

# Lauren Levine

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## EDUCATION:

### **Doctor of Chemistry, anticipated graduation March 2009.**

The Pennsylvania State University, University Park, PA  
Research Advisor: Prof. Mary Elizabeth Williams

### **Bachelor of Science in Chemistry, May 2004.**

Ithaca College, Ithaca NY  
University of Melbourne, Melbourne, Australia

## SKILLS

### **Instrumentation**

UV-VIS, Fluorescence (steady-state and time-resolved), Electrochemistry, HPLC, Automated Peptide Synthesizer, Mass-spectrometry, NMR ( $^1\text{H}$ ,  $^{13}\text{C}$ , 2D-experiments, and variable temperature), Circular Dichroism, Isothermal Titration Calorimetry, and Differential Scanning Calorimetry.

### **Laboratory**

Inorganic and organic synthetic methods, inert atmospheric glove box manipulations, collect and disposal of hazardous waste, titration.

## RESEARCH EXPERIENCE:

### **Graduate Research Assistant, November 2004 to Present**

#### **The Pennsylvania State University, University Park, PA.**

- Designed, synthesized and characterized novel, artificial ligand substituted oligopeptides and their metal complexes
- Extensive experience with peptide synthesis (solid and solution phase), amide coupling techniques, heterocyclic ligand synthesis, and functionalization and metal-ligand coordination chemistry
- Mentored undergraduates, helping each accomplish specific goals associated with their projects
- Maintained and repaired laboratory equipment including rotatory evaporators, HPLC, and microbalance

### **Research Associate, September 2000 to May 2003**

#### **Ithaca College, Ithaca, NY**

- Synthesized substituted fluorene complexes.
- Performed kinetic studies using GC and GC-MS to determine the mechanism of alkoxide promoted dehydrohalogenation reactions.

## TEACHING EXPERIENCE:

### Graduate Teaching Assistant, 2004 – 2005, 2006 – 2007.

#### The Pennsylvania State University, University Park, PA.

- Instructor for General Chemistry Laboratory, General Chemistry Recitation, Organic and Bio-organic Chemistry Laboratories.
- Instruction, operation, and maintenance of NMR, FTIR, UV-VIS, GC and GC-MS instruments in undergraduate user facility.

### Undergraduate Teaching Assistant, 2002 – 2003

#### Ithaca College, Ithaca, NY

- Acted as teaching assistant for Organic Chemistry Laboratory I and II, with duties including lab setup and cleanup. Also responsible for helping students with problems or questions.

## OUTREACH:

ISPE Nanocamp, University Park, PA, 2007

WISE Summer Science Camp, University Park, PA, 2007

Chemistry Tent Art Festival Children's Day, University Park, PA, 2007 and 2008

## MEMBERSHIPS AND AWARDS

Dean's Scholarship, Ithaca College, 2000 – 2004

Wegmans Scholarship, 2000 – 2004

American Chemical Society, Member 2005 – present

Royal Society of Chemistry, (AMRSC) 2006 – present

Dalalian Graduate Student Travel Award, 2007 and 2008

## PUBLICATIONS:

Levine, L. A.; Kirin, S. I.; Myers, C. P.; Williams, M. E.; "Metal Coordination Based Self Assembly of Heterometallic Ferrocenyl-Rhenium Complexes Linked by an Aminoethylglycine Scaffold" submitted.

Levine, L. A.; Youm, H.; Yennawar, H. P.; Williams, M. E. "Synthesis and Characterization of a (Dipyridylthiophene)platinum Complex of a Pyridyl-Substituted Aminoethylglycine Artificial Dipeptide" *Eur. J. Inorg. Chem.* **2008**, in press.

Kirin, S. I., Ohr, K.; Yennawar, H. P.; Morgan, C. M.; Levine, L. A.; Williams, M. E. "Synthesis and X-ray Single Crystal Structure Analysis of an Inorganic Nucleoside Analog" *Inorg. Chem. Comm.* **2007**, 10, 652 – 656.

Levine, L. A.; Morgan, C. M.; Ohr, K.; Williams, M. E. "Tetraplatinated Artificial Oligopeptides Afford High Affinity Intercalation into dsDNA" *J. Am. Chem. Soc.* **2005**, 127, 16764-16765.

## **PRESENTATIONS:**

Levine, L. A.; Kirin, S. I.; Myers, C. P.; Morgan, C. M.; Williams, M. E. "Self-assembly of Hetero- and Homo-Metallic Complexes Linked by Artificial Oligopeptides" American Chemical Society, National Meeting, Philadelphia, PA: August 2008.

Williams, M. E.; Ohr, K. L.; Myers, C. P.; Levine, L. A. "Metal-Linked Artificial Peptides as Molecular Wires" American Chemical Society, National Meeting, Philadelphia, PA: August 2008.

Levine, L. A.; Williams, M. E. "Design and Application of Platinum Single-Stranded Artificial Peptides" Lion Lectures sponsored by Rohm and Haas, The Pennsylvania State University, University Park, PA: April 2008.

Levine, L. A.; Williams, M. E. "Model Platinum Artificial Oligopeptides Designed for Biological Applications" Ithaca College, Ithaca, NY: November 2007.

Williams, M. E.; Levine, L. A.; Ohr, K.; Gilmartin, B. P.; Morgan, C. M. "iDNA: Metal-binding Oligopeptides" American Chemical Society, National Meeting, Washington D. C.: August 2005.

## **POSTER PRESENTATIONS:**

Myers, C. P.; Levine, L. A.; Youm, H.; Coppock, M. B.; Williams, M. E. "Direct Self-Assembly of Photosynthetic Analogs by Artificial Oligopeptides" Material's Days, The Pennsylvania State University, University Park, PA: April 2008.

Levine, L. A.; Yennawar, H. P.; Williams, M. E. "Novel Luminescent Pt (II) Cross-linking Artificial Peptides" Graduate Exhibition, The Pennsylvania State University, University Park, PA: October 2007.

Levine, L. A.; Williams, M. E. "Model Platinum Artificial Peptide Systems for Biological Applications" Sponsor's Day, The Pennsylvania State University, University Park, PA: October 2007.

Levine, L. A.; Williams, M. E. "Binding of Artificial Multi-metallic Peptides with Double Stranded DNA" Frontiers in Metallobiochemistry, The Pennsylvania State University, University Park, PA: June 2006.

**References available upon request**