

# Matthew S. Walters

walterms.matt@utexas.edu  
109 West 39<sup>th</sup> Street, Apartment 227  
Austin, TX 78751  
(859) 663-5553

## OBJECTIVE

To design a dynamic model of carbon dioxide capture systems for coal-fired power plants in order to implement stable process control, allow fast responses to set point changes, and predict off-design steady state operation

## EDUCATION

### The University of Texas at Austin

Degree: Doctor of Philosophy in Chemical Engineering, estimated May 2016

Austin, TX

GPA: 3.90/4.00

### Purdue University

Degree: Bachelor of Science in Chemical Engineering with Distinction, May 2011

Degree: Bachelor of Science in Chemistry with Distinction, May 2011

West Lafayette, IN

GPA: 3.86/4.00

**Graduate Coursework:** Advanced Analysis, Transport Phenomena, Modern Control Theory, Greenhouse Gas Control Technologies, Optimization: Theory/Practice

## WORK EXPERIENCE

### The University of Texas at Austin, Department of Chemical Engineering

*Teaching Assistant:* August 2011-December 2011

- Advised four groups of senior chemical engineering students on their senior design project
- Graded reports and provided constructive feedback
- Taught AspenPlus tutorials and supervised help sessions

### Purdue University, Department of Chemistry

*Undergraduate Research Assistant:* September 2007-May 2011

- Synthesized a series of small molecules to be screened against pancreatic cancer cell lines
- Synthesized and evaluated potential organic phase change materials
- Presented research at undergraduate poster session
- Trained two other undergraduate students who joined the lab on instrumentation and techniques

### Eli Lilly & Company

*Discovery Chemistry Intern,* May 2009-August 2009

- Worked as a bench chemist in the drug discovery division
- Gained industry experience and presented summer research at an intern poster session

## JOURNAL ARTICLES

Ramachandran, P. V., Pratihari, D., Nair, H. N. G., Walters, M., Smith, S., Yip-Schneider, M. T., Wu, H., Schmidt, M. "Tailored  $\alpha$ -methylene- $\gamma$ -butyrolactones and their effects on growth suppression in pancreatic carcinoma cells." *Bioorganic & Medicinal Chemistry Letters*, 20 (2010) 6620-6623

## HONORS

Thrust 2000 Fellowship, *Cockrell School of Engineering at The University of Texas*, August 2011-present

Lilly-Purdue Alumni Scholarship, *College of Science at Purdue University*, August 2007-May 2011

Purdue University Academic Success Award, *Purdue University*, August 2007-May 2011

Deans List & Semester Honors, *Purdue University*, August 2007-May 2011

Eli Lilly & Company Undergraduate Organic Chemistry Research Fellowship, June 2008-August 2008

### ***STUDY ABROAD EXPERIENCE***

**Technical University of Denmark**, Laboratory in Chemical/Biochemical Engineering, July 2010

- Worked in teams to perform seven pilot scale unit operation experiments
- Toured three Danish chemical plants and gained a greater global appreciation for chemical engineering

**Intercultural Teamwork in China**, Purdue Mechanical Engineering Sponsored Program, May 2008

- Visited four Chinese universities and interacted with host Chinese students in teambuilding activities
- Learned about Chinese culture through lectures and our own experiences

### ***COMMUNITY SERVICE ACTIVITIES***

**Lafayette Urban Ministry Homeless Shelter**, September 2010-April 2011

- Cooked and served meals once a month at the Lafayette emergency homeless shelter

**National Chemistry Week**, Fall 2007, 2008, 2009, 2010

- Provided a hands-on chemistry experience to elementary students in the Lafayette area
- Encouraged the students to consider a career in science

### ***COMPUTER SKILLS***

**Proficient in:** AspenPlus; MATLAB; Mathematica; JMP; MS Word, Excel, PowerPoint

**Familiar with:** DeltaV; Maple; FORTRAN