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WANG Zhen (汪桢)

Educational Background:

2022 - Present

PhD Student, Biochemistry and Molecular Biology, Henan University, China

2024 - Present

Visiting Student, Chemical Biology, Nanyang Technological University, Singapore

2019 - 2022

M.Eng. Food Engineering, Henan University of Technology, China

2015 - 2019

B.Sc. Grain Engineering, Henan University of Technology, China

Research Interest: Protein Metabolism, Precision Nutrition, Food Nutrigenomics, Molecular Nutrition, Functional Foods

Supervisor in China: Prof. HUANG Jihong (Zhongyuan Scholar)

Supervisor in Singapore: Prof. XING Bengang (FRSC)

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Publications (in the past 5 years):

1. **Wang, Z.**†, Zhang, X.†, Fu, J., Huang, J.* & Wang, L.* (2025). Fish collagen mediated alteration of wheat starch thermal properties during multi-species co-fermentation. *Int. J. Biol. Macromol*. 295, 139987.
2. **Wang, Z.***, Wang, L., Hou, Y., … Huang, J.* (2024). Precision calories: A promising strategy for personalized health interventions in the precision nutrition framework. *Trends Food Sci. Tech. 153*, 104727.
3. **Wang, Z.**, Zhang, S., Wang, H., Huang, J.* & Wang, L.* (2024). Effect of synergistic fermentation of *Saccharomyces cerevisiae* and *Lactobacillus plantarum* on thermal properties of hyaluronic acid-wheat starch system. *Int. J. Biol. Macromol. 267*, 131542.
4. **Wang, Z.**, Zhang, X., Wang, L.*, … Huang, J.* (2024). High Fischer ratio oligopeptides in food: sources, functions and application prospects. *J. Future Foods*, *4*(2), 128-134.
5. **Wang, Z.,** Ma, S*., Li, L. & Huang, J.* (2022). Synergistic fermentation of *Lactobacillus plantarum* and *Saccharomyces cerevisiae* to improve the quality of wheat bran dietary fiber-steamed bread. *Food Chem. X. 16*, 100528.
6. **Wang, Z.,** Ma, S*., Li, L. & Huang, J.* (2022). Effect of wheat bran dietary fiber on structural properties and hydrolysis behavior of gluten after synergistic fermentation of *Lactobacillus plantarum* and *Saccharomyces cerevisiae*. *Front. Nutr. 9*, 982878.
7. **Wang, Z.**, Yan, J., Ma, S*. et al. (2021). Effect of wheat bran dietary fiber on structural properties of wheat starch after synergistic fermentation of *Lactobacillus plantarum* and *Saccharomyces cerevisiae. Int. J. Biol. Macromol. 190*, 86-92.
8. **Wang, Z.**, Ma, S.*, Sun, B.* et al. (2021). Effects of thermal properties and behavior of wheat starch and

gluten on their interaction: A review. *Int. J. Biol. Macromol. 177*, 474-484.

9. **Wang, Z.**, Ma, S.*, Huang, J., … Wang, X.* (2021). Biochemical properties of type I sourdough affected by wheat bran dietary fiber during fermentation. *Int. J. Food Sci. Technol. 57*(4), 1995-2002.
10. Wang, L.†, **Wang, Z.**†, Liu, F., … Huang, J.* & Wang, G.* (2024). Programmable plasmonic hydrogel thermometers actuated by DNA breathing. *Adv. Mater. Technol*. *9*(20), 2400243.
11. Zhang, X.†, **Wang, Z.**†, Wang, L., … Huang, J.* & Luan, G.* (2023). Structural support of zein network to rice flour gluten-free dough: Rheological, textural and thermal properties. *Food Hydrocoll. 141*, 108721.
12. Ma, S.*, **Wang, Z.**, Liu, H. et al. (2022). Supplementation of wheat flour products with wheat bran dietary fiber: Purpose, mechanisms, and challenges. *Trends Food Sci. Tech. 123*, 281-289.
13. Ma, S.*, **Wang, Z.**, Tian, X. et al. (2022). Effect of synergistic fermentation of *Lactobacillus plantarum* and *Saccharomyces cerevisiae* on thermal properties of wheat bran dietary fiber-wheat starch system. *Food Chem. 373*, 131417.
14. Ma, S.*, **Wang, Z.**, Guo, X. et al. (2021). Sourdough improves the quality of whole-wheat flour products: Mechanisms and challenges—A review. *Food Chem. 360*, 130038.

Database	Citation Counts	H-index	i10
Web of Science	626	14	-
Google Scholar	858	15	19
Scopus	787	14	-

Honors and Awards:

- China Scholarship Council (CSC, No.202408410282) Scholarship (2024).
- National Scholarship for doctoral students (2024).
- Bronze medalist in the China International College Students' Innovation Competition (2023).
- Doctoral Academic Scholarship (2024, 2023, 2022).
- Winner of the 24th Hou-Jingru Scholarship (2023).
- Outstanding Graduate Student at Henan University (2022).
- Awardee of the Henan Provincial Youth Science and Technology Innovation Prize (2021).

Academic Homepage:

- ORCiD: https://orcid.org/0000-0001-5115-231X
- Researchgate: https://www.researchgate.net/profile/Zhen-Wang-81
- WoS ResearcherID: https://webofscience.clarivate.cn/wos/author/record/AAG-8329-2019

Peer Reviewer:

- Reviewer for ***Food Chemistry***, ***Food Research International***, ***International Journal of Biological Macromolecules***, ***Industrial Crops & Products***, ***Food Frontiers*** etc.