

# BETH A. PAPANЕК

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## EDUCATION

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**UNIVERSITY OF ILLINOIS** Urbana-Champaign, IL  
Master of Science in Bioenergy December 2011  
Illinois Professional Science Master's GPA: 3.58/4.00

**UNIVERSITY OF ILLINOIS** Urbana-Champaign, IL  
Bachelor of Science in Chemistry May 2010  
James Scholar 2006 & 2007 GPA: 3.12/4.00

## EXPERIENCE

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**University of Illinois – Department of Chemical Engineering** Urbana, IL  
**Microbial Fuel Research Assistant to Nathan Price, PhD** November 2010 - Present

- Performed fermentations with *C. beijerinckii* to assess butanol production on different carbon sources
- Conducted a metabolomics study to determine growth and steady phase metabolites
- Provided experimental data for completing and improving the metabolic model

**University of Illinois – School of Molecular and Integrative Physiology** Urbana, IL  
**Biology Lab Assistant to Benita Katzenellenbogen, PhD** April 2009 - Present

- Managed litters and genotyping through PCR and electrophoresis for laboratory specimens
- Performed procedures of ovariectomy, hormone control, and pregnancy simulation in mice
- Performed administrative tasks for invoicing, work orders, placed orders of lab supplies

**Baxter Healthcare – Chemistry Laboratory** Round Lake, IL  
**Chemistry Intern** Summers 2008 & 2010

- Tested for medication concentration utilizing HPLC, UV-Visible, IR Spectroscopy
- Water element testing operations including pH, dissolved solids, minerals and clarity
- Created and updated documents that tracked releases for FDA compliance

**University of Illinois – Department of Chemistry** Urbana, IL  
**Mentoring Coordinator, Chemistry Enrichment Program** August 2009 – May 2010

- Organized program curriculum with emphasis on assimilation of chemistry students
- Recruited freshman (75-100) to participate and experienced students (25) to act as Mentors
- Co-wrote grants ensuring the continuing future of the Mentoring Program

**University of Illinois – Department of Chemistry** Urbana, IL  
**Inorganic Chemistry Research Assistant to Tom Rauchfuss, PhD** January 2008 - December 2008

- Synthesized Iron and Nickel compounds to mimic hydrogenase structures in fungi and archaea
- Directed processes to replicate molecular behaviors with carbonyl, thiol, and phosphine ligands
- Operated IR Spectroscopy and Nuclear Magnetic Resonance for testing compounds

## ADDITIONAL

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**Member Gamma Sigma Delta, The Honor Society of Agriculture**

**President of Illini Dance Marathon, a benefit for St. John's Children's Hospital 2010**

- Increased participation by 100% and money raised by 300%

**President of Illini Equestrians, 2008, 2009 & 2010.**

- Awarded Hardest Working Member of Illini Equestrians, 2007, 2008 & 2009