

TAMRA LEGRON-RODRIGUEZ  
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**EDUCATION**

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| Ph.D. | University of Central Florida, Materials Chemistry<br>Dissertation: Remediation of polychlorinated biphenyl (PCB) contaminated building materials using non-metal and activated metal treatment systems<br>Advisors: Dr. Cherie Yestrebksy and Dr. Christian Clausen | Aug 2013 |
| B.S.  | University of Central Florida, Forensic Science<br>Senior Research: Degradation of TATP with various metal systems<br>Advisor: Dr. Barry Fookes  | May 2008 |

**TEACHING**

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| University of Central Florida, Instructor, Undergraduate Program Coordinator for Forensic Science | <ul style="list-style-type: none"><li>▪ Courses: Forensic Analysis of Controlled Substances and laboratories, Trace Evidence and laboratories, Forensic Laboratory Quality Assurance (online)</li><li>▪ Program Coordinator: Program planning and assessments, undergraduate advising</li></ul> | Aug 2015 – Present  |
| University of South Florida, Visiting Instructor  | <ul style="list-style-type: none"><li>▪ General Chemistry and laboratories</li><li>▪ Chemistry for Today (course coordinator)</li><li>▪ Uses of Chemical Literature (online)</li></ul>  | Aug 2014 – May 2015 |
| Rollins College, Visiting Assistant Professor of Chemistry  | <ul style="list-style-type: none"><li>▪ General Chemistry I and II laboratories</li><li>▪ Organic Chemistry I and II laboratories</li><li>▪ Crime Scene Chemistry</li></ul>   | Aug 2013 – May 2014 |
| University of Central Florida, Graduate Teaching Assistant  | <ul style="list-style-type: none"><li>▪ Organic Laboratory Techniques</li><li>▪ General Chemistry Laboratory</li><li>▪ Service-Learning: Engaging STEM</li><li>▪ General Chemistry Discussion/Recitation</li></ul>  | 2008 – 2013         |

**RESEARCH AND PROFESSIONAL EXPERIENCE**

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| AP College Board Laboratory Consultant for UCF     | <ul style="list-style-type: none"><li>▪ Planned and executed the laboratory component for the AP Summer Institute continuing education program for high school chemistry teachers</li></ul>  | June 2013, 2014, 2015 |
| Chemistry Education Research: <i>Engaging STEM</i> | <ul style="list-style-type: none"><li>▪ Obtained IRB approval to monitor progress of students' understanding of chemistry content and communication through writing</li><li>▪ Collected writing and diagnostic samples to determine if service-learning and/or guided inquiry learning facilitates the communication of scientific information and retention of concepts learned</li></ul> | 2011 – 2013           |

Environmental/Materials Chemistry Research	2008 – 2013
<ul style="list-style-type: none"> <li>Formulated treatment methods for energetic compounds (TATP, nitrocellulose) and environmental contaminants (PCBs, chlordane)</li> <li>Developed and validated analytical methods for the analysis of TATP, PCBs and their degradation products</li> <li>Designed and conducted research studies involving the kinetics and thermodynamics of the degradation of TATP and PCBs</li> <li>Maintained and/or operated instruments including GC-MS, GC-ECD, GC-FID, NMR, IR, FTIR-ATR, UV-Vis</li> </ul>	
Hair and Fiber Identification Research	Fall 2005
<ul style="list-style-type: none"> <li>Completed in-depth microscopic analysis and identification of over 1,000 collected hairs and fibers including type and color distributions</li> </ul>	

### SERVICE AND OUTREACH

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Faculty Advisor to the Forensic Science Association	May 2016-present
<ul style="list-style-type: none"> <li>Served as liaison for student group</li> </ul>	
Orange County Science Fair /Science Exposition Judge	February 2014
<ul style="list-style-type: none"> <li>Volunteered as judge for the junior division (middle school) science fair</li> </ul>	
EXCEL Applications to Calculus I Guest Speaker	Spring 2009-2012
<ul style="list-style-type: none"> <li>Prepared and performed chemistry demonstrations for 200 UCF calculus students twice a semester to provide a real world application of calculus within the chemistry field</li> </ul>	
OCTET Chemistry Olympiad Laboratory Workshop	March 2012
<ul style="list-style-type: none"> <li>Developed curriculum materials to prepare local high school students for laboratory practical portion of the Chemistry Olympiad National Exam</li> <li>Familiarized students with laboratory glassware, experimental procedures, and critical thinking to solve laboratory problems</li> </ul>	
GO Bowl (GO GK-12) Judge	April 2009
<ul style="list-style-type: none"> <li>Volunteered as judge for high school and middle school science bowl</li> </ul>	

### PROFESSIONAL DEVELOPMENT

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Online Course Development Certification (IDL 6543)	Spring 2016
<ul style="list-style-type: none"> <li>Twelve week faculty development program for creating and teaching online courses</li> </ul>	
Faculty Certification in Online Teaching (TO 101)	Summer 2014
<ul style="list-style-type: none"> <li>Five week faculty development for online teaching</li> </ul>	
Preparing Tomorrow's Faculty	Summer 2012
<ul style="list-style-type: none"> <li>Twelve week course with an emphasis on pedagogy, active/collaborative learning, and classroom management</li> </ul>	
Writing Across the Curriculum	Spring 2012
<ul style="list-style-type: none"> <li>Worked with faculty from the Department of Writing and Rhetoric as well as cohort teams from the College of Nursing and the History Department</li> <li>Developed discipline-specific, writing-related student-learning outcomes and curriculum materials for freshman chemistry classes and the capstone report</li> </ul>	

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**AWARDS AND HONORS**


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Science Magazine Prize for Inquiry-Based Instruction (co-winner)	August 2013
College of Science Graduate Teaching Assistant of the Year, Honorable Mention	Spring 2012
Writing Across the Curriculum Fellow	Spring 2012
Faculty Center for Teaching and Learning Research Fellow	Fall 2011
Chemistry Department Teaching Assistant of the Year	April 2011

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**PUBLICATIONS**


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**Book Chapters**

Fidler, R.; **Legron, Tamra**; Geiger, C. L.; Clausen, C. A.; Sigman, M. E. Chapter 7: Degradation of TATP, TNT, and RDX." *Environmental Application of Nanoscale and Microscale Mechanically Alloyed Bimetals*. ACS Publication, 2009, 117-134.

**Journal Articles**

Saitta, E. K.; **Legron-Rodriguez, Tamra**; Bowdon, M. A. "An inquiry into the water around us". *Science*. 341 (2013) 971-972.

Albo, R. L. F.; **Legron, Tamra**; Geiger, C. L.; Clausen, C. A. "Activation of zero-valent magnesium for the degradation of triacetone triperoxide in ethanol". *In progress*

Albo, R. L.F.; **Legron, Tamra**; Gittings, M.; Elie, M. R.; Holland Saitta, E.; Sigman, M. E.; Geiger, C. L.; Clausen, C. A. Degradation of triacetone triperoxide using mechanically alloyed Mg/Pd. *Propellants, Explosives, Pyrotechnics*. 35 (2) (2009) 100-104.

**Proceedings Papers**

Albo, R. L. F.; **Legron, Tamra**; Geiger, C. L.; Clausen, C. A. "Development of a remediation technology for energetic compounds (TNT, RDX, nitrocellulose, and TATP). *Proceedings of 7th International Battelle Conference: Remediation of Chlorinated and Recalcitrant Compounds*. Monterrey, CA. May 24<sup>th</sup>-27<sup>th</sup>, 2010

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**PRESENTATIONS**


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**Oral Presentations**

**Legron-Rodriguez, Tamra**; Clausen, C.; Yestrebky, C. Laboratory studies for the development of and *in situ* remediation technology for polychlorinated biphenyl contaminated concrete. *89<sup>th</sup> American Chemical Society Florida Annual Meeting and Exposition*. Innisbrook, FL. May 9<sup>th</sup>-11<sup>th</sup>, 2013

**Legron-Rodriguez, Tamra**; Saitta, E. K. Starting a WAC project in a chemistry department: A case study. *11<sup>th</sup> International Writing Across the Curriculum Conference*. Savannah, GA. June 7<sup>th</sup>-9<sup>th</sup>, 2012

Zemliansky, P.; Owens, L.; **Legron-Rodriguez, Tamra**. The WAC fellows program: A catalyst for developing writing-related learning outcomes across the disciplines. *UCF Summer Faculty Development Conference*. Orlando, FL. May 1<sup>st</sup>-4<sup>th</sup>, 2012

**Legron-Rodriguez, Tamra**; Saitta, E. K.; Bowdon, M. A. Developing student attributes through guided inquiry and service-learning in the freshman chemistry laboratory. *67th Southwest Regional Meeting of the American Chemical Society (ACS)*. Austin, TX. November 9<sup>th</sup>-12<sup>th</sup>, 2011

**Saitta, E. K.**; **Legron-Rodriguez, Tamra**; Bowdon, M. A. Synchronous communication in service-learning: A comparison of the technologies used to aid in university/K-12 partnerships. *67th Southwest Regional Meeting of the American Chemical Society (ACS)*. Austin, TX. November 8<sup>th</sup>-12<sup>th</sup>, 2011

**Albo, R. L. F.**; **Legron, Tamra**; Geiger, C. L.; Clausen, C. A. Development of a remediation technology for energetic compounds (TNT, RDX, nitrocellulose, and TATP). *7th International Battelle Conference: Remediation of Chlorinated and Recalcitrant Compounds*. Monterrey, CA. May 24<sup>th</sup>-27<sup>th</sup>, 2010

**Albo, R. L. F.**; **Legron, Tamra**; Geiger, C. L.; Clausen, C. A. Reductive metal systems for the degradation of energetic materials. *Florida Society of Environmental Analysts (FSEA) Semi-Annual Meeting*. Palm Beach, FL. October 28<sup>th</sup>-30<sup>th</sup>, 2009

### Poster Presentations

**Legron-Rodriguez, Tamra**; Yestrebky, C. Development of an *in situ* remediation technology for PCB contaminated concrete. *10<sup>th</sup> Graduate Research Forum*. Orlando, FL. April 2<sup>nd</sup>, 2013

**Legron-Rodriguez, Tamra**; Gerszuny, A.; Yestrebky, C. Development of *in situ* degradation technologies for chlordane residues. *49<sup>th</sup> Annual Florida Pesticide Residue Workshop*. St. Pete Beach, FL. July 15<sup>th</sup>-18<sup>th</sup>, 2012

**Gerszuny, A.**; **Legron-Rodriguez, Tamra**; Yestrebky, C. Degradation of Chlordane Using Magnesium and Acidified Alcohol. *UCF Showcase of Undergraduate Research Excellence*. Orlando, FL. April 5<sup>th</sup>, 2012