

QINAN HUANG

Undergraduate Student | Chemistry

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 Hunan University, Changsha, China

Computational Chemistry / Quantum Chemistry / Analytical Chemistry / Nanotechnology / Molecular Dynamics Simulation / Synthetic Biology / Molecular Cloning / Nucleic Acid Probes / Fluorescent Probes

EDUCATION

2020 - 2024 **BS Chemistry, Hunan University**
 > GPA : 3.72/4;
 > Ranking : 2/111;
 > Language Test : TOEFL : 102/120 , CET-6 : 626/720.

EXPERIENCE

Present December 2022	Undergraduate Researcher, THE UNIVERSITY OF BRITISH COLUMBIA, OKANAGAN CAMPUS, Canada Dilabio Group : <ul style="list-style-type: none">> System specific ACPS for quantum dynamics and vibrational spectroscopy <div style="display: flex; gap: 5px;"><div style="border: 1px solid #ccc; padding: 2px 5px;">DFT Calculation</div><div style="border: 1px solid #ccc; padding: 2px 5px;">Database</div><div style="border: 1px solid #ccc; padding: 2px 5px;">Machine Learning</div></div>
Present April 2022	Undergraduate Researcher, HUNAN UNIVERSITY, China Qu and Duan Group : <ul style="list-style-type: none">> Study on mechanism and control methods of metal-organic catalytic reactions;> Dynamical effects in transition metal chemistry;> Computational design of privileged chiral catalyst. <div style="display: flex; gap: 5px;"><div style="border: 1px solid #ccc; padding: 2px 5px;">DFT Calculation</div><div style="border: 1px solid #ccc; padding: 2px 5px;">Catalyst Design</div><div style="border: 1px solid #ccc; padding: 2px 5px;">Gaussian</div><div style="border: 1px solid #ccc; padding: 2px 5px;">ORCA</div><div style="border: 1px solid #ccc; padding: 2px 5px;">Metal-Organic Catalytic</div><div style="border: 1px solid #ccc; padding: 2px 5px;">Quantum-Mechanics</div></div>
October 2022 March 2022	IGEM Team Member, HUNAN UNIVERSITY, China IGEM (International Genetically Engineered Machine) Team HNU_China : <ul style="list-style-type: none">> Develop E. coli engineered to absorb phosphates in water;> Increase the concentration of polyP by point mutation of the ppk gene;> Design of temperature-sensitive biological switches. <div style="display: flex; gap: 5px;"><div style="border: 1px solid #ccc; padding: 2px 5px;">Synthetic Biology</div><div style="border: 1px solid #ccc; padding: 2px 5px;">Molecular Cloning</div><div style="border: 1px solid #ccc; padding: 2px 5px;">Biological Modeling</div></div>
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. <div style="display: flex; gap: 5px;"><div style="border: 1px solid #ccc; padding: 2px 5px;">MRI</div><div style="border: 1px solid #ccc; padding: 2px 5px;">acoustic imaging (PA)</div><div style="border: 1px solid #ccc; padding: 2px 5px;">Chemical Probes</div><div style="border: 1px solid #ccc; padding: 2px 5px;">Photodynamic therapy (PDT)</div></div>
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">> Bacterium sensor based on 16S rRNA and "DNA-RNA switch";> Microbial and virus sensors. <div style="border: 1px solid #ccc; padding: 2px 5px;">Microbial and Virus Sensors</div>

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).

PROGRAMMING LANGUAGES

Python	● ● ● ● ●
LaTeX	● ● ● ● ●
MATLAB	● ● ● ● ○
Shell Scripts	● ● ● ● ○

FORCES

- > Insistent
- > Passionate
- > Leadership

INTERESTS

MUSIC : Rock(favourite band is Nirvana), Jazz
SPORT : Soccer, Frisbee, Baseball

PUBLICATIONS AND AWARDS

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| 2022 | Yangyi Huang, Lin Zhang, Mengqi Yan, Qinan Huang , Yuning Zhang, Yanqun Ren, and Weiping Luo, Measurement and Correlation for Solubilities of Adipic Acid, Glutaric Acid, and Succinic Acid in Different Alcohol Solvents , Journal of Chemical & Engineering Data 2022 67 (1), 245-256 |
| 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 |