Professor Ning Yan’s Post-Doctoral Fellows & PhD Candidates

Post-Doctoral Fellows Bios

Dr. Mohammad Arjmand
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Conductive Nanofillers Synthesis and Multi-Functional Polymeric Nanocomposites

Mohammad Arjmand received his BSc from Shiraz University, Iran (2007), MSc from Sharif University of Technology, Iran (2009), and PhD from University of Calgary, Canada (2014), all in Chemical Engineering. He worked as a Postdoctoral Scholar in the Polymer Processing Group at University of Calgary for more than 3 years. Thereafter, he joined Prof. Yan’s research group in July 2017. His current research area is synthesis of conductive nanofillers and development of multi-functional polymeric nanocomposites with enhanced electrical, thermal, mechanical, tribological, and gas sensing properties.

Dr. Prashant Chauhan
Office: ES 2025
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Nanocellulose derivatives for advanced applications

Prashant received his Bachelor (2008) and Master (2010) degrees in Organic Chemistry from University of Delhi, India. He completed his PhD degree (2013) from the Department of Chemical Sciences, University of Padua, Italy. In early 2014, he worked as a Post-Doctoral Fellow at Rhodes University, South Africa, and later in October 2014
he joined Prof. Yan’s group. His present research focuses on nanocellulose derivatives for advanced applications. Prashant’s hobbies include cooking, travelling, music and adventurous sports.

Dr. Sandeep Sudhakaran Nair
Office: ES 2009
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Bio-based advanced nanostructures
Dr. Nair completed his PhD in Advanced Materials Research from the University of Tennessee, USA in 2012. He worked as a Postdoctoral Fellow for two years at the School of Chemistry and Biochemistry, Georgia Institute of Technology, Atlanta, Georgia. During this time, he also worked as a visiting scientist in the USDA’s Forest Products Lab, Fiber and Chemical Sciences Research unit in Madison, Wisconsin. His current research focusses on the design, synthesis, and characterization of biomass derived polymers for high performance applications.

PhD Candidates:

Heyu Chen
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Production of value-added green chemical products from tree barks
Heyu Chen joined Professor Yan’s group in September 2014 as a PhD student. He received his Bachelor and Master's degree at Beijing Forestry University. Now his
research focuses on the production of value-added green chemical products from tree barks. The use of natural renewable resources has attracted increasing worldwide attention as the environmental crisis and its associated socio-ecological burden are becoming a great concern. Bark, a nonfood-related biomass material available in large quantities, is a promising raw material. In addition to conducting his scientific works, Heyu likes playing badminton, hiking, and reading in his spare time.

Shrestha Roy Goswami
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Starch-based wood adhesives
Shrestha completed her B. Tech in Biotechnology (India, 2014) and MSc in Bioresource Engineering (2016) at McGill, Canada. She joined Prof. Ning’s group in September 2016 as a Ph.D. student. Utilization of bio-based materials to value-added products is her prime research interest. Her current research focus is on the design, synthesis, and characterization of starch as a potential substitute to conventional wood adhesives. In her spare-time, a food hedonist by nature, she enjoys cooking, traveling, and occasionally indulging in canvas-painting.

Jing Luo
Office: ES 4018
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Bio-based wood adhesives and composites
Jing Luo joined Professor Yan’s group in January 2017 as an international visiting student. She received her Bachelor and Master’s degree at the Beijing Forestry University. Now her research focuses on the green wood adhesive developed from
soybean meal and bark. As renewable products, soybean meal and bark have the advantages of being abundant, inexpensive and environmentally friendly, offering great potential as the raw materials for wood adhesives. Jing likes music and going hiking with her friends in her spare time.

Nicolas Tanguy
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Paper-Based Sensors for Detecting Food Spoilage
Nicolas joined Professor Ning Yan’s group in January 2012 as a research assistant and first focused on the synthesis of bark-modified phenol-formaldehyde resins which represent a cost-effective and more sustainable alternative to conventional adhesives for wood products. Nicolas started his PhD in January 2014 and shifted his focus to the development of novel battery-free wireless sensors for the detection of biogenic amines, a marker for food spoilage. Nicolas’ hobbies include playing soccer and table tennis, enjoying music festivals and going out with his friends.

Nicole Tratnik
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Synthesis of Bio-based Formaldehyde Free Wood Adhesive from Starch
Nicole received her Bachelors in Honors Chemistry at the University of Waterloo while completing co-op terms at Crosslink Technologies and the Woodbridge Group in Toronto, Canada, Krka pharmaceutical company in Novo Mesto, Slovenia, and the Radiation Lab at the University of Notre Dame in Indiana, USA. She joined Professor Ning Yan’s group in September 2016 as a Master of Science in Forestry Student
focusing on the synthesis of a bio-based formaldehyde free wood adhesive made from starch and has since transferred into her PhD. Nicole is also part of the Forestry Graduate Students' Association and enjoys organizing the woodsports team, playing ultimate frisbee, going out with friends, and backpacking.

Wenbiao Xu
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Lignin depolymerization towards valuable chemicals

Wenbiao Xu joined Professor Yan’s group in October 2017 as a joint PhD student. He started his PhD in September 2015 at the Northeast Forestry University, China. His research focuses on the synthesizing multifunctional polyoxometalates, and acting as cascade catalysts in depolymerization and degradation of lignin, and further conversion of lignin into target chemicals with high efficiency, selectivity, stability, and recyclability. Wenbiao’s hobbies include playing soccer, music and going hiking.

Publications / Books / Chapters:

1. Nicolas Tanguy, Michael Thompson, Ning Yan, A Review on Advances in Application of Polyaniline for Ammonia Detection, Sensors and Actuators B: Chemical, 2017 (Accepted)


Conferences / Workshops:


