



致力于天然美味探寻与发现  
提升美食生活体验  
专业品质 值得信赖

# 藤椒精油 就选雪麦龙

- 高标准的原料基地
- 精益的超临界CO<sub>2</sub>提取工艺
- 专业美味的产品应用方案
- 爆棚至1500的香气指标
- 塑化剂、重金属、溶剂残留安全指标的严格控制

ISSN 1002-0306  
9 771002 030210



郑州雪麦龙食品香料有限公司  
ZHENGZHOU XUEMAILON FOOD FLAVOR CO.,LTD

## 生产园区

新郑薛店食品工业园区枣园路001号  
[www.xuemailon.com](http://www.xuemailon.com)  
电话: 0371-62582555  
传真: 0371-62582333

**XUE MAILON**  
雪麦龙

# 食品工业科技

SHIPIN GONGYE KEJI

2021年11月 第42卷 第22期

## 目次

### 未来食品

- 时间-温度指示器在食品保质期预测中的应用 ..... 刘冬青, 陈朴, 贤鹏, 杜秉健, 徐楠, 向红\*(1)  
UPLC-MS/MS分析牛肉红朱橘成熟果实多酚类化合物积累特征 ..... 李文云, 韩秀梅, 柏自琴, 罗怿, 王小柯, 林乾, 李金强, 马玉华\*(11)  
基于网络药理学探讨桦褐孔菌降血糖功效成分及作用机制 ..... 武建平, 李文兰\*, 曲中原\*, 孙向明, 宋辉, 胡扬, 辛科颖, 聂承冬(18)

### 研究与探讨

- 添加糖与酱油对油炸鳕鱼晚期糖化终末产物形成的影响研究 ..... 刘芹邑, 张琪, 安婧, 董士远\*(30)  
AMPK活化调控的能量代谢对宰后牦牛肉肉色稳定性影响的研究 ..... 陈炼红, 王琳琳, 高代微(37)  
微胶囊化生姜、枸杞、栀子提取物的ACE抑制率、苦味及稳定性研究 ..... 朱启鹏, 李晓东\*, 刘璐, 陆欣宇, 周星宇, 唐雅倩, 高铜韩(47)  
壁材对方竹叶黄酮微胶囊结构及抗氧化性能的影响 ..... 黄珊, 刘嘉, 李贵华, 刘永翔, 黄毕应, 李俊\*(55)  
四种牛羊乳粉脂质的比较 ..... 赖敏, 吴桐, 谢奎, 李静, 刘小如, 邓泽元\*(62)  
添加东北酸菜对乳化香肠品质特性的影响 ..... 朱紫玉, 陈洪生, 俞龙浩\*(72)  
甲基纤维素对面糊流变性能及油炸挂糊肉片油脂渗透的影响 ..... 戴一朋, 章海风, 凌晓冬, 李梦倩, 曹晖\*(79)  
木聚糖酶对全麦发酵面团水相溶液流变及泡沫特性的影响 ..... 岳颖, 佟立涛, 王丽丽, 王凤忠\*, 刘丽娅\*(86)  
绣球菌中抑制 $\alpha$ -葡萄糖苷酶活性组分的筛选及作用机理 ..... 吴勇, 王泽玉, 周娜, 赵福, 赵佳山, 李耘业, 王欣, 李金杰\*(93)  
葡萄糖酸内酯酸化处理对未漂洗鳕鱼糜凝胶特性的影响 ..... 向晨曦, 徐新星, 刘康, 李钰金, 高瑞昌, 白帆, 汪金林\*, 赵元晖\*(99)

### 生物工程

- 耐硒芽孢杆菌的筛选及其亚硒酸盐还原机制的探究 ..... 杨锐, 余雍和, 程水源\*, 王璋倩\*(105)  
瑞士乳杆菌H11发酵乳饮料的ACE抑制活性及代谢组学研究 ..... 王昊乾, 李伯海, 赵景娜, 刘文俊, 陈永福, 孙天松\*(112)  
富顺香辣酱生产环境食源性致病细菌的分析及溯源分析 ..... 袁先铃, 张洲铕\*, 袁玉梅, 王俊丁, 雷鸣(118)  
荧光假单胞菌ZX对葡萄采后灰霉病的防治 ..... 魏雪, 江孟遥, 钟涛, 张曼, 王智荣, ZSOLT Zalan, FERENC Hegyi, KRISZTINA Takacs, 杜木英\*(125)  
欧拉型藏羊源粪肠球菌的分离鉴定及药敏实验 ..... 陈晓慧, 徐淑琴, 马祥兆, 贺曦, 贺晓龙, 冶贵生\*(133)  
鼠伤寒沙门氏菌生物被膜的清除效果研究 ..... 郑丽平, 陆兆新, 孔梁宇, 胡安妥, 孟凡强, 别小妹\*(140)

# 食品工业科技

SHIPIN GONGYE KEJI

2021年11月 第42卷 第22期

## 目 次

### 工艺技术

- 猴头菇三萜提取工艺优化及其抗氧化活性分析 ..... 李英迪, 曹艳, 夏其乐\*, 杨开, 毛荣良(153)  
超声辅助提取鲍皮胶原蛋白工艺优化及结构特征分析 ..... 李根, 任国艳\*, 李倩, 周明, 张轶馨, 肖枫(160)  
响应面法优化发酵香肠的低钠复合盐配方 ..... 王宁宁, 冯美琴, 孙健\*(169)  
琼脂/麦芽糊精缓释硬胶囊的制备、表征及其体外释放 ..... 宋作会, 侯汉学, 王文涛, 张锦丽\*(178)  
酶解-发酵法制备鱼鲜汁的工艺优化 ..... 徐刘贝, 马佳雯, 蔡金秀, 杨华, 戚向阳, 曹少谦\*(185)  
大孔树脂吸附桦褐孔菌多糖色素的机理及工艺优化 ..... 信传鑫, 杨金涛, 戴晓婧, 苏玲\*, 王琦\*(193)  
马氏珍珠贝软体酶法制备降糖肽的工艺优化及肽段分析  
..... 李佳芸, 王欣之, 韦源青, 卞慧敏, 刘睿\*, 吴皓\*(202)  
青藏高原狭果茶藨子籽油成分分析及原油三脱工艺优化 ..... 蔡庭秀, 叶英\*, 乔杨波, 刘哲, 王进英(212)  
酶法联合超声技术制备灵芝寡糖及其对乳酸杆菌的增殖作用  
..... 赵琴, 蔡铭\*, 徐靖, 李振皓, 田宝明, 杨开, 孙培龙\*(223)  
响应面法优化复合酶酶解制备可口革囊星虫胶原蛋白抗氧化肽工艺研究  
..... 彭易鑫, 陆旭丽\*, 代亚萍, 曹玉坡, 李积华, 龚霄, 庞杰(230)  
调节血脂保健粥的研制 ..... 刘小杰, 舒志成, 赵志红, 左迪\*(240)

### 包装与机械

- 远红外辅助热泵干燥食用玫瑰花瓣及产品品质分析 ..... 青舒婷, 杨丰, 张海仑, 李宇龙, 许军, 岳进\*(246)

### 分析检测

- 金磁微粒模拟酶电化学增强体系快速检测尿酸的含量  
..... 关桦楠, 吴巧艳, 彭勃, 薛悦, 龚德壮, 刘晓飞, 张娜(254)  
火麻油中五种大麻素的HPLC同时检测 ..... 孙冬梅, 兰韬\*, 云振宇, 于聪聪, 初侨, 张维冰(261)  
新型工业化生产低温腌制大头菜挥发性风味物质分析  
..... 张钰麟, 陈泓帆, 赵志平\*, 康馨樾, 聂鑫, 白婷, 王卫, 张佳敏, 罗淮良(268)  
闷黄新工艺对蒙顶黄芽品质及香气的影响 ..... 张厅, 刘晓, 王小萍, 龚雪蛟, 唐晓波\*, 王云, 李春华(276)  
不同品种马铃薯炒制加工品质的评价 ..... 蔡雪梅, 彭毅秦, 何莲, 乔明峰\*, 范文教, 陈云川, 韦献雅(283)  
石榴花游离型和结合型多酚提取物抗氧化活性探究 ..... 杨锐, 车一鸣, 黄斯琦, 赵立鹏, 罗瑜\*(290)  
基于近红外光谱技术对市售羊奶粉品质指标独立模型与通用模型探究  
..... 乔春艳, 张雪茹, 郑卫民, 李玲, 刘永峰\*(297)

# 食品工业科技

SHIPIN GONGYE KEJI

2021年11月 第42卷 第22期

## 目次

### 贮运保鲜

低温贮藏中华管鞭虾肌肉品质及组织蛋白酶H活性变化

- 李志鹏, 周晓娇, 水珊珊, HATAB Shaimaa Reda Abd Elkhalik, 张宾\*(306)  
植物精油结合壳聚糖涂膜对板栗采后的保鲜效果 ..... 龚晨兰, 杨治华\*, 吴富敏, 甘维, 徐振鑫(314)  
包装方式对糌粑粉贮藏品质及货架期的影响 ..... 徐婧婷, 张菀坤, 陈辰, 郭顺堂\*(321)  
食用菌对鸭肉乳化肠冷藏过程中理化品质与安全特性的影响 ..... 孙金, 陈坤朋, 夏强, 孙杨赢, 潘道东\*(329)

### 营养与保健

- 驴骨胶原蛋白肽对骨质疏松大鼠的改善作用 ..... 周广运, 樊雨梅, 刘楚怡, 廖峰, 张筱榕, 李八方\*(336)  
白芍总苷对高尿酸血症肾损害大鼠肾脏的保护作用 ..... 刘冬恋, 秦琴\*, 杨婷, 何欣宇, 张雨晴, 王玉江(344)  
染料木黄酮抑制AKR1C3抗去势抵抗前列腺癌的生长及其机制研究 ..... 陈晋, 伏天雨, 刘江, 周恒平, 孙永霞, 陈思琪, 艾丽, 朱彦锋\*(350)  
茯苓-山药复配米稀和猴头菇饼干对功能性消化不良大鼠的改善作用 ..... 钟亚东, 潘猛, 徐德昌, 孙永敢, 胡婕伦, 聂少平, 钟虹光, 尧梅香, 谢明勇\*(355)  
瓶尔小草不同溶剂提取物的体外生物活性 ..... 曾永芳, 廖华珍, 许海棠\*, 王聪, 韦贻春(363)  
冠突散囊菌固体发酵铁观音茶的主要活性成分及其抗氧化性分析 ..... 邹金美, 宋宗仁, 蔡咚玲, 蔡滨雅, 张敬虎, 张国广\*(369)

### 专题综述

- 降低挂糊油炸制品含油量的研究进展 ..... 杨雪欣, 陈可靖(376)  
海洋细菌来源几丁质酶的研究进展 ..... 张新月, 张月琪, 王凤彪, 王纪生, 倪浩东, 王致鹏\*(383)  
食品中金黄色葡萄球菌定量风险评估的研究进展 ..... 黄欣悦, 陈娟\*, 马欣玥(390)  
NO延缓新鲜果蔬成熟衰老和提高抗性效果及作用机制研究进展 ..... 朱丽娟, 侯佳迪, 王军萍, 刘少伟, 郁志芳\*(398)  
植物多肽类胰蛋白酶抑制剂降糖功效研究进展 ..... 王蕾, 王雅馨, 石亚伟\*(406)  
芒果品质无损检测技术研究进展 ..... 刘彩华, 李曦, 朱正杰, 包竹君, 谢晓娜, 杨郑州, 王赟, 刘芳\*(413)  
发菜多糖的提取、纯化及生物活性研究进展 ..... 朱蓉静, 陈雪峰\*, 刘欢, 孟广燕, 党玥(423)  
海洋生物活性物质抗衰老作用研究进展 ..... 王力, 肖嵋方, 刘斌, 陈福泉, 倪辉, 曾峰\*(433)  
欧李深加工产品开发研究进展 ..... 张可欣, 张士凯, 王敏, 丁政宇, 张启月, 吴澎\*(442)  
亚油酸水合酶生物合成微生物源羟基不饱和脂肪酸的研究进展 ..... 彭舒悦, 梁暖意, 张廷镇, 郭前婉, 王琪, 赵萌\*, Michael G. Gänzle(449)

**SCIENCE AND TECHNOLOGY OF FOOD INDUSTRY**  
**SHIPIN GONGYE KEJI**  
**Nov. 2021 Vol.42 NO.22**

**CONTENTS**

**Future Food**

- Application of Time-Temperature Indicator in Food Shelf Life Prediction ..... LIU Dongqing, CHEN Pu, ZANG Peng, DU Bingjian, XU Nan, XIANG Hong\*(1)
- Polyphenolic Compounds Analysis in Fruits of 'Niurouhong' Tangerine by UPLC-MS/MS ..... LI Wenyun, HAN Xiumei, BAI Ziqin, LUO Yi, WANG Xiaoke, LIN Qian, LI Jinqiang, MA Yuhua\*(11)
- Action Mechanism of *Inonotus obliquus* in the Treatment of Diabetes and the Material Basis of Pharmacodynamics Based on Network Pharmacology ..... WU Jianping, LI Wenlan\*, QU Zhongyuan\*, SUN Xiangming, SONG Hui, HU Yang, XIN Keying, NIE Chengdong(18)

**Research and Investigation**

- Effect of Soft White Sugar and Soy Sauce Addition on the Formation of Advanced Glycation End Products in Fried Sturgeon Patties ..... LIU Qinyi, ZHANG Qi, AN Jing, DONG Shiyuan\*(30)
- Effect of Energy Metabolism Regulated by AMPK Activation on Meat Color Stability of Postslaughter Yak Meat ..... CHEN Lianhong, WANG Linlin, GAO Daiwei(37)
- ACE Inhibitory Rate, Bitterness and Stability of Microencapsulated Extracts of Ginger, Chinese Wolfberry and *Gardenia jasminoides* ..... ZHU Qipeng, LI Xiaodong\*, LIU Lu, LU Xinyu, ZHOU Xingyu, TANG Yaqian, GAO Tonghan(47)
- Effects of Wall Materials on the Structure and Antioxidant Activities of the Bamboo Leaves Flavonoids Microcapsules ..... HUANG Shan, LIU Jia, LI Guihua, LIU Yongxiang, HUANG Biying, LI Jun\*(55)
- Comparison of Lipids in Four Kinds of Milk Powder of Cow and Goat ..... LAI Min, WU Tong, XIE Kui, LI Jing, LIU Xiaoru, DENG Zeyuan\*(62)
- Effect of Adding Northeast Chinese Sauerkraut on Quality Characteristics of Emulsified Sausage ..... ZHU Ziyu, CHEN Hongsheng, YU Longhao\*(72)
- Effect of Methylcellulose on Rheological Properties of Batter and Oil Permeation of Fried Pork Slices ..... DAI Yipeng, ZHANG Haifeng, LING Xiaodong, LI Mengqian, CAO Hui\*(79)
- Effects of Xylanase on the Rheology and Foam Characteristics of Whole Wheat Fermented Dough Liquor ..... YUE Ying, TONG Litao, WANG Lili, WANG Fengzhong\*, LIU Liya\*(86)
- Screening and Mechanism of Inhibiting  $\alpha$ -Glucosidase Activity Fraction from *Sparassis crispa* ..... WU Yong, WANG Zeyu, ZHOU Na, ZHAO Fu, ZHAO Jiashan, LI Yunye, WANG Xin, LI Jinjie\*(93)
- Effect of Glucono- $\delta$ -lactone Acidification Treatment on the Gel Properties of Unrinsed Sturgeon Surimi ..... XIANG Chenxi, XU Xinxing, LIU Kang, LI Yujin, GAO Ruichang, BAI Fan, WANG Jinlin\*, ZHAO Yuanhui\*(99)

**Bioengineering**

- Screening of Selenium-tolerant *Bacillus* and Exploration of Its Selenite Reduction Mechanism ..... YANG Rui, YU Yonghe, CHENG Shuiyuan\*, WANG Zhangqian \*(105)
- Study on ACE Inhibitory Activity and Metabolomics of *Lactobacillus helveticus* H11 Fermented Milk Beverage ..... WANG Haoqian, LI Bohai, ZHAO Jingna, LIU Wenjun, CHEN Yongfu, SUN Tiansong\*(112)
- Analysis and Traceability Analysis of Food-borne Pathogenic Bacteria in the Production Environment of Fushun Spicy Sauce ..... YUAN Xianling, ZHANG Zhouyou\*, YUAN Yumei, WANG Junding, LEI Ming(118)
- Control of Gray Mold in Postharvest Grapes with *Pseudomonas fluorescens* ZX ..... WEI Xue, JIANG Mengyao, ZHONG Tao, ZHANG Man, WANG Zhirong, ZSOLT Zalan, FERENC Hegyi, KRISZTINA Takacs, DU Muying\*(125)
- Isolation, Identification and Drug Susceptibility Test of *Enterococcus faecalis* from Tibetan Sheep of Euler Type ..... CHEN Xiaohui, XU Shuqin, MA Xiangzhao, HE Xi, HE Xiaolong, YE Guisheng\*(133)
- Study on the Removal Effect of *Salmonella typhimurium* Biofilm ..... ZHENG Liping, LU Zhaoxin, KONG Liangyu, HU Antuo, MENG Fanqiang, BIE Xiaomei\*(140)

**SCIENCE AND TECHNOLOGY OF FOOD INDUSTRY**  
**SHIPIN GONGYE KEJI**  
**Nov. 2021 Vol.42 NO.22**

**CONTENTS**

**Processing Technology**

Optimization of Extraction Process of <i>Hericium erinaceus</i> Triterpenes and Its Antioxidant Activity	..... <i>LI Yingdi, CAO Yan, XIA Qile*, YANG Kai, MAO Rongliang</i> (153)
Optimization of Ultrasound-assisted Extraction and Structural Characteristics Analysis of Collagen from Chinese Giant Salamander( <i>Andrias davidianus</i> ) Skin	..... <i>LI Gen, REN Guoyan*, LI Qian, ZHOU Ming, ZHANG Yixin, XIAO Feng</i> (160)
Optimization of Low-sodium Compound Salt Formula for Fermented Sausages by Response Surface Methodology	..... <i>WANG Ningning, FENG Meiqin, SUN Jian*</i> (169)
Preparation, Characterization and <i>in Vitro</i> Release of Agar/Maltodextrin Sustained-release Capsules	..... <i>SONG Zuohui, HOU Hanxue, WANG Wentao, ZHANG Jinli*</i> (178)
Optimization of Enzymatic Hydrolysis-Fermentation Process for Preparing Fish Juice	..... <i>XU Liubei, MA Jiawen, CAI Jinxiu, YANG Hua, QI Xiangyang, CAO Shaoqian*</i> (185)
Adsorption Mechanism and Process Optimization of <i>Inonotus obliquus</i> Polysaccharide Pigment by Macroporous Resin	..... <i>XIN Chuanxin, YANG Jintao, DAI Xiaojing, SU Ling*, WANG Qi*</i> (193)
Process Optimization of the Preparation of Hypoglycemic Peptides by Enzymatic Hydrolysis from <i>Pinctada martensi</i> Flesh and Peptides Analysis	..... <i>LI Jiayun, WANG Xinzhi, WEI Yuanqing, BIAN Huimin, LIU Rui*, WU Hao*</i> (202)
Composition of <i>Ribes stenocarpum</i> Maxim Seed Oil and the Optimization of Crude Oil Refining Process	..... <i>CAI Tingxiu, YE Ying*, QIAO Yangbo, LIU Zhe, WANG Jinying</i> (212)
Preparation of <i>Ganoderma lucidum</i> Oligosaccharides by Enzyme Combined with Ultrasonic Technology and Its Proliferation Effect on <i>Lactobacillus</i>	..... <i>ZHAO Qin, CAI Ming*, XU Jing, LI Zhenhao, TIAN Baoming, YANG Kai, SUN Peilong*</i> (223)
Optimization of the Preparation of Collagen Antioxidant Peptides from <i>Phascolosoma esculenta</i> by Compound Enzymatic Hydrolysis by Response Surface Methodology	..... <i>PENG Yixin, LU Xuli*, DAI Yaping, CAO Yupo, LI Jihua, GONG Xiao, PANG Jie</i> (230)
Development of Health-care Porridge for Regulating Blood Lipids	..... <i>LIU Xiaojie, SHU Zhicheng, ZHAO Zhihong, ZUO Di*</i> (240)

**Packaging and Machinery**

Far-infrared Assisted Heat Pump Drying of Edible Roses Petals and the Product Quality Analysis	..... <i>QING Shuting, YANG Feng, ZHANG Hailun, LI Yulong, XU Jun, YUE Jin*</i> (246)
--	---

**Analysis and Determination**

Enhanced Detection of Uric Acid through Fe <sub>3</sub> O <sub>4</sub> @Au Based Highly Sensitive Electrochemical Biosensor	..... <i>GUAN Huanan, WU Qiaoyan, PENG Bo, XUE Yue, GONG Dezhuang, LIU Xiaofei, ZHANG Na</i> (254)
Simultaneous Determination of Five Cannabinoids in Hempseed Oil by HPLC	..... <i>SUN Dongmei, LAN Tao*, YUN Zhenyu, YU Congcong, CHU Qiao, ZHANG Weibing</i> (261)
Analysis of Volatile Flavor Compounds in Novel Industrial Produced Low-temperature Pickled Mustard Roots	..... <i>ZHANG Yulin, CHEN Hongfan, ZHAO Zhiping*, KANG Xinyue, NIE Xin, BAI Ting, WANG Wei, ZHANG Jiamin, LUO Huailiang</i> (268)
Effects of New Piling Technology on Quality and Aroma of Mengding Yellow Bud	..... <i>ZHANG Ting, LIU Xiao, WANG Xiaoping, GONG Xuejiao, TANG Xiaobo*, WANG Yun, LI Chunhua</i> (276)
Quality Evaluation of Different Potato Varieties after Stir-frying Processing	..... <i>CAI Xuemei, PENG Yiqin, HE Lian, QIAO Mingfeng*, FAN Wenjiao, CHEN Yunchuan, WEI Xianya</i> (283)
Antioxidant Activity of Free and Bound Polyphenols from Pomegranate Flowers	..... <i>YANG Kun, CHE Yiming, HUANG Siqi, ZHAO Lipeng, LUO Yu*</i> (290)
Research on the Independent Model and General Quantitative Model of Commercial Goat Milk Powder Quality Index Based on Near Infrared Spectroscopy Technology	..... <i>QIAO Chunyan, ZHANG Xueru, ZHENG Weimin, LI Ling, LIU Yongfeng*</i> (297)

**SCIENCE AND TECHNOLOGY OF FOOD INDUSTRY**  
**SHIPIN GONGYE KEJI**  
**Nov. 2021 Vol.42 NO.22**

**CONTENTS**

**Storage and Preservation**

Influence of Cold Storage on the Quality of Muscle and the Activity of Cathepsin H in Red Shrimp( <i>Solenocera crassicornis</i> ) .....	LI Zhipeng, ZHOU Xiaojiao, SHUI Shanshan, HATAB Shaimaa Reda Abd Elkhalek, ZHANG Bin*(306)
Effects of Plant Essential Oils Treatment Combined with Chitosan Coating on Fresh-keeping of Post-harvested Chestnuts .....	GONG Shenglan, YANG Zhihua*, WU Fumin, GAN Wei, XU Zhenxin(314)
Influence of Packaging Method on the Storage Quality and Shelf Life of Zanba .....	XU Jingting, ZHANG Wankun, CHEN Chen, GUO Shuntang*(321)
Effects of Edible Mushrooms on Physicochemical Properties and Safety of Emulsified Duck Intestines during Storage .....	SUN Jin, CHEN Kunpeng, XIA Qiang, SUN Yangying, PAN Daodong*(329)

**Nutrition and Healthcare**

Effect of Donkey Bone Collagen Peptide on Improving Osteoporosis in Rats .....	ZHOU Guangyun, FAN Yumei, LIU Chuyi, LIAO Feng, ZHANG Xiaohan, LI Bafang*(336)
Protective Effect of Total Glucosides of Paeony on Renal in Rats with Hyperuricemic Nephropathy .....	LIU Donglian, QIN Qin*, YANG Ting, HE Xinyu, ZHANG Yuqin, WANG Yujiang(344)
Genistein Inhibits the Growth of AKR1C3 Anti-castration Resistance Prostate Cancer and Its Mechanism .....	CHEN Jin, FU Tianyu, LIU Jiang, ZHOU Hengping, SUN Yongxia, CHEN Siqi, AI Li, ZHU Yanfeng*(350)
Ameliorative Effect of <i>Poria cocos</i> -Yam Riched Rice Paste and <i>Hericium erinaceus</i> Biscuit on Rats with Functional Dyspepsia .....	ZHONG Yadong, PAN Meng, XU Dechang, SUN Yonggan, HU Jielun, NIE Shaoping, ZHONG Hongguang, YAO Meixiang, XIE Mingyong*(355)
Study on Biological Activity of Different Solvent Extracts from <i>Ophiolossum vulgatum</i> L. <i>in Vitro</i> .....	ZENG Yongfang, LIAO Huazhen, XU Haitang*, WANG Cong, WEI Yichun(363)
Analysis on the Main Active Components and Antioxidant Activity of Tieguanyin Tea Fermentation by <i>Eurotium cristatum</i> .....	ZOU Jinmei, SONG Zongren, CAI Dongling, CAI Binya, ZHANG Jinhu, ZHANG Guoguang*(369)

**Reviews**

Research Progress of Reducing Oil Content of Fried Products after Being Coated with Batter .....	YANG Xuexin, CHEN Kejing(376)
Research Progress of Microbial Chitinase from Marine Bacteria .....	ZHANG Xinyue, ZHANG Yueqi, WANG Fengbiao, WANG Jisheng, NI Haodong, WANG Zhipeng*(383)
Research Progress of Quantitative Risk Assessment of <i>Staphylococcus aureus</i> in Food .....	HUANG Xinyue, CHEN Juan*, MA Xinyue(390)
Research Progress on Effect and Mechanism of NO Delaying Ripening and Senescence and Improving Resistance of Fresh Fruits and Vegetables .....	ZHU Lijuan, HOU Jiadi, WANG Junping, LIU Shaowei, YU Zhifang*(398)
Recent Progress in Hypoglycemic Effect of Plant Protein Trypsin Inhibitors .....	WANG Lei, WANG Yaxin, SHI Yawei*(406)
Progress of Non-destructive Testing Technology in Mango Quality .....	LIU Caihua, LI Xi, ZHU Zhengjie, BAO Zhujun, XIE Xiaona, YANG Zhengzhou, WANG Yun, LIU Fang*(413)
Research Progress on Extraction, Purification and Biological Activities of <i>Nostoc flagelliforme</i> Polysaccharides .....	ZHU Rongjing, CHEN Xuefeng*, LIU Huan, MENG Guangyan, DANG Yue(423)
Research Progress on the Anti-aging Effect of Marine Bioactive Substances .....	WANG Li, XIAO Meifang, LIU Bin, CHEN Fuquan, NI Hui, ZENG Feng*(433)
Study and Outlook of Deep Processing Products of <i>Prunus humilis</i> .....	ZHANG Kexin, ZHANG Shikai, WANG Min, DING Zhengyu, ZHANG Qiyue, WU Peng*(442)
Research Progress in Biosynthesis of Microbial Hydroxyl Unsaturated Fatty Acids by Linoleic Acid Hydratase .....	PENG Shuyue, LIANG Nuanyi, ZHANG Yanzhen, GUO Qianwan, WANG Qi, ZHAO Meng*, Michael G. Gänzle(449)