

# Jonas L. Kaufman

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## Education

### **University of California, Santa Barbara**

Ph.D. Materials

Advisor: Prof. Anton Van der Ven

GPA: 4.0

2017 – Present

### **Harvey Mudd College**

B.S. Physics

Graduate with High Distinction, Departmental Honors in Physics and Humanities

GPA: 3.9

2013 – 2017

## Experience

### **University of California, Santa Barbara**

*Graduate Student Researcher*

Studying materials for “beyond-Li-ion” batteries using first-principles statistical mechanics methods

Sep. 2017 – Present

### **Lawrence Livermore National Laboratory**

*Academic Cooperation Participant*

Molecular dynamics simulation to probe non-equilibrium properties of hydrogen storage materials

Jun. 2019 – Sep. 2019

### **Sandia National Laboratories, Albuquerque**

*Harvey Mudd College Physics-Engineering Clinic Team Member*

Finite element modeling of ceramic nanoparticles in composites for capacitor applications

Sep. 2016 – May 2017

### **UNSW Sydney, Australia**

*Materials Science Research Assistant*

Atomistic modeling of mechanical properties to aid development of multicomponent metallic alloys

May – Aug. 2015, 2016

## Awards

- U.S. Department of Energy Computational Science Graduate Fellowship 2017 – Present
- Jon A. Wunderlich Prize for Creative Achievement in Physics, Harvey Mudd College 2017
- Barry M. Goldwater Scholarship 2016 – 2017
- Jude and Eileen Laspa Fellowship in Applied Mechanics, Harvey Mudd College 2015 – 2017
- National Merit Scholarship 2013 – 2017

## Publications

5. **J. L. Kaufman**, J. Vinckevičiūtė, S. K. Kolli, J. G. Goiri, and A. Van der Ven. [Understanding intercalation compounds for sodium-ion batteries and beyond](#). *Philosophical Transactions of the Royal Society A* 377, 20190020 (2019).
4. M. Y. Toriyama, **J. L. Kaufman**, and A. Van der Ven. [Potassium ordering and structural phase stability in layered  \$K\_x\text{CoO}\_2\$](#) . *ACS Applied Energy Materials* 2, 2629 (2019).
3. **J. L. Kaufman** and A. Van der Ven.  [\$\text{Na}\_x\text{CoO}\_2\$  phase stability and hierarchical orderings in the  \$\text{O}\_3/\text{P}\_3\$  structure family](#). *Physical Review Materials* 3, 015402 (2019).
2. **J. L. Kaufman**, S. H. Tan, K. Lau, A. Shah, R. G. Gambee, C. Gage, L. MacIntosh, A. Dato, P. N. Saeta, R. C. Haskell, and T. C. Monson. [Permittivity effects of particle agglomeration in ferroelectric ceramic-epoxy composites using finite element modeling](#). *AIP Advances* 8, 125020 (2018).
1. **J. L. Kaufman**, G. S. Pomrehn, A. Pribram-Jones, R. Mahjoub, M. Ferry, K. J. Laws, and L. Bassman. [Stacking fault energies of nondilute binary alloys using special quasirandom structures](#). *Physical Review B* 95, 094112 (2017).

## Presentations

1. **Materials Research Society Spring Meeting**. *Structural phase transitions and intercalant ordering in layered Na- and K-ion cathode materials*. Apr. 23, 2019, Phoenix, AZ.