



Assistant Professor Ming Liu

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Curriculum Vitae

Ming Liu currently is an assistant professor at Shenzhen International Graduate School (SIGS) for fundamental battery research. He received his Ph.D. from both Tsinghua University and Hong Kong University of Science and Technology in 2017, and afterwards as a postdoc (2017–2021) in group of Prof. Marnix Wagemaker at Delft University of Technology. He has been engaged in the use of advanced characterization techniques such as solid-state nuclear magnetic resonance and neutron depth profiling to fundamentally understand the transport behavior of lithium-ion across solid-solid interface from the atomic scale to the mesoscale. He has published more than 70 peer-reviewed papers, with more than 6300 citations and a H-index of 38.

Selected Publications

- [1] **Ming Liu**, Shengnan Zhang, Ernst R. H. van Eck, Chao Wang, Swapna Ganapathy & Marnix Wagemaker*, Improving Li-ion interfacial transport in hybrid solid electrolytes, **Nature Nanotechnology**, 2022, 17 (9), 959-967

- [2] Peiran Shi, Jiabin Ma, **Ming Liu**, Shaoke Guo, Yanfei Huang, Shuwei Wang, Lihan Zhang, Likun Chen, Ke Yang, Xiaotong Liu, Yuhang Li, Xufei An, Danfeng Zhang, Xing Cheng, Qidong Li, Wei Lv, Guiming Zhong*, Yan-Bing He* & Feiyu Kang*, A dielectric electrolyte composite with high lithium-ion conductivity for high-voltage solid-state lithium metal batteries, **Nature Nanotechnology**, 2023, 18, 602-610

- [3] **Ming Liu**, Chao Wang, Chenglong Zhao, Eveline van der Maas, Kui Lin, Violetta A. Arszelewska, Baohua Li, Swapna Ganapathy & Marnix Wagemaker*, Quantification of the Li-ion diffusion over an interface coating in all-solid-state batteries via NMR measurements, **Nature Communications**, 2021, 12(1): 5943
- [4] Chao Wang, **Ming Liu**, Michel Thijs, Frans G. B. Ooms, Swapna Ganapathy & Marnix Wagemaker*, High dielectric barium titanate porous scaffold for efficient Li metal cycling in anode-free cells, **Nature Communications**, 2021, 12(1): 6536
- [5] Zhu Cheng, **Ming Liu**, Swapna Ganapathy, Chao Li, Zhaolong Li, Xiaoyu Zhang, Ping He, Haoshen Zhou, Marnix Wagemaker, **Joule**, 2020, 4(6): 1311-1323