

John Smith

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EDUCATION

Sep. 2016 ~ Present	Harvard University Department of Future Science and Engineering <i>Advisor: William Rogers</i> <i>Ph.D. Student</i>	Cambridge, MA
Mar. 2013 ~ Aug. 2016	University of California, Berkeley Department of Future Science and Engineering <i>Bachelor of Science in Future Science and Engineering</i> GPA: 3.7 / 4.0 <i>Cum Laude</i>	Berkeley, CA

RESEARCH INTERESTS

- Artificial neurons and synapses built with resistive switching systems
- Nanoionics blended into digital nanoelectronics

PUBLICATIONS (SCIE/ESCI)

1. **John Smith**, Chase Carlson, Lindsay Steves, Jordan James, Kyle Masterson, and Travis Lin, "Structural and optical properties of phase-change amorphous and crystalline Ge_{1-x}Te_x (0 < x < 1) thin films," J. Mech. Phys. Solids, 109, (2017), pp.33-49 [IF 12.353]
2. Peter Evans, **John Smith**, Lindsay Steves, Casey Jones, Ryan B. Chris, Jessey Cullen and David C. Bell, "Threshold resistive and capacitive switching behavior in binary amorphous GeSe," Phys. Rev. B 89, 115428 (2017) [IF 12.804]
3. Michael Brennan, Katherine Murphy, **John Smith**, Andrew Melone, Aaron Jones, and Kellan Davis, "Dc current transport behavior in amorphous GeSe films," Science, 328, (2018) pp. 1626-1629 [IF 43.07]
4. Caleb Patrick, Ashley Donovan, Matt Dunfield, **John Smith**, Chase Carlson, Jordan James, and Edward Herron, "Short-term memory of TiO₂-based electrochemical capacitors: empirical analysis with adoption of a sliding threshold," Proc. Natl. Acad. Sci. U.S.A., 13, (2017) pp. 110-116 [IF 9.504]

CONFERENCES

1. Chen Zao, Kellan Davis, **John Smith**, Naomi Woods, and Peter Evans, "Controlled

recrystallization for low-current reset programming characteristics of phase change memory with Ge-doped SbTe," 2017 MRS Spring Meeting & Exhibit, Phoenix, AZ, United States (Apr. 2017) - Oral

2. **John Smith**, Peter Evans, Chase Carlson, Kellan Davis, and Lindsay Steves, "Threshold switching in binary amorphous Pt/GeSe/Pt stacks," 2017 MRS Spring Meeting & Exhibit, Phoenix, AZ, United States (Apr. 2017) - Oral
3. **John Smith**, Chase Carlson, Kyle Masterson, Casey Jones, Travis Lin, "Current transport behavior in amorphous GeSe films," 2017 MRS Spring Meeting & Exhibit, Boston, MA, United States (Nov. 2018) - Poster

PATENTS

1. US Patent 7482171, "Chiral N-acyl-5,6,7(8-substituted)-tetrahydro-[1,2,4]triazolo[4,3-a]pyrazines as selective NK-3 receptor antagonists, pharmaceutical composition, methods for use in NK-3 receptor mediated disorders and chiral synthesis thereof," Feb 23, 2019
2. US Patent 7268218, "Compound for organic electronic element, organic electronic element using same, and electronic device comprising same," Mar 2, 2018

RESEARCH EXPERIENCES

- Visiting Scientist at Department of Applied Physics, Massachusetts Institute of Technology, United States (Aug. 2017 ~ Dec. 2017) / Development of New Biomaterials
- Research Intern at Department of Physics, University of California Berkeley, United States (Mar. 2015 ~ Feb. 2016) / Nanostructure fabrication via plasma treatment

AWARDS AND HONORS

- NSF Graduate Research Fellowship, National Science Foundation, United States (Apr. 2019)
- Best Poster Award, 2018 MRS Fall Meeting, Boston, MA, United States (Nov. 2018)
- Graduate School Fellowship, Harvard University, United States (Sep. 2016)
- Merit-based Scholarship, University of California Berkeley, United States (Sep. 2013)

PROJECTS

- Development of future memory, Office of Science and Technology Policy, United States (Sep. 2019 ~ Present)
- Development of shape memory alloy, Harvard University, United States (Jun. 2018 ~ Present)
- Relationship between microstructure and electronic structure in organic semiconductors, OliTech Electronics Co., Ltd., United States (Jun. 2017 ~ Apr. 2018)

SKILLS AND TECHNIQUES

- Proficient in English and Spanish, and Intermediate in German
- Numerical simulation using MATLAB