Molly Baker

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EDUCATION

Yale University, New Haven, CT

Graduate Researcher in Chemical and Environmental Engineering Honor: Goodyear Tire & Rubber Company Graduate Fellowship

Northwestern University, Evanston, IL

Bachelor of Science in Chemical Engineering, Cum Laude

Spring 2015

GPA: 3.62 / 4.00

Honor: Murphy Institute Scholar

Small group of promising students selected to receive additional guidance from engineering faculty and funding for an individual research project carried out during the undergraduate years

ENGINEERING & RESEARCH EXPERIENCE

Mark Saltzman Research Group, Yale University, New Haven, CT

Sept 2015 - Present

Graduate Student Researcher - Department of Biomedical Engineering

Developing innovative biomaterials for intravaginal delivery of nucleic acids

General Electric Power & Water, Schenectady, NY

Sept 2014 - Dec 2014

Intern – Generator Rotor Engineering

- Ran materials qualification tests for prototype of novel generator brush holder
- Designed and tested experiment to determine cooling efficiency of generator collector house

Brian Pfleger Research Group, University of Wisconsin, Madison, WI

Summer 2014

- Undergraduate Researcher Department of Chemical and Biological Engineering
- Presented research results at summer research poster session

Aaron Packman Research Group, Northwestern University, Evanston, IL

Genetically modified cyanobacteria to produce commodity chemicals

Sept 2011 - June 2014

Undergraduate Researcher - Department of Environmental Engineering

- Used oxygen optode technology to image oxygen distribution in Pseudomonas biofilms
- · Analyzed oxygen distribution in biofilm colonies using fluorescence microscopy and MATLAB

Sonoco Protective Solutions, Arlington Heights, IL

June 2013 - Dec 2013

R&D Intern

- Led effort to improve manufacturing process for insulating containers
- Delivered final report including test data and training procedure

LEADERSHIP EXPERIENCE

Northwestern University Tiny House Project, Evanston, IL

Project Manager

Jan 2011 - Sept 2013

- Participated in construction of student-built 128 square foot sustainable house
- Organized exhibits at Northwestern University,
 Chicago Museum of Science and Industry, and Evanston Green Living Festival

PRESENTATIONS

Baker, M.K. (2015, May). *Metabolic Heterogeneity and Oxygen Distributions in Biofilms*. Poster session presented at the Annual Meeting for the Society of Freshwater Science, Milwaukee, MN.

SKILLS

Computer: Familiar with MATLAB and HYSYS

Language: German (professional working proficiency); French (limited working proficiency)