

Yilin YE

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Education

École Normale Supérieure (ENS) - Université Paris Sciences et Lettres (PSL) Paris, France

Master 1st year, Department of Chemistry Sept. 2021 - Jun. 2022

Courses: General Reactivity (M1), Quantum Field Theory (M1),
Theoretical Chemistry - Statistical Mechanics (M1), etc.

Suspension for COVID-19 Sept. 2020 - Jun. 2021

Diplôme ENS, Department of Chemistry Sept. 2019 - Jun. 2020

Courses: Mathematics for Physicists (L3), Electromagnetism and Relativity (L3),
Kinetics and Reactivity (L3), Theoretical Chemistry: Electronic Structure (M1), etc.

Xiamen University

Xiamen, China

Bachelor in Chemistry, GPA: 3.86/4, Outstanding Graduate Sept. 2015 - Jun. 2019

National Scholarship (Nov. 2016, Nov. 2017, Nov. 2018), Wenqing Scholarship (Apr. 2018)

Internships

Mixing Langevin and ElastoHydroDynamic Problem (M1S2)

Bordeaux, France

Supervisor | Thomas SALEZ, Laboratoire Ondes et Matière d'Aquitaine (LOMA) Feb. 2022 - Jul. 2022

- > Fokker-Planck evolution near the soft surface;
- > Numerical simulations for Langevin equation;

Study of $\eta^{(\prime)} \rightarrow \pi^+ \pi^- \gamma^{(*)}$ Decays by Effective Field Theory

Changsha, China

Supervisor | Lingyun DAI, Hunan University Mar. 2021 - Aug. 2021

- > Form factor and scattering amplitude calculations without or with *FeynCalc@Mathematica*;
- > Independent programme development with *Fortran* for numerical multivariate fittings;
- > Evaluating hadronic light-by-light (HLbL) scattering contributing to $(g - 2)_\mu$ anomaly;

Simulation of Vibrational ICD on Model Systems with Reduced Dimensions (L3S2)

Supervisor | Jérémie CAILLAT, Laboratoire de Chimie Physique-Matière et Rayonnement (LCPMR)

Remote for COVID-19 Jun. 2020 - Jul. 2020

- > Numerical discretisation toward wave-functions of harmonic oscillators with *Fortran*;
- > Time-dependent Schrödinger equations solved by Crank-Nicolson method & Thomas algorithm;
- > Vibrational intermolecular coulombic decay (vib-ICD) process ($\text{HF} + \text{Li}^-$) simulations with Fano model;

From Molecular Simulation to Machine Learning (Discovery week)

Paris, France

Supervisor | Rodolphe VUILLEUMIER, ENS

Feb. 2020

- > Energy calculations and IR spectroscopy simulations with *Orac*;
- > Fitting coefficients of Lennard-Jones potential with *Python*:
linear polynomial regression & LASSO regularization & neural network

Researches

Research towards Total Synthesis of Atkamine (Undergraduate thesis)

Xiamen, China

Supervisor | Yandong ZHANG, Xiamen University

Jan. 2018 - May 2019

• Zhang, F.; Niu, Y.; Hong, D.; Ye, Y.; Hua, Y.; Ding, S.; Zhang, Y. (2021) *Chinese Chemical Letters*, 32(2), 668-671. doi: 10.1016/j.cclet.2020.06.008

Research towards Total Synthesis of Phainanoid A

Chicago, USA

Supervisor | Guangbin DONG, University of Chicago

Jul. 2018 - Sept. 2018

Research towards Total Synthesis of (–)-Actinophyllic Acid

Xiamen, China

Supervisor | Yandong ZHANG, Xiamen University

Jul. 2016 - Jan. 2018

• Li, J.; Ye, Y.; Zhang, Y. (2018). *Organic Chemistry Frontiers*, 5(5), 864-892. doi: 10.1039/c7qo01077j

Competitions

Mathematical Contest in Modeling (MCM)

Honorable Mention for population predictions by difference equation model;

Feb. 2018

International Genetically Engineered Machine Competition (iGEM)

Granted *Gold Award* as an advisor of "XMU-China" team;

Mar. 2017 - Nov. 2017

Computing Skills

Fortran, L^AT_EX, MacOS system, Mathematica, Pascal, Python, R

Selected Awards

Normalien Scholarship, ENS (for three years)

Sept. 2019

Outstanding Graduate, Xiamen University

Jun. 2019

China National Scholarship (three times)

Nov. 2016, Nov. 2017, Nov. 2018

Wenqing Scholarship (18 in 14181), Xiamen University

Apr. 2018

Academic References

Prof. Jérémie CAILLAT

LCPMR, UMR 7614, Sorbonne Université

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Prof. Lingyun DAI

Department of Physics, Hunan University

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Prof. Guangbin DONG

Department of Chemistry, University of Chicago

gbdong@uchicago.edu

Prof. Thomas SALEZ

LOMA, UMR5798, Université de Bordeaux

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Prof. Rodolphe VUILLEUMIER

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Prof. Yandong ZHANG

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