

# NEDA ARABZADEH NOSRATABAD

Ph.D. candidate of Materials Chemistry

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## LANGUAGES

• English: **full proficiency**

• Persian: **native**

• Azerbaijani: **full proficiency**

## REFERENCES

Dr. Hedi Mattoussi  
@ mattoussi@chem.fsu.edu

Dr. Geoffrey F. Strouse  
@ strouse@chem.fsu.edu

Dr. Justin G. Kennemur  
@ jkennemur@fsu.edu

Dr. Biwu Ma  
@ bma@fsu.edu

Dr. Samuel Grant  
@ grantsa@eng.famu.fsu.edu

## RESEARCH INTERESTS

*Nanoscience, Colloidal Nanocrystals, Fluorescent and Plasmonic Materials, Organic Chemistry*

## EDUCATION

**Ph.D. (in progress), Florida State University**

📅 Fall 2017 – Fall 2022 (expected) 📍 Tallahassee, FL

• Ph.D., Materials Chemistry

**Master of Science, Azad University of Central Tehran Branch**

📅 Aug 2013 – Dec 2015 📍 Tehran, Iran

• M.Sc., Organic Chemistry

**Bachelor of Science, Azad University of South Tehran Branch**

📅 Aug 2006 – Sep 2010 📍 Tehran, Iran

• B.Sc., Applied Chemistry

## WORK EXPERIENCE

• Graduate Teaching Assistant | **Florida State University**

📅 Aug 2017 – present 📍 Tallahassee, FL

• **Courses taught:**

- General Chemistry 1 and 2 (recitation and lab)
- Organic Chemistry 1 (recitation and lab)
- Advanced Analytical Chemistry (lab)
- Chemistry of Liberal Studies

## PUBLICATIONS

- **N-Heterocyclic Carbene-Stabilized Gold Nanoparticles: Mono- Versus Multidentate Ligands**  
N. A. Nosratabad, Z. Jin, L. Du, M. Thakur, and H. Mattoussi, Chem. Mater. 2021, 33, 921–933
- **Luminescent Quantum Dots Stabilized by N-Heterocyclic Carbene Polymer Ligands**  
L. Du, N. A. Nosratabad, Z. Jin, C. Zhang, S. Wang, B. Chen, and H. Mattoussi, J. Am. Chem. Soc. 2021, 143, 1873–1884
- **N-Heterocyclic carbene-stabilized gold nanoparticles and luminescent quantum dots**  
N. A. Nosratabad, Z. Jin, L. Du, and H. Mattoussi, SPIE: 2022; Vol. 11977.
- **A Multifunctional Contrast Agent for 19F-based Magnetic Resonance Imaging**  
L. Du, Sh. Helsper, N. A. Nosratabad, W. Wang, D. Fadool, C. Amiens, S. Grant, and H. Mattoussi, Bioconjugate Chem. 2022, 33, 881–891
- **Top-down N-heterocyclic carbene ligand-induced etching of inorganic nanocrystals**  
N. A. Nosratabad, Z. Jin, Y. Xin, and H. Mattoussi, To be submitted soon.

## CONFERENCE PRESENTATIONS

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- **Oral**
  - **ACS national meeting, Fall 2021, Atlanta, GA.** N. A. Nosratabad, Z. Jin, L. Du, and H. Mattoussi. N-Heterocyclic Carbene-stabilized Gold Nanoparticles: Effects of the Ligand Coordination
  - **NanoFlorida 2022, Spring 2022, Gainesville, FL.** N. A. Nosratabad, Z. Jin, and H. Mattoussi. Evaluating the Strength of N-Heterocyclic Carbene-to-Gold Nanoparticle Coordination via Surface Etching Measurements
  - **1st Annual Polymer Research Symposium at FAMU-FSU, Spring 2022, Tallahassee, FL.** N. A. Nosratabad, Z. Jin, L. Du, and H. Mattoussi. Surface Stabilization of AuNPs and QDs Using Polymeric N-Heterocyclic Carbene Ligands
- **Poster**
  - **ACS National Meeting, GSSPC symposium, March 2022, San Diego, CA.** N. A. Nosratabad, Z. Jin, L. Du, and H. Mattoussi. N-heterocyclic carbene-stabilized gold nanoparticles and luminescent quantum Dots
  - **ACS National Meeting, Division of Colloid Surface Chemistry, March 2022, San Diego, CA.** N. A. Nosratabad, Z. Jin, and H. Mattoussi. N-Heterocyclic Carbene-induced Etching of Gold Nanoparticles and Growth of Fluorescent Gold Nanoclusters
  - **NanoFlorida 2022, Spring 2022, Gainesville, FL.** N. A. Nosratabad, Z. Jin, and H. Mattoussi. Evaluating the Strength of N-Heterocyclic Carbene-to-Gold Nanoparticle Coordination via Surface Etching Measurements

## AWARDS

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Best Oral Presentation award in Nano-Materials at the NanoFlorida 2022 annual conference (with certificate).

## PROFESSIONAL MEMBERSHIP

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- **American Chemical Society (ACS)**, Jan 2021 - Present
- **Materials Research Society (MRS)**, Oct 2022-Present
- **Graduate Student Symposium Planning Committee (GSSPC)**, Mar 2022  
Programming officer of GSSPC symposium
- **Graduate Women in STEM (GWIS)**, Jun 2020 - Present  
Secretary of executive board