Stanford

Kun Xu

Postdoctoral Scholar, Mechanical Engineering

Bio

BIO

2022, PhD in Materials Science and Engineering, Tsinghua University

STANFORD ADVISORS

- Arunava Majumdar, Postdoctoral Faculty Sponsor

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Materials characterization by using advanced electron microscopy

Publications

PUBLICATIONS

- **Topotactically transformable antiphase boundaries with enhanced ionic conductivity.** *Nature communications*
  Xu, K., Hung, S. W., Si, W., Wu, Y., Huo, C., Yu, P., Zhong, X., Zhu, J.
  2023; 14 (1): 7382
- **Revealing the atomic mechanism of diamond-iron interfacial reaction** *CARBON ENERGY*
  Ku, Y., Xu, K., Yan, L., Zhang, K., Song, D., Li, X., Li, S., Cheng, S., Shan, C.
  2023
- **Colossal Ionic Conductivity in Interphase Strain-Engineered Nanocomposite Films.** *Journal of the American Chemical Society*
  Huo, C., Xu, K., Ma, L., Li, T., Li, H., Yang, X., Kuang, X., Liu, S., Deng, S., Chen, J.
  2023
- **Ultrathin Non-Ising Charged Domain Walls Confined in BiFeO₃ Nanocrystals** *ADVANCED FUNCTIONAL MATERIALS*
  Liu, L., Xu, K., Li, Q., Huang, Y., Shu, L., Cheng, Y., Zhang, S., Luo, J., Zhu, J., Li, J.
  2022; 32 (46)
- **Direct investigation of the atomic structure and decreased magnetism of antiphase boundaries in garnet.** *Nature communications*
  Xu, K., Lin, T., Rao, Y., Wang, Z., Yang, Q., Zhang, H., Zhu, J.
  2022; 13 (1): 3206
- **Atomic-scale insights into quantum-order parameters in bismuth-doped iron garnet.** *Proceedings of the National Academy of Sciences of the United States of America*
  Xu, K., Zhang, L., Godfrey, A., Song, D., Si, W., Zhao, Y., Liu, Y., Rao, Y., Zhang, H., Zhou, H. A., Jiang, W., Wang, W., Cheng, et al
  2021; 118 (20)

- **Interfacial oxygen-octahedral-tilting-driven electrically tunable topological Hall effect in ultrathin SrRuO₃ films** *JOURNAL OF PHYSICS D-APPLIED PHYSICS*

  Gu, Y., Wei, Y., Xu, K., Zhang, H., Wan, F., Li, F., Saleem, M., Chang, C., Sun, J., Song, C., Feng, J., Zhong, X., Liu, et al

  2019; 52 (40)