

CURRICULUM VITAE

Evan L. Neidholdt

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EDUCATION

- 2005–Present Ph.D. candidate, Chemistry department, California Institute of Technology. Research area: experimental chemical physics with emphasis in instrumentation development for mass spectrometry. Gas phase reactions of biomolecules with carbon centered free radicals. Chemistry of collisionally excited molecular aggregates. Adviser: J.L. Beauchamp.
- 2001–2005 B.A., Chemistry and Mathematics, Concordia University Irvine, Irvine, CA. Undergraduate research with John W. Kenney, III, 2002–2005. Research area: low temperature vibrational and electronic spectroscopy of bromine gas hydrate.

PUBLICATIONS

- “The Mass Spectrometer as a Chemical Laboratory: Reactions of Carbon Centered Radicals with Amino Acids in Peptides” **E. L. Neidholdt**, J. Thayer, R. Hodyss, H. Sumner and J. L. Beauchamp, *Proc. Nat. Acad. Sci.* in preparation (2008). (Special issue of PNAS on Mass Spectrometry Across the Sciences)
- “Ionization Mechanism and Additional Applications of the Ambient Pressure Pyroelectric Ion Source” **E.L. Neidholdt** and J. L. Beauchamp, *J. Am. Soc. Mass. Spec.* in preparation (2008).
- “Cluster Phase Chemistry: Formation and Reactivity of Metal Phenides formed from Decarboxylation of Clusters of Divalent Alkaline Earth Metals with Substituted Benzoic Acids,” **E. L. Neidholdt** and J. L. Beauchamp, *J. Amer. Soc. Mass Spectrom.* in preparation (2008).
- “Ambient Pressure Pyroelectric Ion Source for Mass Spectrometry,” **E.L. Neidholdt** and J.L. Beauchamp, *Anal. Chem.* 2007, 79, 3945–3948

PRESENTATIONS

- 2008 “Ionization Mechanism and Additional Applications of the Ambient Pressure Pyroelectric Ion Source,” at Lake Arrowhead Ion Chemistry Conference, Lake Arrowhead, CA (Oral)
- 2007 “Compact Ambient Pressure Pyroelectric Ion Source for Harsh Environment Mass Spectrometry,” at 2007 HEMS Conference, Cocoa Beach, FL (Poster)
- 2007 “Compact Ambient Pressure Pyroelectric Ion Source for Mass Spectrometry,” at Lake Arrowhead Ion Chemistry Conference, Lake Arrowhead, CA (Oral)
- 2004 “Clever determination of the molar enthalpy of vaporization of liquid nitrogen using common, inexpensive laboratory equipment” at ACS National Meeting in Anaheim, CA (Oral)

AWARDS

- 2005 Nomination for associate membership in Sigma Xi, The Scientific Research Society, Orange County Chapter
- 2005 1st Prize Winner, Concordia University President’s Showcase of Undergraduate Research. Entry: “Low Temperature Sample Handling Techniques and Emission Spectroscopic Analysis of Bromine Gas Hydrate (Clathrate)”
- 2003 Concordia University Irvine recipient of ACS Outstanding College Chemistry Student, Orange County Section
- 2003 GAANN Fellowship. Adviser: V. Ara Apkarian, UC Irvine.
- 2002 NSF Summer Undergraduate Research Fellowship. Adviser: Chris Reed, UC Riverside.