

**Rachel Givens**  
**Ph.D. Candidate**  
[rachelgivens@gatech.edu](mailto:rachelgivens@gatech.edu)  
(404) 894-4009

**School Address:**  
School of Chemistry and Biochemistry  
Georgia Tech  
901 Atlantic Drive  
Atlanta, GA 30332

**Education:**

Georgia Institute of Technology, Atlanta, GA  
August 2008-present  
Major: Physical Chemistry  
Degree Pursuing: PhD  
Advisor: Mostafa El-Sayed

Georgia Institute of Technology, Atlanta, GA  
August 2004-May 2008  
Majors: Chemistry, Physics  
Degrees Awarded: BS in Chemistry with Highest Honors  
BS in Physics with Highest Honors  
GPA: 3.93/4.0

International Baccalaureate (IB) Diploma, December 2004

**Awards and Scholarships:**

Fall 2008  
Georgia Tech Presidential Fellowship

Summer 2007  
President's Undergraduate Research Award (PURA)

Fall 2006-Spring 2007  
Joseph S. Fanning Memorial Scholarship  
William M. Spicer Scholarship  
Outstanding Undergraduate in Chemistry Award

Summer 2006  
Dreyfus Fellowship/Scholarship

Fall 2005-Spring 2006  
Laroche Corporate Scholarship  
George Woodruff NM Scholarship  
Sidney Goldin Scholarship

Newborn Scholarship  
Peter B. Sherry Memorial Scholarship

Fall 2004-Spring 2005

Sibyl and Fred Lawton Harrison, Jr. Scholarship  
George Woodruff NM Scholarship  
Newborn Scholarship

**Skills:** Programming in MatLab, Python and basic HTML; Word; Excel; Power Point; Intermediate Spanish; UV-Vis Spectrometry; Fluorescence Spectrometry; Raman Spectrometry

**Experience:**

Teaching Assistant, Georgia Tech  
Advanced Chemistry Lab (Chem 4681), Dr. Robert Braga, August 2008-present  
-Lab supervision

Teaching Assistant, Georgia Tech  
Physical Chemistry II (Chem 3412), Dr. David Sherrill, August 2007-December 2007

-Course material: Quantum Mechanics  
-Homework help sessions  
-Grading of homework and tests

El-Sayed Research Group, Georgia Tech  
Undergraduate Research (PURA), May 2007-August 2007  
-Synthesis platinum nanoparticles of various shapes (spheres, cubes, prisms)  
-Activation energy of ferricyanide-thiosulfate redox reaction when catalyzed by platinum nanoparticles  
-Confocal Raman microscopy

El-Sayed Research Group, Georgia Tech  
Undergraduate Research (Dreyfus Fellowship), May 2006-August 2006  
-Synthesis spherical gold nanoparticles  
-Effect of ascorbic acid on gold nanoparticle synthesis  
-Effect of temperature on gold nanoparticle synthesis  
-UV-Vis spectrometry, TEM