目次

中国
2026年 第45卷

专题论述

酵母中肌醇代谢与转运机制及其对发酵性能影响的研究进展 …… 张 楠，刘琴琴，胡晓茵，陈 丹，段 坦，徐 宁*(1)
白酒酒糟衍生功能材料研究进展 …… 曹忠耀*，刘之涛，陶 雪，郑华艳，张国强，闫松显，唐 勇(9)
白酒老熟机理研究进展 …… 胡小霞，钟 航，黄小俐，席德州*(16)
基于现代微生物技术的白酒丢糟资源化利用研究进展 …… 郭云霞，潘天全，李 娜，朱晴云，刘耕典，常 强，李永庆，段兆法，吴国火，程 伟*(26)
益生菌干预酒精性肝损伤：直接酶促解毒与肠-肝轴调控 …… 张婷婷，张姗娜，刘 梅*(34)
预制菜食品安全国家标准的法理定位与制度完善 …… 王梦森，李佩霖*(41)
高温大曲发酵过程中微生物群落演替规律研究进展 …… 彭远凤，倪 斌*，吴 俊，周红江，周忠斌，李 帅，刘利民，石 宝(51)
中国露酒研究进展及应用前景 …… 赵江林，韩张斌，朱美玲，张 煜，张智良，唐 亮，郭涛红，张 娟，黄小东*(58)
基于多组学的高温大曲固态发酵机制研究进展 …… 刘 竹，屠克叼，杨 琪，李国琼，黄 魏，李浪金，王 佳*，杨 艳*(66)

研究报告

高温大曲发酵过程中曲仓生物气溶胶微生物群落演替规律 …… 程 迈，朱建猛，王 超，阙安康，杨道伟，莫娇娇，邱树毅*，周剑丽(76)
酿酒源产蛋白酶菌株筛选鉴定及其发酵条件优化与酶学性质 …… 徐玮琪，谢莹莹，黄 仁，郭唯涌，陈清华，陈 凤，任 红*(86)
不同大米碳氮成分对米酒醇酯水平的影响 …… 黎 露，何宇淋，邱树毅，王春晓*(96)
梨酒发酵工艺优化及其品质与风味物质变化规律 …… 杨志康，胡厚立，李文远，林梦桦，梁 颖，张志勇，李亚辉*，王树林*(104)
高产脂肪酶棘孢曲霉筛选、发酵条件优化及其脂肪酶酶学性质 …… 徐哲明，冯俊清，熊英梅，陈 刚*(118)
桑源内生菌协同桑叶发酵提升酒类中1-脱氧野尻霉素产量 …… 江 威，江 丹，白 玉，林 斌，李维星，李 锐，唐 洁，李 群，宁珍珍，杨 强，杨生智，陈申习*(125)
酱香型白酒高温堆积酒醅微生物群落结构及酶活力动态演替 …… 杜祥宝，张媛媛，李顺涛，吴培文，汪慧慧，甄 诺，高 硕，牛邦彦，孟 镇*(132)
高产纤维素酶菌株的诱变选育及其纤维素酶酶学性质 …… 田英华，于 雪，杨嘉琪，张慧鑫，李 闯，郭宏文，杨系玲(141)
凤香型白酒酒醅中芽孢杆菌产酶与产香特性 …… 张 艳，吴婷兰，党 喆，冯雅芳，金成勇，张永利，刘开辉*(148)
遮光处理葡萄树对‘马瑟兰’葡萄酒色泽、酚类物质及抗氧化活性的影响 … 张利利，武 运，杨华峰，白晓雪，游鸿瑞，唐江北，石连莲，黄文书*(157)
功能性醋粉制备及其体外肠道屏障保护活性 …… 陶汇源，张 豹，卞瀚勤*，朱胜虎(165)
中高温大曲产淀粉酶、蛋白酶与酯化酶功能菌挖掘及群落酶系解析 …… 甘浪飞，曾靖雯，陈启智，侯国俊，余方平，关统伟，吴 月，张 丹，赵 玲，田 蕾*，徐 岩(172)
储藏温度对糯红高粱籽粒理化指标、淀粉特性及酿造性能的影响 …… 田圆圆，马振兵*，李英杰，龚利娟，雷 雨，孙顺川，李浩阳，张魏东，雷 震，左鑫杰(182)

酿造 目次

第09期 总 第415期

温度调控对胶红酵母与酿酒酵母混菌发酵苹果酒品质及风味的影响 ……高 可，刘世娇，张玉欲，陈映羲*(191)
植物提取物对苦荞酒色泽稳定性、功能成分及饮后舒适度的影响 ……阚玉红，张亚方*，吴迪琛，田 浩，罗高建，杜培艳，刘 巍，童国强，杨 强(201)

应用技术

红酸汤源降亚硝酸盐乳酸菌筛选及复合发酵工艺优化 …… 张晓云，刘制杰，周慧玲，魏绍峰，张 琴，罗 燕，王俊超，任 一，胡先运*(209)
解淀粉芽孢杆菌35M产2,3-丁二醇发酵条件优化 ……陈 静，李敬一，牛永武，解复红*(218)
适配工业化应用的酿酒酵母FMS高密度培养体系构建 …… 许文佳，薛 庆，杨一圣，谷翔欣，党 超，王 颉，柳 毅，刘亚琼*(226)
解酒泡腾片制备及其解酒护肝功效 …… 佟伟霜，许晓雨，刘念珠，刘宇虹，汪 丹，刘凌云，李 颖，冯文坡，范卫卫，邱渊皓，高华山*(234)
产胞外多糖植物乳植杆菌RS20D高密度培养条件优化…… 姚珊珊，王 翔，赵 宁，张玉杰，杨进宇，李 琴，李建龙，胡凯弟，周 静，付瑞东，刘书亮*(242)
黑橄榄糯米甜酒酿工艺优化及品质特性 ……区晓阳，藤丽丽，黄燕欣，李 颖，张 玲，罗剑斌*(252)
基于插入式近红外光谱技术的酒醅理化指标在线检测系统应用…… 杨甲平，秦 辉，游 琪，宋 攀，王前锦，林 杨，雷 磊，王胜威*(261)

分析检测

氯化钾部分替代食盐对减钠虾酱中风味化合物的影响 …… 孟改青，寇子楠，张晓磊，刘杨柳，安志同，孙纪录*(267)
本土非酿酒酵母与商业酿酒酵母混合发酵对不同品种葡萄酒香气品质的影响 …… 隋修雨，安 毅，钟晨晓，李 进，周鹏辉，兰义宾，段长青，燕国梁*(279)
基于HS-SPME-GC-MS分析不同轮次薏仁白酒挥发性成分差异 ……龙艳丽，吴宸印，蒋林江，杨熟英*，舒伯精，杜成兴，陆 宽(288)
脆红李果酒发酵工艺优化及挥发性风味物质分析 ……徐向波*，陈慧琳，廖私涵，曾新润，阳 松，葛峙岳，朱洪梅(295)
高效液相色谱法测定绿豆露酒中牡荆素与异牡荆素含量 …… 吉 喆，甄 诺，兰 余，张瑛毓，袁 强，胡雯钦，王 丹，张 琴，马 康，孟 镇*(301)
基于非靶向代谢组学的不同陈酿年份山西老陈醋风味物质比较 …… 武雨伦，焦 剑，任晓荣，吉晋波，张慧如，郭鑫磊，曹学丽*(307)
基于智能感官与化学计量学的低度白酒风味特征差异分析 ……安凯园，杜艳红*，李 晓，胡春红，李斯迈，谭 昊，李婷婷，陈思佳，吴雅健，王 珊(315)

经营管理

产业生态视阈下白酒产业集群能级跃升的机理与路径：基于泸州“四端”协同的实证分析 ……杨陈静*(322)
白酒企业非遗叙事类型和品牌历史对消费者购买意愿的影响 ……乐倩倩，胡常春*(329)

China

Contents

2026 Vol.45 No.09

Reviews

Advances in Metabolism and Transport Mechanisms of Inositol in Yeast and Their Effects on Fermentation Performance ····· ZHANG Nan, LIU Qinqin, HU Xiaoyin, CHEN Dan, DUAN Tan, XU Ning* (1)
Research Progress on Functional Materials Derived from Baijiu Distillers' Grains ····· CAO Zhongyao*, LIU Zhitao, TAO Xue, ZHENG Huayan, ZHANG Guoqiang, YAN Songxian, TANG Yong (9)
Research Progress on Baijiu Aging Mechanism ····· HU Xiaoxia, ZHONG Hang, HUANG Xiaoli, XI Dezhou* (16)
Research Progress on Resource Utilization of Baijiu Distiller's Grains Based on Modern Microbial Technology ····· GUO Yunxia, PAN Tianquan, LI Na, ZHU Qingyun, LIU Gengdian, CHANG Qiang, LI Yongqing, DUAN Zhaofa, WU Guohuo, CHENG Wei* (26)
Probiotic Intervention against Alcoholic Liver Injury: Direct Enzymatic Detoxification and Gut-Liver Axis Modulation ····· ZHANG Tingting, ZHANG Shanna, LIU Mei* (34)
Legal Orientation and Institutional Perfection of National Food Safety Standard for Prepared Dishes ····· WANG Mengsen, LI Peilin* (41)
Research Progress on Microbial Community Succession Patterns in High-Temperature Daqu during Fermentation ····· PENG Yuanfeng, NI Bin*, WU Jun, ZHOU Hongjiang, ZHOU Zhongbin, LI Shuai, LIU Limin, SHI Bao (51)
Research Progress and Application Prospects of Chinese Lujiu ····· ZHAO Jianglin, HAN Zhangbin, ZHU Meiling, ZHANG Yu, ZHANG Zhiliang, TANG Liang, GUO Taohong, ZHANG Juan, HUANG Xiaodong* (58)
Research Progress on Solid-State Fermentation Mechanism of High-Temperature Daqu Based on Multi-omics ····· LIU Zhu, TU Kediao, YANG Qi, LI Guoqiong, HUANG Wei, LI Langjin, WANG Jia*, YANG Yan* (66)

Research Article

Succession Patterns of Microbial Communities in Bioaerosols of Fermentation Room during High-Temperature Daqu Fermentation ····· CHENG Mai, ZHU Jianmeng, WANG Chao, QUE Ankang, YANG Daowei, MO Jiaojiao, QIU Shuyi*, ZHOU Jianli (76)
Screening, Identification, and Fermentation Condition Optimization of Protease-Producing Strain Derived from Baijiu Production and Its Enzymatic Property ····· XU Weiqi, XIE Yingying, HUANG Ren, GUO Weiyong, CHEN Qinghua, CHEN Feng, REN Hong* (86)
Effects of Carbon-Nitrogen Compositions of Different Rice Varieties on Higher Alcohol and Acetate Ester Levels in Rice Wine ····· LI Lu, HE Yulin, QIU Shuyi, WANG Chunxiao* (96)
Optimization of Pear Wine Fermentation Process and Variation Patterns of Quality and Flavor Compounds ····· YANG Zhikang, HU Houli, LI Wenyuan, LIN Menghua, LIANG Ying, ZHANG Zhiyong, LI Yahui*, WANG Shulin* (104)
Screening and Fermentation Condition Optimization of High Lipase-Producing *Aspergillus aculeatus* and Enzymatic Property of Its Lipase ····· XU Zheming, FENG Junqing, XIONG Yingmei, CHEN Gang* (118)
Synergistic Fermentation of Mulberry Leaves by Mulberry-Derived Endophytes to Enhance 1-Deoxynojirimycin Yield in Alcoholic Beverages ····· JIANG Wei, JIANG Dan, BAI Yu, LIN Bin, LI Weixing, LI Rui, TANG Jie, LI Qun, NING Zhenzhen, YANG Qiang, YANG Shengzhi, CHEN Shenxi* (125)
Dynamic Succession of Microbial Community Structure and Enzymatic Activity in High-Temperature Stacking Fermented Grains of Sauce-Flavor Baijiu ····· DU Xiangbao, ZHANG Yuanyuan, LI Shuntao, WU Peiwen, WANG Huihui, ZHEN Nuo, GAO Shuo, NIU Bangyan, MENG Zhen* (132)
Mutagenesis Screening of High-Cellulase-Producing Strain and Enzymatic Property Analysis of Its Cellulase ····· TIAN Yinghua, YU Xue, YANG Jiaqi, ZHANG Huixin, LI Chuang, GUO Hongwen, YANG Xiling (141)
Enzyme-Producing and Aroma-Generating Characteristics of *Bacillus* Strains in Fermented Grains of Feng-Flavor Baijiu ····· ZHANG Yan, WU Tinglan, DANG Zhe, FENG Yafang, JIN Chengyong, ZHANG Yongli, LIU Kaihui* (148)
Effect of Shading Treatment of Grapevine on Color, Phenolic Compounds and Antioxidant Activity of 'Marselan' Wine ····· ZHANG Lili, WU Yun, YANG Huafeng, BAI Xiaoxue, YOU Hongrui, TANG Jiangbei, SHI Lianlian, HUANG Wenshu* (157)
Preparation and *in Vitro* Intestinal Barrier-Protective Activity of Functional Vinegar Powder ····· TAO Huiyuan, ZHANG Bao, BIAN Hanqin*, ZHU Shenghu (165)
Mining of Amylase-, Protease-, and Esterase-Producing Functional Microorganisms and Analysis of Community Enzyme System in Medium-High Temperature Daqu ····· GAN Langfei, ZENG Jingwen, CHEN Qizhi, HOU Guojun, YU Fangping, GUAN Tongwei, WU Yue, ZHANG Dan, ZHAO Ling, TIAN Lei*, XU Yan (172)
Effect of Storage Temperature on Physicochemical Index, Starch Property and Brewing Performance of Glutinous Red Sorghum Grains ····· TIAN Yuanyuan, MA Zhenbing*, LI Yingjie, GONG Lijuan, LEI Yu, SUN Shunchuan, LI Haoyang, ZHANG Weidong, LEI Zhen, ZUO Xinjie (182)
Effects of Temperature Regulation on Quality and Flavor of Cider Co-fermented by *Rhodotorula mucilaginosa* and *Saccharomyces cerevisiae* ····· GAO Ke, LIU Shijiao, ZHANG Yuyu, CHEN Yingxi* (191)

Brewing

Serial No.415

Contents

Effects of Plant Extracts on Color Stability, Functional Components and Post-drinking Comfort of Tartary Buckwheat Integrated Alcoholic Beverage ····· KAN Yuhong, ZHANG Yafang*, WU Dichen,TIAN Hao, LUO Gaojian, DU Peiyan, LIU Wei, TONG Guoqiang, YANG Qiang (201)

Applied Technology

Screening of Nitrite-Degrading Lactic Acid Bacteria from Red Sour Soup and Optimization of Compound Fermentation Process ····· ZHANG Xiaoyun, LIU Zhijie, ZHOU Huiling, WEI Shaofeng, ZHANG Qin, LUO Yan, WANG Junchao, REN Yi, HU Xianyun* (209)

Optimization of Fermentation Conditions for 2,3-Butanediol-Producing *Bacillus amyloliquefaciens* Strain 35M ····· CHEN Jing, LI Jingyi, NIU Yongwu, XIE Fuhong* (218)

Construction of High-Density Culture System of *Saccharomyces cerevisiae* FMS for Industrial Application ····· XU Wenjia, XUE Qing, YANG Yisheng, GU Xiangxin, DANG Chao, WANG Jie, LIU Yi, LIU Yaqiong* (226)

Preparation and Efficacy Evaluation of Effervescent Tablets with Anti-hangover and Hepatoprotective Activities ····· TONG Weishuang, XU Xiaoyu, LIU Nianzhu, LIU Yuhong, WANG Dan, LIU Lingyun, LI Ying, FENG Wenpo, FAN Weiwei, QIU Yuanhao, GAO Huashan* (234)

Optimization of High-Density Culture Conditions for Exopolysaccharide-Producing *Lactiplantibacillus plantarum* RS20D ····· YAO Shanshan, WANG Xiang, ZHAO Ning, ZHANG Yujie, YANG Jinyu, LI Qin, LI Jianlong, HU Kaidi, ZHOU Jing, FU Ruidong, LIU Shuliang* (242)

Process Optimization and Quality Characteristics of Sweet Fermented Glutinous Rice with Black Olive ····· OU Xiaoyang, TENG Lili, HUANG Yanxin, LI Ying, ZHANG Ling, LUO Jianbin* (252)

Application of Online Detection System for Physicochemical Indicators of Fermented Grains Based on Insertion Near-Infrared Spectroscopy ····· YANG Jiaping, QIN Hui, YOU Qi, SONG Pan, WANG Qianjin, LIN Yang, LEI Lei, WANG Shengwei* (261)

Analysis and Detection

Effects of Partial Substitution of Salt with Potassium Chloride on Flavor Compounds in Reduced-Sodium Shrimp Paste ····· MENG Gaiqing, KOU Zinan, ZHANG Xiaolei, LIU Yangliu, AN Zhitong, SUN Jilu* (267)

Effects of Indigenous Non-*Saccharomyces* Co-fermentation with Commercial *Saccharomyces cerevisiae* on Aromatic Quality of Wines from Different Grape Varieties ····· SUI Xiuyu, AN Yi, ZHONG Chenxiao, LI Jin, ZHOU Penghui, LAN Yibin, DUAN Changqing, YAN Guoliang* (279)

Differential Analysis of Volatile Components among Different Rounds of *Coix* Seed Baijiu Based on Headspace Solid-Phase Microextraction-Gas Chromatography-Mass Spectrometry ····· LONG Yanli, WU Chenyin, JIANG Linjiang, YANG Shuying*, SHU Bojing, DU Chengxing, LU Kuan (288)

Optimization of Fermentation Process and Analysis of Volatile Flavor Compounds of Cuihong Plum Fruit Wine ····· XU Xiangbo*, CHEN Huilin, LIAO Sihan, ZENG Xinrun, YANG Song, GE Zhiyue, ZHU Hongmei (295)

Determination of Vitexin and Isovitexin Contents in Mung Bean Lujiu by High Performance Liquid Chromatography ····· JI Zhe, ZHEN Nuo, LAN Yu, ZHANG Yingyu, YUAN Qiang, HU Wenqin, WANG Dan, ZHANG Qin, MA Kang, MENG Zhen* (301)

Comparison of Flavor Compounds in Shanxi Aged Vinegar with Different Aging Years Based on Untargeted Metabolomics ····· WU Yulun, JIAO Jian, REN Xiaorong, JI Jinbo, ZHANG Huiru, GUO Xinlei, CAO Xueli* (307)

Analysis of Flavor Characteristic Differences in Low-Alcohol Baijiu Based on Intelligent Sensory Technology and Chemometrics ····· AN Kaiyuan, DU Yanhong*, LI Xiao, HU Chunhong, LI Simai, TAN Hao, LI Tingting, CHEN Sijia, WU Yajian, WANG Shan (315)

Operation and Management

Mechanism and Pathway of Energy-Level Jump of Baijiu Industrial Cluster from the Perspective of Industrial Ecology: An Empirical Study Based on "Four-Dimension" Synergy in Luzhou ····· YANG Chenjing* (322)

Effects of Intangible Cultural Heritage Narrative Types and Brand History of Baijiu Enterprises on Consumers' Purchase Intentions ····· YUE Qianqian, HU Changchun* (329)