

Benjamin Z. Zydlewski

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Education

University of Texas at Austin

- Chemistry PhD Student, Fall 2019-Present
- Harrington Graduate Fellow 2019-Present
- Milliron Research Group

Virginia Polytechnic Institute and State University

- Bachelor of Science, Chemistry, Summa Cum Laude
- Phi Beta Kappa
- GPA: 3.91

Research Experience

Lin Research Group, Virginia Tech, Fall 2016-Fall 2018

- Work included lithium ion battery cathode material synthesis, electrode fabrication, and coin cell testing
- Presented research at Virginia Tech Department of Chemistry Undergraduate Research Symposium in Spring 2017, Spring 2018, and Fall 2018

Publications

1. Steiner, J. D.; Mu, L.; Walsh, J.; Rahman, M. M.; **Zydlewski, B.**; Michel, F. M.; Xin, H. L.; Nordlund, D.; Lin, F., Accelerated Evolution of Surface Chemistry Determined by Temperature and Cycling History in Nickel-Rich Layered Cathode Materials. *ACS Applied Materials & Interfaces* **2018**, *10* (28), 23842-23850.
2. Zhang, Y.; Steiner, J. D.; Uzodinma, J.; Walsh, J.; **Zydlewski, B.**; Lin, F.; Chen, Y.; Tang, J.; Pradhan, N.; Dai, Q., Thermally synthesized MnO nanoparticles for magnetic properties and lithium batteries. *Mater. Res. Express* **2019**, *6* (2), 025015/1-025015/7.
3. Steiner, J. D.; Cheng, H.; Walsh, J.; Zhang, Y.; **Zydlewski, B.**; Mu, L.; Xu, Z.; Rahman, M. M.; Sun, H.; Michel, F. M.; Sun, C.; Nordlund, D.; Luo, W.; Zheng, J.; Xin, H.; Lin, F., Targeted Surface Doping with Reversible Local Environment Improves Oxygen Stability at the Electrochemical Interfaces of Nickel-Rich Cathode Materials – Accepted by *ACS Applied Materials & Interfaces*

Scholarships and Awards

- Donald D. Harrington Fellowship Recipient 2019-Present
- Dr. Bennie F. Walker Endowment Fall 2019 Chemistry Graduate Research Fellowship
- Dr. Roy H. Bible, Jr Memorial Scholarship for the 2018-2019 academic year
- Virginia Tech Department of Chemistry Academic Excellence Award, 2017-2019
- Virginia Tech Dean's List: All semesters between Fall 2015-Spring 2019

Work Experience and Internships

- Teaching Assistant for CHEM 2565 and CHEM 2566 Principles of Organic Chemistry at Virginia Tech for the 2018-2019 academic year

- Recitation Teaching Assistant for Spring 2019 CHEM 1035 General Chemistry at Virginia Tech
- Selected for the 2018 Nuclear Forensics Undergraduate Summer School
 - One of twelve selected from nationwide applicants
 - 6-week course funded by the Department of Homeland Security
 - Provided knowledge of topics essential to the field of nuclear forensics