

Xiaoquan “Sarah” Zhou

xiaoquan.zhou@email.edcc.edu

(951)310-6939

EDUCATION

Ph.D., Chemistry, University of California, Riverside

December 2012

GPA:3.5/4.0 210credits

Advisor: Professor Christopher J. Bardeen

Dissertation: Spectroscopic-Assisted Studies on the Photophysics and Mechanochemistry of Anthracene-Based Materials

M.S., Physical Chemistry, NanKai University, Tianjin, China

June 2007

GPA:85/100 34 credits

Advisor: Professor Tiehong Chen

Thesis: Synthesis and Characterization of Mesoporous and Macroporous Titanium Dioxide

B.S., Chemistry, NanKai University, Tianjin, China

June 2004

GPA:86/100 154 credits

TEACHING EXPERIENCE

Edmonds Community College

Chemistry Instructor

January 2016- present

- Teaching Introductory Chemistry **Chem&121 for allied health/nursing majors**
- **Redeveloped and refined Chem&110 Chemistry of Cooking**
- Taught General Chemistry **Chem&16X for science/engineering majors**
- Teaching Chemical Concepts **Chem&110 for non-science majors.**
- Taught morning classes and evening classes
- Taught both traditional and online hybrid classes

University of California Riverside, Department of Chemistry

Teaching Assistant

September 2007-December 2012

Lecturer

January 2013-June 2013

- More than 5-year teaching assistant experience for undergraduate courses in general chemistry labs and advanced physical chemistry courses
- Teaching duties including giving short lectures, providing lab safety trainings, creating quizzes, holding office hours, grading exams and assignments

LANGUAGES

English (professional working proficiency) and Chinese (Native)

AFFILIATION

Member of American Federation of Teachers, Washington

January 2016-present

TECHNICAL SKILLS

- Experienced in using Canvas and Mastering systems
- Four years of Community College teaching experience
- Programming skills in object-oriented programming in C\C++, Python, and Microsoft Word/Excel/PowerPoint
- Extensive research experience in interpreting and analyzing steady-state and time-resolved UV/vis spectra, organic synthesis, purification and analytical techniques including TLC, column chromatography, NMR, LC-MS and GC-FT/IR

RESEARCH EXPERIENCE

Graduate Research, University of California Riverside September 2007-December 2012

Spectroscopic Properties of UV-Filter Molecules used in Sunscreen

- Studied the steady -state absorption and fluorescence excitation/emission of octylmethoxy cinnamate and oxybenzone in solutions and microemulsions
- Set up the two-photon fluorescence experiment

Photophysics and Mechanochemistry of Anthracene-based Materials

- Designed, synthesized and characterized 2,6 dialkoxy anthracenes
- Prepared 2,6 dialkoxy anthracene single crystals using various methods
- Investigated the temperature-dependent fluorescence behavior of 2,6 dialkoxy anthracenes with variable length side-chains in liquid solutions and solid thin films using time-resolved fluorescence spectra
- Studied the temperature dependent exciton delocalization and relaxation in anthracene single crystals and polycrystalline films using time-resolved fluorescence spectra
- Evaluated pressure effects on photoisomerization of 9-tert-butylanthracene (9TBA) to its 9,10-Dewar-isomer and reverse reaction using both absorption and fluorescence spectroscopy

Graduate Research, NanKai University September 2004-June 2007

Fabrication of Nanostructured Titanium/Manganese Dioxide Materials

- Fabricated and characterized titanium dioxide TiO₂ materials with nanoporous structures and evaluated their photocatalytical performances
- Prepared nanostructured manganese dioxides with various morphologies

Undergraduate Research, NanKai University September 2003-June 2004

Synthesis of AIPO molecular sieves

- Synthesized AIPO molecular sieves using hydrothermal methods
- Characterized molecular sieves with XRD, FT-IR, Nitrogen adsorption and TEM