

**ANQI JI**  
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### **CURRENT POSITION**

07/2024 – Present      Assistant Professor, Department of Chemical Engineering, Howard University,  
Washington DC, USA

### **EDUCATION**

08/2019 – 07/2023      **Doctor of Philosophy** in Chemical Engineering  
SUNY College of Environmental Science and Forestry, Syracuse, NY, USA

08/2018 – 05/2019      **Bachelor of Science** in Bioprocess Engineering  
SUNY College of Environmental Science and Forestry, Syracuse, NY, USA

08/2015 – 05/2019      **Bachelor of Science** in Bioengineering  
Beijing University of Chemical Technology, Beijing, China

### **WORK EXPERIENCE**

07/2024 – Present      Assistant Professor, Department of Chemical Engineering, Howard University,  
Washington, DC, USA

08/2023 – 06/2024      Postdoc Research Associate, Department of Biological Systems Engineering,  
University of Wisconsin-Madison, Madison, WI, USA

05/2022 – 07/2023      Graduate Research Assistance, Department of Chemical Engineering, SUNY  
College of Environmental Science and Forestry, Syracuse, NY, USA

08/2019 – 05/2022      Graduate Teaching Assistance, Department of Chemical Engineering, SUNY  
College of Environmental Science and Forestry, Syracuse, NY, USA

08/2018 – 05/2019      Undergraduate Research Assistance, Department of Chemical Engineering, SUNY  
College of Environmental Science and Forestry, Syracuse, NY, USA

### **AWARDS AND HONORS**

- Research! America Public Engagement Content Award (2025)
- Graduate Student Association Excellence in Applied Research Award, SUNY ESF (2023)
- Alumni Memorial Scholarship, SUNY ESF (2023)
- Forest Bioproducts (FBP) Division Student Travel Award, AIChE (2022)
- Shastri Graduate Award, SUNY ESF (2022)
- Graduate Student Employees Union Professional Development Award, SUNY ESF (2020)

### **PUBLICATIONS**

#### **Peer-Reviewed Journal Articles**

1. **Anqi Ji**, Nara Han, Shuyang Zhang, Soya Pearson, Xianhui Zhao, Santosh Thapa, Bishnu Karki, Seoku Lee, Arthur J. Ragauskas, Diwakar Vyas, Deepak Kumar, Jeong Jae Wie, Chang Geun Yoo, Utilization of hemp processing waste for 3D printing of biocomposites (2025) *Waste and Biomass Valorization*, (<https://doi.org/10.1007/s12649-025-03314-z>)
2. **Anqi Ji**, Samarthya Bhagia, Nara Han, Kwang Ho Kim, Gyu Leem, Nidia C. Gallego, Shuyang Zhang, Kai Li, Soydan Ozcan, Arthur J. Ragauskas, Chang Geun Yoo, Effects of chemical composition and physicochemical properties of poplar biomass on the performance of 3D printed poplar-reinforced PLA materials (2025) *RSC Sustainability*, 3, 4478-4491 (<https://doi.org/10.1039/D5SU00327J>) [[Journal Back Cover](#)]

3. Soyeon Jeong, Mairui Zhang, Xianzhi Meng, Yunxuan Wang, Brent Scheidmantle, Baowen Zhang, Haehyun Min, **Anqi Ji**, Paul Crovella, Charles M. Cai, Arthur J. Ragauskas, Chang Geun Yoo, Properties and performance of lignin-based polyurethane foams from lignin and castor oil as synergistic biopolyols (2025) *Chemical Engineering Journal*, 166159 (<https://doi.org/10.1016/j.cej.2025.166159>)
4. Shuyang Zhang, **Anqi Ji**, Xianzhi Meng, Samarthya Bhagia, Chang Geun Yoo, David P. Harper, Xianhui Zhao, Arthur J. Ragauskas, Structure-property relationship between lignin structures and properties of 3D-printed lignin composites (2024) *Composites Science and Technology*, 110487 (<https://doi.org/10.1016/j.compscitech.2024.110487>)
5. Shuyang Zhang, Xianzhi Meng, Samarthya Bhagia, **Anqi Ji**, Micholas Dean Smith, Yun-yan Wang, Bo Liu, Chang Geun Yoo, David P. Harper, Arthur J. Ragauskas, 3D printed lignin/polymer composite with enhanced mechanical and anti-thermal-aging performance (2024) *Chemical Engineering Journal*, 148449 (<https://doi.org/10.1016/j.cej.2023.148449>)
6. Silabrata Pahari, Juhyeon Kim, Hyun-Kyu Choi, Mairui Zhang, **Anqi Ji**, Chang Geun Yoo, and Joseph Sang-Il Kwon, Multiscale kinetic modeling of biomass fractionation in an experiment: Understanding individual reaction mechanisms and cellulose degradation (2023) *Chemical Engineering Journal*, 467, 143021 (<https://doi.org/10.1016/j.cej.2023.143021>)
7. Silabrata Pahari, Juhyeon Kim, Mairui Zhang, **Anqi Ji**, Chang Geun Yoo, Joseph Sang-Il Kwon, Multiscale modeling, experimental validation, and optimal operation for a batch pulp digester with a novel solvent (2023) *American Control Conference*, 3448-3453 (<http://doi.org/10.23919/ACC55779.2023.10155797>)
8. Daehwan Kim, **Anqi Ji**, Armoni L. Jackson, Bailee Brown, Youngmi Kim, Sun Mi Kim, Craig Laufer, Drew Ferrier, Chang Geun Yoo, Inhibition of cellulase activity by liquid hydrolysates from hydrothermally pretreated soybean straw (2022) *Frontiers in Chemical Engineering*, 4:1004240 (<https://doi.org/10.3389/fceng.2022.1004240>)
9. Kwang Ho Kim, Xuanjun Jin, **Anqi Ji**, Alvina Aui, Mark Mba-Wright, Chun-Jae Yoo, Jae-Wook Choi, Jeong-Myeong Ha, Chang Soo Kim, Chang Geun Yoo, Joon Weon Choi, Catalytic conversion of waste corrugated cardboard into lactic acid using lanthanide triflates (2022) *Waste Management*, 144, 41-48 (<https://doi.org/10.1016/j.wasman.2022.03.005>)
10. Hyun-Kyu Choi, **Anqi Ji**, Mairui Zhang, Juhyeon Kim, Chang Geun Yoo, Joseph Sang-Il Kwon, Kinetic modeling study of lignocellulose fractionation using 4-phenolsulfonic acid (2022) *IFAC-PapersOnLine*, 55 (7), 574-579 (<https://doi.org/10.1016/j.ifacol.2022.07.505>)
11. **Anqi Ji**, Linjing Jia, Deepak Kumar, Chang Geun Yoo, Recent advancements in biological conversion of industrial hemp for biofuel and value-added products (2021) *Fermentation*, 7 (1), 6 (<https://doi.org/10.3390/fermentation7010006>)
12. **Anqi Ji**, Shuyang Zhang, Samarthya Bhagia, Chang Geun Yoo, Arthur J. Ragauskas, 3D printing of biomass-derived composites: Application and characterization approaches (2020) *RSC Advances*, 10(37), 21698-21723 (<http://doi.org/10.1039/D0RA03620J>)
13. Jinxia Yuan, Shijie Liu, Linjing Jia, **Anqi Ji**, Siddharth G. Chatterjee, Co-generation system of bioethanol and electricity with microbial fuel cell technology (2020) *Energy & Fuels*, 34(5), 6414-6422 (<https://doi.org/10.1021/acs.energyfuels.0c00749>)

### **Peer-Reviewed Book Chapters**

1. **Anqi Ji**, Jiae Ryu, Yunxuan Wang, Xianzhi Meng, Chaehwi Yoon, Chang Geun Yoo, Chapter: Chemical-structural characterization of the plant cell wall in lignocellulosic biomass during pretreatment, Book title: Pretreatment of Lignocellulosic Biomass for Bioenergy Production, 2026, Elsevier <https://doi.org/10.1016/B978-0-443-24714-9.00007-1>, ISBN-13: 9780443247149.

### **GRANT PROPOSAL REVIEWS**

- NSF CBET Panelist (2026)

### **OUTREACH SERVICE**

**Program Organizer**, NSF Sustainable Materials & AI Summer Workshop, HU, Washington DC, Summer 2026

**Dow Scholar Mentor**, HU, Washington DC 2024 – Present

**Program Organizer**, NSF Sustainable Material Summer Workshop, HU, Washington DC, Summer 2025

**Instructor**, NSF Sustainable Material Summer Workshop – Biopolymer and 3D Printing, The University of Texas Rio Grande Valley, virtual, 2025– Present

**Presenter and organizer**, Bridging Science and Public Understanding, HU, Washington DC, April 14, 2025

**Lecturer**, NSF Sustainable Material Summer Workshop, SUNY ESF, Syracuse NY, Summer 2021 – 2023

### **EDITOR BOARD SERVICE**

- Processes (*Special Issue Editor*)

*Research topic:* Biorefining and Circular Economy: Innovative Processes for Waste Valorization: [https://www.mdpi.com/journal/processes/special\\_issues/QQ708OICYU](https://www.mdpi.com/journal/processes/special_issues/QQ708OICYU), 2025-present

- Gels (*Special Issue Editor*)

*Research topic:* Composite Hydrogels: From Fundamental Research to Application: [https://www.mdpi.com/journal/gels/special\\_issues/V3777CR9W0](https://www.mdpi.com/journal/gels/special_issues/V3777CR9W0), 2024-2025

### **CONFERENCE PRESENTATIONS**

1. **Anqi Ji**  
Data-Driven Optimization of Sustainable Biocomposite Manufacturing: Machine Learning-Ready Insights from 3D Printed Poplar-Reinforced PLA (Poster)  
*Amazon Web Services–Machine Learning University Research & Teaching Symposium*, Montgomery, AL, 2026
2. **Anqi Ji**  
Empowering STEM Students Through Science Communication: A Curriculum-Based Public Engagement Initiative (Poster)  
*2025 National Health Research Forum*, Washington, DC, 2025
3. Jiae Ryu, **Anqi Ji**, Prajakta Dongre, Troy Runge, Steven D. Karlen, Sally Ralph, Clayton Mickles, Chang Geun Yoo and Biljana M. Bujanovic  
Synthesis of Lignin-Polystyrene Copolymer from Forest Residues: A Case Study with Ponderosa Pine (Oral)  
*International Symposium on Wood, Fiber and Pulping Chemistry (ISWFPC) 2025*, Raleigh, NC, 2025
4. Shuyang Zhang, Xianzhi Meng, Samarthya Bhagia, **Anqi Ji**, Yun-Yan Wang, Bo Liu, Chang Geun Yoo, David P. Harper and Arthur J. Ragauskas  
Structure-property relationship between lignin structures and properties of 3D-printed functional lignin composites (Oral)  
*ACS Spring 2025*, San Diego, CA, 2025
5. Prajakta Dongre, **Anqi Ji**, Dennis Haak, Jason Coplien, Steven D. Karlen, Peter Kitin, Craig Clemons,

- Chang Geun Yoo, Troy Runge, Biljana Bujanovic  
Preserving the Structure of Softwood Lignin Using Green High-Boiling POINT Solvents (Poster)  
*AIChE Fall 2024*, San Diego, CA, 2024
6. Prajakta Dongre, **Anqi Ji**, Dennis Haak, Jason Coplien, Steven D. Karlen, Peter Kitin, Craig Clemons, Chang Geun Yoo, Troy Runge, Biljana Bujanovic  
Advancing Delignification of Ponderosa Pine with High-Boiling Point Solvents to Produce Lignin for Downstream Valorization (Oral)  
*AIChE Fall 2024*, San Diego, CA, 2024
  7. **Anqi Ji**, Mandeep Poonia, Seoku Lee, Shuyang Zhang, Xianzhi Meng, Paul Crovella, Jeong Jae Wie, Gyu Leem, Arthur J. Ragauskas, Chang Geun Yoo  
Additive manufacturing of biomass and industrial waste polymer composites (Poster)  
*CNY Conference on Environmental Science and Studies (CCESS) 2024*, Syracuse, NY, 2024
  8. **Anqi Ji**, Mandeep Poonia, Seoku Lee, Shuyang Zhang, Xianzhi Meng, Paul Crovella, Jeong Jae Wie, Gyu Leem, Arthur J. Ragauskas, Chang Geun Yoo  
Utilization of biomass and industrial waste on 3D printing applications (Poster)  
*ACS Spring 2024*, New Orleans, LA, 2024
  9. **Anqi Ji**, Nara Han, Shuyang Zhang, Samarthya Bhagia, Xianhui Zhao, Arthur J. Ragauskas, Deepak Kumar, Jeong Jae Wie and Chang Geun Yoo  
Fused deposition modeling (FDM) 3D printing of industrial hemp waste polymer composites (Poster)  
*AIChE Fall 2023*, Orlando, FL, 2023
  10. Juhyeon Kim, Silabrata Pahari, **Anqi Ji**, Mairui Zhang, Chang Geun Yoo and Joseph Kwon  
Multiscale Kinetic Modeling and Optimization: In-Depth Analysis of Cellulose Degradation for Enhanced Pulp Process and Superior Paper Quality (Poster)  
*AIChE Fall 2023*, Orlando, FL, 2023
  11. Silabrata Pahari, Juhyeon Kim, Mairui Zhang, **Anqi Ji**, Chang Geun Yoo and Joseph Kwon  
Multiscale Modeling, Experimental Validation, and Optimal Operation for a Batch Pulp Digester with a Novel Solvent (Oral)  
*2023 American Control Conference*, San Diego, CA, 2023
  12. **Anqi Ji**, Nara Han, Shuyang Zhang, Samarthya Bhagia, Xianhui Zhao, Arthur J. Ragauskas, Deepak Kumar, Jeong Jae Wie and Chang Geun Yoo  
Utilization of industrial hemp waste for 3D printing applications (Poster)  
*SUNY college of Environmental Science and Forestry Annual Spotlight Symposium*, Syracuse, NY, 2023
  13. **Anqi Ji**, Shuyang Zhang, Samarthya Bhagia, Xianhui Zhao, Arthur J. Ragauskas, Jeong Jae Wie and Chang Geun Yoo, Utilization of waste paper fibers for 3D printing applications (Oral)  
*CNY Conference on Environmental Science and Studies 2023*, Syracuse, NY, 2023
  14. **Anqi Ji**, Shuyang Zhang, Samarthya Bhagia, Xianhui Zhao, Arthur J. Ragauskas, Jeong Jae Wie and Chang Geun Yoo  
Enhancement of waste fines/PLA composites by deashing modification (Oral)  
*ACS Spring 2023*, Indianapolis, IN, 2023
  15. **Anqi Ji**, Xianzhi Meng, Jingshun Zhuang, Jiseok Park, Kwang Ho Kim, Gyu Leem, Sung Bong Kang, Arthur J. Ragauskas and Chang Geun Yoo

Reductive Depolymerization of PAA-fractionated Lignin via using CuPMO Catalyst (Oral)

*AIChE Fall 2022*, Phoenix, AZ, 2022

16. Yunxuan Wang, **Anqi Ji**, Xianzhi Meng, Yang Tian, Linjing Jia, Aymerick Eudes, Kwang Ho Kim, Yunqiao Pu, Gyu Leem, Deepak Kumar, Jeong Jae Wie, Arthur J. Ragauskas and Chang Geun Yoo  
Application of Protocatechuic Acid-Based Deep Eutectic Solvent for Utilization of Engineered Biomass (Poster)

*AIChE Fall 2022*, Phoenix, AZ, 2022

17. Juhyeon Kim, Hyun-Kyu Choi, **Anqi Ji**, Mairui Zhang, Joseph Kwon and Chang Geun Yoo  
A Study for Kinetic Modeling and Experimental Validation of Lignin Fractionation with 4-Phenolsulfonic Acid for Effective Lignocellulosic Biomass Utilization (Oral)

*AIChE Fall 2022*, Phoenix, AZ, 2022

18. Hyun-Kyu Choi, **Anqi Ji**, Mairui Zhang, Juhyeon Kim, Joseph Sang-Il Kwon and Chang Geun Yoo  
Kinetic modeling study of lignocellulose fractionation using 4-phenolsulfonic acid (Oral)

*DYCOPS*, Busan, Republic of Korea, 2022

19. **Anqi Ji**, Samarthya Bhagia, Kwang Ho Kim, Arthur J. Ragauskas, Gyu Leem and Chang Geun Yoo  
Enhancement of biomass-derived 3D printing resins by chemical modification (Oral)

*ACS Spring 2021*, San Diego, CA, 2021

### **INVITED PRESENTATIONS**

1. **Anqi Ji**, Utilization of Biomass and Industrial Waste in 3D Printing, Lakehead University, Virtual seminar, Jan 29, 2026.
2. **Anqi Ji**, Exploring Academic & Career Pathways, *Beijing University of Chemical Technology*, Virtual seminar, December 18 2025.
3. **Anqi Ji**, Utilization of Wastepaper Fibers on 3D Printed Polymer Composites, *International Conference on Advances in Life Sciences (ICALS-2025)*, Virtual seminar, January 9, 2025
4. **Anqi Ji**, Exploring Academic & Career Pathways, *Beijing University of Chemical Technology*, Virtual seminar, December 17, 2024.
5. **Anqi Ji**, Utilization of Biomass and Industrial Waste in 3D Printing, *HU Department of Chemical Engineering*, Washington DC, September 9, 2024.
6. **Anqi Ji**, Polymerization of Styrene and Lignin: Production and Characterization, *Forest Products Laboratory*, Virtual seminar, July 10, 2024

### **TEACHING EXPERIENCE**

|                       |                                                                 |
|-----------------------|-----------------------------------------------------------------|
| Spring 2025 – Present | Chemical Engineering Analysis (CHEG 306), Howard University     |
| Fall 2024 – Present   | Chemical Engineering Laboratory (CHEG 413), Howard University   |
| Spring 2022           | Engineering Design Economics (PSE 480), SUNY ESF                |
| Spring 2020 – 2021    | Bioprocess Engineering Design (BPE 481/681), SUNY ESF           |
| Fall 2019 – 2021      | Unit Operations Laboratory (BPE 430, Current ECH 324), SUNY ESF |

### **PROFESSIONAL AFFILIATIONS**

|                |                                                          |
|----------------|----------------------------------------------------------|
| 2022 – Present | Member, American Institute of Chemical Engineers (AIChE) |
| 2021 – Present | Member, American Chemical Society (ACS)                  |