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Ph.D. Student in Chemistry, admitted Autumn 2019

Publications

PUBLICATIONS

- **Dissolution of the Solid Electrolyte Interphase and Its Effects on Lithium Metal Anode Cyclability.** *Journal of the American Chemical Society*
Sayavong, P., Zhang, W., Oyakhire, S. T., Boyle, D. T., Chen, Y., Kim, S. C., Vilá, R. A., Holmes, S. E., Kim, M. S., Bent, S. F., Bao, Z., Cui, Y.
2023
- **LiH formation and its impact on Li batteries revealed by cryogenic electron microscopy.** *Science advances*
Vilá, R. A., Boyle, D. T., Dai, A., Zhang, W., Sayavong, P., Ye, Y., Yang, Y., Dionne, J. A., Cui, Y.
2023; 9 (12): eadf3609
- **Revealing the Multifunctions of Li₃N in the Suspension Electrolyte for Lithium Metal Batteries.** *ACS nano*
Kim, M. S., Zhang, Z., Wang, J., Oyakhire, S. T., Kim, S. C., Yu, Z., Chen, Y., Boyle, D. T., Ye, Y., Huang, Z., Zhang, W., Xu, R., Sayavong, et al
2023
- **Correlating the Formation Protocols of Solid Electrolyte Interphases with Practical Performance Metrics in Lithium Metal Batteries** *ACS ENERGY LETTERS*
Oyakhire, S. T., Zhang, W., Yu, Z., Holmes, S. E., Sayavong, P., Kim, S., Boyle, D. T., Kim, M., Zhang, Z., Cui, Y., Bent, S. F.
2023: 869-877
- **Investigating the Cyclability and Stability at the Interfaces of Composite Solid Electrolytes in Li Metal Batteries.** *ACS applied materials & interfaces*
Holmes, S. E., Liu, F., Zhang, W., Sayavong, P., Oyakhire, S. T., Cui, Y.
2022
- **Correlating Kinetics to Cyclability Reveals Thermodynamic Origin of Lithium Anode Morphology in Liquid Electrolytes.** *Journal of the American Chemical Society*
Boyle, D. T., Kim, S. C., Oyakhire, S. T., Vila, R. A., Huang, Z., Sayavong, P., Qin, J., Bao, Z., Cui, Y.
2022
- **Resolving Current-Dependent Regimes of Electroplating Mechanisms for Fast Charging Lithium Metal Anodes.** *Nano letters*
Boyle, D. T., Li, Y., Pei, A., Vila, R. A., Zhang, Z., Sayavong, P., Kim, M. S., Huang, W., Wang, H., Liu, Y., Xu, R., Sinclair, R., Qin, et al
2022