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学术兼职

Critical Reviews in Food Science and Nutrition、Journal of Agricultural and Food Chemistry、Journal of the Science of Food and Agriculture、Journal of Functional Food 等 4 个一区 TOP 期刊审稿专家。

教育与工作经历

2021.07-至今	河南工业大学 粮油食品学院
2015.09-2021.06	江南大学-食品科学与工程-博士
2018.01-2019.12	荷兰瓦赫宁根大学-农业技术与食品科学-联合培养博士 (Food Quality and Design Group)
2013.09-2015.06	江南大学-食品科学与工程-硕士
2009.09-2013.06	海南大学-食品质量与安全-本科

研究领域与方向

食品品质控制与功能性食品构建

- 食品加工中活性羰基化合物及美拉德有害产物形成的机制及食源性活性组分抑制机制
- 油脂加工危害物的控制及油炸食品品质改良
- 食源性活性因子分离纯化、结构鉴定及其功能构效研究
- 针对目前影响人类健康的高发慢性病高血脂、糖尿病、癌症等，研究其食源性抑制剂，开发功能性保健食品

教授课程

油脂制取与加工工艺学

油脂深加工及制品

研究成果

（一）主持的科研项目

1) 酯型修饰对多酚在乳液体系清除 α,β -不饱和醛作用的调控规律及机制研究, 2023.01,

国家自然科学基金-青年项目，主持

- 2) 多酚烷基酯对油脂氧化产生的 α,β 不饱和醛的减控作用及机制研究, 2023.01, 郑州市 R&D 专项经费补助科研项目-应用研究项目, 主持
- 3) 油脂绿色精炼与精准适度加工关键技术研究与示范, 2022.03, “十四五”国家重点研发计划, 学术骨干
- 4) 芝麻油品质提升及营养因子保留技术研究, 2022.07, 横向项目, 学术骨干
- 5) 基于油脂加工过程中危害物脱除与活性物质高效保留的协同调控机制研究, 2022.03, 河南工业大学自科创新基金支持计划, 学术骨干

(二) 代表著作与论文

- 1) **Hao Zhang**, Antonio Dario Troise, Shangde Sun, Vincenzo Fogliano, The water insoluble fraction from red cabbage and black currant pomace reduces the formation of acrylamide, 5-hydroxymethylfurfural and reactive aldehydes in fried potato-based crisps, **LWT**, 2023, 173: 114238.
- 2) Qian Yu, **Hao Zhang***, Liya Tian, Shangde Sun, Solid acid HND- 26 as a novel catalyst : Green and sustainable alternatives towards synthesis of benzyl cinnamate, **Flavour Fragr J.** 2023; 38: 53- 60.
- 3) **Hao Zhang**, Antonio Dario Troise, Yajing Qi, Gangcheng Wu, Hui Zhang, Vincenzo Fogliano, Insoluble Dietary Fibre Scavenges Reactive Carbonyl Species under Simulated Physiological Conditions: The Key Role of Fibre-Bound Polyphenols, **Food Chemistry**, 2021, 349: 129018-129028.
- 4) **Hao Zhang**, Antonio Dario Troise, Hui Zhang, Vincenzo Fogliano, Cocoa Melanoidins Reduce the Formation of Dietary Advanced Glycation End-Products in Dairy Mimicking System, **Food Chemistry**, 2021, 345: 128827-128835.
- 5) **Hao Zhang**, Hui Zhang, Antonio Dario Troise, Vincenzo Fogliano, Melanoidins from Coffee, Cocoa, and Bread Are Able to Scavenge Alpha-Dicarbonyl Compounds under Simulated Physiological Conditions, **Journal of Agricultural and Food Chemistry**, 2019, 67(39): 10921-10929.
- 6) **Hao Zhang**, Hui Zhang, Lilin Cheng, Li Wang, Haifeng Qian, Influence of Deep-Frying Using Various Commercial Oils on Acrylamide Formation in French Fries, **Food Additives and Contaminants Part a-Chemistry Analysis Control Exposure & Risk Assessment**, 2015, 32(7): 1083-1088.
- 7) Jinxin Li, **Hao Zhang**, Yang X, Ling Zhu, Gangcheng Wu, Xiguang Qi, Hui Zhang. Trapping of reactive carbonyl species by fiber-bound polyphenols from whole grains under simulated physiological conditions. **Food Res Int.** 2022;156:111142.
- 8) Yajing Qi, **Hao Zhang**, Gangcheng Wu, Hui Zhang, Liwei Gu, Li Wang, Haifeng Qian, Xiguang Qi, Mitigation Effects of Proanthocyanidins with Different Structures on Acrylamide Formation in Chemical and Fried Potato Crisp Models, **Food Chemistry**, 2018, 250: 98-104.
- 9) Yajing Qi, **Hao Zhang**, Gangcheng Wu, Hui Zhang, Li Wang, Haifeng Qian, Xiguang Qi, Reduction of 5-Hydroxymethylfurfural Formation by Flavan-3-Ols in Maillard Reaction Models and Fried Potato Chips, **Journal of the Science of Food and Agriculture**, 2018, 98(14): 5294-5301.
- 10) Chengtao Yu, Ling Zhu, **Hao Zhang**, Shilin Bi, Gangcheng Wu, Xiguang Qi, Hui Zhang, Li Wang, Haifeng Qian, Li Zhou, Effect of Cooking Pressure on Phenolic Compounds, Gamma-Aminobutyric Acid, Antioxidant Activity and Volatile Compounds of Brown Rice, **Journal of Cereal Science**, 2021, 97: 103127-103134.
- 11) Yajing Qi, Hui Zhang, **Hao Zhang**, Gangcheng Wu, Li Wang, Haifeng Qian, Epicatechin Adducting with 5-Hydroxymethylfurfural as an Inhibitory Mechanism against Acrylamide Formation in

Maillard Reactions, **Journal of Agricultural and Food Chemistry**, 2018, 66(47): 12536-12543.

实验室和科研团队简介

本实验室以解决油料、油脂加工与安全及深加工相关科技问题为己任，重点围绕加工新技术、油脂加工安全、粮油资源高值化利用（功能性活性成分开发利用等）、油脂化工产品（生物柴油、生物表面活性剂、润滑剂等）、食品专用油脂和功能性脂质开发等开展相关研究。