

# Jill A. (Muchnij) Rahaim

Wilkes Honors College, Florida Atlantic University  
5353 Parkside Dr, 146 HC, Jupiter, FL 33458  
[rahaimj@fau.edu](mailto:rahaimj@fau.edu) 561-799-8370

## Education

---

### **Michigan State University, East Lansing, MI**

Ph.D., Chemistry, September 2007

Dissertation Title: Preparation of Vinyl Stannanes, Their Subsequent Reactions, and Chemistry Developed Therein. *Advisor: Robert E. Maleczka, Jr.*

### **Allegheny College, Meadville, PA**

B.S., Chemistry, May 2000

Thesis Title: "A study of the oxidation of a 1,2-dihydroquinoline to a 2-methylquinoline"  
*Advisor: Dr. S. Shaun Murphree*

## Experience

---

### **Coordinator of Academic Support Services, Chemistry (January 2020 to present)**

Wilkes Honors College, Florida Atlantic University, Jupiter, FL

Courses taught

CHM2204L: Organic Chemistry Lab 1

CHM2205L: Organic Chemistry Lab 2

Supervise undergraduate Teaching Assistants for Chemistry and Physics labs

Manage budget, inventory, and needs for Chemistry and Physics concentrations

Academic Advising

### **Coordinator, Organic Labs (May 2014 to December 2019)**

Department of Chemistry, Oklahoma State University, Stillwater, OK

Courses taught

Chem 3015: The Chemistry of Organic Compounds

Chem 3013: Survey of Organic Chemistry

Chem 3012: Survey of Organic Chemistry Laboratory

Chem 3112: Organic Chemistry Laboratory

Supervised graduate and undergraduate student Teaching Assistants (29 per year)

Supervised undergraduate student storeroom workers (5-8 per year)

### **Visiting Assistant Professor (March 2012 to May 2012)**

Department of Chemistry, Oklahoma State University, Stillwater, OK

Taught Chem 1515: General Chemistry II

### **Post-Doctoral Fellow (October 2011 to December 2013)**

Department of Chemistry, Oklahoma State University, Stillwater, OK

Studied Organic Synthetic Methodology, developed a new silyl alkyne tether through a novel iridium catalyzed hydrosilylation, and nickel catalyzed cross-couplings of metalacycles

Supervised and trained 3 graduate students and 2 undergraduate students

### **Graduate Research Associate (September 2000 to September 2007)**

Department of Chemistry, Michigan State University, East Lansing, MI

## **Jill A. (Muchnij) Rahaim**

Studied Organic Synthetic Methodology, Reducing the handling of tin containing substrates through the development of multi-step one-pot reactions

### **Graduate Teaching Assistant (September 2000 to May 2003)**

Department of Chemistry, Michigan State University, East Lansing, MI

Teaching assistant for organic chemistry labs: CEM 255, CEM 355, CEM 356. Teaching assistant for CEM 852, a graduate organic synthetic methodology course

### **Undergraduate Research Student (January 1999 to May 2000)**

Department of Chemistry, Allegheny College, Meadville, PA

B.S. thesis title: "A study of the oxidation of a 1,2-dihydroquinoline to a 2-methylquinoline" *Advisor: Dr. S. Shaun Murphree*

Independent study: Studies towards the synthesis of sarkomycin, a small molecule natural product *Advisor: Dr. Douglas Smith*

### **Intern (June 1999 to August 1999)**

American Colors, Inc. Sandusky, OH

Worked to extend pigment dispersion product lines into thermoplastics

### **Undergraduate Teaching Assistant (January 1998 to May 2000)**

Department of Chemistry, Allegheny College, Meadville, PA

Teaching assistant for introductory and organic chemistry labs – 3 semesters

## **Honors & Awards**

---

Travel Award, College of Natural Science, attended 39<sup>th</sup> National Organic Symposium (2005)

R. Elaine Fleming Whan '52 Scholarship (1999-2000)

Alden Scholar (1998-1999)

## **Professional Memberships & Service**

---

American Chemical Society (2000 to present)

Co-Advisor, American Chemical Society Student Chapter, Oklahoma State University (2013 to 2018)

Division of Organic Chemistry, ACS (2000 to present)

President, American Chemical Society Student Affiliate Chapter, Allegheny College (1999 to 2000)

## **Journal Publications**

---

1. "The Regiochemical Influence of Oxo-Substitution in Palladium Mediated Hydrostannations of 1-Alkynes" Rice, M. B.; Whitehead, S. L.; Horvath, C. M.; Muchnij, J. A.; Maleczka, R. E., Jr. *Synthesis* **2001**, 1495-1504.
2. "Non-Pd transition metal-catalyzed hydrostannations: Bu<sub>3</sub>SnF/PMHS as a tin hydride source" Maleczka, R. E.; Ghosh, B.; Gallagher, W. P.; Baker, A. J.; Muchnij, J. A.; Szymanski, A. L. *Tetrahedron* **2013**, 69, 4000-4008.
3. "Sterically Directed Iridium-Catalyzed Hydrosilylation of Alkenes in the Presence of Alkynes" Muchnij, J. A.; Kwaramba, F. B.; Rahaim, R. J. *Org. Lett.* **2014**, 16, 1330-1333.

**Book Chapters**

---

1. "Trimethylene Oxide (First Update)" Muchnij, J. A.; Maleczka, R. E., Jr. In *eEROS—Encyclopedia of Reagents for Organic Synthesis* (DOI: 10.1002/047084289X); Paquette, L. A.; Crich, D.; Fuchs, P. L.; Molander, G. A., Eds.; Wiley: New York; published online March 15, 2007, <http://onlinelibrary.wiley.com/o/eros/articles/rt385/frame.html>.

**Presentations**

---

1. "Chemoselective Conjugate Reduction of  $\alpha,\beta$ -Unsaturated Carbonyl Compounds with Polymethylhydrosiloxane" Muchnij, J.; Maleczka, R. E., Jr. 38th National Organic Chemistry Symposium, June 8–12, Bloomington, IN; The Division of Organic Chemistry of the American Chemical Society: Washington, DC, 2003; Abstract No. D44.
2. "Chemoselective Conjugate Reduction of  $\alpha,\beta$ -Unsaturated Carbonyl Compounds with Polymethylhydrosiloxane" Muchnij, J. A.; Maleczka, R. E., Jr. 37th Organosilicon Symposium at the University of Pennsylvania, May 20–22, 2004, Philadelphia, PA; Abstract No. P-34.
3. "In Situ Recycling of Organotin Hydrides: The Development of a One-pot Stille/Hydrostannation Reaction" Muchnij, J.; Maleczka, R. E., Jr. 39th National Organic Chemistry Symposium, June 12–16, Salt Lake City, UT; The Division of Organic Chemistry of the American Chemical Society: Washington, DC, 2005; Abstract No. C38.
4. "Alternative Approaches to Minimizing the Tin Requirement in Multi-step Organostannane Mediated Reactions" Ford, S. L.; Muchnij, J. A.; Maleczka, R. E., Jr. Summer Undergraduate Research Fellowship Program Symposium, Groton, CT; September 29–30; Pfizer Global Research and Development: Groton, CT, 2005.
5. "Alternative Approaches to Minimizing the Tin Requirement in Multi-step Organostannane Mediated Reactions" Ford, S. L.; Muchnij, J. A.; Maleczka, R. E., Jr. 33rd Annual NOBCChE Conference, April 9–25, Los Angeles, CA; The National Organization for the Professional Advancement of Black Chemists and Chemical Engineers: Washington, DC, 2006.
6. "New Uses for Polymethylhydrosiloxane (PMHS) in Organic Synthesis" Maleczka, R. E., Jr.; Rahaim, R. J., Jr.; Lee, K.; Muchnij, J. A. 37th ACS Great Lakes Regional Meeting, May 31 – June 2, Milwaukee, WI; The Division of Organic Chemistry of American Chemical Society: Washington, DC, 2006; ORGN 347.
7. "Steric Directed Iridium-Catalyzed Hydrosilylation of Alkenes in the Presence of Alkynes: Kwaramba, F. B.; Muchnij, J. A.; Rahaim, R. J. 247<sup>th</sup> ACS National Meeting, March 16 – 20, Dallas, TX; 2014; 461.
8. "Steric Directed Iridium-Catalyzed Hydrosilylation of Alkenes in the Presence of Alkynes: Kwaramba, F. B.; Muchnij, J. A.; Rahaim, R. J. ACS 59<sup>th</sup> Pentasectional Meeting, April 12, Stillwater, OK; 2014.