

MORGAN BAIMA

604 LGRT, 710 N Pleasant St • Amherst, MA 01003 • 512.934.2188 • mbaima@umass.edu
welab.umass.edu • <https://www.linkedin.com/in/morgan-baima-0597017b/>

EDUCATION

Doctor of Philosophy in Chemistry University of Massachusetts – Amherst, Massachusetts	Expected 2018
Master of Science in Materials Science University of Wisconsin – Madison, Wisconsin	August 2013
Bachelor of Science in Chemistry with French minor (GPA: 3.89) St. Edward's University - Austin, Texas	August 2010

ACCOLADES

<i>Advanced Science News</i> highlight, May 10, 2017 (http://www.advancedsciencenews.com/wearable-devices-using-off-shelf-plain-woven-fabrics/)
University of Massachusetts Research Spotlight, May 23, 2017 (http://www.umass.edu/newsoffice/article/shelf-power-generating-clothes-are-almost)
University of Massachusetts <i>Research Next</i> Feature, 2017 (https://www.umass.edu/researchnext/feature/light-me)

EDUCATION

Ph.D. in Chemistry <i>University of Massachusetts</i> , Amherst, Massachusetts	Expected August 2018
Master of Science in Materials Science <i>University of Wisconsin</i> , Madison, Wisconsin	August 2013
Bachelor of Science in Chemistry with French minor (GPA: 3.89) <i>St. Edward's University</i> , Austin, Texas	August 2010

RESEARCH EXPERIENCE

Graduate Research , P.I. Trisha Andrew <i>University of Massachusetts</i> , Amherst, Massachusetts	September 2016 - present
<ul style="list-style-type: none">▪ Engineered knitted, woven, and fabric textile triboelectric devices for energy harvesting▪ Designed and utilized chemical vapor deposition chamber for vapor polymerization of various monomers▪ Collaborated with Computer Science graduate students to enhance circuitry in triboelectric devices	

Graduate Research, P.I. Trisha Andrew
University of Wisconsin, Madison, Wisconsin

August 2013

- Fabricated organic spin valve (OSV) devices via sublimation and sputtering for electronic memory applications
- Tested OSV devices using physical properties measurement system and magnetic circular dichroism at liquid helium temperatures and at room temperature
- Constructed electronic chip carrier for interfacing samples with physical properties measurement system

Graduate Research, P.I. Chang-Beom Eom
University of Wisconsin – Madison, Wisconsin

Summer 2011-2013

- Grew nickel of various thicknesses on (110)-oriented $_{(1-x)}[\text{Pb}(\text{Mg}_{1/3}\text{Nb}_{2/3})\text{O}_3]_{-x}[\text{PbTiO}_3]$ single crystals and strontium titanate substrates of (001) and (110) orientations to observe anisotropic magnetic switching
- Analyzed samples via Magneto-optical Kerr Effect data, X-ray diffraction, atomic and magnetic force microscopy, and vibrating sample magnetometry
- Presented plans and progress of project to faculty and peers

Undergraduate Research, P.I. John D. Lewis
St. Edward's University - Austin, Texas

January 2008 to August 2010

- Analyzed hydrogen bonds in alcohols via infrared (IR) spectroscopy
- Synthesized bicyclo[3.1.0]hexan-3-ol for IR study
- Presented plans and progress of project to faculty and peers

Research Experience for Undergraduates, P.I. Ivan Aprahamian
Thayer School of Engineering at Dartmouth College - Hanover, New Hampshire

Summer 2009

- Synthesized lithium cyclopentadienide compounds for low temperature self-assembly
- Analyzed structures via ^7Li -NMR, ^1H -NMR, GCMS, and FTIR spectroscopy
- Presented purpose and progress of project to faculty and peers

Undergraduate Research, P.I. Donald Wharry
St. Edward's University - Austin, Texas

July to August 2007

- Collected and analyzed field data via colorimetry from Barton Creek West
- Performed colorimetric tests of water on site at Barton Creek West
- Presented plans and progress of project to faculty and peers

ACADEMIC HONORS AND AWARDS

For academic achievement:

- ◆ John Trout Scholarship, 2008-2009
- ◆ Dean's List, 2006-2010
- ◆ University Scholar Award, 2006-2009
- ◆ Dean's Scholarship, 2007-2009

For research:

- ◆ Raymond G. and Anne W. Herb Fellowship, 2011
- ◆ Keck Award, 2009
- ◆ Welch Scholarship, 2007-2009

CONFERENCES

GRC Polymers Conference – Holyoke, Massachusetts June 2017

Materials Research Society Meeting - Boston, Massachusetts November 2011

American Chemical Society Southwest Regional Meeting – El Paso, Texas Nov. 2009

Presented – “Using Cyclohexane-Carbon Tetrachloride Solvent Mixtures to Study Hydrogen Bonding and Structure in Alcohols”

Welch Conference on Chemical Research – Houston, Texas October 2007-2009

GRADUATE TEACHING EXPERIENCE

Tech Teaching Assistant – Rachel Bain, Instructional Technology Fall 2015

CHEM 103,104, & 108 – University of Wisconsin, Madison

- Assembled and trouble-shot online homework assignments for General Chemistry 103, 104, and 108 courses via Cengage Learning for Prof.s Stephen Block, Judith Burstyn, Kyoung-shin Choi, Pual Hooker, and J.R. Schmidt/Gil Nathanson
- Transferred homework scores from online courses to Learn@UW gradebook
- Compiled and updated students’ weekly in-class “iclicker” point

Teaching Assistant – Paul Hooker, Ph.D. Fall 2015

CHEM 108 – Chemistry in Our World – University of Wisconsin, Madison

- Prepared and instructed discussion three times weekly for one section of 22 students each
- Instructed lab twice weekly for one section of 22 students each
- Graded lab reports
- Proctored and graded exams

Teaching Assistant – JR Schmidt, Ph.D. & Gil Nathanson, Ph.D. Spring 2015

CHEM 103 – General Chemistry I – University of Wisconsin, Madison

- Prepared and instructed discussion three times weekly for one section of 24 students each
- Instructed lab twice weekly for one section of 24 students each
- Graded lab reports
- Proctored and graded exams

Teaching Assistant – Jeannine Szczech, Ph.D. Summer 2014

CHEM 104 – General Chemistry II – University of Wisconsin, Madison

- Prepared and instructed discussion three times weekly for one section of 20 students each
- Instructed lab twice weekly for one section of 20 students each

- Graded lab reports and exams

Teaching Assistant – Linda Zalewski, Ph.D.

Spring 2014

CHEM 104 – General Chemistry II – University of Wisconsin, Madison

- Instructed discussion twice weekly for two sections of 22 students each
- Instructed lab once weekly for two sections of 22 students each
- Graded lab reports
- Proctored and graded exams

Teaching Assistant – Teresa Larson, Ph.D.

Fall 2013

CHEM 108 – Chemistry in Our World – University of Wisconsin, Madison

- Prepared and instructed discussion twice weekly for two sections of 22 students each
- Instructed lab once weekly for one section of 22 students each
- Graded quizzes and lab reports
- Proctored and graded exams

Teaching Assistant – Oana Martin, Ph.D.

Fall 2012

CHEM 103 – General Chemistry I – University of Wisconsin, Madison

- Prepared and instructed discussion twice weekly for two sections of 22 students each
- Instructed lab once weekly for two sections of 22 students each
- Graded quizzes and lab reports
- Proctored exams
- student feedback and tutoring techniques with colleagues and supervisor

STUDY ABROAD EXPERIENCE

France – Université Catholique de l’Ouest, Angers, France

Spring 2010

- Interned at St. Anges Catholic school (See “Teaching Experience” above)
- Assisted teaching French I and II courses (See “Teaching Experience” above)
- Completed French Film course as well as Linguistics
- Perfected French speaking and listening abilities via conversations with native speakers

Panama – Panama City, Fortuna, Bocas del Toro, and Boquete

Summer 2007

- Characterized native flora and fauna species via daily nature hikes through tropical rainforest and coral reef snorkeling via the Smithsonian Tropical Research Institute in Bocas del Toro
- Reforested native mangrove trees in Boca Brava, Panama, an island near Boquete
- Assisted local social study specialist in assessment of the U.S.’s influence on native culture in Boquete by interviewing local residents
- Perfected Spanish speaking skills with classes at Habla Ya Spanish school in Boquete

ACTIVITIES

American Chemical Society Student Affiliate Chapter at St. Edward’s University – member and V.P.

REFERENCES

Dr. Trisha L. Andrew

Professor

University of Massachusetts Amherst

602 Lederle GRT

710 N Pleasant St

Amherst, MA 01003

(413) 545-1651

tandrew@umass.edu

Dr. Stephen Block

Assistant General Chemistry Lab Director

University of Wisconsin

1101 University Ave.

#1321B

Madison, WI 53706

(608) 262-1511

sblock@chem.wisc.edu

Dr. Paul Hooker

General Chemistry Senior Lecturer

University of Wisconsin

1101 University Ave.

#1110

Madison, WI 53706

(608) 262-4749

phooker@wisc.edu