

Stanford



Qianying Wu

Ph.D. Student in Mechanical Engineering, admitted Autumn 2018

Bio

BIO

Qianying Wu is a PhD candidate in the Mechanical Engineering Department at Stanford.

Growing up in a hot and humid climate in south China, Qianying developed her particular interest in thermal management. In the Nanoheat lab and advised by Prof. Ken Goodson, she is currently working on the design and fabrication of microporous wicking structures for capillary-driven two-phase heat and mass transfer, the simulation and integration of such engineered structures in novel high heat flux cooling devices, and exploring ways to utilize these technologies for positive energy and sustainability impact.

Qianying received her B.S in Engineering with top honors from Tsinghua University, where she was awarded the Xia An Shi Prize and National Scholarship, and her B. Econ from the School of Economics and Management at Tsinghua, where she was supported by a Fu Lai Chun Scholarship.

HONORS AND AWARDS

- TomKat Center Graduate Fellow for Translational Research, TomKat Center for Sustainable Energy (2021)
- Graduated with Honors, Tsinghua University (2018)

EDUCATION AND CERTIFICATIONS

- B.Eng, Tsinghua University , Building Science (2018)
- B.Econ, Tsinghua University , Economics (2018)

LINKS

- Our Lab Site: <https://nanoheat.stanford.edu/welcome>
- My LinkedIn Site: https://www.linkedin.com/in/wuqy/?locale=en_US
- My TomKat Fellow Site: <https://tomkat.stanford.edu/person/qianying-wu>

Research & Scholarship

LAB AFFILIATIONS

- Kenneth Goodson, Nanoheat (1/6/2020)

Professional

WORK EXPERIENCE

- Summer Intern - Nokia Bell Labs (6/7/2021 - 8/13/2021)

Publications

PUBLICATIONS

- **Techno-economic feasibility analysis of an extreme heat flux micro-cooler.** *iScience*
Dede, E. M., Zhang, C., Wu, Q., Seyedhassantehrani, N., Shattique, M., Roy, S., Palko, J. W., Narumanchi, S., Kekelia, B., Hazra, S., Goodson, K. E., Giglio, R., Asheghi, et al
2023; 26 (1): 105812
- **A novel hardmask-to-substrate pattern transfer method for creating 3D, multi-level, hierarchical, high aspect-ratio structures for applications in microfluidics and cooling technologies.** *Scientific reports*
Hazra, S., Zhang, C., Wu, Q., Asheghi, M., Goodson, K., Dede, E. M., Palko, J., Narumanchi, S.
2022; 12 (1): 12180
- **Two-phase thermofluidic modeling and validation of a multi-zone microchannel evaporator** *2022 21st IEEE Intersociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems (iTherm)*
Wu, Q., Salamon, T.
2022
- **Partitioning of airborne PAEs on indoor impermeable surfaces: A microscopic view of the sorption process.** *Journal of hazardous materials*
Chen, Z., Wu, Q., Xu, Y., Mo, J.
2021; 424 (Pt A): 127326
- **CONTACT ANGLE TUNING OF COPPER MICROPOROUS STRUCTURES**
Soroush, F., Liu, T., Wu, Q., Asheghi, M., Goodson, K. E., Marco, L., Christian, E., Martin, R., Amer Soc Mech Engineers
AMER SOC MECHANICAL ENGINEERS.2021
- **A HYBRID MICROPOROUS COPPER STRUCTURE FOR HIGH PEROFMRANCE CAPILLARY-DRIVEN**
Soroush, F., Liu, T., Wu, Q., Zhang, C., Asheghi, M., Goodson, K. E., Marco, L., Christian, E., Martin, R., Amer Soc Mech Engineers
AMER SOC MECHANICAL ENGINEERS.2021
- **Design and Fabrication of Graded Copper Inverse Opals (g-CIOs) for Capillary-Fed Boiling in High Heat Flux Cooling Applications** *ASME 2020 International Technical Conference and Exhibition on Packaging and Integration of Electronic and Photonic Microsystems*
Wu, Q., Zhang, C., Asheghi, M., Goodson, K.
2020