Yu Wang

Email: zju_wangyu@zju.edu.cn Address: HangZhou China

Age: 26 Gender: Male

Current Status: Research Assistant

EDUCATION & WORK

Zhejiang University - Department of Chemistry 2023 - 2024

Research Assistant HangZhou China

Zhejiang University - Department of Chemistry 2020 - 2023

Master (Chemistry) HangZhou China

China Pharmaceutical University - Faculty of Engineering 2016 - 2020

Bachelor (Pharmacy) NanJing China

HONORS & AWARDS

Jiang Zhi Modern Biological and Pharmaceutical Technology Research Award 2023

The Second Prize Scholarship Award 2022

The Assistantship Award 2022

Rank NO.1 in the Zhejiang University Graduate Entrance Examination 2020

The Third Prize Scholarship Award 2019

The Third Prize Scholarship Award 2017

RESEARCH EXPERIENCE

Molecular Dynamics Simulation of Adsorption Mechanism of

Coagulation Factor Xa on Na^+ Exchange Zeolite Surface

Project Continuer

Investigating the adsorption behavior of coagulation factor FXa light chain and the coagulation factor FXa-FVa complex on NaY or CaY zeolite surfaces with varying degrees of ion exchange. This study aimed to elucidate the roles of different metal ions in the binding process of coagulation factor FXa to Hemostatic zeolite surfaces.

Exploration of the catalytic mechanism for the

Dissociation of H_2O_2 by bimetallic Au/Pd nanoparticles

Responsible for computational aspects

using DFT to explore the absorption energies of H_2O_2 on surfaces with different ratios of Au/Pd, to predict the Au/Pd nanoparticles with optimal performance. Constructing advantageous adsorption configurations of H_2O_2 on different surfaces. Subsequently, possible routes and corresponding free-energy profiles of dissociating H_2O_2 will be compared between the pure Au surface and the Au/Pd mixed surface, which aims to infer the promoting effect of heteronuclear metal sites on the reaction.

Molecular Dynamics Simulation for Constructing a Drug Delivery System

using Folic Acid-Modified Natural Silk Fibroin Protein

Responsible for computational aspects

Conducted protein structure simplification, peptide chain construction, folic acid-modified peptide chain construction, and simulation of their conformational changes in both aqueous and methanol solvents.

Investigated interactions between peptide chains and drugs, as well as interactions between peptide chains and cell membranes.

An Engineered Design of Self-assembly Nanomedicine Guided by Molecular Dynamic Simulation for Photodynamic and Hypoxia-directed Therapy *10.1021/acs.molpharmaceut.2c01079*

First Author 2021 - 2023

Synthesized hypoxia-responsive prodrug by attaching hypoxic moiety to docetaxel. Selected amphiphilic photosensitizers for drug delivery system construction. Validated and explained binding using molecular dynamics simulations. Visualized self-assembly and structure through coarse-grained simulation.

Investigation of Fe/Ni Nanocatalytic Systems in Aqueous Micelles

Main Team Member 2018 - 2019

Responsible for the preparation of Fe/Ni nanomicelles and testing their catalytic performance, such as Suzuki coupling reactions.

THESES

Master: Study on Light-Enhanced Nanomedicine Delivery System in Response to Tumor Micro-Environment

Bachelor: Palladium-Catalyzed Defluorination Dearomatization of gem-Difluorinate Cyclopropanes with *β*-Naphthols

SKILLS

Language: IELTS 6.5 (Listening: 6.0, Reading: 7.0, Speaking: 6.0, Writing: 6.0)

Software: Gromacs, Gaussian, Lammps, VASP, Quantum ESPRESSO, CYLview, Pymol, VMD, AutoDock, Materials Studio, Amber, Java, Python, Prism, Origin, Photoshop, etc.