

Fred Fan

Ph.D. Student in Civil and Environmental Engineering, admitted Autumn 2023

Publications

PUBLICATIONS

- **High-precision passive heat-transfer modeling for novel microgrid research station: Integrating first principles, data analysis, and optimization** *JOURNAL OF BUILDING ENGINEERING*
Fan, Y. F., Sambor, D. J., Mühlbauer, A., Boucher, J. A., Kwon, T., Jacobson, M. Z., Decker, C. T., Goebel, J. M.
2025; 113
- **Minimizing the multi-decadal cost of islanded renewable-electricity microgrids for different climate zones** *SMART ENERGY*
Mühlbauer, A., Fan, Y. F., Sambor, D. J., Jacobson, M. Z.
2025; 20
- **Green hydrogen production pathways: Comparative insights from Denmark, the United States, and China** *ENERGY CONVERSION AND MANAGEMENT*
Andreae, E., Fan, Y. F., Petersen, M., You, S., Bindner, H. W., Jacobson, M. Z.
2025; 342
- **No blackouts or cost increases due to 100% clean, renewable electricity powering California for parts of 98 days** *Renewable Energy*
Jacobson, M. Z., Sambor, D. J., Fan, Y. F., Mühlbauer, A., Delucchi, M. A.
2025; 240: 122262
- **Effects of firebricks for industrial process heat on the cost of matching all-sector energy demand with 100% wind-water-solar supply in 149 countries.** *PNAS nexus*
Jacobson, M. Z., Sambor, D. J., Fan, Y. F., Mühlbauer, A.
2024; 3 (7): pgae274