

David Boyle

Ph.D. Student in Chemistry, admitted Autumn 2017

Publications

PUBLICATIONS

- **Transient Voltammetry with Ultramicroelectrodes Reveals the Electron Transfer Kinetics of Lithium Metal Anodes** *Adv. Energy Lett.*
Boyle, D., Kong, X., Pei, A., Rudnicki, P., Shi, F., Huang, W., Bao, Z., Qin, J., Cui, Y.
2020; 5: 701-709
- **Evolution of the Solid-Electrolyte Interphase on Carbonaceous Anodes Visualized by Atomic-Resolution Cryogenic Electron Microscopy.** *Nano letters*
Huang, W. n., Attia, P. M., Wang, H. n., Renfrew, S. E., Jin, N. n., Das, S. n., Zhang, Z. n., Boyle, D. T., Li, Y. n., Bazant, M. Z., McCloskey, B. D., Chueh, W. C., Cui, et al
2019
- **Dynamic Structure and Chemistry of the Silicon Solid-Electrolyte Interphase Visualized by Cryogenic Electron Microscopy** *Matter*
Huang, W., Wang, J., Braun, M. R., Zhang, Z., Li, Y., Boyle, D. T., McIntyre, P. C., Cui, Y.
2019; 1 (5)
- **Nanostructural and Electrochemical Evolution of the Solid-Electrolyte Interphase on CuO Nanowires Revealed by Cryogenic-Electron Microscopy and Impedance Spectroscopy** *ACS NANO*
Huang, W., Boyle, D. T., Li, Y., Li, Y., Pei, A., Chen, H., Cui, Y.
2019; 13 (1): 737-44
- **Correlating Structure and Function of Battery Interphases at Atomic Resolution Using Cryoelectron Microscopy** *JOULE*
Li, Y., Huang, W., Li, Y., Pei, A., Boyle, D., Cui, Y.
2018; 2 (10): 2167-77
- **Lithium metal stripping beneath the solid electrolyte interphase.** *Proceedings of the National Academy of Sciences of the United States of America*
Shi, F., Pei, A., Boyle, D. T., Xie, J., Yu, X., Zhang, X., Cui, Y.
2018
- **Low temperature exchange of hydrogen and deuterium between molecular ethanol and water on Au(111)** *Surface Science*
Deponte, M. C., Wilke, J. A., Boyle, D. T., Gillum, M. C., Schlosser, D. A., Lam, V. H., Kaleem, H., Maxwell, E. M., Baber, A. E.
2018; 680: 1-5
- **Elucidation of Active Sites for the Reaction of Ethanol on TiO₂/Au(111)** *JOURNAL OF PHYSICAL CHEMISTRY C*
Boyle, D. T., Wilke, J. A., Palomino, R. M., Lam, V. H., Schlosser, D. A., Andahazy, W. J., Stopak, C. Z., Stacchiola, D. J., Rodriguez, J. A., Baber, A. E.
2017; 121 (14): 7794-7802