



Personal Profile

Xing Zhou, Ph.D. from Korea University, Associate Professor and master supervisor at the School of Food Science, Jiangnan University, and a core member of the Innovation Center for Cereal Science and Carbohydrate Research. Her research primarily focuses on Starch Science and Cereal Processing. She is an invited guest editor for special issues of journals such as *Molecules and Foods*, and serves as a reviewer for over 20 prestigious international SCI journals, including *Carbohydrate Polymers*, *Food Hydrocolloids*, and *Food Chemistry*. She has published over 40 SCI papers in renowned international journals such as *Food Hydrocolloids* and *Carbohydrate Polymers*. As the first inventor, she holds 13 Chinese patents and 3 U.S. patents. Dr. Zhou has led multiple research projects, including youth and general projects funded by the National Natural Science Foundation of China (NSFC), youth projects from the Jiangsu Provincial Natural Science Foundation, sub-projects under the National Science and Technology Support Program, and sub-projects of the National Key R&D Program. She also provides technical services to several companies.

Research Projects

- National Natural Science Foundation of China, General Program, 32172148, 2022.01–2025.12
- National Natural Science Foundation of China, Youth Program, 31301505, 2014.01–2016.12
- Jiangsu Provincial Natural Science Foundation, Youth Program, BK20130140, 2013.07–2016.06
- "14th Five-Year Plan" National Key R&D Program (Sub-project), 2021YFD2101002, 2021.12–2026.11
- "14th Five-Year Plan" National Key R&D Program (Sub-project), 2022YFD2100303, 2022.11–2026.10
- "13th Five-Year Plan" National Key R&D Program (Sub-project),

2016YFD040070102, 2017.07–2020.12

- "13th Five-Year Plan" National Key R&D Program (Sub-project), 2018YFC160210603, 2018.12–2021.12
- "12th Five-Year Plan" National Science and Technology Support Program (Sub-project), 2012BAD37B0201, 2012.01–2015.12

Academic Papers (Representative Works in Last 5 Years)

1. **Xing Zhou***, Yanxin Chen, Miaomiao Fu, Zhengye Sun, Tizazu Yirga Berekha, Mudassar Hussain, Guo Chen, Ren Wang, Zhengyu Jin. *Pullulanase-catalyzed hydrolysis of V-type starch produced high-adsorbency V-type porous starch attaching by nano-spherical particles*. *Food Bioscience*, 2025, 106351
2. Zhenye Sun, Ren Wang, Tizazu Yirga Berekha, Zhengyu Jin, **Xing Zhou***. *Physicochemical properties of V-type cold water swelling tapioca starch prepared by ethanolic extrusion*. *International Journal of Biological Macromolecules*, 2025, 306, 141435
3. Zhenye Sun, Tingting Meng, Ren Wang, Tizazu Yirga Berekha, Jianwei Zhao, Jie Long, Zhengyu Jin, **Xing Zhou***. *Preparation of whole-wheat instant powder from dehulled wheat by ethanolic extrusion*. *Journal of Cereal Science*, 2025, 121, 104064
4. Zhenye Sun, Haocong Yan, Tizazu Yirga Berekha, Yanxin Chen, Ren Wang, Zhengyu Jin, **Xing Zhou***. *One-pot preparation of V-type porous starch by thermal-stable amylase hydrolysis of normal maize starch in hot aqueous ethanol solution*. *Carbohydrate Polymers*, 2025, 347, 122706
5. Jiahui Wang, Jiaqi Dou, Zixin Shu, Lele Li, Zhengyu Jin, **Xing Zhou***. *Preparation of high V-type relative crystallinity dextrin from V-type granular starch via high-temperature acid-ethanol hydrolysis*. *Food Bioscience*, 2024, 61, 104930
6. **Xing Zhou**, Shan He, Zhengyu Jin*. *Impact of amylose content on the formation of V-type granular starch*. *Food Hydrocolloids*, 2024, 146, 109257
7. Jiaxin Li, **Xing Zhou***, Zhengyu Jin. *Encapsulation of monoglycerides in V-type granular starch prepared under different ethanol concentrations*. *Food Hydrocolloids*, 2022, 133: 107935
8. Jiaxin Li, **Xing Zhou***, Zhengyu Jin. *V-type granular starch prepared using aqueous ethanol heat treatment at different ethanol concentrations*. *Food*

9. **Xing Zhou**, Yaru Xing, Tingting Meng, Jiaxin Li, Qing Chang, Jianwei Zhao, Zhengyu Jin*. *Preparation of V-type cold water-swelling starch by ethanolic extrusion*. *Carbohydrate Polymers*, 2021, 271: 118400
10. **Xing Zhou**, Qing Chang, Jiaxin Li, Lu Jiang, Yaru Xing, Zhengyu Jin*. *Preparation of V-type porous starch by amylase hydrolysis of V-type granular starch in aqueous ethanol solution*. *International Journal of Biological Macromolecules*, 2021, 183: 890-897

Awards

- Jiangsu Provincial Science and Technology Award, 2nd Prize, 2022 (Ranked 6th)
- China Commercial Federation Science and Technology Award, Special Prize, 2021 (Ranked 2nd)
- China Commercial Federation Science and Technology Award, 1st Prize, 2017 (Ranked 5th)

Patents

Chinese Patents

1. **周星**, 孙振业, 王韧, 金征宇. 一种高取代度 V 型预糊化羟丙基淀粉的制备方法. 专利号: ZL202510032543X
2. **周星**, 孙振业, 金征宇, 王韧, 赵建伟. 一种高效制备高结晶度 V 型糊精的方法. 专利号: ZL2023101717097
3. **周星**, 周钦浩, 金征宇, 赵建伟, 王韧, 龙杰, 陈龙, 邱超. 一种蒸煮型速食泡饭的制备方法. 专利号: ZL 2022 1 15785057
4. **周星**, 江露, 金征宇, 王韧, 赵建伟, 柏玉香, 龙杰, 谢正军. 一种高取代度辛烯基琥珀酸淀粉酯的制备方法, ZL 2022 1 13455565
5. **周星**, 颜昊聪, 金征宇, 王韧, 赵建伟, 谢正军, 龙杰, 陈龙, 邱超. 一种颗粒态 V 型多孔淀粉的制备方法. 专利号: ZL2022115227883
6. **周星**, 梁晓丽, 金征宇, 王韧, 谢正军, 赵建伟, 龙杰, 陈龙, 邱超. 一种 V 型多孔淀粉的制备方法. 专利号: ZL2022115228621
7. **周星**, 孟婷婷, 金征宇, 王韧, 赵建伟, 王金鹏, 焦爱权, 徐学明. 一种任意水温冲

调的方便全谷物速溶粉及其制备方法与应用, 专利号 ZL2019111192440

8. 周星, 金征宇, 常庆, 王韧, 王金鹏, 赵建伟, 焦爱权, 龙杰. 一种 V 型颗粒态多孔淀粉的制备方法, 专利号 ZL2020116324491
9. 周星, 孟婷婷, 金征宇, 王韧, 赵建伟, 王金鹏, 焦爱权, 徐学明. 一种醇水挤压制备 V 型冷水可溶淀粉的方法, 专利号 ZL 2019111198502
10. 周星, 金征宇, 王园园, 王韧, 徐学明, 谢正军, 赵建伟, 王金鹏. 一种通过挤压米饭制备鲜湿米粉的方法, 专利号 ZL 2017103078745
11. 周星, 叶小嘉, 王园园, 鲍王璐, 王韧, 王金鹏, 田耀旗, 焦爱权, 赵建伟, 徐学明, 金征宇. 一种速溶淀粉膜的制备方法, 专利号 ZL201705957662
12. 周星, 金征宇, 孟令儒, 叶小嘉, 徐学明, 王韧, 赵建伟, 王金鹏. 一种高溶解性蜡质玉米淀粉膜的制备方法, 专利号 ZL2016103432792
13. 周星, 金征宇, 常情情, 孟令儒, 顾丽敏, 田耀旗, 焦爱权, 徐学明. 一种直链糊精包埋共轭亚油酸的微胶囊的制备方法, 专利号 ZL201410651527

U.S. Patents

1. **Xing Zhou**, Zhengyu Jin, Qing Chang, Ren Wang, Jinpeng Wang, Jianwei Zhao, Aiquan Jiao, Jie Long. *Method for preparing V-type granular porous starch.* Patent No. US 12448634 B2
2. **Xing Zhou**, Tingting Meng, Zhengyu Jin, Ren Wang, Jianwei Zhao, Jinpeng Wang, Aiquan Jiao, Xueming Xu. *Method for producing cold-water-soluble starch comprising V-type crystals.* Patent No. US 11802167 B2
3. **Xing Zhou**, Wanglu Bao, Zhengyu Jin, Jianwei Zhao, Jinpeng Wang, Tingting Meng, Ren Wang. *Instant whole wheat crisps and preparation method thereof.* Patent No. US 11291223 B2

Teaching Courses

- **International Students:** Advanced Carbohydrate Chemistry
- **Graduate Students:** Carbohydrate Chemistry
- **Undergraduate Students:** Food Nutrition (Core Course), Food Nutrition and Health (General Education Elective)