

Xinzhe Yang • 杨欣哲

Email: xzyang@utexas.edu; Website: xzyang99.github.io

EDUCATION

- ♦ **University of Texas at Austin** Aug 2025 – Present
PhD in Materials Science and Engineering
- ♦ **Peking University** Sep 2022 – Jun 2025
M.E. in Materials Physics and Chemistry
- ♦ **Xiamen University** Sep 2018 – Jun 2022
B.S. in Chemistry (GPA: 3.60/4.00, Top 10%)

PUBLICATIONS

7. **Xinzhe Yang**, Guangsheng Liu, Xiao Ma, Xiangyun Xiao, Abdulrahman Allangawi, Huabin Zhang, Wan-Lu Li*. Cation- and Potential-Dependent Modulation of Hydrophobic Hydration at Electrocatalytic Interfaces. *J. Phys. Chem. C* 2025, 129, 37, 16958 – 16966
8. Ru-Yu Zhou#, Shisheng Zheng#, Xuan Liu, Yao-Hui Wang, Shunning Li, **Xinzhe Yang**, Feng Pan*, Jian-Feng Li*. Elevating Nitrate Reduction through the Mastery of Hierarchical Hydrogen-Bond Networks. *J. Am. Chem. Soc.* 2025, 147, 24, 20504 – 20511
6. Haowen Ding#, Wenwei Cai#, **Xinzhe Yang**, Yu Zhang, Shunning Li*, Feng Pan*, Shisheng Zheng*. Polarized NiO-Ni δ + Catalysts Enable Asymmetric C-C Coupling for Long-Chain Hydrocarbons in Electrochemical CO₂ Reduction. *ACS Catal.* 2025, 15, 11, 9793 – 9803
5. Junjie Pan#, Haowen Ding#, **Xinzhe Yang**#, Xianhui Liang, Shanglin Wu, Mingzheng Zhang, Shunning Li*, Shisheng Zheng*, Feng Pan*. Autonomous Exploration of Reaction Pathways for Electrochemical C-N Coupling on Single-Atom Catalysts. *ACS Catal.* 2025, 15, 1, 457 – 467
4. Shisheng Zheng, Haowen Ding, **Xinzhe Yang**, Shunning Li*, Feng Pan*. Automating Discovery of Electrochemical Urea Synthesis Reaction Paths via Active Learning and Graph Theory. *CCS Chem.* 2025, 7, 2822 – 2834
3. Shisheng Zheng*, **Xinzhe Yang**, Zhong-Zhang Shi, Haowen Ding, Feng Pan*, Jian-Feng Li*. The Loss of Interfacial Water-Adsorbate Hydrogen Bond Connectivity Positions Surface-Active Hydrogen as a Crucial Intermediate to Enhance Nitrate Reduction Reaction. *J. Am. Chem. Soc.* 2024, 146, 39, 26965-26974
2. Haowen Ding, Shisheng Zheng*, **Xinzhe Yang**, Junjie Pan, Zhefeng Chen, Mingzheng Zhang, Shunning Li*, Feng Pan*. The Role of Surface Hydrogen Coverage in C–C Coupling Process for CO₂ Electroreduction on Ni-Based Catalysts. *ACS Catal.* 2024, 14, 19, 14330-14338
1. **Xinzhe Yang**, Haowen Ding, Shunning Li, Shisheng Zheng*, Jian-Feng Li, Feng Pan*. Cation-Induced Interfacial Hydrophobic Microenvironment Promotes the C–C Coupling in Electrochemical CO₂ Reduction. *J. Am. Chem. Soc.* 2024, 146, 8, 5532-5542

ACADEMIC ACTIVITIES

Poster Presentation, **the 34th Chinese Chemical Society Congress**, Guangzhou, China Jun 2024

HONORS AND AWARDS

National Scholarship, Peking University	2024
Pacemaker to Merit Student, Peking University	2024
Second Class Scholarship, Xiamen University	2021
Academic Excellence Award, Xiamen University	2020
First Prize, China Undergraduate Mathematical Contest in Modeling	2020
First Class Scholarship, Xiamen University	2019

SKILLS

Software: VASP, CP2K, LAMMPS, ASE

Programming: Python, C/C++, Fortran, Bash

Language Proficiency: Chinese (Native), English (Fluent, TOEFL: 103)