

Stanford



Rong Xu

Postdoctoral Scholar, Materials Science and Engineering

Bio

BIO

Dr. Rong Xu is a postdoc with professor Yi Cui in the Department of Materials Science & Engineering at Stanford University.

PROFESSIONAL EDUCATION

- Bachelor of Engineering, Xi'An Jiaotong University (2011)
- Master of Engineering, Xi'An Jiaotong University (2014)
- Doctor of Philosophy, Purdue University (2018)
- Ph.D., Purdue University, Mechanical Engineering (2018)

STANFORD ADVISORS

- Yi Cui, Postdoctoral Faculty Sponsor
- Yi Cui, Postdoctoral Research Mentor

Publications

PUBLICATIONS

- **Free-standing ultrathin lithium metal-graphene oxide host foils with controllable thickness for lithium batteries** *NATURE ENERGY*
Chen, H., Yang, Y., Boyle, D. T., Jeong, Y., Xu, R., de Vasconcelos, L., Huang, Z., Wang, H., Wang, H., Huang, W., Li, H., Wang, J., Gu, et al
2021
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Chou, L., Ye, Y., Lee, H. K., Huang, W., Xu, R., Gao, X., Chen, R., Wu, F., Tsung, C., Cui, Y.
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- **Efficient Lithium Metal Cycling over a Wide Range of Pressures from an Anion-Derived Solid-Electrolyte Interphase Framework** *ACS ENERGY LETTERS*
Wang, H., Huang, W., Yu, Z., Huang, W., Xu, R., Zhang, Z., Bao, Z., Cui, Y.
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- **Air-Filtering Masks for Respiratory Protection from PM2.5 and Pandemic Pathogens.** *One earth (Cambridge, Mass.)*
Xu, J., Xiao, X., Zhang, W., Xu, R., Kim, S. C., Cui, Y., Howard, T. T., Wu, E., Cui, Y.
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- **Computational Modeling of Heterogeneity of Stress, Charge, and Cyclic Damage in Composite Electrodes of Li-Ion Batteries** *JOURNAL OF THE ELECTROCHEMICAL SOCIETY*
Liu, P., Xu, R., Liu, Y., Lin, F., Zhao, K.
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- **Charge distribution guided by grain crystallographic orientations in polycrystalline battery materials.** *Nature communications*
Xu, Z., Jiang, Z., Kuai, C., Xu, R., Qin, C., Zhang, Y., Rahman, M. M., Wei, C., Nordlund, D., Sun, C., Xiao, X., Du, X., Zhao, et al
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- **Heterogeneous damage in Li-ion batteries: Experimental analysis and theoretical modeling** *JOURNAL OF THE MECHANICS AND PHYSICS OF SOLIDS*
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- **Quantification of Heterogeneous Degradation in Li-Ion Batteries** *ADVANCED ENERGY MATERIALS*
Yang, Y., Xu, R., Zhang, K., Lee, S., Mu, L., Liu, P., Waters, C. K., Spence, S., Xu, Z., Wei, C., Kautz, D. J., Yuan, Q., Dong, et al
2019; 9 (25)
- **High-Voltage Charging-Induced Strain, Heterogeneity, and Micro-Cracks in Secondary Particles of a Nickel-Rich Layered Cathode Material** *ADVANCED FUNCTIONAL MATERIALS*
Mao, Y., Wang, X., Xia, S., Zhang, K., Wei, C., Bak, S., Shadike, Z., Liu, X., Yang, Y., Xu, R., Pianetta, P., Ermon, S., Stavitski, et al
2019; 29 (18)
- **Oxygen Release Induced Chemomechanical Breakdown of Layered Cathode Materials** *NANO LETTERS*
Mu, L., Lin, R., Xu, R., Han, L., Xia, S., Sokaras, D., Steiner, J. D., Weng, T., Nordlund, D., Doeff, M. M., Liu, Y., Zhao, K., Xin, et al
2018; 18 (5): 3241–49