

# Scott A. Grimes

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## **Education**

### **Master of Arts, Chemistry**

*The University of Texas at Austin*

Thesis Advisor: Alan H. Cowley

May 2014

*Austin, TX*

### **Bachelor of Science, Chemistry**

*Texas State University*

Minor: Biology

May 2008

*San Marcos, TX*

## **Professional Teaching Experience**

Lecturer of Chemistry, UNT-Dallas

Spring 2020-Present

### **Classes Taught:**

All classes listed under Adjunct Professor

CHEM 3350- Physical Chemistry I

CHEM 3151- Physical Chemistry Lab I

CHEM 1410- General Chemistry I

CHEM 1420- General Chemistry II

CHEM 3220- Organic Chemistry I Lab

CHEM 3230- Organic Chemistry II Lab

BIOL 4120- Environmental Chemistry

BIOL 1132- Environmental Science

BIOL 1080- Biology for Educators Lab

GEOG 1710 Earth Science

Adjunct Professor of Chemistry, UNT-Dallas

Fall 2017-Fall 2020

### **Classes Taught:**

CHEM 1360- Chemistry for Non-Majors Lab

CHEM 1430- General Chemistry I Lab

CHEM 1440- General Chemistry II Lab

Chemistry Teacher, Everman Independent School District

August 2015-August 2016

Helped design coursework with a small team for freshman/sophomore students. I taught over 170 students in an ethnically and socio-economically diverse classroom, while fostering relationships with students to maintain discipline. In continuing education I learned many cutting-edge pedagogy techniques. Served as chemical safety expert.

Substitute Teacher, Birdville Independent School District

October 2014-Present

Taught a variety of middle and high school classes. Supervised different students each day while still upholding classroom expectations. Interacted with students of many different cultural and socio-economical backgrounds, including students with special needs.

## **Curriculum Development**

### Degree Programs Developed

**BA in Chemistry-** Fall 2023

**BS in Chemistry-** Fall 2023

### Courses Developed

**Analytical Chemistry**

**Physical Chemistry I and II**

**Instrumental Analysis**

**Inorganic Chemistry**

**Sustainable Chemical Processes**

**Quantitative Analysis**

## **Community Engagement**

### TrueBlue and Trailblazer360

Represented the Natural Science Department in university-wide community and student outreach events, providing interested parties with information and advice regarding our degree programs and possible career paths that can result from them

### Girls Inc. STEM Summer Camp

Co-directed a middle-school girls camp about the collegiate experience and STEM education. Organized staff presentations and officiated physical education periods.

### Biology Club Faculty Advisor

Recruited and trained officer candidates while advising the executive office team on the production of professional biology related events

### DISD STEM Expo and ISEF STEM Education Day

Represented the Natural Science Department in a district-wide community and student outreach events, providing interested parties with information and advice regarding our degree programs and possible career paths that can result from them

## **Committee Work**

LAS Curriculum Committee, Member (2023-)

Faculty Senate Nominations and Elections, Chair (2024-)

Faculty Handbook Committee (2022-2023)

## **Research Experience**

Graduate Research, The University of Texas at Austin

August 2008-May 2014

Advisor: Dr. Alan Cowley

- Prepared and characterized new phosphonium ionic liquids suitable for electrochemical applications
- Electrodeposited nanocrystalline silicon from various silicon precursors in said ionic liquids

Keywords: ionic liquids, electrochemistry, thermal characterization, DSC, TGA, phosphonium, cyclic voltammetry, air free synthesis, green chemistry, carbon dioxide sequestration, multinuclear NMR, electrodeposition

- Explored the synthesis of amine-functionalized phosphonium ionic liquids for the sequestration of carbon dioxide

Keywords: ionic liquids, electrochemistry, thermal characterization, DSC, TGA, phosphonium, cyclic voltammetry, air free synthesis, green chemistry, carbon dioxide sequestration, multinuclear NMR, electrodeposition

**Awards**

Outstanding Undergraduate Instructor  
*Texas State University*

2008

Faraday Teaching Excellence Award  
*The University of Texas at Austin*

Fall 2009

**Conference Presentations**

**Grimes, S.A.** Electrodeposition in Phosphonium Ionic Liquids. Presented at the Third Annual Center for Electrochemistry Workshop, Austin, TX, February 19-20, 2011. (Poster)

**Grimes, S. A.,** Cho, S., Cowley, A.H., Bard, A.J. Electrodeposition of silicon in a phosphonium ionic liquid. Presented at the American Chemical Society Spring 2012 National Meeting, San Diego, CA, March 25-29, 2012. (Oral)

Posters were also presented at the First (2009) and Second (2010) Annual Center for Electrochemistry Workshop