

Tianbo Tse

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Education

Texas A&M University

Ph.D Chemistry

2024-2027(expected)

University of Kentucky

M.S. Physics

2022-2024

Presentation: Matrix Based Toy Monoterpene Carbocation Rearrangement Mechanism Calculator

Undergraduate Visiting Scholar

2018-2020

Beijing University of Technology

B.Eng. Environmental Engineering

2017-2018, 2020-2021

Undergraduate Thesis: Diuron Catalytic Degradation

Research/Professional Experience

University of Kentucky

Advisor: Dr. Rachel Schendel

Department of Animal & Food Sciences

Research Assistant

Aug. 2022–May. 2024

- Carbohydrate characterization and analysis for Bourbon spent grains
- Effect of arabinoxylans from Bourbon spent grains on the oxidative stability of canola oil

Peking University

Advisor: Dr. Zhi-Xiang Yu

College of Chemistry and Molecular Engineering

Visiting Student

Oct. 2021–Mar. 2022

- Computational research on the mechanism of an ODI [5+2] reaction and a specific Lu [3+2] reaction
- Participated in two graduate-level courses: Theoretical Organic Chemistry & Quantum Chemistry

Chinese Academy of Agricultural Sciences

Advisor: Dr. Yuquan Xu

Biotechnology Research Institute

Research Assistant

Apr. 2021–Oct. 2021

- Construction of plasmids for indole diterpene biosynthesis
- High-throughput screening of target molecule via mixing methodology and MALDI-TOF

Qualifications

- Distilling, Wine and Brewing Program Certificate ([University of Kentucky](#), 2020)
- Clair L. Hicks Food Science Scholarship ([Community Foundation of Louisville](#), 2023)

Meetings

- **The 10th Beijing Kein Molecular Dynamics and GROMACS Workshop**, Beijing Kein Research Center for Natural Sciences, Beijing, China, Dec. 11th–14th, 2021
- **The 16th Beijing Kein Quantum Chemistry Workshop**, Beijing Kein Research Center for Natural Sciences, Beijing, China, Oct. 3rd–7th, 2021
- **USDA Project Director Meeting for Novel Foods and Innovative Manufacturing Technologies (Poster)**, [UC Davis](#), Davis, CA, USA, Jun. 5th–7th, 2023

Publication

[1] Tse, T.; Schendel, R.R. Cereal Grain Arabinoxylans: Processing Effects and Structural Changes during Food and Beverage Fermentations. *Fermentation* **2023**, 9, 914. <https://doi.org/10.3390/fermentation9100914>