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性别：男

职称：教授

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导师类型：博导

学科方向：食品加工新技术，食物资源开发

所属院系：食品学院

研究方向

食品加工新技术、食品组分的理化和功能改性、营养物运载体制备技术与生物利用、食品副产物资源的高效增值利用。

个人经历

刘伟，男，1972年生，博士，二级教授，博士生导师，南昌大学食品学院食品科学与工程系系主任，南昌大学中德食品中心副主任。入选江西省百千万工程人才、江西省赣鄱英才555工程 - 青年拔尖人才、江西省主要学科学术与技术带头人、江西省高校中青年学科带头人、江西省青年科学家等。

讲授课程

本科生：食品产品开发

硕士生：食品贮藏技术、现代食品加工技术、现代食品工程装备与技术

博士生：食品科学研究进展、现代食品加工高新技术

学术成就

先后获国家级教学成果二等奖2项、江西省自然科学一等奖1项、江西省科技进步二等1项、农业部中华农业科技一等1项和中国商业联合会科学技术二等1项等

承担课题

承担国家自然科学基金、国家“十二五”支撑计划子课题、国家农业成果转化资金重点项目等国家与省部级项目15项，企业横向项目5项。

主要承担的课题有：

- 1、国家自然科学基金（面上）“环境响应型食品乳液运载体构建及其负载活性成分生物利用率改善机制（编号31972071）”（直接经费58万元，2020.01 -2023.12）
- 2、国家自然科学基金（地区）“层层自组装修饰脂质体的结构特性变化与摄取释放的关系（编号21766018）”（直接经费40万元，2018.01- 2021.12）
- 3、国家自然科学基金（地区）“去折叠态多酚氧化酶的酶促褐变与分子构象变化的关系（编号31460435）”（经费55万元，2015.01-2018.12）

- 4、国家自然科学基金（地区）“DHPM驱动脂质体二次组装机理及其结构与热力学稳定性关系（编号21266021）”（经费58万元，2013.01-2016.12）
- 5、国家自然科学基金（地区）“基于动态高压微射流和分子修饰的去折叠态胰蛋白酶热稳定性及其相关机理研究（编号31060209）”（经费26万元，2011.01-2013.12）
- 6、国家“十二五”支撑计划“节碎米分离制取高水溶性米蛋白关键技术（编号2012BAD34B0203）”子课题（经费20万元，2012.01-2014.12）
- 7、主持食品科学与技术国家重点实验室自由探索课题“负载疏水性活性成分的乳液载体的制备及其生物利用率的影响（编号SKLF-ZZB-201717）”（经费8万元，2017.01-2018.12）
- 8、江西省人才团队计划主要学科学术和技术带头人资助计划“高稳定性的多酚纳米脂质体的制备及其生理活性（编号20162BCB22009）”（经费50万元，2016.01-2018.12）
- 9、江西省自然科学基金重点项目“新兴食品乳液运载体系的构建及其对营养物生物利用率的影响机制（编号20171ACB20005）”（经费50万元，2017.01-2019.12）
- 10、江西省“赣鄱英才555工程-青年拔尖人才培养计划”

论文专著

- [1] Wei Liu, Jianhua Liu, Mingyong Xie*, Chengmei Liu, Weilin Liu, Jie Wan. Characterization and high pressure microfluidization-induced activation of polyphenoloxidase from chinese pear (*Pyrus pyrifolia* Nakai) [J]. *Journal of Agricultural and Food Chemistry*, 2009, 57 (12):5376-5380.
- [2] Wei Liu, Jianhua Liu, Chengmei Liu*, Yejun Zhong, Weilin Liu, Jie Wan. Activation and conformational changes of mushroom polyphenoloxidase by high pressure microfluidization treatment [J]. *Innovative Food Science and Emerging Technologies*, 2009, 10(2):142-147.
- [3] Wei Liu, ZhaoQin Zhang, ChengMei Liu, MingYong Xie*, ZongCai Tu, JianHua Liu, RuiHong Liang. The effect of dynamic high-pressure microfuidization on the activity, stability and conformation of trypsin [J]. *Food Chemistry*, 2010,123(3): 616-621.
- [4] Wei Liu, Weilin Liu, Chengmei Liu*, Jianhua Liu, Shuibing Yang, Huijuan Zheng. Medium-chain fatty acids

nanoliposomes for easy energy supply [J]. *Nutrition*, 2011, 27(6): 700-706.

[5] Wei Liu, Zhaoqin Zhang, Chengmei Liu*, Mingyong Xie, Ruihong Liang, Junping Liu, Liqiang Zou, Jie Wan. Effect of molecular patch modification on the stability of dynamic high-pressure microfluidization treated trypsin [J]. *Innovative Food Science & Emerging Technologies*, 2012, 16(10): 349-354.

[6] Wei Liu*, Liqiang Zou, Junping Liu, Zhaoqin Zhang, Chengmei Liu, Ruihong Liang. The effect of citric acid on the activity, thermodynamics and conformation of mushroom polyphenoloxidase [J]. *Food Chemistry*, 2013, 140(1-2): 289-295.

[7] Weilin Liu, Jianhua Liu, Wei Liu*, Ti Li, Chengmei Liu*. Improved physical and in vitro digestion stability of a polyelectrolyte delivery system based on layer-by-layer self-assembly alginate-chitosan coated nanoliposomes [J]. *Journal of Agricultural and Food Chemistry*, 2013, 61(17): 4133-4144.

[8] Wei Zhou, Wei Liu*, Liqiang Zou, Weilin Liu, Chengmei Liu, Ruihong Liang, Jun Chen. Enhanced storage stability and skin permeation of vitamin C by a novel pectin-coated nanoliposomes delivery system [J]. *Colloids and Surfaces B: Biointerfaces*, 2014, 117(5): 330-337.

[9] Wei Liu*, Junping Liu, Liqiang Zou, Zhaoqin Zhang, Chengmei Liu, Ruihong Liang, Mingyong Xie, Jie Wan. Stability and conformational change of methoxypolyethylene glycol modification for native and unfolded trypsin [J]. *Food Chemistry*, 2014, 146(1): 278-283.

[10] Yanjun Zhang, Wei Liu*, Chengmei Liu*, Shunjing Luo, Ti li, Yunfei Liu, Di Wu, Yanna Zuo. Retrogradation behavior of high-amylose rice starch prepared by improved extrusion cooking technology [J]. *Food Chemistry*, 2014, 158(9): 255-261.

[11] Liqiang Zou, Wei Liu*, Weilin Liu, Ruihong Liang, Chengmei Liu*, Yanlin Cao, Jing Niu, Zhen Liu. Characterization and bioavailability of tea polyphenol nanoliposomes prepared by combining ethanol injection method with dynamic high pressure microfluidization [J]. *Journal of Agricultural and Food Chemistry*, 2014, 62(4): 934-941.

[12] Junzhen Zhong, Yue Tu, Wei Liu*, Yujia Xu, Chengmei Liu, Ruyan Dun. Antigenicity and conformational changes of β -lactoglobulin by dynamic high pressure microfluidization combining with glycation treatment [J]. *Journal of Dairy Science*, 2014, 97(8): 4695-4702.

- [13] Liqiang Zou, Shengfeng Peng, WeiLiu*, Lu Gan, Weilin Liu, Ruihong Liang, Chengmei Liu*, Jing Niu, Yanlin Cao, Zhen Liu, Xing Chen. Improved in vitro digestion stability of (-)-epigallocatechin gallate through nanoliposome encapsulation [J]. *Food Research International*, 2014, 64(10): 492-499.
- [14] Liqiang Zou, Shengfeng Peng, Wei Liu*, Xing Chen, Chengmei Liu*. A novel delivery system dextran sulfate coated amphiphilic chitosan derivatives-based nanoliposome: Capacity to improve in vitro digestion stability of (-)-epigallocatechin gallate [J]. *Food Research International*, 2015, 69(3): 114-120.
- [15] Liqiang Zou, Wei Liu*, Chengmei Liu, Hang Xiao, David Julian McClements*. Utilizing food matrix effects to enhance nutraceutical bioavailability: Increase of curcumin bioaccessibility using excipient [J]. *Journal of Agricultural and Food Chemistry*, 2015, 63(7): 2025-2062.
- [16] Liqiang Zou, Bingjing Zheng, Wei Liu*, Chengmei Liu, Hang Xiao, David Julian McClements*. Enhancing nutraceutical bioavailability using excipient emulsions: Influence of lipid droplet size on solubility and bioaccessibility of powdered curcumin [J]. *Journal of Functional Food*, 2015, 15(5): 72-83.
- [17] Liqiang Zou, Wei Liu*, Chengmei Liu, Hang Xiao, David Julian McClements*. Influence of emulsifier of excipient emulsion on the curcumin solubility and bioaccessibility of curcumin- emulsion mixtures [J]. *Food and Function*, 2015, 6: 2475-2486.
- [18] Lei Zhou, Wei Liu*, Zhiqiang Xiong, Liqiang Zou, Jun Chen, Junping Liu, Junzhen Zhong. Different modes of inhibition for organic acids on polyphenoloxidase [J]. *Food Chemistry*, 2016, 199: 439-446.
- [19] Junzhen Zhong, Xiaofei Cai, Chengmei Liu, Wei Liu*, Yujia Xu, Shunjing Luo. Purification and conformational changes of bovine PEGylated beta-lactoglobulin related to antigenicity [J]. *Food Chemistry*, 2016, 199: 387-392.
- [20] Zhiqiang Xiong, Wei Liu*, Lei Zhou, Liqiang Zou, Jun Chen. Mushroom (*Agaricus bisporus*) polyphenoloxidase inhibited by apigenin: Multi-spectroscopic analyses and computational docking simulation [J]. *Food Chemistry*, 2016, 203: 430-439.
- [21] Jianyong Wu, Jun Chen, Wei Liu*, Chengmei Liu*, Yejun Zhong, Dawen Luo, Zhongqiang Li, Xiaojuan Guo. Effects of aleurone layer on rice cooking: A histological investigation [J]. *Food Chemistry*, 2016, 191: 28-35.

- [22] Weilin Liu, Wei Liu*, Aiqian Ye, Shengfeng Peng, Fuqiang Wei, Chengmei Liu, Jianzhong Han*. Environmental stress stability of microencapsules based on liposomes decorated with chitosan and sodium alginate [J]. *Food Chemistry*, 2016, 196: 396-404.
- [23] Xing Chen, Liqiang Zou, Wei Liu*, David Julian McClements*. Potential of excipient emulsions for improving quercetin bioaccessibility and antioxidant activity: An in vitro study [J]. *Journal of Agricultural and Food Chemistry*, 2016, 64(18): 3653-3660.
- [24] Lei Zhou, Zhiqiang Xiong, Wei Liu*, Liqiang Zou. Different inhibition mechanisms of gentisic acid and cyaniding-3-O-glucoside on polyphenoloxidase [J]. *Food Chemistry*, 2017, 234: 445-454.
- [25] Lei Zhou, Wei Liu*, Liqiang Zou, Zhiqiang Xiong, Xiuting Hu, Jun Chen. Aggregation and conformational change of mushroom (*Agaricus bisporus*) polyphenoloxidase subjected to thermal treatment [J]. *Food Chemistry*, 2017, 214: 423-431.
- [26] Shengfeng Peng, Liqiang Zou, Weilin Liu, Zilin Li, Wei Liu*, Xiuting Hu, Xing Chen, Chengmei Liu. Hybrid liposomes composed of amphiphilic chitosan and phospholipid: Preparation, stability and bioavailability as a carrier for curcumin [J]. *Carbohydrate Polymers*, 2017, 156: 322-332.
- [27] Yuqing Zhu, Xing Chen, David Julian McClements, Liqiang Zou*, Wei Liu*. pH-, ion- and temperature-dependent emulsion gels: Fabricated by addition of whey protein to gliadin-nanoparticle coated lipid droplets [J]. *Food Hydrocolloids*, 2018, 77: 870-878.
- [28] Shengfeng Peng, Liqiang Zou, Wei Liu*, Chengmei Liu, David Julian McClements*. Fabrication and characterization of curcumin-loaded liposomes formed from sunflower lecithin: impact of composition and environmental stress [J]. *Journal of Agricultural and Food Chemistry*, 2018, 66(46): 12421-12430.
- [29] Shengfeng Peng, Zilin Li, Liqiang Zou, Wei Liu*, Chengmei Liu, David Julian McClements*. Enhancement of curcumin bioavailability by encapsulation in sophorolipid-coated nanoparticles: an in vitro and in vivo study [J]. *Journal of Agricultural and Food Chemistry*, 2018, 66(6): 1488-1497.
- [30] Shengfeng Peng, Zilin Li, Liqiang Zou, Wei Liu*, Chengmei Liu, David Julian McClements*. Improving curcumin solubility and bioavailability by encapsulation in saponin-coated curcumin nanoparticles prepared using a simple pH-driven loading method [J]. *Food and Function*, 2018, 9(3): 1829-1839.

- [31] Xing Chen, David Julian McClements, Yuqing Zhu, Liqiang Zou*, Zilin Li, Wei Liu*, Ce Cheng, Hongxia Gao, Chengmei Liu. Gastrointestinal fate of fluid and gelled nutraceutical emulsions: impact on proteolysis, lipolysis, and quercetin bioaccessibility [J]. *Journal of Agricultural and Food Chemistry*, 2018, 66(34): 9087-9096.
- [32] Xing Chen, David Julian McClements, Jian Wang, Liqiang Zou*, Sumeng Deng, Wei Liu*, Chi Yan, Yuqing Zhu, Ce Cheng, Chengmei Liu. Coencapsulation of (-)-epigallocatechin-3-gallate and quercetin in particle-stabilized W/O/W emulsion gels: controlled release and bioaccessibility [J]. *Journal of Agricultural and Food Chemistry*, 2018, 66(14): 3691-3699.
- [33] Shengfeng Peng, Liqiang Zou, Wei Zhou, Wei Liu*, Chengmei Liu, David Julian McClements*. Encapsulation of lipophilic polyphenols into nanoliposomes using pH-driven method: advantages and disadvantages [J]. *Journal of Agricultural and Food Chemistry*, 2019, 67(26): 7506-7511.
- [34] Dongwen Fu, Sumeng Deng, David Julian McClements, Lei Zhou, Liqiang Zou*, Jiang Yi, Chengmei Liu, Wei Liu*. Encapsulation of beta-carotene in wheat gluten nanoparticle-xanthan gum-stabilized Pickering emulsions: Enhancement of carotenoid stability and bioaccessibility [J]. *Food Hydrocolloids*, 2019, 89: 80-89.
- [35] Chi Yan, David Julian McClements, Liqiang Zou*, Wei Liu*. A stable high internal phase emulsion fabricated with OSA-modified starch: an improvement in β -carotene stability and bioaccessibility [J]. *Food and Function*, 2019, 10:5446-5460.



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