

Xu Zhou, Ph.D.

Post-Doc Scholar, Genome Center

University of California, Davis

Email: pxzhou@ucdavis.edu**Education**

2020 - 2023

Ph.D., Biological and Agricultural Engineering, Washington State University

2016 - 2019

M.S., Agricultural Engineering, Northwest Agriculture & Forestry University, China

2011 - 2015

B.S. (honours), Mechanical Engineering, Zhejiang University of Technology, China**Professional Employment**2024 - 2025: **Research Scientist/Engineer**

Industrial & Systems Engineering, University of Washington, Seattle, WA

2023 - 2024: **Postdoctoral Scholar**

Biological Systems Engineering, Washington State University, Pullman, WA

Teaching2025 **Guest lecturer**, Advanced Food Process Engineering, Washington State University (WSU)2024 **Guest lecturer**, Thermal and Non-thermal Food Processing, WSU2023 **Guest lecturer & TA**, Advanced Physical Properties of Foods, WSU2023 **Instructor**, Food Engineering, WSU**Professional Services**

2024- Review panelist, USDA-NIFA, Agriculture and Food Research Initiative (AFRI)

2024- Reviewer, Institute of Food Technologists (IFT), Global Food System Challenge Seed Grants

2020- Reviewed 150+ manuscripts for journals in Food Science and Technology field, including:

- 1) Food Control (30 manuscripts)
- 2) Journal of Food Science (17)
- 3) Journal of Food Engineering (16)
- 4) Food and Bioprocess Technology (10)
- 5) Food Research International (10)

2024 Panning Committee member of [2024 Conference of Food Engineering](#)2023 Seminar Coordinator, [Overseas Chinese Agricultural, Biological, and Food Engineers, ASABE](#)

2022 President of Food Engineering Club (graduate student club) at Washington State University

Awards & Scholarships

- 2024 **Graduate Student Academic & Leadership Achievement Award**, AOCABFE (Association of Overseas Chinese Agricultural, Biological, and Food Engineers)
- 2023 **AIM Student Oral Presentation Competition Awards** (1st place), ASABE (American Society of Agricultural and Biological Engineers), Omaha, Nebraska
- 2023 **AIM Presentation Excellence Award**, ASABE, Omaha, Nebraska
- 2023 **Robert F. Schiffmann Memorial Scholarship**, IMPI (International Microwave Power Institute), Denver, Colorado
- 2023 **Student Research Paper Competition** (1st place), AOCABFE
- 2023 **Graduate Student Seminar Competition Award** (1st place), Department of Biological Systems Engineering, Washington State University
- 2022 **Outstanding Graduate Student Award**, Washington State University
- 2020 **CSC Fellowship** for four-year PhD study at Washington State University, China Scholarship Council (CSC)
- 2019 **BaoGang Excellent Student Award** (1 out of 1000 grad students), Chinese government and BaoGang Iron & Steel Co., Ltd.

Book Chapter

1. **Zhou, X.**, Tang, J. (2024). Microwave-Assisted Thermal Sterilization and Pasteurization. In: Pratap Singh, A., Erdogdu, F., Wang, S., Ramaswamy, H.S. (eds) *Microwave Processing of Foods: Challenges, Advances and Prospects*. Food Engineering Series. Springer, Cham.

Peer-Reviewed Journal Articles (first author)

2. **Zhou, X.**, Tang, J, Jacobs, T., Saguy, S. (2025). Transforming food supply chains through digital tracking and monitoring technologies, *Trends in Food Science & Technology*, in press
3. **Zhou, X.**, Lin, H., Wu, C.Y., Sablani, S.S., Tang, J. (2025). A new chemical marker method for determining heating patterns in microwave-assisted thermal pasteurization. *Journal of Food Engineering* 397, 112593
4. **Zhou, X.**, Czekala, P., Olszewska-Placha, M., Salski, B., Zhang, S., Pedrow, P.D., Sablani, S.S., Tang, J. (2024). Understanding microwave heating of oil. *Journal of Food Engineering* 375, 112039
5. **Zhou, X.**, Gezahegn, Y., Zhang, S., Tang, Z., Takhar, P.S., Pedrow, P.D., Sablani, S.S., & Tang, J. (2023). Theoretical reasons for rapid heating of vegetable oils by microwaves. *Current Research in Food Science* 7, 100641.
6. **Zhou, X.**, Pedrow, P.D., Tang, Z., Bohnet, S., Sablani, S.S., & Tang, J. (2023). Heating performance of microwave ovens powered by magnetron and solid-state generators. *Innovative Food Science & Emerging Technologies* 83, 103240.
7. **Zhou, X.**, Tang, Z., Pedrow, P.D., Sablani, S.S., & Tang, J. (2023). Microwave heating based on solid-state generators: New insights into heating pattern, uniformity, and energy absorption in foods. *Journal of Food Engineering* 357, 111650.
8. **Zhou, X.**, Zhang, S., Tang, Z., Tang, J., & Takhar, P.S. (2022). Microwave frying and post-frying of French fries. *Food Research International* 159, 111663.
9. **Zhou, X.**, & Wang, S. (2019). Recent developments in radio frequency drying of food and agricultural products: A review. *Drying Technology* 37(3), 271-286.

10. **Zhou, X.**, Ramaswamy, H., Qu, Y., Xu, R., & Wang, S. (2019). Combined radio frequency-vacuum and hot air drying of kiwifruits: Effect on drying uniformity, energy efficiency and product quality. *Innovative Food Science & Emerging Technologies* 56, 102182.
11. **Zhou, X.**, Gao, H., Mitcham, E., & Wang, S. (2018). Comparative analyses of three dehydration methods on drying characteristics and oil quality of in-shell walnuts. *Drying Technology* 36(4), 477-490.
12. **Zhou, X.**, Li, R., Lyng, J.G., & Wang, S. (2018). Dielectric properties of kiwifruit associated with a combined radio frequency vacuum and osmotic drying. *Journal of Food Engineering* 239, 72-82.
13. **Zhou, X.**, Xu, R., Zhang, B., Pei, S., Liu, Q., Ramaswamy, H.S., & Wang, S. (2018). Radio frequency-vacuum drying of kiwifruits: Kinetics, uniformity, and product quality. *Food and Bioprocess Technology* 11, 2094-2109.

Peer-Reviewed Journal Articles (co-author)

14. Biswal, A. K., Gupta, S., **Zhou, X.**, Lewis, T. K., Tang, J., & Vashisth, A. (2025). Radio frequency (RF) enabled forming of vitrimers for moldless manufacturing. *Carbon*, 120304.
15. Zhang, S., Yang, R., **Zhou, X.**, Feng, Y., Tang, J. (2024). Salmonella control for dried apple cubes. *Food Control* 162, 110428
16. Sun, S., Xie, Y., **Zhou, X.**, Zhu, M.-J., Sablani, S., & Tang, J. (2023). Survival and thermal resistance of Salmonella in chocolate products with different water activities. *Food Research International*, 113209.
17. Zou, R., **Zhou, X.**, Qian, M., Wang, C., Boldor, D., Lei, H., & Zhang, X. (2023). Advancements and applications of microwave-assisted deep eutectic solvent (MW-DES) lignin extraction: a comprehensive review. *Green Chemistry* 26, 1153-1169.
18. Hou, L., **Zhou, X.**, & Wang, S. (2020). Numerical analysis of heat and mass transfer in kiwifruit slices during combined radio frequency and vacuum drying. *International Journal of Heat and Mass Transfer* 154, 119704.
19. Jiang, H., Ling, B., **Zhou, X.**, & Wang, S. (2020). Effects of combined radio frequency with hot water blanching on enzyme inactivation, color and texture of sweet potato. *Innovative Food Science & Emerging Technologies* 66, 102513.
20. Kou, X., Li, R., Hou, L., Cheng, T., **Zhou, X.**, & Wang, S. (2018). Evaluation of a heating block system for accurate temperature-time controlled pasteurization treatments on various foods. *International Journal of Agricultural and Biological Engineering* 11(3), 220-228.
21. Wang, C., Kou, X., **Zhou, X.**, Li, R., & Wang, S. (2021). Effects of layer arrangement on heating uniformity and product quality after hot air assisted radio frequency drying of carrot. *Innovative Food Science & Emerging Technologies* 69, 102667.
22. Zhang, L., Lyng, J.G., Xu, R., Zhang, S., **Zhou, X.**, & Wang, S. (2019). Influence of radio frequency treatment on in-shell walnut quality and Staphylococcus aureus ATCC 25923 survival. *Food Control* 102, 197-205.
23. Zhang, S., Zhang, L., Lan, R., **Zhou, X.**, Kou, X., & Wang, S. (2018). Thermal inactivation of Aspergillus flavus in peanut kernels as influenced by temperature, water activity and heating rate. *Food Microbiology* 76, 237-244.