Yu-Qing Zheng

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EDUCATION

Sep 2021 – Jul 2026	**Wuhan University**, Wuhan, China Doctor in Organic Chemistry, with Prof. Wen-Bo Liu
Apr 2025 – Apr 2026	**Hokkaido University**, Hokkaido, Japan Special research student & MANABIYA(Acadamic) Program, with Prof. Min Gao Supported by China Scholarship Council and MANABIYA Program
Sep 2017 – Jul 2021	**Wuhan University**, Wuhan, Hubei B.S. in Chemistry, with Prof. Wen-Bo Liu
Sep 2020 – Jan 2021	**Peking University,** Beijing, China Visiting student, with Prof. Zhixiang Yu

RESEARCH INTEREST

Mechanism study of organic chemistry by DFT calculation; Quantitative Structure–Activity Relationship (QSAR) study of asymmetric transition metal catalysts.

PUBLICATIONS

1. Wang, W.#; **Zheng, Y.-Q.**#; Zator, K.; Huang, H.-G.; Ji, Z.-J.; Zhang, H.-Y.; Contreras- García, J.; Gao, M.*; Liu, W.-B.* "Enantioselective Construction of Nonaromatic Pyrrole Isomeric Forms by Ligand-Enabled Intermolecular Desymmetrization of Malononitriles". *CCS Chem.* **2026**, *8*, 3329. (# equal contribution)

2. **Zheng, Y.-Q.** #; Wang, W.#; Huang, H.-G.*; Liu, W.-B.* "Tertiary C(sp3)–Si Bond Formation via Reactivity Umpolung of Silyl Reagents". *Org. Lett.* **2026**, *28*, 2650. (# equal contribution)

3. Huang, C.-M.#; Wu, D.#; **Zheng, Y.-Q.**#; Wang, L.-J.; Li, Y.-Q.; Li, Y.-Y.; Liu, W.-B.*; Yin, G.-Y.* "Catalyst-controlled stereodivergent synthesis of polysubstituted alkenes". *Nat Commun.* **2025**, *16*, 9107. (# equal contribution)

4. Bai, L.-G.#; **Zheng, Y.-Q.**#; Chen, H.-N.#; Cai, J.-H.; Liu, W.-B.* "Access to Enantiopure Spiropyridines Enabled by Enantio-Relay Double [2+2+2] Cycloaddition and Kinetic Resolution [2+2+2] Cycloaddition of Alkynes and Nitriles". *J. Am. Chem. Soc.*, **2025**, *147*, 14574. (# equal contribution)

5. Sun, H.#; Yu, C.-L.#; **Zheng, Y.-Q.**; Shu, P.-F.; Dong, Z.; Xia, Y.-C.; Liu, W.-B.* "Pd-Catalyzed Enantioselective Access to Hydrocarbazolones Containing Contiguous Quaternary and Tertiary Stereocenters". *Chem. Sci.*, **2025**, *16*, 6425.

6. Chen, Z.-H.; **Zheng, Y.-Q.**; Huang, H.-G.; Wang, K.-H.; Gong, J.-L.; Liu, W.-B.* "From Quaternary Carbon to Tertiary C(sp^3)−Si and C(sp^3)−Ge Bonds: Decyanative Coupling of Malononitriles with Chlorosilanes and Chlorogermanes Enabled by Ni/Ti Dual Catalysis". *J. Am. Chem. Soc.* **2024**, *146*, 14445.

7. Peng, J.-H.; **Zheng, Y.-Q.**; Bai, L.-G.; Liu, W.-B.* "Chiral discrimination of small substituents in biaryl atropisomer construction: enantioselective synthesis of axially chiral 1-azafluorene via Ni-catalyzed [2+2+2] cycloaddition". *Sci. China Chem.* **2023**, *66*, 3148.

8. Huang, H.-G.#; **Zheng, Y.-Q.**#; Zhong, D.; Deng, J.-L.; Liu, W.-B.* "Reductive Aza-Pauson-Khand Reaction of Nitriles". *J. Am. Chem. Soc.* **2023**, *145*, 10463. (# equal contribution)

9. **Zheng, Y.-Q.**; Li, C.-L.; Liu, W.-B.*; Yu, Z.-X.* "DFT Study of Mechanism and Stereochemistry of Nickel-Catalyzed trans-Arylative Desymmetrizing Cyclization of Alkyne-Tethered Malononitriles". *J. Org. Chem.* **2022**, *87*, 16079.