactive Polymer Actuators and Devices*. doi:10.1117/12.2085260
62. C Lai, M Tu, **M Li**, S Yu. (2014) Remarkable solvent and extractable lignin effects on enzymatic digestibility of organosolv pretreated hardwood. *Biores. Technol*. 156, 92–9. (2014 **IF 4.49**)
63. **M Li**, M Tu, D Cao, P Bass, S Adhikari. (2013) Distinct roles of residual xylan and lignin in limiting enzymatic hydrolysis of organosolv pretreated loblolly pine and sweetgum. *J. Agric. Food Chem*. 61 (3), 646–54. (2013 **IF 3.11**)
64. **M Li**, Q Yang, S Liu, S. (2009) The effect of physicochemical properties of wood on the production of activated carbon under alkaline conditions. *Proc. Northeast Forestry University*. 37 (2), 38–39. In Chinese.
65. Z Liu, S Liu, X Li, H Wang, **M Li**. (2008) Current opinion on the TiO₂-adsorbed photocatalyst in waste treatment. *Chemistry*. 71 (10), 755–64. In Chinese.

INVITED TALKS

1. Insight of biomass recalcitrance reduction and lignin valorization. *Oregon State University*, Oct. 2020, Virtual.
2. Structural variation in biomass: recent advances and their significance to reduced biomass recalcitrance and lignin valorization. *Auburn University*, Oct. 2020, Virtual.
3. Synthesis and characterization of lignin-grafted-poly(ϵ -caprolactone) from different biomass sources. *International Congress on Sustainability Science & Engineering (ICOSSE '20)*, Aug 3-5, 2020, AIChE Virtual.
4. Identification of Tricin, Flavonoids, and Pretreatment Impurities For Biorefinery Using of ³¹P NMR. *Aston University UK visiting guests*. Nov. 2019, Knoxville, TN.
5. Chemical structural changes of cellulose, hemicellulose, lignin, and lignin-carbohydrate crosslinking in switchgrass for biorefinery and saccharification. *Department of Forestry Biomaterials, North Carolina State University*, Nov. 2018, Raleigh, NC.
6. Effects of lignin-carbohydrate cross-linkages on biomass recalcitrance and biorefinery. *Center for Renewable Carbon, The University of Tennessee Institute of Agriculture*, Nov. 2018, Knoxville, TN.
7. Improvement of mechanical strength of cellulose nano-fibril bundle reinforced PP and PLA.

- School of Chemical and Biomolecular Engineering, Georgia Institute of Technology*, Oct., 2018, Atlanta, GA.
8. Structural changes of the biopolymers in genetically modified switchgrass and their significance to the reduced biomass recalcitrance. *Chemical and Biomolecular Engineering (CBE) Graduate Seminar, The University of Tennessee*, Feb., 2017, Knoxville, TN.
 9. Lignin structural changes during pretreatment structure in different feedstock sources. *Solvay Chemical Company visiting guests*. Jul, 2016, Oak Ridge, TN.
 10. Structural characterization of cellulose, hemicellulose, and lignin from *GAUT4* down-regulated switchgrass. *DOE BioEnergy Science Center-Enabling Technologies Annual Workshop*, Jan. 2016, Riverside, CA.
 11. The way to renewable energy: effects of lignin and xylan on the enzymatic hydrolysis of organosolv pretreated biomass. *School of Forestry and Wildlife Sciences Seminar Series, Auburn University*, Nov., 2012, Auburn, AL.

SELECTED PRESENTATIONS

1. Mi Li et al. Catalytic Conversion of Corn Starch to High-value Glucaric Acid Using Nitroxyl Radicals. *ASABE 2021 Annual International Meeting*, Jul 2021. Virtual. ([Oral presentation](#))
2. **Mi Li** et al. Improved Dispersion and Interfacial Bonding Between Nanocellulose and Poly(lactic acid) Using Solvent Infiltration and Ball Milling Methods. *ACS Fall 2019 National Meeting & Exposition*, Aug 2019, San Diego, CA. ([Oral presentation](#))
3. **Mi Li** et al. Structural Characterization of Field-grown *COMT*-downregulated Switchgrass and Their Importance to the Reduced Biomass Recalcitrance. *BioEnergy Science Center Annual Retreat Meeting*, July 2017, Chattanooga, TN. ([Oral presentation](#))
4. **Mi Li** et al. Lignin characterization revealing its structural diversity and triclin incorporation in vanilla tissues. *BioEnergy Science Center Annual Retreat Meeting*, July 2017, Chattanooga, TN. (Poster presentation)
5. **Mi Li** et al. A Four-year Comparative Analysis of Lignin Structural Changes in *COMT* Down-regulated Switchgrass with Reduced-Recalcitrance Phenotype. *The 39th Symposium Biotechnology for Fuels and Chemicals*, May 2017, San Francisco, CA. ([Oral presentation](#))
6. **Mi Li** et al. Study of Lignin, Cellulose, and Lignin-Associated Sugars in *GAUT4* Down-Regulated Switchgrass Cell Walls and their Significance to the Reduced-Recalcitrance Phenotype of this Biomass Feedstock. *BioEnergy Science Center Annual Retreat Meeting*, June 2016, Chattanooga, TN. ([Oral presentation](#))
7. **Mi Li** et al. Structural Characterization of Populus Variants Following Pretreatment and Biological Digestion by Fungal Enzymes and CBP. *The 38th Symposium Biotechnology for Fuels and Chemicals*, April 2016, Baltimore, MD. ([Oral presentation](#))
8. **Mi Li** et al. Surface Functionalization of Nanocrystalline Cellulose. *2014 AIChE Annual Meeting*, November, 2014, Atlanta, GA. (Poster presentation)
9. **Mi Li** et al. Value added co-product lactic acid development from lignocellulosic biomass sugars. *2013 AIChE Annual Meeting*, November, 2013, San Francisco, CA. ([Oral presentation](#))
10. **Mi Li** et al. Distinct roles of lignin and xylan on the enzymatic hydrolysis of organosolv pretreated biomass. *2012 AIChE Annual Meeting*, November, 2012, Pittsburg, PA. ([Oral presentation](#))
11. **Mi Li** et al. Fermentability of organosolv prehydrolysates from Loblolly Pine and Sweetgum. *22nd Annual Graduate Scholars Forum*, February 2012, Auburn AL. ([Oral presentation](#))

TEACHING EXPERIENCE

- 2021 Spring: Participated *FDSC - 618 Structures and Functionalities of Polysaccharides*
- 01/2017–05/2017: Participated in teaching graduate class *Biorenewable Polymer* at the Dept of Biomolecular and Chemical Engineering in The University of Tennessee Knoxville.
- 08/2011–12/2011: TA for *Biomass Chemistry Characterization*, Auburn University.
- 2007–2010: Teaching undergraduate *Wood Chemistry*, Northeast Forestry University, China.
- 01/2011–present: Supervised and mentored >20 undergraduate and new graduate students.

COMMUNITY SERVICE AND VOLUNTARY WORK

2021–present	Editorial Board for “Bio-energy” topic for <i>Energies</i> journal; Biology “Biotechnology” Section for <i>Biology</i> .
2020–2021	Guest Editor, <i>Frontiers in Plant Science</i> (Plant Biotechnology): Plant Cell Wall Polysaccharides as Biofuels and Biomaterials
2015–present	Reviewer for scholarly journals, such as <i>ACS Sust Chem Eng, Biotechnol Biofuels, Carbohydr Polym, Cellulose, Energy Convers Manag, Energy & Fuels, Environ Sci, Food Chem, Front Energy Res, Ind Crop Prod, Int J Polym Sci, J Agri Food Chem, Renew Energy, TAPPI</i>
05/2017	Judge for the poster section of the 39 th SBFC (San Francisco, CA)
2015–2017	DOE BioEnergy Science Center Young Scholars Council Members
2015–2021	Judge for Tennessee Science Bowl (K-12 STEM) competition
04/2014	School of Forestry and Wildlife Science 2 nd Annual Spring Fling and Outdoor Expo

ACADEMIC MEMBERSHIP

2020–present	Regular membership, American Society of Agricultural & Biological Engineers
2020–present	Regular membership, American Institute of Chemical Engineers
2018–present	Regular membership, American Chemical Society
2016–present	Regular membership, Society for Industrial Microbiology and Biotechnology
2016–2020	Regular membership, National Postdoctoral Association
2014–2015	The Honor Society of Phi Kappa Phi
2012–2013	Graduate Student Membership, American Institute of Chemical Engineers
2011–2014	Graduate Student Membership, Forest Products Society
2011–2014	Graduate Student Membership, Microbiology Club, Auburn University

MENTORSHIP

Time	Name	Level	Affiliation-in	Affiliation-out
2021–present	Rithany Kheam	M.S.	U. of Massachusetts Amherst	n/a
2021–present	Di Xie	Ph.D.	Nanjing Forest U.	n/a
2021–present	Kailong Zhang	Ph.D.	Shaanxi Normal U.	n/a
2021–present	Camryn Crowe	B.S.	U. of Tennessee	n/a
2020–present	Emily Van Auken	B.S.	U. of Tennessee	n/a
2020–2021	Allison Warren	B.S.	U. of Tennessee	U. of Tennessee
2020–2020	Megan Abella	B.S.	U. of Tennessee	U. of Tennessee