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### Publications

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#### PUBLICATIONS

- **Aging matrix visualizes complexity of battery aging across hundreds of cycling protocols** *ENERGY & ENVIRONMENTAL SCIENCE*  
van Vlijmen, B., Lam, V. N., Asinger, P. A., Cui, X., Schaeffer, J., Geslin, A., Ganapathi, D., Sun, S., Herring, P. K., Gopal, C., Geise, N., Deng, H. D., Thaman, et al  
2025
- **Quantification of Efficiency in Lithium Metal Negative Electrodes via Operando X-ray Diffraction** *CHEMISTRY OF MATERIALS*  
Geise, N. R., Kasse, R. M., Weker, J., Steinrueck, H., Toney, M. F.  
2021; 33 (18): 7537-7545
- **Understanding additive controlled lithium morphology in lithium metal batteries** *JOURNAL OF MATERIALS CHEMISTRY A*  
Kasse, R. M., Geise, N. R., Ko, J. S., Weker, J., Steinrueck, H., Toney, M. F.  
2020; 8 (33): 16960-72
- **High Power Energy Storage via Electrochemically Expanded and Hydrated Manganese-Rich Oxides.** *Frontiers in chemistry*  
Boyd, S., Geise, N. R., Toney, M. F., Augustyn, V.  
2020; 8: 715
- **High Power Energy Storage via Electrochemically Expanded and Hydrated Manganese-Rich Oxides** *FRONTIERS IN CHEMISTRY*  
Boyd, S., Geise, N. R., Toney, M. F., Augustyn, V.  
2020; 8
- **Confined Interlayer Water Promotes Structural Stability for High-Rate Electrochemical Proton Intercalation in Tungsten Oxide Hydrates** *ACS ENERGY LETTERS*  
Mitchell, J. B., Geise, N. R., Paterson, A. R., Osti, N. C., Sun, Y., Fleischmann, S., Zhang, R., Madsen, L. A., Toney, M. F., Jiang, D., Kolesnikov, A., Mamontov, E., Augustyn, et al  
2019; 4 (12): 2805-12
- **Analysis and Simulation of One-Dimensional Transport Models for Lithium Symmetric Cells**  
Subramaniam, A., Chen, J., Jang, T., Geise, N. R., Kasse, R. M., Toney, M. F., Subramanian, V. R.  
ELECTROCHEMICAL SOC INC.2019: A3806-A3819
- **Novel ALD Chemistry Enabled Low-Temperature Synthesis of Lithium Fluoride Coatings for Durable Lithium Anodes** *ACS APPLIED MATERIALS & INTERFACES*  
Chen, L., Chen, K., Chen, X., Ramirez, G., Huang, Z., Geise, N. R., Steinrueck, H., Fisher, B. L., Shahbazian-Yassar, R., Toney, M. F., Hersam, M. C., Elam, J. W.  
2018; 10 (32): 26972-81