

Scopus CA DOAJ 北大核心期刊  
FSTA JST 中国科技核心期刊CSTPCD

中国精品科技期刊  
RCCSE中国核心学术期刊

中国农林核心期刊  
中国生物医学文献服务系统SinoMed收录期刊



食品工业科技编辑部  
微信公众号

# 食品工业科技



ISSN 1002-0306  
CN 11-1759/TS

2023 3

Science and Technology of Food Industry

SHIPIN GONGYE KEJI

第44卷 Vol.44

广告



## YE肽鲜系列 立体鲜味

**肽。**

分子量小于2000D  
的食源性呈味肽

**鲜。**

富含多种鲜味物质  
多维度鲜味



ISSN 1002-0306



9 771002 030234

安琪酵母股份有限公司

电话: 0717-6369988 传真: 0717-6369752 网站: <http://ye.angelyeast.com>



技术直播 免费申样

# 食品工业科技

SHIPIN GONGYE KEJI

2023年2月 第44卷 第3期

## 目次

### 青年编委专栏

健康婴儿粪便样本中加氏乳杆菌的分离鉴定及安全性评价

李国花, 赵 馨, 张明新, 马雨哲, 张歆怡, 钱卫生, 鲁 曦\*(1)

基于专利视角的Nisin在食品贮藏保鲜中应用的研究进展 吴 娟, 吴 洁\*, 林 琳, 崔海英(11)

益生菌微胶囊的制备及其在食品中应用的研究进展 高向新, 陈永福, 乌斯嘎勒\*(19)

### 未来食品

基于代谢组学及网络药理学分析天麻熟制过程中生物学活性变化

朱和权, 李 勇, 李春阳\*, 冯 进, 张丽霞, 李志强, 张玉兴(29)

### 研究与探讨

不溶性豆渣纤维对豆渣蛋白乳液特性的影响 王中江, 郭亚男, 刘双奇, 李柏良, 张 震, 刘 军, 冯 镇, 郭增旺\*(40)

湖北贝母与浙贝母的成分及理化性质对比分析 卢 琪, 薛淑静, 杨 德, 李 露\*(49)

超高压和巴氏杀菌对百香果汁贮藏期品质的影响 冉露霞, 王俊杰, 成 臣, 罗雯丽, 陈欣兰, 朱桢桢, 朱 博\*(56)

不同处理方式对花椒提取液及卤鸭脖挥发性风味成分的影响

王丽梅, 雷秋琪, 钟 珍, 叶诗洁, 陈钦邑, 侯温甫, 王宏勋\*(67)

预制面条制作过程中品质变化研究 蒲华寅, 尹志慧, 呼矿矿, 黄峻榕\*(76)

均质压力对亚麻籽油乳液稳定性及体外消化的影响 葛耀进, 黎雨浩, 彭盛峰\*, 刘 伟(84)

多宝鱼不同水解物肽段组成及体外抗氧化活性比较 李小锋, 张 露, 马天新, 谢作桦, 李金林, 涂宗财\*(95)

食盐对石磨全麦粉及其挂面品质的影响 蔡梦迪, 沈春霞, 李玉辉, 熊双丽\*, 李 凤(102)

香辛料精油对鲢鱼肉风干肠品质及安全性的影响 张雨婷, 张 煜, 马俪珍, 梁丽雅\*(108)

油茶籽鲜储过程中水分迁移与质构特性的变化 刘亚娜, 耿阳阳\*, 胡伯凯, 张时馨, 岑 露, 王 港(116)

不同取代度交联紫薯淀粉性能与表征 方焕新, 林钦淋, 薛旭亮, 卢 旭, 缪 松, 张龙涛, 邓凯波\*(125)

### 生物工程

谷氨酸棒状杆菌合成L-高丝氨酸的代谢改造与发酵条件探究

郭秋爽, 包倩倩, 许银彪, 蔡 帅, 孙 杨, 李 华\*, 刘宇鹏\*(133)

木薯块根中 $\beta$ -葡萄糖苷酶的分离纯化及酶学性质 常祥祥, 田永莉, 颜 娟, 李文超, 刘石生\*(141)

乳酸菌菌粉定量计数方法研究 严 涛, 陈珂可, 程 文, 夏九学, 徐建忠, 朱建国\*(148)

宁波地区传统梅干菜中优势发酵菌株分离鉴定及酶活分析

李 艺, 童秀子, 徐伟程, 郭斯统, 陈育如, 郭宇星, 孔晓雪\*, 罗海波\*(154)

# 食品工业科技

SHIPIN GONGYE KEJI

2023年2月 第44卷 第3期

## 目次

苗族白酸汤中优势乳酸菌及酵母菌的筛选与应用 ..... 吴茂钊\*, 王 斌, 杜 江, 王 涛, 邹 滢, 黄 巧(163)

### 工艺技术

植物乳杆菌和肠膜明串珠菌混合发酵泡萝卜的工艺优化 ..... 汪姣玲, 李加兴, 岳元媛\*(172)

铜藻多酚的分离纯化及抗氧化活性研究

..... 何袅袅, 陈雅鑫, 蔡树芸, 施丽君, 陈伟珠, 陈 晖, 洪 专, 张 怡, 张怡评\*(183)

响应面法优化微波膨化鱼糜制品料坯配方的研究

..... 王 蕾, 王金厢, 李学鹏\*, 励建荣, 杨 青, 位正鹏, 季广仁(192)

离子液体辅助超声法提取工业大麻叶中大麻二酚的工艺优化

..... 王崑仑, 管立军\*, 高 扬, 严 松, 李家磊, 李 波, 周 野(203)

野生牛肝菌纯种分离及液态培养促三萜类物质合成的诱导剂优化研究

..... 徐 伟, 王植朔, 王瑞琦, 梁珊珊, 张 雪, 谢红瑶, 吴 凡(213)

木纳格葡萄表皮蜡质提取工艺优化及其成分分析

..... 王雨菲, 吕云皓, 宋昕昕, 江 英\*(221)

佛手果皮精油的提取工艺优化及其成分与抗氧化活性分析

..... 王祎赫, 夏燕莉, 张 欣, 杨 航, 梅国富, 余 波, 易建明, 薛慧玲\*(230)

响应面法优化爵床总黄酮的提取工艺及理化性质

..... 魏 婧, 韩朋春, 吴明月, 杜至云, 黄晓娅, 秦晶晶\*(240)

固定化磷脂酰胆碱水相酶催化合成磷脂酰丝氨酸

..... 朱 帅, 黄 澳, 刘夏忠, 刘 云\*(248)

无籽刺梨渣可溶性膳食纤维硫酸酯化改性及性质分析

..... 苏靖程, 张传单, 范方宇\*(255)

### 分析检测

不同品种竹笋营养品质分析与综合评价 ..... 陈中爱, 耿阳阳\*, 黄 珊, 吕 都, 唐健波, 王 梅, 王德斌(262)

液相色谱-串联质谱法检测药食两用杂交天麻及其亲本品种中的氨基酸、核苷类成分

..... 王广政, 巩晴晴, 俞年军\*, 高翰博, 邢丽花, 杜方平(269)

基于适配体-阳离子化合物诱导纳米金聚集比色法快速检测苏丹红

..... 刘长勇, 卢春霞\*, 陈 霞, 唐宗贵, 党富民(279)

基于E-nose、HS-SPME-GC-MS和GC-IMS检测三种草莓鲜榨汁的香气

..... 张敬文, 潘磊庆, 屠 康\*(286)

基于主成分分析和HS-SPME-GC-MS技术综合评价不同品种芒果品质特性

..... 黄立标, 袁艺洋, 陈 琳, 杨美艳, 彭志愿, 卢小婷, 高向阳\*(297)

食叶草的营养活性成分含量及生物活性分析

..... 李宪秀, 何 涛, 杨 帆, 汪 翀, 周 怡, 沙如意, 毛建卫\*(307)

普洱茶-硒掺杂碳量子点和单质硒的同时制备及其在Fe<sup>3+</sup>检测中的应用

..... 胡伟英, 叶锡光\*, 陈忠正, 张媛媛, 姚向荣, 林晓蓉\*, 李 斌\*(316)

基于文献计量的食品天然多酚研究进展分析

..... 郝 毫, 范殊琮, 陈 琛\*(325)

# 食品工业科技

SHIPIN GONGYE KEJI

2023年2月 第44卷 第3期

## 目次

### 贮运保鲜

|                                       |                                              |
|---------------------------------------|----------------------------------------------|
| 不同解冻方式对鸭腿肉品质特性的影响 .....               | 冯钰敏, 梁诗惠, 邓华荣, 刘巧瑜, 白卫东, 吴俊师, 陈海光*(336)      |
| 马尾松-虎耳草复合精油保鲜处理对阳光玫瑰葡萄贮藏期内品质的影响 ..... | 陆 滢, 管维良, 陈山乔, 孙志栋*, 蔡路昀*(346)               |
| 不同贮藏温度对黄桃采后品质和抗氧化能力的影响 .....          | 袁楚珊, 黄余年, 董欣瑞, 刘 伟, 苏东林, 朱向荣*(356)           |
| 缓冻和速冻对杨梅保藏期品质变化规律的探究 .....            | 黄国中, 王 琴, 马路凯, 刘祎帆, 刘东杰*, 王嘉沂, 陈小婷, 文芷懿(365) |
| 冷休眠结合薄膜包裹对太平洋牡蛎生态冰温保活期品质及代谢的影响 .....  | 罗丽俐, 林恒宗, 梁志源, 黄艳平, 秦小明*(372)                |

### 营养与保健

|                                          |                                              |
|------------------------------------------|----------------------------------------------|
| 浒苔多糖对肥胖金黄地鼠肠道菌群及粪便短链脂肪酸的影响 .....         | 黄诗颖, 陈杰东*, 韩梦圆, 徐彩红, 郭福川*(381)               |
| 赶黄草醇提物和赶黄草总黄酮对小鼠亚急性酒精性肝损伤保护作用的比较研究 ..... | 九 红, 付满玲, 刘洪盛, 张世波, 侯筱芳, 姚吉强, 袁叶飞*(391)      |
| 秦岭特色药王茶的营养组成、抗氧化活性及其对DNA损伤的作用 .....      | 叶 彤, 聂聪怡*, 李 笑, 张战利, 张华峰*(398)               |
| 人参提取物延缓果蝇衰老的作用及机制研究 .....                | 王继岚, 乔巨慧, 刘 颖, 赵雨初, 张思雨, 王思明, 刘美辰*(406)      |
| 桑椹果粉乙醇提取液对秀丽隐杆线虫衰老的影响及机制 .....           | 曾智康, 朱 晨, 魏瑞霖, 段树华, 安淦鼎, 孙在兴, 雷 激, 李玉锋*(414) |

### 专题综述

|                               |                                                         |
|-------------------------------|---------------------------------------------------------|
| 坚果中主要过敏原种类、检测及脱敏技术研究进展 .....  | 侯艳丽, 周佳悦, 王凡宇, 李芳菲, 郭庆启*(421)                           |
| 基于天然色素的食品新鲜度指示包装研究进展 .....    | 韩林娜, 戴增辉, 顾孟清, 李 哲, 解铁民, 路 飞*(432)                      |
| 多溴联苯醚在食品中的污染及其危害研究进展 .....    | 肖燕玲, 钟志宏, 张 怡, 曾红亮*(442)                                |
| 广式月饼加工工艺及品质评价研究进展 .....       | 龙钰婷, 柴秀航, 李生花, 刘禹志, 王和森, 王安石, 刘元法*, 李志成*(452)           |
| 多糖的降血压作用及其机制研究进展 .....        | 许继隆, 李中原, 于子豪, 王亚齐, 祁 晨, 高 蕊, 史嘉欣, 魏晋智, 乔汉桢*, 王金荣*(461) |
| 干酪乳清废水的回收、处理与高值化利用研究进展 .....  | 张 博, 刘 悦, 宋 礼, 罗 丽, 王明阳, 齐燕姣*(470)                      |
| 肉中的兽药和瘦肉精残留及其检测技术研究进展 .....   | 张 蕾, 张玉娇, 王玉宁, 张一敏, 董鹏程, 罗 欣, 毛衍伟*(481)                 |
| 酶法合成结构脂质中酯酶催化活性下降机理研究进展 ..... | 彭 斌, 李金林, 钟比真, 胡明明, 涂宗财(489)                            |
| 蜂王浆中脂肪酸标志物检测方法的研究进展 .....     | 于心雨, 李珊珊, 陶凌晨, 张国志, 胡福良*(499)                           |
| 冷萃咖啡制备技术及其风味特征研究进展 .....      | 高 敏, 蔡妍培, 吴继红, 王一盛, 黄 春, 劳 菲*(508)                      |

# SCIENCE AND TECHNOLOGY OF FOOD INDUSTRY

## SHIPIN GONGYE KEJI

Feb. 2023 Vol.44 NO.3

### CONTENTS

#### Papers Invited by Youth Editorial Committee

|                                                                                                                       |                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Isolation, Identification and Safety Evaluation of <i>Lactobacillus gasseri</i> from Fecal Samples of Healthy Infants | LI Guohua, ZHAO Xin, ZHANG Mingxin, MA Yuzhe, ZHANG Xinyi, QIAN Weisheng, LU Xi*(1) |
| Research Progress on Application of Nisin in Food Storage and Preservation Based on Patent Analysis                   | WU Juan, WU Jie*, LIN Lin, CUI Haiying(11)                                          |
| Research Progress of Preparation and Application of Probiotic Microencapsulation in Food                              | GAO Xiangxin, CHEN Yongfu, Wusigale *(19)                                           |

#### Future Food

|                                                                                                                                               |                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Analyzing of the Composition and Medicinal Properties of <i>Gastrodia elata</i> during Cooking Based on Metabonomics and Network Pharmacology | ZHU Hequan, LI Yong, LI Chunyang*, FENG Jin, ZHANG Lixia, LI Zhiqiang, ZHANG Yuxing(29) |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|

#### Research and Investigation

|                                                                                                                                             |                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|
| Effect of Insoluble Okara Fiber on the Properties of Okara Protein Emulsion                                                                 | WANG Zhongjiang, GUO Yanan, LIU Shuangqi, LI Bailiang, ZHANG Zhen, LIU Jun, FENG Zhen, GUO Zengwang*(40) |
| Comparison of Ingredient Composition and Physicochemical Properties between <i>Fritillaria hupehensis</i> and <i>Fritillaria thunbergii</i> | LU Qi, XUE Shujing, YANG De, LI Lu*(49)                                                                  |
| Effect of Ultra-high Pressure Sterilization and Pasteurization on the Quality of Passion Fruit Juice during Storage                         | RAN Luxia, WANG Junjie, CHENG Chen, LUO Wenli, CHEN Xinlan, ZHU Zhenzhi, ZHU Bo*(56)                     |
| Effects of Different Processing Methods on Volatile Flavor Components of <i>Zanthoxylum bungeanum</i> Maxim. Extract and Braised Duck Neck  | WANG Limei, LEI Qiuqi, ZHONG Zhen, YE Shijie, CHEN Qinyi, HOU Wenfu, WANG Hongxun*(67)                   |
| Analysis of Quality in Preprocessed Noodles during the Producing Process                                                                    | PU Huayin, YIN Zhihui, HU Kuangkuang, HUANG Junrong*(76)                                                 |
| Effect of Homogenization Pressure on the Stability and <i>in Vitro</i> Digestion of Flaxseed Oil Emulsion                                   | GE Yaojin, LI Yuhao, PENG Shengfeng*, LIU Wei(84)                                                        |
| Comparison of Peptide Composition and <i>in Vitro</i> Antioxidant Activity of Different Hydrolysates of Turbot Meat                         | LI Xiaofeng, ZHANG Lu, MA Tianxin, XIE Zuohua, LI Jinlin, TU Zongcai*(95)                                |
| Effect of Salt on the Quality of Stone Milled Whole Wheat Flour and Dried Noodles                                                           | CAI Mengdi, SHEN Chunxia, LI Yuhui, XIONG Shuangli*, LI Feng(102)                                        |
| Effects of Spice Essential Oils on Quality and Safety of Catfish Surimi Dry Sausages                                                        | ZHANG Yuting, ZHANG Yu, MA Lizhen, LIANG Liya*(108)                                                      |
| Changes of Water Migration and Texture Characteristics of Oil-tea Camellia Seeds during Fresh Storage                                       | LIU Yana, GENG Yangyang*, HU Bokai, ZHANG Shixin, CEN Lu, WANG Gang(116)                                 |
| Properties and Characterization of Cross-linked Purple Potato Starch with Different Degrees of Substitution                                 | FANG Huanxin, LIN Qinlin, XUE Xuliang, LU Xu, MIAO Song, ZHANG Longtao, DENG Kaibo*(125)                 |

#### Bioengineering

|                                                                                                                                              |                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Metabolic Transformation and Fermentation Condition of L-homoserine Synthesis by <i>Corynebacterium glutamicum</i>                           | GUO Qiushuang, BAO Qianqian, XU Yinbiao, CAI Shuai, SUN Yang, LI Hua*, LIU Yupeng*(133)           |
| Isolation, Purification and Characterization of $\beta$ -Glucosidase from Cassava Roots                                                      | CHANG Xiangxiang, TIAN Yongli, YAN Juan, LI Wenchao, LIU Shisheng*(141)                           |
| Study on Quantitative Counting Method of Lactic Acid Bacteria Powder                                                                         | YAN Tao, CHEN Keke, CHENG Wen, XIA Jiuxue, XU Jianzhong, ZHU Jianguo*(148)                        |
| Isolation, Identification and Enzyme Activity Analysis of Dominant Fermentation Strains from Traditional Pickled and Dried Mustard in Ningbo | LI Yi, TONG Xiuzi, XU Weicheng, GUO Sitong, CHEN Yuru, GUO Yuxing, KONG Xiaoxue*, LUO Haibo*(154) |

# SCIENCE AND TECHNOLOGY OF FOOD INDUSTRY

## SHIPIN GONGYE KEJI

Feb. 2023 Vol.44 NO.3

### CONTENTS

Screening and Application of Dominant Lactic Acid Bacteria and Yeasts in Rice Sour Soup from Miao

..... WU Maozhao\*, WANG Bin, DU Jiang, WANG Tao, ZOU Ying, HUANG Qiao(163)

### Processing Technology

Process Optimization on Mixed Fermentation of Pickled Radish with *Lactobacillus plantarum* and *Leuconostoc mesenteroides*

..... WANG Jiaoling, LI Jiaxing, YUE Yuanyuan\*(172)

Separation and Purification and Antioxidant Activity of Polyphenols from *Sargassum horneri*

..... HE Niaoiao, CHEN Yaxin, CAI Shuyun, SHI Lijun, CHEN Weizhu, CHEN Hui, HONG Zhuan, ZHANG Yi, ZHANG Yiping\*(183)

The Optimization of the Billet Formulation of Microwave Expanded Surimi Products by Response Surface Methodology

..... WANG Lei, WANG Jinxiang, LI Xuepeng\*, LI Jianrong, YANG Qing, WEI Zhengpeng, JI Guangren(192)

Process Optimization of the Method of Ionic Liquid Assisted Ultrasonic Extraction of Cannabidiol from Industrial Hemp Leaves

..... WANG Kunlun, GUAN Lijun\*, GAO Yang, YAN Song, LI Jialei, LI Bo, ZHOU Ye(203)

Isolation of Pure Species of Wild Boletaceae and Optimization of Inducer for Triterpenoid Synthesis in Liquid Culture

..... XU Wei, WANG Zhishuo, WANG Ruiqi, LIANG Shanshan, ZHANG Xue, XIE Hongyao, WU Fan(213)

Optimization on Extraction Technology and Component Analysis of Wax from Munage Grapes Pericarp

..... WANG Yufei, LÜ Yunhao, SONG Xinxin, JIANG Ying\*(221)

Optimization of Extraction Process of Essential Oil from Bergamot Peel and Analysis of Its Components and Antioxidant Activity

..... WANG Yihe, XIA Yanli, ZHANG Xin, YANG Hang, MEI Guofu, YU Bo, YI Jianming, XUE Huiling\*(230)

Extraction Optimization by Response Surface Methodology and Physicochemical Properties of Total Flavonoids from *Rostellularia procumbens* (L.) Ness

..... WEI Jing, HAN Pengchun, WU Mingyue, DU Zhiyun, HUANG Xiaoya, QIN Jingjing\*(240)

Enzyme Catalytic Synthesis of Phosphatidylserine in Aqueous Phase through Immobilization of Phosphatidylcholine

..... ZHU Shuai, HUANG Ao, LIU Xiazhong, LIU Yun\*(248)

Sulfation Modification and Properties Analysis of Soluble Dietary Fiber from *Rosa sterilis* Pomace

..... SU Jingcheng, ZHANG Chuandan, FAN Fangyu\*(255)

### Analysis and Determination

Analysis and Comprehensive Evaluation of Nutritional Quality of Bamboo Shoots from Different Cultivars

..... CHEN Zhongai, GENG Yangyang\*, HUANG Shan, LÜ Du, TANG Jianbo, WANG Mei, WANG Debin(262)

Determination of Amino Acids and Nucleosides in Medicinal and Edible Hybrid *Gastrodia elata* and Its Parent Varieties Based on Liquid Chromatography-Tandem Mass Spectrometry

..... WANG Guangzheng, GONG Qingqing, YU Nianjun\*, GAO Hanbo, XING Lihua, DU Fangping(269)

Colorimetric Detection of Sudan Based on the Aptamer and Cationic Compound Induced Gold Nanoparticles Aggregation

..... LIU Changyong, LU Chunxia\*, CHEN Xia, TANG Zonggui, DANG Fumin(279)

Aroma Determination of Three Freshly Squeezed Strawberry Juice Based on E-nose, HS-SPME-GC-MS and GC-IMS

..... ZHANG Jingwen, PAN Leiqing, TU Kang\*(286)

Comprehensive Evaluation of Quality Characteristics of Different Mango Varieties Based on Principal Component Analysis and HS-SPME-GC-MS Technology

..... HUANG Libiao, YUAN Yiyang, CHEN Lin, YANG Meiyan, PENG Zhiyuan, LU Xiaoting, GAO Xiangyang\*(297)

Analysis of Nutritional Components, Functional Components and Bioactivity of Edible Dock

..... LI Xianxiu, HE Tao, YANG Fan, WANG Chong, ZHOU Yi, SHA Ruyi, MAO Jianwei\*(307)

Simultaneous Preparation of Pu-erh Tea-selenium-doped Carbon Quantum Dots and Elemental Selenium and Its Application in Fe<sup>3+</sup> Detection

..... HU Weiying, YE Xiguang\*, CHEN Zhongzheng, ZHANG Yuanyuan, YAO Xiangrong, LIN Xiaorong\*, LI Bin\*(316)

Bibliometric Analysis on Research Status of Food Sourced Natural Polyphenols

..... HAO Hao, FAN Shucong, CHEN Chen\*(325)

### Storage and Preservation

Effects of Different Thawing Methods on the Quality Characteristics of the Duck Leg Meat

..... FENG Yumin, LIANG Shihui, DENG Huarong, LIU Qiaoyu, BAI Weidong, WU Junshi, CHEN Haiguang\*(336)

# SCIENCE AND TECHNOLOGY OF FOOD INDUSTRY

## SHIPIN GONGYE KEJI

Feb. 2023 Vol.44 NO.3

### CONTENTS

|                                                                                                                                                                    |                                                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Effects of <i>Pinus masoniana</i> and <i>Saxifraga stolonifera</i> (L.) Meerb. Essential Oils Preservative Treatment on the Storage Quality of Shine Muscat Grapes | LU Ying, GUAN Weiliang, CHEN Shanqiao, SUN Zhidong*, CAI Luyun*(346)                                    |
| Effect of Different Storage Temperatures on Postharvest Quality and Antioxidant Capacity of Yellow-fleshed Peach                                                   | YUAN Chushan, HUANG Yunian, DONG Xinrui, LIU Wei, SU Donglin, ZHU Xiangrong*(356)                       |
| Study on Quality Change of Waxberry in Storage Period by Slow Freezing and Fast Freezing                                                                           | HUANG Guozhong, WANG Qin, MA Lukai, LIU Huihan, LIU Dongjie*, WANG Jiayi, CHEN Xiaoting, WEN Zhiyi(365) |
| Effect of Cold Dormancy Combined with Film Packaging on Quality and Metabolism of <i>Crassostrea gigas</i> during Ecological Ice Temperature Keep Alive            | LUO Lili, LIN Hengzong, LIANG Zhiyuan, HUANG Yanping, QIN Xiaoming*(372)                                |

### Nutrition and Healthcare

|                                                                                                                                                                                          |                                                                                                   |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Effect of <i>Enteromorpha</i> Polysaccharide on Intestinal Bacteria and Short Chain Fatty Acids in Obese Golden Hamsters                                                                 | HUANG Shiying, CHEN Jiedong*, HAN Mengyuan, XU Caihong, GUO Fuchuan*(381)                         |
| Comparative Study on Hepatoprotective Effects of Alcohol Extract and Total Flavonoids of <i>Penthorum chinense</i> Pursh against Alcohol-induced Subacute Liver Injury in Mice           | JIU Hong, FU Manling, LIU Hongsheng, ZHANG Shibo, HOU Xiaofang, YAO Jiqiang, YUAN Yefei*(391)     |
| Nutritional Composition, Antioxidant Capacity and Protective Activity against DNA Damage of Yaowang Tea ( <i>Potentilla glabra</i> var. <i>mandshurica</i> ) Endemic to Qinling Mountain | YE Tong, NIE Congyi*, LI Xiao, ZHANG Zhanli, ZHANG Huafeng*(398)                                  |
| Anti-aging Effect of Ginseng Extract and Its Mechanism on <i>Drosophila melanogaster</i>                                                                                                 | WANG Jilan, QIAO Juhui, LIU Ying, ZHAO Yuchu, ZHANG Siyu, WANG Siming, LIU Meichen*(406)          |
| Effects and Mechanism of Ethanol Extract of Mulberry Fruit Powder on Aging of <i>Caenorhabditis elegans</i>                                                                              | ZENG Zhikang, ZHU Chen, WEI Ruilin, DUAN Shuhua, AN Ganding, SUN Zaixing, LEI Ji, LI Yufeng*(414) |

### Reviews

|                                                                                                                                                       |                                                                                                                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Research Progress on Types, Detection and Desensitization Technology of the Main Allergens in Nuts                                                    | HOU Yanli, ZHOU Jiayue, WANG Fanyu, LI Fangfei, GUO Qingqi*(421)                                                          |
| Research Progress of Food Freshness Indicator Packaging Based on Natural Pigment                                                                      | HAN Linna, DAI Zenghui, GU Mengqing, LI Zhe, XIE Tiemin, LU Fei*(432)                                                     |
| Research Progress on Contamination in Food and Harm of Polybrominated Diphenyl Ethers                                                                 | XIAO Yanling, ZHONG Zhihong, ZHANG Yi, ZENG Hongliang*(442)                                                               |
| The Processing Technology and Quality Evaluation of Cantonese-style Moon Cakes: A Review                                                              | LONG Yuting, CHAI Xiuhang, LI Shenghua, LIU Yuzhi, WANG Hesun, WANG Anshi, LIU Yuanfa*, LI Zhicheng*(452)                 |
| Research Progress on Antihypertensive Effect of Polysaccharide and Its Mechanism                                                                      | XU Jilong, LI Zhongyuan, YU Zihao, WANG Yaqi, QI Chen, GAO Rui, SHI Jiaxin, WEI Jinzhi, QIAO Hanzhen*, WANG Jinrong*(461) |
| Research Progress on Recovery, Treatment and High-value Utilization of Cheese Whey Wastewater                                                         | ZHANG Bo, LIU Yue, SONG Li, LUO Li, WANG Mingyang, QI Yanjiao*(470)                                                       |
| The Residue of Veterinary Medicine and Leanness-enhancing Agents in Meat and Advance in Detection Technology                                          | ZHANG Lei, ZHANG Yujiao, WANG Yuning, ZHANG Yimin, DONG Pengcheng, LUO Xin, MAO Yanwei*(481)                              |
| Research Progress on the Mechanisms of Decreasing Catalytic Activity of Lipase in the Production of Structured Lipids Synthesized by Enzymatic Method | PENG Bin, LI Jinlin, ZHONG Bizhen, HU Mingming, TU Zongcai(489)                                                           |
| Recent Advances in Determination Methods of Fatty Acid Markers in Royal Jelly                                                                         | YU Xinyu, LI Shanshan, TAO Lingchen, ZHANG Guozhi, HU Fuliang*(499)                                                       |
| Research Progress on Preparation Technology and Flavor Characteristics of Cold Brew Coffee                                                            | GAO Min, CAI Yanpei, WU Jihong, WANG Yisheng, HUANG Chun, LAO Fei*(508)                                                   |