Resume of Shangling FANG

Basic Information

School :	School of Life and Health Sciences
Gender：	Female
Date of Birth：	196711
Title：	Professor
Education：	Ph.D of Science
Tutor：	Master degree/Ph.D. degree
Interest of research:	Industrial microorganisms, Brewing engineering

Academic Background

From September 1986 to July 1990,Wuhan University, Bachelor's degree of Science
From September 1997 to July 2000, Hubei University of Technology, Master's degree of Engineering;
From September 2004 to July 2009, Huazhong Agricultural University, Ph.D of Science.

Enrollment Information

1. Enrollment Discipline: Food Science and Engineering, Biopharmaceuticals
2. Research direction: Processing and storage of agricultural products, Brewing engineering
3. Enrollment Year: 2023-2024

Representative Projects

1. "Screening and molecular mechanism of key genes of ester production metabolism in abnormal Hansen's yeast" -- - National Natural Science Foundation of China. （31271928）
2. "Research on the Correlation between Microflora Analysis and Liquor Quality of Hubei Real Estate Liquor"--Hubei Provincial Natural Science Foundation Project.
3. "Construction of Bacillus thermophilus-producing tetramethylpyrazine mutant library" --- key project of Hubei Provincial Department of Education.
4. "Research and equipment development of key technologies for traditional brewed food manufacturing" --- key special project of the National Key R&D Program. （2016YFD0400500）
5. "R&D of key equipment and technology for intelligent production of traditional liquor brewing" - a major special project of the Provincial Department of Science and Technology. （2018ABA084）
6. "Research on the Flavor Formation Mechanism and Key Technologies of Quality Control of Fuxiang Liquor" ------- Industry-university-research cooperation
7. "Research on Key Technologies of Digital Ecological Koji-making"

------Industry-university-research cooperation
8. "Research on the key technology of the performance and application of Anqi compound functional bacteria products and acid-free fermentation of alcohol" ---- Industry-university-research cooperation
9. "Research on Key Technologies of Solid State Fermentation of Yellow Crane Tower" ----- Industry-university-research cooperation
10. "Research on Key Technologies for the Utilization of High Finger Ingredients of General Red Health Liquor" ----- Industry-university-research cooperation
11. "Innovative development of Qinqin rice wine characteristic series products" ----- Industry-university-research cooperation
12. "Research on the Healthy Components and Microbial Fermentation Mechanism of Yellow Crane Tower Wine" ----- Industry-university-research cooperation

Representative Articles

1. Xiangyi Jin, Xiangxiang Yin, Li Ling, Hao Mao, Xiaoyuan Dong, Xu Chang, Maobin Chen, **Shangling Fang***. Adding glucose delays the conversion of ethanol and acetic acid to caproic acid in *Lacrimispora celerecrescens* JSJ 1[J]. Applied Microbiology and Biotechnology, 2023,107:1453–1463. （**SCI**）
2. Junwen Xiao, Feiyan Mou, Wending Mao, **Shangling Fang**, Hui Chen, Bei liao, Maobin Chen. The ester production capacity of *Pichia kudriavzevii* based on functional annotation of genes[J]. World Journal of Microbiology and Biotechnology,2023,39:307.（**SCI**）
3. Qi Yu, Feiyan Mou, Junwen Xiao,Cheng Zhan, Liang Li, Xu Chang, Xiaoyuan Dong, Maobin Chen, Xinrui Wang, Mei Chen, **Shangling Fang***. Correlational analysis of physicochemical indexes, microbial communities, and volatile components in light-flavor Daqu from north and south regions of China[J]. World Journal of Microbiology and Biotechnology, 2024, 40:54.（**SCI**）
4. Rong Zhou, Xiao Chen, Ying Xia, Maobin Chen, Yu Zhang, Qin Li, Da Zhen and **Shangling Fang***. Research on the application of liquid-liquid extraction-gas chromatography-mass spectrometry and headspace-gas chromatography-ion mobility spectrometry in distinguishing the Baiyunbian aged liquors[J]. International journal of food engineering,2021,17(2): 83–96.**(SCI)**
5. Qin Li, Ying Xia, Ting Zhao, Yuanyuan Gong, **Shangling Fang*** and Maobin Chen*. Improving the catalytic characteristics of phenolic acid decarboxylase from *Bacillus amyloliquefaciens* by the engineering of N-terminus and C-terminus[J]. BMC Biotechnology, 2021, 21:44.**(SCI)**
6. Jin Xiangyi, Zhao Ting, Wang Jiasheng, Li Liang, Li Junwei, Chen Maobin, Fang Shangling*. Effect of Saccharomyces cerevisiae on the Metabolism of Clostridium fast-growing Clostridium caproate during co-culture and its mechanism[J]. Food Science,2022,43(18):121-126. (EI)
7. Zheng Alun, Zhao Ting, Wang Jiasheng, Cai Kaiyun, Chen Ping, Deng Junsong, Fang Shangling, Cao Jinghua, Chen Maobin. Changes in microbial community structure during the fermentation process of digital high-temperature Daqu[J]. Food Science,2022,43(12):171-177. (EI)
8. Mou Feiyan, Xia Boyu, Zhang Wei, Dong Xiaoyuan, Chen Hui, Chang Xu, Chen Maobin, Fang Shangling*. Screening of Highly Tolerant Functional Yeast in Qingxiang Daqu[J]. China Brewing,2023,42(11):163-168.

Awards:

1. "Key Technology and Industrialization of Traditional Solid-state Liquor Automatic Brewing", won the first prize of Hubei Provincial Science and Technology Progress Award in 2017.
2. "Key Technology for the Production of Functional Yeast and Its Derivative Products" won the first prize of Hubei Provincial Science and Technology Progress Award in 2011.
3. "Research and Application of Microorganisms and Fermentation Technology of Strong Aroma Liquor" won the second prize of Hubei Provincial Science and Technology Progress Award in 2009;
4. "Preparation and Application of Esterified Red Yeast Rice" won the second prize of Hubei Provincial Science and Technology Progress Award in 2014.
5. "Research and Application of Key Technologies for the Fermentation and Production of Thick Sauce and Aroma Baiyunbian Liquor" won the third prize of Hubei Provincial Science and Technology Progress Award in 2011.
6. "Research on Gardenia Series Pigment Cleaning Production Process" won the third prize of Hubei Provincial Science and Technology Progress Award in 2007.

Authorized patents

1. A bellflower healthy liquor and preparation method thereof Authorized patent number: ZL201710482545.4 The first inventor. 2021
2. A preparation method of sweet wine medicine Authorized patent number: ZL201710602349.6 The first inventor. 2020
3. A highly efficient transformation of gardenia, gardenia red pigment strain and its authorized patent number: ZL 201610387572.9 The first inventor. 2019
4. Application of gardenia series pigments in antibacterial Authorized patent number: ZL 201510397093.0 The first inventor. 2018
5. Production and refining process of gardenia red pigment Authorized patent number: ZL201310227865.7 The first inventor. 2014
6. A plant of highly tolerant ester-producing yeast and its application Authorized patent number: ZL 201310191489.0 The first invention. 2014

Representative Publications

1. Monograph on "Screening and Application of Functional Bacteria for Brewing", Chemical Industry Press, 2019
2. Editor-in-chief of Microbiology, textbook of the 12th Five-Year Plan of China, published in 2014
3 Deputy Editor-in-Chief of Microbiology Experiments, Textbook of the National Twelfth Five-Year Plan, published in 2014
4. Cell Biology, published in 2006