

Paul Johns

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<http://www.linkedin.com/in/pauljohns1>

PROFESSIONAL SUMMARY

- Physical chemist with 5 years of experience in solving complex scientific problems
- Published 2 first author, 2 co-author articles, and a first author feature article in high-impact journals with collaborative contributions from other team members
- Effectively communicated course material to my students, resulting in positive student reviews

EDUCATION

UNIVERSITY OF NOTRE DAME Notre Dame, IN

Ph.D. Candidate, Physical Chemistry Anticipated May 2017

- Dissertation: *Surface Plasmon Polaritons in Gold Nanostructures: Conversion, Coupling, and Confinement*
Advisor: Dr. Gregory V. Hartland

SAINT FRANCIS UNIVERSITY Loretto, PA

Bachelor of Science in Chemistry, minors in Mathematics and Physics May 2007

- Graduated Magna Cum Laude, Honors Program Graduate
- Thesis: *Quantum Mechanical/Molecular Mechanical Simulations of the Fluorescence Quenching of H-Type Homodimers of Fluorescein and Tetramethyl Rhodamine*
Advisor: Dr. Pedro L. Muñio

EXPERIENCE

OFFICE OF TECHNOLOGY TRANSFER, UNIVERSITY OF NOTRE DAME Notre Dame, IN

Patent Scientist, Volunteer Intern February 2017–present

- Analyzed patent applications to identify key compounds in existing patents
- Corrected chemical diagrams in patent applications
- Assisted in collecting signatures for declarations and assignments

UNIVERSITY OF NOTRE DAME Notre Dame, IN

Doctoral Researcher, Physical Chemistry

September 2007–May 2008; January 2013–present

- Solved complex problems by designing and setting up innovative experiments and developing computational models
- Wrote programs in MATLAB and Python to process data for publication
- Developed programs in LabVIEW to automate data collection
- Taught Physical Chemistry II as the primary instructor, resulting in student reviews in the top decile of the university; TA for Analytical Chemistry, Chemistry Across the Periodic Table, and Chemical Principles
- Trained graduate students and post-docs in the use of laboratory equipment
- Consulted two other research groups in developing experiments, software, and models for their research projects

SAINT FRANCIS UNIVERSITY Loretto, PA

Visiting Laboratory Instructor

August 2011–May 2012

- Developed laboratory experiments for the General Chemistry Laboratory
- Maintained instruments and wrote instructional material on their use
- Taught four separate chemistry laboratories, totaling six sections and 69 students, resulting in positive student reviews

CHEMIMAGE, CORP. Johnstown, PA

Applications Scientist Intern

May 2004–July 2005

- Validated CI Print Macroscopic Chemical Imaging System™ for detection of latent and patent fingerprints
- Assisted in developing a Raman chemical database for identification purposes which was incorporated into the Falcon Molecular Chemical Imaging System™ database
- Served as a company representative at a regional tradeshow

SKILLS

Lasers, various laboratory instruments, instrument maintenance, COMSOL Multiphysics, LabVIEW, MATLAB, Mathematica, Igor Pro, OriginPro, Python, Java, Microsoft Office, L^AT_EX, problem-solving, technical writing

SELECTED AWARDS

Graduate Assistance in Areas of National Need (GAANN) Teaching Fellow, University of Notre Dame 2014–Present

Advanced Teaching Scholar, Kaneb Center for Teaching and Learning, University of Notre Dame 2015

Barry M. Goldwater Scholar, Barry M. Goldwater Scholarship and Excellence in Education Program 2006