

# CURRICULUM VITAE

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Study Informaiton			
2008.09-2011.06: Food Science and Technology, China Agricultural University, PhD			
2005.09-2008.06: College of Food Science and Technology, Huazhong Agricultural University, Master			
2001.09-2005.06: College of Food Science and Technology, Huazhong Agricultural University, Bachelor			
Education & Working Experience			
2013.03-now: College of Food Science and Technology, Huazhong Agricultural University, Associate professor			
2015.09-2015.10: Harper Adams University College, Shropshire, England, Visiting scholar			
2017.09-now: Deputy director of the department of Food Science in College of Food Science and Technology, Huazhong Agricultural University.			
2018.10-2018.11: Kasetsart University, Bangkok, Thailand, Visiting scholar			
Served as a journal reviewer for 《Plos One》、《Journal of Agricultural and Food Chemistry》、《Plant Foods for Human Nutrition》、《Ultrasonics sonochemistry》			
Conference Presentation			
Oral Presentation: Effect of HPCD on PR protein in Fuji apple ( <i>Malus domestica</i> ) 2014 Beijing International Conference on Non-thermal Processing Technologies. 2014.09, Beijing, China.			
Oral Presentation: Inhibition of high pressure carbon dioxide on yellowing of fresh-cut aquatic vegetables 2020 International Conference on Non-thermal Processing Technologies. 2020.11, Zhenjiang, Jiangsu, China.			



## Publications

Jiaxing Li; Lijuan Zhu; Ayesha Murtaza; Aamir Iqbal; Jiao Zhang; Xiaoyun Xu; Siyi Pan, **Wanfeng Hu\***; The effect of high pressure carbon dioxide on the inactivation kinetics and structural alteration of phenylalanine ammonia-lyase from Chinese water chestnut: An investigation using multi-spectroscopy and molecular docking methods, *Innovative Food Science & Emerging Technologies*, 2022, 102970. <https://doi.org/10.1016/j.ifset.2022.102970>

Wanlu Ma, Jiaxing Li, Ayesha Murtaza, Aamir Iqbal, Jiao Zhang, Lijuan Zhu, Xiaoyun Xu, Siyi Pan, **Wanfeng Hu\***. High-pressure carbon dioxide treatment alleviates browning development by regulating membrane lipid metabolism in fresh-cut lettuce, 2022. <https://doi.org/10.1016/j.foodcont.2021.108749>

Bing Zhang, Ayesha Murtaza, Aamir Iqbal, Jiao Zhang, Tingting Bai, Wanlu Ma, Xiaoyun Xu, Siyi Pan, **Wanfeng Hu\***, Comparative study on nutrient composition and antioxidant capacity of potato based on geographical and climatic factors[J], *Food bioscience*, 2022

Jiao Zhang; Junjie Li; Ayesha Murtaza; Aamir Iqbal; Lijuan Zhu; Shinawar Waseem Ali; Muhammad Usman; Roshan Yameen; Siyi Pan; **Wanfeng Hu\***. Synergistic effect of high-intensity ultrasound and  $\beta$ -cyclodextrin treatments on browning control in apple juice. *International Journal of Food Science & Technology*, 2021, <https://doi.org/10.1111/ijfs.15443>

Xuan Zhou, Aamir Iqbal, Jiaxing Li, Chang Liu, Ayesha Murtaza, Xiaoyun Xu, Siyi Pan, **Wanfeng Hu\***. Changes in Browning Degree and Reducibility of Polyphenols during Autoxidation and Enzymatic Oxidation[J]. *Antioxidants*, 2021, 10(11):

Jiao Zhang; Ayesha Murtaza; Lijuan Zhu; Aamir Iqbal; Shinawar Waseem Ali; Xiaoyun Xu; Siyi Pan; **Wanfeng Hu\***; High pressure CO<sub>2</sub> treatment alleviates lignification and browning of fresh-cut water-bamboo shoots (*Zizania latifolia*), *Postharvest Biology and Technology*, 2021, 182:111690, <https://doi.org/10.1016/j.postharvbio.2021.111690>

Mengjie Kong; Ayesha Murtaza; Xueqi Hu; Aamir Iqbal; Lijuan Zhu; Shinawar Waseem Ali; Xiaoyun Xu; Siyi Pan; **Wanfeng Hu\***; Effect of high-pressure carbon dioxide treatment on browning inhibition of fresh-cut Chinese water chestnut (*Eleocharis tuberosa*): Based on the comparison of damaged tissue and non-damaged tissue, *Postharvest Biology and Technology*, 2021, 179:111557, <https://doi.org/10.1016/j.postharvbio.2021.111557>

Jiao Zhang; Aamir Iqbal; Ayesha Murtaza; Xuan Zhou; Xiaoyun Xu; Siyi Pan; **Wanfeng Hu\***; Effect of high pressure carbon dioxide on the browning inhibition of sugar-preserved orange peel, *Journal of CO<sub>2</sub> Utilization*, 2021, 46, 101467. <https://doi.org/10.1016/j.jcou.2021.101467>

Yongxin Teng; Ayesha Murtaza; Aamir Iqbal; Jialing Fu; Ali Shinawar Waseem; Iqbal Muhammad Amjed; Xiaoyun Xu; Siyi Pan; **Wanfeng Hu\***; Eugenol emulsions affect the browning processes, and microbial and chemical qualities of fresh-cut Chinese water chestnut, *Food Bioscience*, 2020, 38, 100716.

Ayesha Murtaza; Aamir Iqbal; Krystian Marszałek; Muhammad Amjed Iqbal; Shinawar Waseem Ali;

Xiaoyun Xu; Siyi Pan; **Wanfeng Hu\***; Enzymatic, Phyto-, and Physicochemical Evaluation of Apple Juice under High-Pressure Carbon Dioxide and Thermal Processing, *Foods*, 2020, 9 (2), 243.

Lijuan Zhu; Linhu Zhu; Ayesha Murtaza; Yan Liu; Siyu Liu; Junjie Li; Aamir Iqbal; Xiaoyun Xu; Siyi Pan; **Wanfeng Hu\***; Ultrasonic Processing Induced Activity and Structural Changes of Polyphenol Oxidase in Orange (*Citrus sinensis* Osbeck), *Molecules*, 2019, 24(10): 1922.

Ayesha Murtaza; Aamir Iqbal; Zhu Linhu; Yan Liu; Xiaoyun Xu; Siyi Pan; **Wanfeng Hu\***; Effect of high-pressure carbon dioxide on the aggregation and conformational changes of polyphenol oxidase from apple (*Malus domestica*) juice, *Innovative Food Science & Emerging Technologies*, 2019, 54: 43-50.

Ayesha Murtaza; Zafarullah Muhammad; Aamir Iqbal; Rabia Ramzan; Yan Liu; Siyi Pan; **Wanfeng Hu\***; Aggregation and conformational changes in native and thermally treated polyphenol oxidase from apple juice (*Malus domestica*), *Frontiers in Chemistry*, 2018, 6: 203.

Siyu Liu; Ayesha Murtaza; Yan Liu; **Wanfeng Hu\***; Xiaoyun Xu; Siyi Pan; Catalytic and Structural Characterization of a Browning-Related Protein in Oriental Sweet Melon (*Cucumis Melo* var. Makuwa Makino), *Frontiers in Chemistry*, 2018, 6: 354.

Siyu Liu; Yan Liu; Xingjian Huang; Wenjing Yang; **Wanfeng Hu\***; Siyi Pan; Effect of ultrasonic processing on the changes in activity, aggregation and the secondary and tertiary structure of polyphenol oxidase in oriental sweet melon (*Cucumis melo* var. makuwa Makino), *Journal of the Science of Food & Agriculture*, 2017, 97(4): 1326-1334.

Nana Huang; Xi Cheng; **Wanfeng Hu \***; Siyi Pan; Inactivation, aggregation, secondary and tertiary structural changes of germin-like protein in Satsuma mandarine with high polyphenol oxidase activity induced by ultrasonic processing, *Biophysical chemistry*, 2015, 197: 18-24.

Huang, Xingjian., Yi, Tian., Yang, Fang., Xu, Can., Li, Gan., **Hu, Wanfeng\***., Bi, Dingren., Pan, Siyi. Effects of sodium tripolyphosphate, microbial transglutaminase and enzyme-hydrolyzed soy protein fraction on the quality of cooked pork batter by response surface methodology. *Advance journal of food sciences and technology*, 2014. 6(11): 1228-1240

Li, Renjie., Wang, Yongtao., **Hu Wanfeng.**, Liao, Xiaojun. Changes in the activity, dissociation, aggregation, and the secondary and tertiary structures of a thaumatin-like protein with a high polyphenol oxidase activity induced by high pressure CO<sub>2</sub>. *Innovative Food Science & Emerging Technologies*, 2014. 23: 68-78.

Xi Cheng; Xingjian Huang; Siyu Liu; Mi Tang; **Wanfeng Hu\***; Siyi Pan; Characterization of germin-like protein with polyphenol oxidase activity from Satsuma mandarine, *Biochemical and Biophysical Research Communications*, 2014, 449(3): 313-318.

**Wanfeng Hu**; Linyan Zhou; Zhenzhen Xu; Yan Zhang; Xiaojun Liao\*; Enzyme inactivation in food

processing using high pressure carbon dioxide technology, *Critical Reviews in Food Science and Nutrition*, 2013, 53(2): 145-61.

**Wanfeng Hu**; Yan Zhang; Yuanyuan Wang; Linyan Zhou; Xiaojing Leng; Xiaojun Liao\*; Xiaosong Hu; Aggregation and homogenization, surface charge and structural change, and inactivation of mushroom tyrosinase in an aqueous system by subcritical/supercritical carbon dioxide, *Langmuir*, 2011, 27(3): 909-916.

### Authorized Patents

**Hu, Wanfeng.**, Liu, Fengxia., Tang, Mi., Wang, Lufeng., Xu, Xiaoyun., Pan, Siyi. A processing method of apple juice that can inhibit enzymatic Browning. Patent No.: ZL 201610113079.8. Acquired time: March 2018

**Hu, Wanfeng.**, Teng, Yongxin., Zhu, Linhu., Hu, Xueqi., Xu, Xiaoyun., Pan, Siyi. The invention relates to a treatment method for inhibiting the yellowing and Browning of fresh-cut aquatic fruits and vegetables. Patent No.: ZL201810326122.8. Acquired time: Feb 2021

### Monographs

**Hu, Wanfeng**, Introduction to Polyphenol Oxidase [M]. Wuhan: Wuhan University Press, 2016.

**Hu, Wanfeng**, Browning of fruits and vegetables in storage and processing [M]. Beijing: China Agriculture Press, 2022.

### Award

1. Excellent Doctoral Dissertation, Hu Wanfeng, "Purification and Characterization of Pathogenesis-Related Proteins in Apples and Effects of High Pressure Carbon Dioxide on Activity and Structure", Collge of Food Science & Nutritional Engineering, China Agricultural University, 2011
2. Second prize of "Climbing Cup" young teachers lecture competition of College of Food Science & Technology, Huazhong Agricultural University, 2015
3. The outstanding prize of young teachers lecture competition of Huazhong Agricultural University, 2015
4. "The most popular teacher" of College of Food Science & Technology, Huazhong Agricultural University, 2016.
5. Third prize of teaching quality of Huazhong Agricultural University, 2016.
6. First prize of the "Climbing Cup" young teachers lecture competition of College of Food

Science & Technology, Huazhong Agricultural University, 2017

7. Third prize of the university's young teachers lecture competition Huazhong Agricultural University, 2017.

8. First prize of the "Climbing Cup" young teachers lecture competition of College of Food Science & Technology, Huazhong Agricultural University, 2019