Claudia Geraldine Lucero
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EDUCATION

1999 to 2005	**University of California, Irvine** (Irvine, CA) Ph.D., Organic Chemistry
1994 to 1998	**University of California, Berkeley** (Berkeley, CA) B.S., Chemistry

RESEARCH EXPERIENCE

2008 to present	**California State University, Sacramento** *Assistant Professor* Research: Methodology development and total synthesis
2005 to 2008	**Boston College** (Chestnut Hill, MA) *Postdoctoral Research Associate* Postdoctoral Advisor: Professor Marc Snapper Efforts Towards The Total Synthesis of Kalmanol
1999 to 2005	**University of California, Irvine** (Irvine, CA) *Graduate Research Associate* Thesis Advisor: Professor Keith A. Woerpel Title of Ph.D. Dissertation: Lewis Acid-Mediated Nucleophilic Additions to Tetrahydropyran Acetates: I. Evidence for an Electrostatic Stabilizing Interaction Between a Tetrahydropyran Oxocarbenium Ion and an Axial Electronegative Substituent on the Ring. II. Investigations Into the Influence of Several Heteroatom Substituents on the Conformations of Oxocarbenium Ions and on the Selectivities.
June 1997 to September 1997 and June 1998 to September 1998	**Lawrence Berkeley National Laboratory** (Berkeley, CA) *Undergraduate Research Assistant* Advisor: Professor Professor Peter G. Schultz Applied unnatural amino acid methodology to a biological problem, that of quantifying the energetic value of a cation-π interaction in the interior of a natural protein (i.e., staphylococcal nuclease).
April 1996 to	**University of California, Berkeley** (Berkeley, CA)

June1997 and September 1997 to June1998	*Undergraduate Research Assistant* Advisor: Professor Peter G. Schultz Synthesis of unnatural amino acids and the RNA-DNA hybrid - 5'-phospho-2-deoxycytidylyl-(3',5')adenosine (pdCpA), which is used for the chemical amino acylation of modified tRNA to incorporate unnatural amino acids in *in-vitro* protein expression reactions.

TEACHING EXPERIENCE

September 2007 to May 2008	**Curry College** (Milton, MA) *Chemistry Lecturer* Teaching two sections of Chem 1001 (Chemical Concepts); a one semester chemistry course required for nursing students.
November 2006 & May 2007	**Boston College** (Chestnut Hill, MA) *Lecturer for Advanced Organic Chemistry Course and Organometallic Chemistry Course* Taught by Professor Marc L. Snapper Designed and presented two lectures to first-year graduate students.
June 2006 to August 2006	**Massachusetts Institute of Technology** (Cambridge, MA) *Research Science Institute Mentor* A rigorous academic program in which I trained a high school student on laboratory techniques and he assisted me with the synthesis of kalmanol. Only 75 students are selected from the United States and other nations. My student was the only student to receive highest honors for his work.
1999 to 2000	**University of California, Irvine** (Irvine, CA) *Teaching Assistant, Department of Chemistry* Served three quarters as teaching assistant for undergraduate chemistry lab courses (general chemistry and introduction to organic chemistry).
June 1998 to June 1999	**University of California, Berkeley** (Berkeley, CA) *Undergraduate Teaching Assistant* Scholars Program Teaching assistant for undergraduate organic chemistry course (for chemistry majors).

ACADEMIC HONORS

1999 to 2004	National Institutes of Health Predoctoral Fellowship
2005 to 2008	National Institutes of Health Postdoctoral Fellowship

COMMUNITY INVOLVEMENT

2000 to 2005	*Annual Ask-A-Scientist Night* Irvine, CA Worked with high school students on their science projects and judged their projects at science fairs.
2000 to 2002	*California State Summer School for Mathematics and Science* University of California, Irvine Led discussions and conducted experiments for high school students.
2001	*Science Education Day* Clara Burton Elementary School Long Beach, CA Conducted experiments for elementary school students for a day.

PUBLICATIONS

4. "Stereoselective *C*-Glycosylation Reactions of Pyranoses: Implications on the Conformational Preference of the Mannosyl Cation," Lucero, C. G.; Woerpel, K. A. *J. Org. Chem.* **2006**, *71*, 2641-2647.

3. "Stereochemistry of Nucleophilic Subsitution Reactions Depending Upon Substituent: Evidence for Electrostatic Stabilization of Pseudoaxial Conformers of Oxocarbenium Ions by Heteroatom Substituents," Ayala, L.; Lucero, C. G.; Romero, J. A. C.; Tabacco, S. A.; Woerpel, K. A. *J. Am. Chem. Soc.* **2003**, *125*, 15521-15528.

2. "A Model for Hydride Transfer in Thymidylate Synthase Based On Unnatural Amino Acid Mutagenesis," Barrett, J. E.; Lucero, C.; Schultz, P. G. *J. Am. Chem. Soc.* **1999**, *121,* 7965-7966.

1. "Energetic Analysis of an Engineered Cation-pi Interaction in Staphylococcal Nuclease," Ting, A.; Shin, I.; Lucero, C.; Schultz, P. G. *J. Am. Chem. Soc.* **1998**, *120,* 7135-7136.

PRESENTATIONS

Lucero, C. G.; Woerpel, K. A. "Investigations Into the Synthetic Utility and Nature of the Stabilizing Interaction between a Tetrahydropyran Oxocarbenium Ion and an Axial Electronegative Substituent at Position C-4." UCI Organic Chemistry Graduate Student and Post-Doctoral Colloquium, January 2003, University of California, Irvine.