



武汉轻工大学

WUHAN POLYTECHNIC UNIVERSITY

食品科学与工程学院

SCHOOL OF FOOD SCIENCE AND ENGINEERING



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《食品工程原理》、《食品加工与贮运专题》（研究生）

个人简介

博士，副教授，硕士研究生导师。兼任中国仪器仪表学会近红外分会理事，北京理化分析测试技术学会食品营养安全光谱分析专委会副主任委员，湖北省知识产权行政保护技术调查官。湖北省一流课程《食品工程原理》课程负责人。发表学术论文 60 余篇（SCI/EI 收录），主编本科教材 1 部，参编专著 2 部，参编教材 2 部。主持完成国家自然科学基金 1 项，科技厅攻关项目 1 项，参与完成国家自然科学基金 4 项，省部级科研项目 4 项。担任《Food Chemistry》、《Postharvest Biology and Technology》、《Talanta》、《LWT》、《Journal of Electroanalytical Chemistry》、《食品科学》等 15 种期刊审稿人。

教育经历

2005.09-2010.06: 中国农业大学，农产品加工及贮藏工程专业，博士研究生

2000.09-2004.06: 河南科技大学，食品科学与工程专业，本科

工作经历

2018.01-至今: 武汉轻工大学食品科学与工程学院

2016.11-2017.11: 日本 University of Tsukuba 生命环境学院，访问学者

2010.07-2016.10: 许昌学院食品与生物工程学院

研究方向

- [1] 农产品品质无损检测技术理论与应用（近红外、拉曼、X 射线 CT 技术）
- [2] 食品中新型污染物的检测理论与技术
- [3] 机器学习（深度学习）在光谱及图像分析中的应用

主持的代表性科研项目

- [1] 国家自然科学基金青年项目：腐竹的成膜机理及其品质调控技术研究

发表的代表性论文(第一或通讯作者)

- [1] 食品工程原理 (本科生教材), 主编, 中国农业大学出版社, 2021 年
- [2] Wang, J., Qian, J., Xu, M., Ding, J., Yue, Z., Zhang, Y., ... & Pi, F. (2025). Adulteration detection of multi-species vegetable oils in camellia oil using Raman spectroscopy: Comparison of chemometrics and deep learning methods. *Food Chemistry*, 463, 141314.
- [3] Yue, Z., Liu, X., Mei, T., Zhang, Y., Pi, F., Dai, H., ... & Wang, J.* (2024). Reducing microplastics in tea infusions released from filter bags by pre-washing method: Quantitative evidences based on Raman imaging and Py-GC/MS. *Food chemistry*, 445, 138740.
- [4] Wang, J., Lin, Y., Li, Q., Lu, Z., Qian, J., Dai, H., ... & He, Y. (2024). Non-destructive detection and grading of chilling injury-induced lignification of kiwifruit using X-ray computer tomography and machine learning. *Computers and Electronics in Agriculture*, 218, 108658.
- [5] Liu, X., Li, W., Yue, Z., Qian, J., Zhu, W., Dai, H., ... Wang, J.* & Pi, F. (2024). Evaluation of astaxanthin stability under varying temperatures and ultraviolet irradiation durations based on Raman spectroscopy. *Food Chemistry: X*, 101947.
- [6] Duan, C., Xiao, X., Yu, Y., Xu, M., Zhang, Y., Liu, X., ... & Wang, J.* (2024). In situ Raman characterization of the stability of blueberry anthocyanins in aqueous solutions under perturbations in temperature, UV, pH. *Food Chemistry*, 431, 137155.
- [7] Jia, C., Yu, Y., Dai, H., Pi, F., Liu, X., & Wang, J.* (2023). Study on the storage characteristics of steamed rice bread samples during various storage temperature. *LWT*, 190, 115510.
- [8] Wang, J., Lv, J., Mei, T., Xu, M., Jia, C., Duan, C., ... & Pi, F. (2023). Spectroscopic studies on thermal degradation and quantitative prediction on acid value of edible oil during frying by Raman spectroscopy. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 293, 122477.
- [9] Wang, J.*, Lu, Z., Xiao, X., Xu, M., Lin, Y., Dai, H., ... & Han, D. (2023). Non-destructive determination of internal defects in chestnut (*Castanea mollissima*) during postharvest storage using X-ray computed tomography. *Postharvest Biology and Technology*, 196, 112185.
- [10] Yuan, Z., Dai, H., Liu, X., Duan, S., Shen, Y., Zhang, Q., ... & Wang, J.* (2023). An electrochemical immunosensor based on prussian blue@ zeolitic imidazolate framework-8 nanocomposites probe for the detection of deoxynivalenol in grain products. *Food Chemistry*, 405, 134842.
- [11] Wan, Y., Liu, J., Pi, F., & Wang, J.* (2023). Advances on removal of organophosphorus pesticides with electrochemical technology. *Critical Reviews in Food Science and Nutrition*, 63(27), 8850-8867.
- [12] Li, J., Liu, J., Wan, Y., Wang, J.*, & Pi, F. (2023). Routine analysis of pesticides in foodstuffs: Emerging ambient ionization mass spectrometry as an alternative strategy to be on your radar. *Critical Reviews in Food Science and Nutrition*, 63(25), 7341-7356.
- [13] Xiao, X., Liu, X., Mei, T., Xu, M., Lu, Z., Dai, H., ... & Wang, J.* (2022). Estimation of contamination level in microplastic-exposed crayfish by laser confocal micro-Raman imaging. *Food Chemistry*, 397, 133844.

- [14] Mei, T., Wang, J.*, Xiao, X., Lv, J., Li, Q., Dai, H., ... & Pi, F. (2022). Identification and evaluation of microplastics from tea filter bags based on Raman imaging. *Foods*, 11(18), 2871.
- [15] Dai, H., Huang, Z., Liu, X., Bi, J., Shu, Z., Xiao, A., & Wang, J.* (2022). Colorimetric ELISA based on urease catalysis curcumin as a ratiometric indicator for the sensitive determination of aflatoxin B1 in grain products. *Talanta*, 246, 123495.
- [16] Huang, Z., Shu, Z., Xiao, A., Pi, F., Li, Y., Dai, H., & Wang, J.* (2022). Determination of aflatoxin B1 in rice flour based on an enzyme-catalyzed Prussian blue probe. *LWT*, 162, 113500.

学术及社会兼职

- [1] 中国仪器仪表学会近红外分会理事
- [2] 北京理化分析测试技术学会食品营养安全光谱分析专委会副主任委员
- [3] 湖北省、武汉市市场监督管理局专利侵权纠纷行政裁决技术调查官
- [4] 武汉市科技专家