

QINAN HUANG

Undergraduate Student | Chemistry

 github.com/tetryl-boy  [linkedin.com/in/qinan-huang-516551237](https://www.linkedin.com/in/qinan-huang-516551237)
 +(1) (341) 766 9252  tetryl@hnu.edu.cn, qinanhuang6@gmail.com

 Hunan University, Changsha, China





Computational Chemistry / Machine Learning / Organometallic Chemistry / Quantum Chemistry / Analytical Chemistry / Nanotechnology / Molecular Dynamics / Synthetic Biology / Molecular Cloning /



EDUCATION

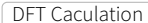


2020 - 2024 **BSc in Chemistry, Hunan University**
 > GPA : 3.72/4;
 > Ranking : 2/111;
 > TOEFL : Total : 103/120 (Reading : 29 Listening : 29 Speaking : 23 Writing : 22), June 2023




2023.1 - 2023.5 **Visiting Student, University of California, Berkeley**
 > GPA : 3.77/4;
 > CHEM121, Introduction to Computational Chemistry : Grade : A
 > CHEM142, Machine Learning, Statistical Models, and Optimization for Molecular Problems : Grade : A
 > Graduate Courses : CHEM220B Statistical Mechanics, CHEM262 Metals in Organic Synthesis, CHEM263B Synthetic Design II



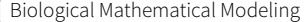
EXPERIENCE

Present
May 2023 **Undergraduate Researcher, UNIVERSITY OF CALIFORNIA, LOS ANGELES, United States**
Houk Group :
 > Studied mechanism of enzyme-catalyzed reactions using quantum mechanics and molecule dynamics.
   

May 2023
February 2023 **Undergraduate Researcher, UNIVERSITY OF CALIFORNIA, BERKELEY, United States**
Hartwig Group :
 > DFT calculation for Copper catalyst with significant multi-reference characters.
 

Present
December 2022 **Undergraduate Researcher, THE UNIVERSITY OF BRITISH COLUMBIA, Canada**
Dilabio Group :
 > Developed system specific ACPs (Atom-Centered Potentials) for quantum dynamics and vibrational spectroscopy;
 > Applied database to delta machine learning.
  

December 2022
April 2022 **Undergraduate Researcher, HUNAN UNIVERSITY, China**
Qu and Duan Group :
 > Study on mechanism and control methods of metal-organic catalytic reactions;
 > Computational design of privileged chiral catalyst.
   

October 2022
March 2022 **IGEM Team Member, HUNAN UNIVERSITY, China**
IGEM (International Genetically Engineered Machine)
Team HNU_China :
 > Developed. coli engineered to absorb phosphates in water;
 > Designed of temperature-sensitive biological switches.
  

Nov 2022 May 2021	Undergraduate Researcher , HUNAN UNIVERSITY, China Song Group : <ul style="list-style-type: none"> > Design of ratiometric fluorescent probes based on Prussian blue; > In vivo molecular imaging : acoustic imaging, long afterglow imaging, chemiluminescence, nuclear magnetic imaging; > Early diagnosis, treatment and efficacy testing of cancer. MRI Acoustic Imaging (PA) Chemical Probes Photodynamic therapy (PDT)
July 2021 June 2021	Internship , HUNAN UNIVERSITY, China Luo Group : <ul style="list-style-type: none"> > Measurement and Correlation for Solubilities of Adipic Acid, Glutaric Acid, and Succinic Acid in Different Alcohol Solvents.
June 2021 December 2020	Research Assistant , HUNAN UNIVERSITY, China He Group : <ul style="list-style-type: none"> > Developed bacterium sensor based on 16S rRNA and “DNA-RNA switch”. Microbial and Virus Sensors

COMPETENCE

Wet Lab Skills	Molecular cloning technology(PCR,WB, restriction enzyme digestion .etc),Organic synthesis.
Dry Lab Skills	DFT caculation, Mathematical modeling, Gaussian, ORCA.
Scientific Drawing	Origin, Adobe Illustrator
Instrumental Analysis	MRI,PA,UVIS,XRD
Office Automation	LaTeX, Pack Office(Word, Excel, PowerPoint).

PUBLICATIONS

- 2023 Delaney, C. P., Lin, E., **Huang, Q.**, Yu, I. F., Rao, G., Tao, L., Jed, A., Fantasia, S. M., Püntener, K. A., Britt, R. D., & Hartwig, J. F. (2023). A non-canonical Ullmann coupling mechanism occurring through copper(II). **Submitted to Science.**
- 2022 Huang, Y., Zhang, L., Yan, M., **Huang, Q.**, Zhang, Y., Ren, Y., & Luo, W. (2022). **Measurement and Correlation for Solubilities of Adipic Acid, Glutaric Acid, and Succinic Acid in Different Alcohol Solvents**, Journal of Chemical & Engineering Data 67 (1), 245-256

AWARDS

- 2022 International Genetically Engineered Machine (iGEM) competition 2022, Silver Medal
- 2022 Mathematical Contest in Modeling (MCM) , Meritorious Winner (7 %)
- 2021 National Scholarship , Ministry of Education of the People's Republic of China