JINGYANG ZHANG

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EDUCATION

University of Illinois Urbana-Champaign, Illinois, U.S.A.

Ph.D. Student in Organic Chemistry 08/2021 – 10/2023

Ph.D. Candidate in Organic Chemistry 10/2023 – present

- **Awards**: 2022 Carl S. Marvel Fellowship, Fall 2022 List of Teachers Ranked as Excellent by Their Students, 2023 University Block Grant Fellowship

Wuhan University, Hubei, China

B.Sc. (Hons.) in Chemistry; *Training Plan of the National Basic Subject Top-notch Talent* 09/2016 – 06/2020

CGPA: 3.83/4.00

- **Awards**: China National Scholarship, Wuhan University Outstanding Undergraduates, Wuhan University First-class Xing-Gong Scholarship (Top 1), Wuhan University First-class Scholarship, Wuhan University Second-class Scholarship, Technical Institute of Physics and Chemistry of the Chinese Academy of Sciences Scholarship

University of California, Los Angeles, California, U.S.A.

Visiting Student; *Cross-disciplinary Scholars in Science and Technology (CSST)* 07/2019 – 09/2019

CGPA: 4.00/4.00

- **Awards:** UCLA-CSST Scholarship

Nanjing University, Jiangsu, China

Visiting Student; *Summer School of Theoretical and Computational Chemistry* 07/2018

Certificate of Completion

RESEARCH EXPERIENCE

Sarlah Group, University of Illinois Urbana-Champaign 10/2021 – present

Principal Investigator: Professor David Sarlah

- Total synthesis of sannamycin B, with core structure derivatization and computational mechanism studies
- Probe synthesis, software engineering and hit identification for the development of high-throughput experimental platform for reaction discovery

Renata Lab, Scripps Research 11/2019 – 09/2020

Principal Investigator: Professor Hans Renata

Academic Year Research Internship for Undergraduates (AYRIU)

- Synthetic studies toward anthrabenzoxocinones
- Substrate preparation for the syntheses of β-branched aromatic amino acids *via* a chemoenzymatic DKR Strategy
- Enzyme and substrate preparation for the chemoenzymatic syntheses of highly oxidized *ent*-kaurene, *ent*-atiserene and *ent*-trachylobane diterpene natural products

Harran Research Group, University of California, Los Angeles 07/2019 – 09/2019

Principal Investigator: Professor Patrick G. Harran

- Synthetic studies toward a 1,2,3-trithocane marine natural product

The Zhou Group, Wuhan University 07/2017 – 06/2019, 12/2020 – 03/2021

Principal Investigator: Professor Qianghui Zhou

- Condition optimization and substrate scope evaluation for construction of 1,3-*trans*-tetrahydroisoquinoline scaffolds *via* a Catellani strategy
- Substrate preparation for convergent syntheses of 2,3-dihydrobenzofurans *via* a Catellani strategy
- Substrate preparation for using epoxides as alkylating reagents for the Catellani reaction

TECHNICAL SKILLS

- Multi-step organic synthesis, synthetic route planning, purification and characterization of organic compounds
- Modelling and electronic structure calculation of molecules (Gaussian, xTB/CREST, Multiwfn, VMD, *etc.*)
- Data analysis, modelling, and visualization with Python (NumPy, Pandas, SciPy, TensorFlow, Matplotlib, *etc.*)
- Cell culture, isolation and lysis, conduction of basic biocatalytic reactions

PUBLICATIONS

5. Davis, C. W.; Zhang, Y.; Li, Y.; Martinelli, M.; **Zhang, J.**; Ungarean, C.; Galer, P.; Liu, P.; Sarlah, D. Copper-Catalyzed Dearomative 1,2-Hydroamination. *Angew. Chem. Int. Ed.* **2024**, e202407281.

4. Bai, M.; Jia, S.; **Zhang, J.**; Cheng, H.-G.; Cong, H.; Liu, S.; Huang, Z.; Huang, Y.; Chen, X.; Zhou, Q., A Modular Approach for Diversity-Oriented Synthesis of 1,3-trans-Disubstituted Tetrahydroisoquinolines: Seven-Step Asymmetric Synthesis of Michellamines B and C. *Angew. Chem. Int. Ed.* **2022**, *61*, e2022052.

3. Li, F.; Yang, L.-C.; **Zhang, J.**; Chen, J. S.; Renata, H., Stereoselective Synthesis of β-Branched Aromatic α-Amino Acids by Biocatalytic Dynamic Kinetic Resolution. *Angew. Chem. Int. Ed.* **2021,** *60*, 17680

2. Wu, C.; Cheng, H.-G.; Chen, R.; Chen, H.; Liu, Z.-S.; **Zhang, J.**; Zhang, Y.; Zhu, Y.; Geng, Z.; Zhou, Q., Convergent syntheses of 2,3-dihydrobenzofurans via a Catellani strategy. *Org. Chem. Front.* **2018,** *5*, 2533

1. Cheng, H.-G.; Wu, C.; Chen, H.; Chen, R.; Qian, G.; Geng, Z.; Wei, Q.; Xia, Y.; **Zhang, J.**; Zhang, Y.; Zhou, Q., Epoxides as Alkylating Reagents for the Catellani Reaction. *Angew. Chem. Int. Ed.* **2018,** *57*, 3444

LICENSES AND CERTIFICATES

IBM Data Science Professional Certificate, *approved by International Business Machines Corporation (IBM)*

Applied Data Science with Python Specialization, *approved by University of Michigan*

Deep Learning Specialization, *approved by DeepLearning.AI*

Business Foundation Specialization, *approved by The Wharton School of the University of Pennsylvania*