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研究方向：肉品加工与质量安全控制

个人简介：张万刚，教授，博士生导师，食品科学与工程系系主任，现担任SCI期刊《Meat Science》副主编、SCI期刊《Foods》客座主编、SCI期刊《Food Science of Animal Resources》国际主编、SCI期刊《Trends in Food Science & Technology》编委、中文核心期刊《中国畜牧杂志》副主编、中国畜产品加工研究会肉品加工专业委员会副主任委员兼秘书长。

科研情况:

在研项目:

1. 江苏现代农业(生猪)产业技术体系屠宰加工创新团队，江苏省农业农村厅，2020.12-2023.12，90万
2. 方便即食肉制品加工关键技术研究，江苏省农业科技自主创新资金项目，2019.8-2021.12， 130万

3. 国家自然基金面上项目，蛋白质亚硝基化对牛肉成熟嫩化过程中细胞凋亡的调控机理研究，2019.1-2022.12，60 万；
4. “十三五”国家重点研发计划课题，禽畜水产类方便即食食品制造关键技术开发研究及新产品创制，2016.7-2021.8，500 万；
5. “十三五”国家重点研发计划子课题，民族特色工业化肉制品加工关键技术与装备开发，2018.7-2021.8，68 万；

发表学术论文（第一作者或通讯作者）：

1. Zhou, L., Zhang, J., Xing, L. J., & **Zhang, W. G.*** (2021). Applications and effects of ultrasound assisted emulsification in the production of food emulsions: A review. Trends in Food Science & Technology, 110, 493-512.
2. Zhang, J., Kang, D. C., **Zhang, W. G.***, & Lorenzo, J. M. (2021). Recent advantage of interactions of protein-flavor in foods: perspective of theoretical models, protein properties and extrinsic factors. Trends in Food Science & Technology, Accepted.
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5. Zhou, L., Zhang, J., Lorenzo, J. M., & **Zhang, W. G.*** (2021). Effects of ultrasound emulsification on the properties of pork myofibrillar protein- fat mixed gel. Food Chemistry, 345, 128751.
6. Yin, Y. T., Zhou, L., Pereira, J., Zhang, J., & **Zhang, W. G.*** (2021). Insights into digestibility and peptide profiling of beef muscle protein with different cooking methods. Journal of Agricultural and Food Chemistry, 68, 14243-14251 (Cover Paper).

7. Zhang, J., Zhang, Y. Q., Zou, Y. H., & **Zhang, W. G.*** (2021). Effects of ultrasound- assisted cooking on quality characteristics of spiced beef during cold storage. LWT-Food Science and Technology, 136, 110359.
8. Pereira, J., Sathuvan, M., Lorenzo, J. M., Boateng, E. F., Brohi, S. A., & **Zhang, W. G.*** (2021). Insight into the effects of coconut kernel fiber on the functional and microstructural properties of myofibrillar protein gel system. LWT-Food Science and Technology, 138, 110745.
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12. Fan, X. Q., Xing, L. J., Ge, P. W., Cong, L. X., Hou, Q., Ge, Q. F., Liu, R., **Zhang, W. G.*** & Zhou, G. H. (2020). Electrochemical sensor using gold nanoparticles and plasma pretreated graphene based on the complexes of calcium and Troponin C to detect Ca2+ in meat. Food Chemistry, 307, 125645.
13. Wang, Y. Y., Liu, R., Hou, Q., Tian, X. N., Fan, X. Q., **Zhang, W. G.***, & Zhou, G. H. (2020). Comparison of activity, expression and S-nitrosylation of glycolytic enzymes between pale, soft and exudative and red, firm and non-exudative pork during post-mortem aging. Food Chemistry, 314, 126203.
14. Yin, Y. T., Pereira, J., Zhou, L., Lorenzo, J. M., Tian, X. N., & **Zhang, W. G.*** (2020). Insight into sous vide on cathepsin B and L activities, protein degradation and ultrastructure of beef. Foods, 9, DOI:10.3390/foods9101441.
15. Zhang, J., Zhang, Y. Q., Wang, Y., Xing, L. J., & **Zhang, W. G.*** (2020). Influences of ultrasonic-assisted frying on the flavor characteristics of fried meatballs. Innovative Food Science and Emerging Technologies, 62C, 102365.

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17. Fu, Q. Q., Liu. R., **Zhang, W. G.*,** Ben, A. L., & Wang, R. R. (2020). In vitro susceptibility of oxidized myosin by μ-calpain or caspase 3 and the determination of the oxidation site of myosin heavy chain. Journal of Food and Agricultural Chemistry, Accepted.
18. Pereira, J., Malairaj, S., Brohi, S. A., Boateng, E. F., & **Zhang, W. G.*** (2020). Impact of unripe banana flour on water states, rheological behaviour and structural properties of myofibrillar protein composite gel. LWT-Food Science and Technology, 125, 109276.
19. Cao, S. M., Wang, Y., Xing, L. J., **Zhang, W. G.*** & Zhou, G. H. (2020). Structure and physical properties of gelatin from bovine bone collagen influenced by acid pretreatment and pepsin. Food and Bioproducts Processing, 121, 213-223.
20. Shi, Y. W., **Zhang, W. G.***, & Zhou, G. H. (2020). Effects of different moisture-permeable packaging on the quality of aging beef compared with wet aging and dry aging. Foods, 2020, 9, 649,doi:10.3390/foods9050649.
21. Pereira, J., Hu, H. Y., Xing, L. J., **Zhang, W. G.*,** & Zhou, G. H. (2020). Influence of rice flour, glutinous rice flour, and tapioca starch on the functional properties and quality of an emulsion-type cooked sausage. Foods, 2020, 9, 9, doi:10.3390/foods9010009.
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科研成果:

先后主持国家自科学基金面上项目、“十二五”国家科技支撑计划课题、“十三五”国家重点研发计划课题等课题或项目 **20** 余项，主编或参编中英文专著 **8** 部，以主要完成人省部级及以上奖励 **5** 项。