

**CURRICULUM VITAE**  
**SAMUEL D. SNOW**

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**EDUCATION**

Georgia Institute of Technology, Atlanta, GA

**Ph.D. in Environmental Engineering**

**Aug. 2014**

Georgia Institute of Technology, Atlanta, GA

**B.S. in Earth and Atmospheric Science**

**May 2009**

**ACADEMIC APPOINTMENTS**

Assistant Professor, Louisiana State University, CEE

**Aug. 2016 – Present**

Postdoctoral Research Associate, Michigan State University, CEE

**2015 – 2016**

Graduate Research Assistant, Georgia Institute of Technology, CEE

**2009 – 2014**

Undergraduate Researcher, Georgia Institute of Technology, EAS

**2008 – 2009**

**OTHER APPOINTMENTS**

Environmental Quality Analyst: Permit Writer, Michigan Department of Environmental Quality

**2015**

NOAA Hollings Intern: Northwest Fisheries Science Center

**2008**

**AWARDS**

Journal article featured on cover of *ES&T Letters*' June 2014 issue

**2014**

Bill Schutz Graduate Teaching Assistant Award

**2013**

Student Travel Award for the 7<sup>th</sup> ICEENN

**2012**

Student Travel Award for the 1<sup>st</sup> Sustainable Nanotechnology Organization (SNO) Conference

**2012**

First prize winner in the GT Energy Club poster competition

**2011**

Graduated with Honors, Georgia Tech

**2009**

Graduated with the business and research options, Georgia Tech

**2009**

Ernest F. Hollings Undergraduate Scholarship Program, NOAA

**2007 – 2009**

**TEACHING EXPERIENCE**

**Primary Instructor for EVEG 3110: "Water and Wastewater Treatment"**

**2016 – Present**

Planned and instructed a course on performing design calculations for common unit operations of water and wastewater treatment systems in the context of governmental regulations.

**Teaching Assistant for CEE 4803C: "Environmental Technology in the Developing World"**

**2011 – 2013**

Helped form, plan, and implement the course, leading students on a field trip to Nicaragua to conduct field studies on air and water quality and evaluating possible treatment technologies.

**Georgia Tech Environmental Engineering Research Internship Program Mentor**

**2012 – 2012**

Mentored three high school student interns with technical research projects involving photochemical experiments.

**High School Math and Science Tutor**

**2015 – 2015**

Mentored high school students with various math and science topics, developed reports for students' progress.

## ACADEMIC AND PROFESSIONAL EXPERIENCE

Louisiana State University, Baton Rouge, LA

**Assistant Professor, Civil & Environmental Engineering**

**2016 – Present**

- Prepared state, local, and federal level proposals for research projects
- Setup and equipped new laboratory
- Hired and mentored Ph.D. student
- Planned, instructed, and administered undergraduate courses

Michigan State University, East Lansing, MI

**Postdoctoral Research Associate**

**2015 – 2016**

- Co-authored a collaborative research grant proposal as a co-PI
- Mentored students for microbial and photochemical projects
- Investigated a combined membrane, photocatalytic approach for virus removal in membrane bioreactor effluent

Michigan Department of Environmental Quality, Lansing, MI

**Environmental Quality Analyst**

**2015**

- Reviewed, developed, and wrote wastewater discharge permits under the National Pollutant Discharge Elimination System
- Lectured on nanotechnology for a continuing education seminar for colleagues

Georgia Institute of Technology, Atlanta, GA

**Graduate Research Assistant in Dr. Jaehong Kim's research group**

**2009 – 2014**

- Conducted photochemical, antimicrobial, and physical characterization experiments, lab equipment and office computer maintenance and upkeep
- Collaborated with other universities, institutes, and research groups for multi-disciplinary work
- Presented research at national and international conferences
- Wrote, reviewed, and edited grants; co-authored an NSF grant proposal that was awarded funding for over \$300,000 over three years
- Edited and peer-reviewed manuscripts and technical writing from internal (research group) and external (journal submissions) documents
- Initiated course to Nicaragua and prepared and implemented course materials

Georgia Institute of Technology, Atlanta, GA

**Undergraduate Researcher in Dr. Ellery Ingall's research group**

**2008 – 2009**

Oceanic sediment sample preparation and C/H/N composition analysis, water column and sediment pore-water phosphorus measurements

NOAA Northwest Fisheries Science Center, Seattle, Washington

**Hollings Intern**

**2008 – 2008**

Managed and manipulated GIS databases for salmon habitats, using ArcView/ArcMap and MS Access and various field work assignments

## PUBLICATIONS AND PRESENTATIONS

- Guo, B.; **Snow, S. D.**; Starr, B. J.; Xagorarakis, I.; Tarabara, V. (2017) "Photocatalytic Inactivation of Human Adenovirus 40: Effect of Dissolved Organic Matter and Prefiltration." (In Preparation).

- Moor, K. J.; **Snow, S. D.**; Kim, J. H. "Light Sensitized Disinfection with Fullerene." *Applying Nanotechnology for Environmental Sustainability*. Edited by Sung Hee Joo, IGI Global, **2016**, pp 137-163.
- Moor, K. J.; **Snow, S. D.**; Kim, J. H. (2015). "Differential Photoactivity of Aqueous [C<sub>60</sub>] and [C<sub>70</sub>] Fullerene Aggregates" *Environmental Science & Technology*, 49, pp 5990–5998.
- **Snow, S. D.**; Kim, K. C.; Moor, K. J.; Jang, S. S.; Kim, J. H. (2015). "Functionalized Fullerenes in Water: A Closer Look" *Environmental Science & Technology*, 49, pp 2147–2155.
- Choi, J. I.; **Snow, S. D.**; Kim, J. H.; Jang, S. S. (2015). "Interaction of C<sub>60</sub> with water: First-Principles Modeling Approach" *Environmental Science and Technology*, 49, pp 1529–1536.
- **Snow, S. D.**; Park, K. E.; Kim, J. H. (2014). "Cationic Fullerene Aggregates with Unprecedented Virus Photoinactivation Efficiencies in Water" *Environmental Science & Technology Letters*, May 28, 2014.
- Moor, K.; Kim, J.H.; **Snow, S. D.**; Kim, J. H. (2013). "C<sub>70</sub> Fullerene-Sensitized Triplet-Triplet Annihilation Upconversion" *Chemical Communications*, 49 (92), 10829 – 10831.
- **Snow, S. D.**; Lee, J. S.; Kim, J. H. (2012). "Photochemical and Photophysical Properties of Sequentially Functionalized Fullerenes in the Aqueous Phase" *Environmental Science & Technology*, 46, 13227-13234.
- Cho, M., **Snow, S. D.**, Hughes J. B. and Kim J. H. (2011) "Escherichia coli Inactivation by UV Irradiated C<sub>60</sub>: Kinetics and Mechanisms" *Environmental Science and Technology*, 45 (22), pp 9627–9633.
- Diaz, M. J., Ingall, E. D., **Snow, S. D.**, Benitez-Nelson, C. R., Taillefert M. and Brandes J. A. (2012) "Potential role of inorganic polyphosphate in the cycling of phosphorus within the hypoxic water column of Effingham Inlet, British Columbia" *Global Biogeochemical Cycles*, 26 (2).

**Invited Lecture: University of Montpellier, France**

**2016**

Lectured on "Photochemistry in Natural Waters: Understanding the Challenges" at Institut Européen des Membranes - Université de Montpellier.

**Invited Lecture: Louisiana State University**

**2016**

Lectured on "Photochemistry for Disinfection: Advances and Challenges in Photocatalytic Materials" at Louisiana State University's Civil and Environmental Engineering seminar series.

**Invited Lecture: University of Houston**

**2016**

Lectured on "Photochemistry for Disinfection: Advances and Challenges in Photocatalytic Materials" at the University of Houston's Civil and Environmental Engineering seminar series.

**Invited Lecture: Michigan State University**

**2015**

Lectured on "Photochemistry and Photobiological Implications of Functionalized Fullerenes in Aqueous Systems" at MSU's Environmental Engineering seminar series.

- Gordon Research Conference** 2013  
Presented a poster on “Understanding the Implications of Transformation and Functionalization on the Photophysical Properties of Aqueous Fullerene Aggregates” at the Gordon Research Conference in Stowe, VT.
- 245<sup>th</sup> National American Chemical Society Conference** 2013  
Presented orally on “Photochemistry of Aqueous Fullerene Aggregates as a Function of Size Fractionation and Surface Functionalization” at the national ACS research symposium in New Orleans, LA.
- 1<sup>st</sup> Sustainable Nanotechnology Organization (SNO) Conference** 2012  
Presented orally on “Antimicrobial Properties of Fullerene Derivatives as a Function of Structure and Aggregation State” at the first ever SNO conference in Arlington, VA.
- 7<sup>th</sup> International Conference for Environmental Effects of Nanoparticles and Nanomaterials** 2012  
Presented a poster on “Antimicrobial Properties of Fullerene Derivatives as a Function of Structure and Aggregation State” at the international conference in Banff, Canada.
- 243<sup>rd</sup> National American Chemical Society Conference** 2012  
Presented orally on “Experimental Steps towards QSAR Analysis of Functionalized Fullerene Nanomaterials” at the national ACS research symposium in San Diego, California.
- The School of Earth and Atmospheric Science’s Annual Research Symposium** 2008  
Presented jointly with the Environmental Field Methods class as a departmental seminar on “Dynamics of Atmospheric, Geophysical, and Geochemical Processes Regulating the Transport of Nutrients and Pollutants in a Coastal Environment”
- Ernest F. Hollings Internship Symposium** 2008  
Presented orally on “Evaluating Habitat Availability, Connectivity, and Use by Pacific Salmon” at the Hollings Scholarship and Internship Program’s national conference in Washington D.C. at NOAA’s headquarters

## MEMBERSHIPS AND INVOLVEMENT

- American Chemical Society  
**Member** 2009 – Present
- Water Environment Federation  
**Member** 2014 – Present
- Michigan Water Environment Association  
**Member** 2014 – 2016
- Association of Environmental Engineers and Scientists- Georgia Tech chapter  
**President and Vice President of Grad Affairs** 2010 – 2012  
Coordinated a team of officers and committee chairs to conduct various events, including a panel discussion, a symposium event with a poster competition, and a sponsor luncheon series

Engineers Without Borders – Georgia Tech

**Member**

Helped with planning for water projects in Cameroon

Volunteered with EWB group for a water distribution project in Chinandega, Nicaragua

**2008 – 2011**