

Stanford

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Bio

BIO

Xian is now a postdoc researcher in the Group of Jian Qin, Department of Chemical Engineering. His research is focused on the theoretical and simulation studies of polymer in applications of battery.

PROFESSIONAL EDUCATION

- Bachelor of Engineering, Tsinghua University (2010)
- Doctor of Philosophy, Tsinghua University (2016)

Publications

PUBLICATIONS

- **Physical networks from entropy-driven non-covalent interactions.** *Nature communications*
Yu, A. C., Lian, H., Kong, X., Lopez Hernandez, H., Qin, J., Appel, E. A.
2021; 12 (1): 746
- **Molecular design for electrolyte solvents enabling energy-dense and long-cycling lithium metal batteries** *NATURE ENERGY*
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2020
- **A New Class of Ionically Conducting Fluorinated Ether Electrolytes with High Electrochemical Stability.** *Journal of the American Chemical Society*
Amanchukwu, C. V., Yu, Z., Kong, X., Qin, J., Cui, Y., Bao, Z.
2020
- **Dendrite Suppression by a Polymer Coating: A Coarse-Grained Molecular Study** *ADVANCED FUNCTIONAL MATERIALS*
Kong, X., Rudnicki, P. E., Choudhury, S., Bao, Z., Qin, J.
2020
- **Electrochemical generation of liquid and solid sulfur on two-dimensional layered materials with distinct areal capacities.** *Nature nanotechnology*
Yang, A. n., Zhou, G. n., Kong, X. n., Vilá, R. A., Pei, A. n., Wu, Y. n., Yu, X. n., Zheng, X. n., Wu, C. L., Liu, B. n., Chen, H. n., Xu, Y. n., Chen, et al
2020
- **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
- **'Chromatic' neuronal jamming in a primitive brain** *Nature Physics*
Khariton, M., Kong, X., Qin, J., Wang, B.
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- **Electrochemical generation of liquid and solid sulfur on two-dimensional layered materials with distinct areal capacities** *Nature Nanotechnology*
Yang, A., Zhou, G., et al
2020
- **Nonpolar Alkanes Modify Lithium-Ion Solvation for Improved Lithium Deposition and Stripping** *ADVANCED ENERGY MATERIALS*

Amanchukwu, C., Kong, X., Qin, J., Cui, Y., Bao, Z.

2019

- **Geometric structure-guided photo-driven ion current through asymmetric graphene oxide membranes** *JOURNAL OF MATERIALS CHEMISTRY A*

Feng, Y., Dai, H., Chen, J., Kong, X., Yang, J., Jiang, L.

2019; 7 (35): 20182–86

- **An Atomistic Simulation Study on POC/PIM Mixed-Matrix Membranes for Gas Separation** *JOURNAL OF PHYSICAL CHEMISTRY C*

Kong, X., Liu, J.

2019; 123 (24): 15113–21

- **Ultrathin, flexible, solid polymer composite electrolyte enabled with aligned nanoporous host for lithium batteries.** *Nature nanotechnology*

Wan, J., Xie, J., Kong, X., Liu, Z., Liu, K., Shi, F., Pei, A., Chen, H., Chen, W., Chen, J., Zhang, X., Zong, L., Wang, et al

2019

- **Flow effects on silicate dissolution and ion transport at an aqueous interface.** *Physical chemistry chemical physics : PCCP*

Lian, C., Kong, X., Liu, H., Wu, J.

2019

- **Light-Powered Directional Nanofluidic Ion Transport in Kirigami-Made Asymmetric Photonic-Ionic Devices.** *Small (Weinheim an der Bergstrasse, Germany)*

Jia, M. n., Kong, X. n., Wang, L. n., Zhang, Y. n., Quan, D. n., Ding, L. n., Lu, D. n., Jiang, L. n., Guo, W. n.

2019: e1905557