

微生物学通报

(Weishengwuxue Tongbao)



1974年创刊 第51卷 第12期(卷终) 2024年12月20日出版

月刊 目次

序言

- 4821 跨越五十载，薪火相传，砥砺前行
周宁一

特邀专稿

- 4827 我的厌氧菌研究之路与心得
东秀珠
- 4834 “走出去，请进来”，中荷合作构筑高水平动物病毒学科平台
李震

专论与综述

- 4842 女性上生殖道菌群与妇产疾病的关系：研究进展与展望
蒋子雯，王艺璇，任建，唐世倩，靳灵鸽，张宇迪，代荫梅，付钰
- 4854 基于反转录子的微生物基因编辑技术研究进展
刘婷婷，刘嘉琪，刘洋，卞小莹
- 4869 酸性矿山废水的微生物多样性及其在生物冶金中的应用
李文星，刘畅，刘纓，郑艳宁
- 4884 里氏木霉纤维素酶基因表达与调控
邢翠霞，夏雨潇，张伟欣，刘巍峰
- 4899 产甘油假丝酵母及其研究进展
诸葛健，诸葛斌，姜东琪，王专，陆信曜，宗红
- 4909 基于应用场景的微生物组工程化策略
王敬敬，徐松，赵维，侍浏洋，王兴彪，韩一凡，张小霞，黄志勇
- 4922 角鲨烯萜烷环化酶及其催化产物萜烷类化合物的研究进展
韩景辉，胡凌雪，韩黎，陈芳艳
- 4930 禾本科植物 *Epichloë* 属内生真菌的宿主特异性研究及展望
纪燕玲，邹一萍，王志伟
- 4949 典型短链烯烃的微生物降解转化机制研究进展
王旭昊，廖恒毅，侯贺磊，张曼曼，杨淑晶，张艺籍，王晶晶，李秀颖，金慧娟，杨毅
- 4967 紫外辐射下蓝藻的适应与进化机理
周楚源，宋晓华，王晨宇，葛小通，何堤，杨柳燕，王梦梦
- 4984 环境抗生素耐药性风险评价中最小抑菌浓度的研究进展
李菲菲，杨文迪，陈吕军，温东辉

研究报告

工业微生物学

- 5006 黄铁矿生物浸出菌群的驯化及其优势物种与功能
王璐，赵维，成婷婷，韩一凡，王敬敬，张小霞，黄志勇

5026 基于恶臭假单胞菌 F1 的条件性自杀底盘细胞构建

张亚樵, 徐凌雪, 许艳红, 孙延瑜, 胡晓珂

环境微生物学

5037 短期培养下硝化抑制剂对黑土氨氧化微生物丰度和硝化作用的影响

常钰海, 沈菊培, 巫汶晶, 马星竹, 郝小雨, 赵月, 贺纪正

基因克隆及功能研究

5051 稳定表达 T7 RNA 聚合酶的草鱼鳍条和草鱼性腺细胞系的建立与鉴定

康漪, 张奇亚, 柯飞

5063 沼泽红假单胞菌重组 LH2 表达体系的构建及功能评价

黄晓萍, 罗家福, 林若欣, 赵春贵, 杨素萍

5078 灰葡萄孢组蛋白乙酰转移酶 BcGCN5 的功能

张强, 李白, 刘晓颖, 藏金萍, 曹宏哲, 张康, 邢继红, 董金皋

5090 一种新谷氨酰胺转氨酶的发掘、纯化、酶学性质测定及重组表达

杨科科, 李子龙, 修涵, 李国莹, 秦慧氏, 王为善

5105 还原性脱卤酶的生物信息学分析

廖恒毅, 王旭昊, 崔逸儒, 李晓翠, 王红岩, 侯贺磊, 王晶晶, 李秀颖, 杨毅

农业微生物学

5121 芽孢八叠球菌(*Sporosarcina* sp.) N2 的分离与低温降解木质素的特征解析

徐一鸣, 王敬红, 徐红敏, 邓常宇, 范寒雪, 邹世杰, Aman Khan, 李祥锴, 赵洪颜, 魏丹, 王伟东

5141 不同品种桃树根部内生细菌群落结构、多样性及功能分析

崔博飞, 刘辰宇, 刘悦萍, 谈昕煜

食品微生物学

5159 山西省蜡伞属真菌物种多样性及一新种的描述(英文)

张宇欣, 毛宁, 李颖, 李婷, 范黎

5177 一株拮抗单增李斯特菌的蒙氏肠球菌 A9-1A 的筛选及其细菌素抗菌活性分析

叶庆磊, 张颖, 刘子豪, 冯瑞珍, 蔡佳怡, 蔡佳, 张菊梅, 吴清平, 陈谋通

5193 添加磷酸氢二铵对百香果酒发酵和风味的影响

谭智通, 刘静, 朱亚东, 王慧林, 朱长兴, 赵宏飞, 张柏林

微生物工程与药物研究

5214 β -葡萄糖苷酶 Bgl2A:V224D 稳定性的理性改造及其应用

洪登望, 董庆莲, 房伟, 张学成, 肖亚中

生物实验室

5229 牛支原体环介导等温扩增技术结合横向流动试纸条检测方法的建立

王雅茜, 胡云皓, 王豪杰, 岳怀宁, 辛凌翔, 潘瑶, 刘燕, 王震, 陈创夫, 朱良全

高校教改纵横

5240 基于雨课堂及微课的 BOPPPS 教学模式在医学微生物学课程中的设计与应用

乐率, 饶贤才, 周晶, 赵岩, 王竞, 李刚, 李明, 卢曙光

5249 依托全国重点实验室培养微生物学一流创新人才的探索与实践

全拓, 魏雪团, 何进, 陈雯莉

5260 康奈尔大学微生物学本科课程分析

韩继英, 高金祥, 陈雯莉, 唐铁军

5270 在教学中通过脱羧线索解析三羧酸循环

刘纓, 霍诗睿, 李婷, 赫荣乔

PREFACE

- 4821 Fifty years of progress: continuous innovation and dedication
ZHOU Ningyi

SPECIAL CONTRIBUTION

- 4827 My research road and experience on anaerobes
DONG Xiuzhu
- 4834 China's "inviting in and going global" policy supports Sino-Netherlands collaboration in the construction of high-level research platform of Animal Virology
LI Zhen

REVIEWS

- 4842 Relationship between upper genital tract microbiota and gynecological and obstetric diseases: research progress and prospects
JIANG Ziwen, WANG Yixuan, REN Jian, TANG Shiqian, JIN Lingge, ZHANG Yudi, DAI Yinmei, FU Yu
- 4854 Research progress in microbial gene editing based on retrons
LIU Tingting, LIU Jiaqi, LIU Yang, BIAN Xiaoying
- 4869 Microorganisms in acidic mine drainage: diversity and application in bioleaching
LI Wenxing, LIU Chang, LIU Ying, ZHENG Yanning
- 4884 Progress in the cellulase gene expression and regulation in *Trichoderma reesei*
XING Cuixia, XIA Yuxiao, ZHANG Weixin, LIU Weifeng
- 4899 Research progress in *Candida glycerinogenes*
ZHUGE Jian, ZHUGE Bin, JIANG Dongqi, WANG Zhuan, LU Xinyao, ZONG Hong
- 4909 Microbiome engineering strategies in different application scenarios
WANG Jingjing, XU Song, ZHAO Wei, SHI Liuyang, WANG Xingbiao, HAN Yifan, ZHANG Xiaoxia, HUANG Zhiyong
- 4922 Research advances in squalene-hopene cyclase and its catalytic products hopanoids
HAN Jinghui, HU Lingxue, HAN Li, CHEN Fangyan
- 4930 Advancements and prospects in host specificity of *Epichloë* endophytes
JI Yanling, ZOU Yiping, WANG Zhiwei
- 4949 Research progress in the microbial degradation and transformation mechanisms of typical short-chain alkenes
WANG Xuhao, LIAO Hengyi, HOU Helei, ZHANG Manman, YANG Shujing, ZHANG Yiji, WANG Jingjing, LI Xiuying, JIN Huijuan, YANG Yi
- 4967 Mechanisms of adaptation and evolution of cyanobacteria under ultraviolet radiation
ZHOU Chuyuan, SONG Xiaohua, WANG Chenyu, GE Xiaotong, HE Di, YANG Liuyan, WANG Mengmeng
- 4984 Advancements in minimum inhibitory concentration (MIC) for risk assessment of environmental antimicrobial resistance
LI Feifei, YANG Wendy, CHEN Lyujun, WEN Donghui

RESEARCH ARTICLES

Industrial Microbiology

- 5006 Pyrite-bioleaching microbial community: domestication, identification of dominant species, and characterization of functions
WANG Lu, ZHAO Wei, CHENG Tingting, HAN Yifan, WANG Jingjing, ZHANG Xiaoxia, HUANG Zhiyong
- 5026 Construction of a chassis cell with conditional suicide from *Pseudomonas putida* F1
ZHANG Yaqiao, XU Lingxue, XU Yanhong, SUN Yanyu, HU Xiaoke

Microbiology China

Environmental Microbiology

- 5037 Nitrification inhibitors affect the abundance of ammonia-oxidizing microorganisms and nitrification in black soil in a short-term microcosm
CHANG Yuhai, SHEN Jupei, WU Wenjing, MA Xingzhu, HAO Xiaoyu, ZHAO Yue, HE Jizheng

Microbial Genetics

- 5051 Establishment of GCF and GCO cell lines stably expressing T7 RNA polymerase
KANG Yi, ZHANG Qiya, KE Fei
- 5063 Expression system construction and activity evaluation of reconstituted LH2 of *Rhodospseudomonas palustris*
HUANG Xiaoping, LUO Jiafu, LIN Ruoxin, ZHAO Chungui, YANG Suping
- 5078 Function of histone acetyltransferase BcGCN5 in *Botrytis cinerea*
ZHANG Qiang, LI Bai, LIU Xiaoying, ZANG Jinping, CAO Hongzhe, ZHANG Kang, XING Jihong, DONG Jingao
- 5090 Discovery, purification, enzymatic characterization, and recombinant expression of a novel transglutaminase
YANG Keke, LI Zilong, XIU Han, LI Guoying, QIN Huimin, WANG Weishan
- 5105 Bioinformatics analysis of reductive dehalogenases
LIAO Hengyi, WANG Xuhao, CUI Yiru, LI Xiaocui, WANG Hongyan, HOU Helei, WANG Jingjing, LI Xiuying, YANG Yi

Agricultural Microbiology

- 5121 *Sporosarcina* sp. N2: isolation and degradation of lignin at low temperatures
XU Yiming, WANG Jinghong, XU Hongmin, DENG Changyu, FAN Hanxue, ZOU Shijie, Aman Khan, LI Xiangkai, ZHAO Hongyan, WEI Dan, WANG Weidong
- 5141 Structures, diversity, and functions of endophytic bacterial communities in the roots of different peach varieties
CUI Bofei, LIU Chenyu, LIU Yueping, TAN Xinyu

Food Microbiology

- 5159 Species diversity of *Hygrophorus* (*Hygrophoraceae*, *Agaricales*) in Shanxi Province and description of *Hygrophorus brunneodiscooides* sp. nov.
ZHANG Yuxin, MAO Ning, LI Ying, LI Ting, FAN Li
- 5177 *Enterococcus mundtii* A9-1A with antagonistic effect on *Listeria monocytogenes*: screening and characterization of antimicrobial activity of its bacteriocin
YE Qinglei, ZHANG Ying, LIU Zihao, FENG Ruizhen, CAI Jiayi, CAI Jia, ZHANG Jumei, WU Qingping, CHEN Moutong
- 5193 Effects of adding dibasic ammonium phosphate (DAP) on the fermentation performance and flavor of passion fruit wine
TAN Zhitong, LIU Jing, ZHU Yadong, WANG Huilin, ZHU Changxing, ZHAO Hongfei, ZHANG Bolin

Microbial Engineering and Medicine

- 5214 Rational engineering and application of the β -glucosidase Bgl2A:V224D with high stability
HONG Dengwang, DONG Qinglian, FANG Wei, ZHANG Xuecheng, XIAO Yazhong

BIOLOGICAL LAB

- 5229 Loop-mediated isothermal amplification (LAMP) combined with lateral flow dipstick (LFD) for detection of *Mycoplasma bovis*
WANG Yaqian, HU Yunhao, WANG Haojie, YUE Huaining, XIN Lingxiang, PAN Yao, LIU Yan, WANG Zhen, CHEN Chuangfu, ZHU Liangquan

EDUCATION

- 5240 Design and application of BOPPPS teaching mode based on Rain Classroom and micro-lectures for Medical Microbiology
LE Shuai, RAO Xiancai, ZHOU Jing, ZHAO Yan, WANG Jing, LI Gang, LI Ming, LU Shuguang
- 5249 Cultivating first-class innovative talents in Microbiology based on National Key Laboratory of Agricultural Microbiology
QUAN Tuo, WEI Xuetuan, HE Jin, CHEN Wenli
- 5260 Preliminary study on the undergraduate Microbiology curriculum in Cornell University
HAN Jiying, GAO Jinxiang, CHEN Wenli, TANG Tiejun
- 5270 Teaching of tricarboxylic acid cycle via decarboxylation clues
LIU Ying, HUO Shirui, LI Ting, HE Rongqiao