

TIANBO TSE

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Tianbo.Tse@uky.edu

EDUCATION

MS on Food Science , University of Kentucky	2024(Expected)
BS on Environmental Engineering , Beijing University of Technology	2021
Exchange Student , University of Kentucky	2018-2020

RESEARCH EXPERIENCE

Mechanistic Research on Specific Reactions <i>College of Chemistry and Molecular Engineering, Peking University</i>	Advisor: Dr. Zhixiang Yu Oct. 2021- Mar.2022
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- Mechanism of an Oxidative Dearomatization Introduced [5+2] reaction
- Mechanism of a specific Lu [3+2] reaction
- Participated two graduate level courses(Theoretical Organic Chemistry & Quantum Chemistry)

Basic Operation Training and Combinatorial Biosynthesis of Indolediterpene <i>Biotechnology Research Institute, Chinese Academy of Agricultural Sciences</i>	Advisor: Dr. Yuquan Xu Apr. 2021- Oct. 2021
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- Constructed plasmids for microbial engineering
- Separated and identified compounds by HPLC and LC-MS

Ni-Fe Catalyst Activating Peroximonosulfate to Degrade Diuron <i>Faculty of Environment and Life, Beijing University of Technology</i>	Advisor: Dr. Zhirong Sun Dec. 2020- Jun. 2021
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- Built the kinetic model with GC-MS data
- Predicted degradation pathways and major intermediate products
- Estimated the practical potential of catalyst on Diuron removal from wastewater

HIGHLIGHT COURSEWORK

Chemistry: Synthetic Organic/Homonuclear NMR/Chemical Crystallography/Plant Biochem

Physics: Classical Mechanics/Quantum Mechanics/ Electrodynamics/Statistical Mechanics/General Relativity

QUALIFICATIONS

- Distilling, Wine and Brewing Program Certificate (Awarded by University of Kentucky on 2020)

MEETINGS

- **The 10th Beijing Kein Molecular Dynamics and GROMACS Workshop**, Beijing Kein Research Center for Natural Sciences Beijing, China, December 11st-14th, 2021
- **The 16th Beijing Kein Quantum Chemistry Workshop**, Beijing Kein Research Center for Natural Sciences. Beijing, China, October 3rd-7th, 2021

WET&DRY LAB SKILLS

HPLC/XRD/NMR/Gaussian/ORCA/xtb/MOPAC/Gromacs