

# Aaron Lichtner

Materials Science, Data Visualization, Design, Technical Communication

## Contact

9100 Roosevelt Way NE  
Apt. 301  
Seattle, WA 98115

818.521.4283

[alichtner@gmail.com](mailto:alichtner@gmail.com)  
[www.aaronlichtner.com](http://www.aaronlichtner.com)

## Technical Skills

Material Characterization  
Technical Writing  
Data Visualization  
Image Analysis  
Statistical Analysis  
Project Management  
Machining

## Software

Illustrator, Photoshop  
ImageJ, OriginPro  
Gnuplot, Veusz  
Indesign, Sibelius  
Microsoft Suite

## Programming

R, LaTeX, Python  
HTML, CSS  
Android, Java

## Languages

● ● ● ● ● English  
○ ○ ● ● ● French

## Research Experience

2010 - 2015

### Freeze-Casting of Multifunctional Porous Ceramics | Univ. of Wash. & Univ. of Grenoble, France

Collaborated with an international team to develop an integrated experimental/simulation approach to studying multifunctional, porous ceramics using freeze-casting and discrete-element analysis

International Experience: Total of 11 months working in SIMaP lab in Grenoble, France

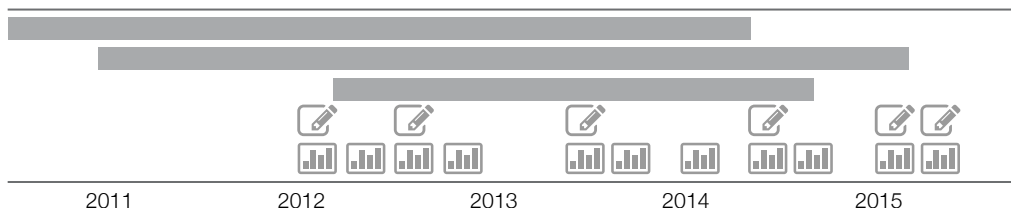
Teaching/Mentoring

Experimentation

Simulations

Publications

Presentations



2008 - 2009

### Quantum Dot Synthesis and Process Characterization | California Polytechnic, SLO, CA

Developed a low-cost repeatable process to synthesize CdSe Quantum Dots

Created systems to run nitrogen-purged organometallic synthesis

2008

### Polymeric Ultrasonic Cardiac Catheter | TDC Medical, Sunnyvale, CA

Assisted in prototyping of an ultrasonic cardiac imaging catheter

Wrote and performed maintenance procedures for ISO Class 8 clean room

2007

### Metallurgical and Quality Internship | MOOG Aerospace, Torrance, CA

Streamlined post-vulcanization processing, resulting in cost savings of \$320,000 per year

Performed quality inspections on heat-treated and plated aerospace parts

## Teaching Experience

2015

### Study Section Instructor | Math Science Upward Bound UW, Seattle, WA

Led quiz sections on various scientific topics for high school students in the Seattle area

2011 - 2014

### Research Mentor | University of Washington, Seattle, WA

High School and undergraduate student mentor for a number of research projects

2010 - 2011

### Teaching Assistant | University of Washington, Seattle, WA

🏆 TA of the Year

Instructed students in the theory and procedures used in various engineering techniques

Demonstrated proper laboratory notebook maintenance and technical report composition

2009 - 2010

### Pre K - 5th Science Teacher | Mad Science of Los Angeles, CA

Ran hour-long after-school science classes for elementary schools in the greater LA area

Focused on hands-on learning in a fun environment

## Scientific Publications

2015

### Journal of the European Ceramics Society

Dispersion, Connectivity and Tortuosity of Hierarchical Porosity Composite SOFC Cathodes

Prepared by Freeze-Casting

2013

### Journal of the American Ceramics Society

Processing of Hierarchical and Anisotropic LSM-YSZ Ceramics

## Education

2010 - 2015

### Ph.D. Materials Science and Engineering | University of Washington, Seattle, WA

2010 - 2013

### Master of Science: Materials Science and Engineering | University of Washington, Seattle, WA

2005 - 2009

### Bachelor's of Science: Materials Engineering | California Polytechnic, San Luis Obispo, CA

## Involvement

2012 - Now

### Founder and Musical Director | Seatown Sound A Cappella, Seattle, WA

2013 - Now

### Community Advocate and Grant Writer | U District Square, Seattle, WA

2014 - Now

### Graphic Design and Data Visualization | Seattle Subway, Seattle, WA

