# Tianbo Xie

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Advisor: Prof. Zhixiang Yu

Advisor: Prof. Yuquan Xu

Advisor: Prof. Zhirong Sun

Dec. 2020 - Jun. 2021

Apr. 2021 - Oct. 2021

Oct. 2021 - Mar.2022

# **Education Background**

Beijing University of Technology, Beijing, China (Sept. 2017 - Jul. 2018 & Sept. 2020 - Jul. 2021)

University of Kentucky, Lexington, KY, United States (Aug. 2018 - May. 2020)

Degree: B.E. Environmental Engineering, GPA: 3.5 (BJUT, 100 credits), 3.9 (UKY, 73 credits)

# **Research Experience**

# **Mechanistic Research on Specific Reactions**

College of Chemistry and Molecular Engineering, Peking University

• Mechanism of an Oxidative Dearomatization Introduced [5+2] reaction

• Mechanism of a Lu [3+2] reaction

• Participated two graduate level courses(Theoretical Organic Chemistry & Quantum Chemistry)

# **Basic Operation Training & Combintorial Biosynthesis of Indolediterpene**

Biotechnology Research Institute, Chinese Academy of Agricultural Sciences

• Constructed plasmids for microbial engineering

• Separated and identified compounds by HPLC and LC-MS

# Heterogeneous Ni-Fe Catalyst Activating Peroximonosulfate to Degrade Diuron

Faculty of Environment and Life, Beijing University of Technology

• 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

#### Coursework

- Environmental Engineering: Water Treatment, Environmental Microbiology, Fluid Mechanics, Environmental Energy Consequences, Watershed Sediment, Stream Restoration, Water Resource Engineering
- Food&Agriculture: Food Processing, Food Fermentation, Food Chemistry, Basic Soil Science, Distillation, Wine& Brewing Science
- Chemistry&Chemical Engineering: Inorganic Chemistry, Organic Chemistry, Analytical Chemistry, Physical Chemistry, Biochemistry, Molecular Biology,Instrumental Analysis, Principles and Technology of the Fine Organic Synthesis, Environmental Catalysis, Membrane Separation Technology,Chemical Reaction Engineering

#### **Qualifications**

• Distilling, Wine and Brewing Program Certificate (Awarded by University of Kentucky)

# **Organizations & Volunteer**

- Volunteer Tutor, Laoguandi High School, Chaoyang City, Liaoning province, China (Jul. 2019)
- Internship, Environmental Protection Bureau of Shenzhen Municipality, Shenzhen, China (Jun. 2019)

# **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

### Miscellaneous

#### Wechat Official Account: 忧郁的南极 (Blue South Pole)

- NaJian (a short story collection, including 13 short stories, in memory of my high school life)
- FeiHui (a short story collection, including 7 short stories, discussing the phenomena in modern colleges)
- *Introduction to physical chemistry* (2 of 13 chapter released, aiming to lower the barrier of accessing Phys.Chem.) **QR Code of the official account:**