

Shuting WANG
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EDUCATION

Shanghai Jiao Tong University, Shanghai

Bachelor of Materials Science and Engineering

Cumulative GPA : 3.64/4.30

Relevant Courses: Material Thermodynamic (96%) Mechanics of Materials (96%) Materials Chemistry (90%) Basis of Material Manufacturing Digital Technology (91.54%) Characterization of material structure (97%)

RESEARCH EXPERIENCE

Participant of Participation in Research Program: Shanghai Jiao Tong University: 'Preparation and chiral regulation of phenylalanine hydrogels' project

Feb. – Sep. 2021

Realized the in situ transition of handedness of supramolecular assemblies by removing terminal diethylene glycol motifs.

Separated the enantiomers of racemic phenylalanine by in situ regulation of handedness of nanofibers.

Published a paper 'Inversion of Supramolecular Chirality by In-situ Hydrolyzation of Achiral Diethylene Glycol Motifs'.

Student Researcher of National Undergraduate Innovative Test Program: Shanghai Jiao Tong University: 'Chiral Supramolecular assemblies induce the apoptosis of tumor cells' project

Oct. 2021 - Mar. 2023

Prepared co-assemblies systems using IR1048 and Perylene derivatives and discovered they had a cotton effect at 1100nm, not seen in self-assemblies systems of either building block.

Used circularly polarized light as the light source for photothermal therapy (PTT) based on this. Showed the effect of PTT on 4T1 cells was related to the handedness of building blocks of co-assemblies used to incubate cells.

Researcher: Shanghai Jiao Tong University: 'Handedness regulation of co-assemblies built with photosensitizers and C2-supramolecules and their PTT effect by exposed to circularly polarized light' issues

Apr. 2023 - present

Constructed co-assemblies of IR1048 and chiral building blocks with stable chirality by selecting suitable organic molecules considering the possible interaction between two building blocks.

Verified their photothermal stability and photothermal efficiency coupling with chiral light sources.

Cell experiments almost completed. Hoping to establish a mathematical model explaining the assembly process while conducting animal experiments.

PUBLICATION

Published ‘Inversion of Supramolecular Chirality by In Situ Hydrolyzation of Achiral Diethylene Glycol Motifs’ on *The Journal of Physical Chemistry B*, **Nov. 2021 - Feb. 2022**

STUDENT WORK

Director of project department of Student Science and Technology Association of School of Materials Science and Engineering

June 2022 – June 2023

Wrote a project proposal for the second ‘Materials Day’ activity (for students/researchers in materials science/engineering to communicate and socialize) and helped organize it.

Participated in the science and innovation training camp ‘Knowledge and Action Project’.

HONORS AND AWARDS

Shanghai Jiao Tong University-Suzhou Industrial Park Scholarship

Feb. 2023

Shanghai Jiao Tong University ABC Scholarship

Dec. 2022

INTERESTES AND SKILLS

Software: PS, Pr, Sai, Adobe InDesign, MATLAB, ChemDraw, MestReNova, GraphPad Prism, Origin, Match, MDI Jade.

Interests: digital illustration, drawing, piano, CoC TRPG (Call of Cthulhu Tabletop Role-playing game)