

Quynh Nguyen

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EDUCATION

- May 2020, Expected **Agnes Scott College**, Decatur, GA
Bachelor of Science in Chemistry (American Chemical Society Certified)
Minor in Mathematics
Overall GPA: 3.92/4.00
Major GPA: 3.98/4.00
- August 2019-Present **Georgia Institute of Technology**, School of Chemistry and Biochemistry,
Atlanta, GA
Special Standing Student (Graduate Level Coursework)
Special Topic in Physical Chemistry: Science and Technology on the Nanoscale

HONORS AND AWARDS

Fellowships

- 2019 **NSF Research Experience for Undergraduates (REU)**, awarded to undergraduate student for participation in the full-time summer research program in the School of Chemistry and Biochemistry at Georgia Institute of Technology
- 2018-2019 **Marion T. Clark Research Fund and William Joe Frierson Research Fund**, awarded to student to support mentored research in chemistry at Agnes Scott College and student travel to present research at professional conferences
- 2018 **Goizueta Foundation STEM Scholarship**, provided funding for the summer research experience at Agnes Scott College

Awards

- 2019 **Stukes Scholar for the 2019-2020 Academic Year**, awarded to a student who rank first academically in the senior class based on the work of the previous session and overall academic achievement
- 2019 **American Chemical Society's Division of Analytical Chemistry Undergraduate Award in Analytical Chemistry**, awarded to student who has demonstrated excellence in analytical chemistry and display aptitude for a career in the field
- 2018 **CRC Press Chemistry Achievement Award**, given in recognition of outstanding achievement in chemistry
- 2017-Present **President's Community Engagement Honor Roll**, awarded to outstanding student who gives back to the community through volunteering and community-based research
- 2016-Present **Dean's Honor List**, recognized outstanding student who have completed 16 semester hours in academic courses with a semester GPA of 3.7 and above
- 2016-Present **Letitia Pate Evans Scholarship**, awarded to an incoming first-year student at Agnes Scott College based on their academic achievement, leadership and community involvement

RESEARCH EXPERIENCE

- August 2019-Present **School of Chemistry and Biochemistry, Georgia Institute of Technology,**
Atlanta, GA
Undergraduate Research Assistant
Advisor: Dr. Younan Xia, *The Wallace H. Coulter Department of Biomedical Engineering & School of Chemistry & Biochemistry*
Project: Carbon monoxide-mediated synthesis of Pt nanobars and a mechanistic understanding of their symmetry breaking
- Conducted research on the synthesis of noble-metal nanocrystals for energy-related applications
 - Develop a new approach for the one-pot synthesis of high-quality platinum (Pt) nanobars with tunable aspect ratio
 - Investigate the asymmetric growth during the synthesis of Pt nanobars and their anisotropic structure as compared to Pt nanocubes using transmission electron microscopy (TEM)
 - Evaluate the enhanced catalytic performance of Pt nanobars towards methanol oxidation reaction
- May 2019-July 2019 **Research Experience for Undergraduates, Georgia Institute of Technology,**
Atlanta, GA
NSF Undergraduate Fellow, Undergraduate Researcher
Advisor: Dr. Younan Xia
Project: Carbon monoxide-mediated facile synthesis of Pt nanobars with enhanced electrocatalytic activity toward methanol oxidation reaction
- Synthesized platinum (Pt) nanobars with well-defined surface structures
 - Characterized the as-prepared Pt nanobars using TEM, HRTEM and XRD
 - Investigated the growth mechanism of the anisotropic structure of Pt nanobars using TEM and FTIR spectroscopy
- August 2018-May 2019 **Department of Chemistry, Agnes Scott College, Decatur, GA**
Undergraduate Researcher
Advisor: Dr. T. Leon Venable, *Department of Chemistry*
Thesis: Anomalous redox behavior of bis(serinato)copper(II) complex and comparison to closely related bis(homoserinato)copper(II): An update
- Developed a more controlled protocol for the oxidation of bis(serinato)copper(II) complex
 - Wrote a 50-page research thesis on bis(serinato)copper(II) complex and the multi-step process of its spontaneous redox behavior
- May 2018-July 2018 **Goizueta Foundation STEM Scholars Program, Agnes Scott College,**
Decatur, GA
Undergraduate Research Scholar
Advisor: Dr. T. Leon Venable, *Department of Chemistry*
Project: Anomalous redox behavior of bis(serinato)copper(II) complex and comparison to closely related homoserine and cysteine complexes
- Synthesized copper(II) amino acid complexes using previously untried amino acids (serine, cystine, cysteine)
 - Characterized copper(II) amino acid complexes by UV-vis, FT-IR and NMR spectroscopies
 - Studied the chemical behavior, specifically the redox behavior, of these complexes in relevance to Wilson's Disease

PRESENTATIONS

Nguyen, Q. N.; Chen, R.; Xia, Y.; “Carbon monoxide-mediated synthesis of platinum nanobars and a mechanistic understanding of their symmetry breaking.” Gulf Coast Undergraduate Research Symposium (GCURS), Rice University, Houston, TX, **November 2019** (*Oral presentation*)

Nguyen, Q. N.; Venable, T. L.; “Anomalous redox behavior of bis(serinato)copper(II) complex and comparison to closely related bis(homoserinato)copper(II) complex: An update.” Southeastern Regional Meeting of the American Chemical Society (SERMACS), Savannah, GA, **October 2019** (*Poster presentation*)

Nguyen, Q. N.; Chen, R.; Xia, Y.; “Carbon monoxide-mediated synthesis of Pt nanobars and a mechanistic understanding of their symmetry breaking.” Research Experience for Undergraduate (REU) Symposium at Georgia Institute of Technology, Atlanta, GA, **July 2019** (*Poster and oral presentation*)

Nguyen, Q. N.; Caven, C.; Romero, S. C.; Venable, T. L.; “Anomalous redox behavior of bis(serinato)copper(II) complex and comparison to closely related bis(homoserinato)copper(II) complex.” Spring Annual Research Conference (SpARC), Agnes Scott College, Decatur, GA, **April 2019** (*Poster presentation*)

SKILLS

Technical software: Maple, Fathom, Origin, Spartan, ChemDraw, Jems and ImageJ

Laboratory skills: UV-Vis Spectroscopy, NMR Spectroscopy, FT-IR Spectroscopy, Flame Atomic Absorption Spectroscopy, Column Chromatography, High Performance Liquid Chromatography, Fractional Distillation, SDS-PAGE, Culturing bacteria, Gel electrophoresis

Software: Microsoft Word, PowerPoint, Excel, Adobe PDF, Adobe InDesign, WordPress

Languages: Vietnamese (Native), English (Fluent), French (Conversational)

TEACHING EXPERIENCE

August 2018-Present

Resource Center for Math and Science, Agnes Scott College, Decatur, GA
Learning Assistant for Chemistry and Physics

- Assist 56 students in chemistry and physics courses each semester to grasp difficult materials, work on assignments, and study for exams
- Lead weekly workshops to help 25 students master key concepts in an introductory chemistry course
- Collaborate with professors to formulate course assignments and develop strategies, such as reward system and review sections, to facilitate student learning
- Collaborate with other tutors on preparing 10 study handouts for introductory physics and chemistry courses

March 2017-Present

Office of Academic Advising and Accessible Education, Agnes Scott College, Decatur, GA

Academic Peer Advisor

- Mentor a cohort of 15 first-year students in their transition from high school to college
- Design and facilitate workshops for 52 first-year students on academic success, including effective communication, time-management strategies, and study skills
- Host individual and group advising sessions with first-year advisees to address topics such as class registration, course recommendation, and major requirements
- Connect students with professors, alumni, and academic resources on campus

CAMPUS LEADERSHIP AND COMMUNITY ENGAGEMENT

- August 2018-Present **American Chemical Society (ACS) & American Society for Biochemistry and Molecular Biology (ASBMB), Agnes Scott College, Decatur, GA**
Co-President of the ACS-ASBMB Student Chapters
- Plan, organize and oversee the execution process of on-campus events, including webinars, panels, and excursions, to promote chemistry as a research field
 - Recruit over 30 members and increase member engagement and retention through social media, campus event calendar, and promotional campaigns
 - Volunteer with local organizations, such as Fernbank Science Center, to advocate understanding of chemistry and science
 - Attend monthly seminars to discuss current publications in chemistry and biochemistry
- March 2017-Present **Student Government Association (SGA), Agnes Scott College, Decatur, GA**
Class of 2020 Student Senator, Budgeting Committee Member
- Served as student liaison for Office of Information Technology
 - Discussed students' concerns and suggestions with faculty members during weekly meetings and wrote monthly reports
 - Reviewed SGA's budget and co-sponsorship requests from student organizations for campus-wide events
- January 2017-May 2017 **Global Journeys Program, Agnes Scott College, New York, NY**
Student in Global Journey course
- Studied history, diversity and globalization of New York in a global learning course
 - Engaged in a one-week, faculty-led trip to New York City to explore the multi-culture diversity and immigration history
- October 2016 **Fall Break Alternative Service Experience, Agnes Scott College, Asheville, NC**
Volunteer
- Selected through application to participate in a volunteer program on sustainable living through appropriate technology with the Long Branch Environmental Education Center
 - Worked on an organic-farming service project that promotes community building and engagement
 - Participated in training sessions on sustainability education and environmental justice

PROFESSIONAL MEMBERSHIPS

- 2019-Present Mathematical Association of America (MAA)
2016-Present American Chemical Society (ACS)
2016-Present American Society for Biochemistry and Molecular Biology (ASBMB)