

# 微生物学通报

## (Weishengwuxue Tongbao)



1974年创刊

第49卷 第11期

2022年11月20日出版

月刊

目次

### 研究报告

#### 环境微生物学

- 4491 模拟水流扰动对香溪河库湾浮游病毒-宿主动态的影响  
蔡雨菲 程斯婷 赵以军 程凯 焦一滢 廖明军
- 4503 长潭水库铁锰含量与环境因子的季节性变化相关性分析及铁锰氧化菌群的富集培养  
翁国永 应之悦 李正明 许楹
- 4513 餐厨垃圾高温好氧生物减量菌种的筛选及特性  
吉雨霁 王娜 杨宁 史吉平 刘莉
- 4525 哈密露天煤矿不同环境介质微生物群落特征分析  
邢浩 杜古尔·卫卫 薛娜娜 宋文娟 赵莉 戚冉
- 4538 一株可增强莱茵衣藻耐盐能力细菌 MEZX29 的分离与鉴定  
周璇 靳元霁 赵娜 伍刚 张征锋 谢波
- 4549 焦化废水 O/H/O 生物处理工艺二级好氧生物反应器的微生物结构和功能  
谭智杰 张宝善 谢君婷 林月霞 吴海珍 任源 韦朝海 朱爽

#### 海洋微生物学

- 4567 珠江口野生棘线鲷胃肠道微生物多样性  
崔林青 曾琦 石松标 张坤 黄文静 田新朋

#### 基础微生物学

- 4586 巴斯德毕赤酵母不同生长阶段内参基因的筛选与验证  
吕梦娇 战春君 白仲虎 杨艳坤
- 4598 基于 MS2 噬菌体 *lys* 基因的质粒型条件自溶菌的构建与应用  
吕敏佳 刘捷婧 周于婷 陈萍 欧阳永长

#### 基因克隆及功能研究

- 4608 *Streptomyces aidingensis* CGMCC 4.5739 中环二肽氧化酶 DmtD3\_E3 的体外生化功能  
姜玥辰 姚婷婷 袁伟程 李文利
- 4617 重组细菌多药外排泵 AcrAB-TolC 的转运功能和动态组装  
蒋嘉峰 肖澜 谢浩 沈雷 陈自忍
- 4629 一株海洋来源铜绿假单胞菌 Gxun-7 角蛋白酶基因的克隆、表达及重组酶学性质  
杨梦莹 谢晨杰 李时勇 张红岩 王一兵 申乃坤 姜明国

#### 农业微生物学

- 4644 副溶血弧菌噬菌体 Vpas\_PP24 的分离鉴定及生物学特性  
吴春光 付静芸 李映 何增国
- 4659 高磷土壤中丛枝菌根真菌的分离鉴定  
周小勤 黄心铤 何俊良 谢鸿运 李将永 陈辉 唐明 谢贤安
- 4674 构巢曲霉冻干菌粉的制备及优化  
常晓彤 李素艳 孙向阳 郝丹 李雅琳
- 4686 宁夏地区春季奶牛场牛舍土壤细菌群落特征  
杨双鸣 任文义 苟妍 张力莉 徐晓锋
- 4699 不同季节冬水田紫色土细菌群落的垂直分布规律  
余子洁 郭大陆 李致同 亢宗静 王智慧 罗红燕

- 4713 *wbnH2* 基因对北京欧文氏菌生物学特性及致病力的影响  
常晓宁 刘宇 谷彤彤 郭金英 宋忠娟 荣成博
- 4727 核桃黑斑病生防链霉菌 YNF36 的鉴定及其抑菌活性测定  
瞿佳 孙晓宇 赵玲侠 门欣 陈锐 宁硕瀛
- 4740 高效解硅菌的分离鉴定及其促生能力  
张成凯 蒙悦 殷志秋 康耀卫 苑莹 王丹丹 解志红
- 4752 假单胞菌 T1-3-2 的抑菌特性及其对杉木的抗病促生作用  
田龙艳 黄华 杨华 黎子君 邱华龙 张春花 徐金柱 秦长生

#### 食品微生物学

- 4766 嗜盐四联球菌 *arc operon* 多拷贝基因在精氨酸代谢中的作用  
房峻 李佳莲 王博 方芳

#### 兽医微生物学

- 4778 鸭疫里默氏杆菌流行菌株的分离鉴定及生物学特性  
冯雅婷 朱敏 刘丹 沈如玉 牛朋飞 郭容 于圣青
- 4786 草鱼抗菌肽 Hepsidin 过表达对拟态弧菌生长和 NF- $\kappa$ B 通路的影响  
赵文平 岳小真 常娇娇 李谨年
- 4798 短头熊蜂肠道拮抗菌株的分离筛选鉴定及其生物特性评价  
曹喆 周晨烨 李丹 贺兰婷 丛越飞 李万里 黄琪 唐启河 郭军
- 4809 猪肠病毒 G (EV-G) 荧光定量 PCR 检测方法的建立与四川地区分子流行病学调查  
肖黛 张路文 李施倩 俞恩波 曹三杰 黄小波

#### 微生物育种

- 4821 抗性基因报告系统辅助选育厦门霉素 A 高产菌株  
李嘉欣 步绪亮 张贵振 江向海 徐俊 徐岷涓

#### 医学微生物学

- 4832 诺卡氏菌烈性噬菌体 vB\_Ncarnea\_KYD1 的分离纯化与基因组分析  
熊文斌 卢晗 刘新春
- 4848 脓肿分枝杆菌 MBT 结构鉴定与比较演化分析  
薛松 范殊璇 史君涵 傅翔 邓子新 马伟

\*\*\*\*\*

### 专论与综述

- 4860 解决法医学问题的新工具：微生物群落  
黎伟涵 邓世雄
- 4869 酿酒酵母中胆固醇生物合成与优化的研究进展  
李月 庞亚如 成旭 李春 吕波
- 4886 单细胞测序技术在传染病及微生物领域的应用研究进展  
陈碧清 刘细细 朱学军
- 4893 基于微生物视角的“皮-肠”轴与特应性皮炎  
张雪珥 王栩芮 杨峥茹 刘娥 王彦瑾 姚业静 杨思敏 曾进浩 郭静

\*\*\*\*\*

### 高校教改纵横

- 4909 线上线下混合式有效教学的策略与实践：以微生物学为例  
孙飞龙 宁景叶 刘高敏 沈玲 王晓军

\*\*\*\*\*

### 前瞻与评论

- 4918 肠道菌群与溃疡性结肠炎相关性研究的文献计量及可视化分析  
陈琴 娄龙 杨文治 万伟萍 谭玟 张志云
- 4934 基于近 10 年红球菌发展的文献计量分析  
谭娅文 张千柔 徐迎南 江辉
- 4942 基于 CiteSpace 分析铜绿假单胞菌耐药性研究热点与趋势  
宁婉清 杨建社 成娟丽 林金水

### ARTICLES

#### Environmental Microbiology

- 4491 Effect of stimulated water flow disturbance on the virioplankton-host dynamics in Xiangxi Bay  
*CAI Yufei CHENG Siting ZHAO Yijun CHENG Kai JIAO Yiyang LIAO Mingjun*
- 4503 Correlation between concentration of iron/manganese ion and environmental factors, and enrichment of iron- and manganese-oxidizing bacteria in Changtan Reservoir during different seasons  
*WENG Guoyong YING Zhiyue LI Zhengming XU Ying*
- 4513 Screening of bacteria for thermophilic aerobic biodegradation of food waste and the degradation characteristics  
*JI Yuji WANG Na YANG Ning SHI Jiping LIU Li*
- 4525 Microbial community characteristics of different environmental media in Hami open-pit coal mine  
*XING Hao Duguer Weiwei XUE Na'na SONG Wenjuan ZHAO Li QI Ran*
- 4538 Isolation and identification of bacterial strain MEZX29 that can enhance the salt tolerance of *Chlamydomonas reinhardtii*  
*ZHOU Xuan JIN Yuanpei ZHAO Na WU Gang ZHANG Zhengfeng XIE Bo*
- 4549 Microbial structure and functions in the second aerobic bioreactor of O/H/O coking wastewater treatment system  
*TAN Zhijie ZHANG Baoshan XIE Junting LIN Yuexia WU Haizhen REN Yuan WEI Chaohai ZHU Shuang*

#### Marine Microbiology

- 4567 Microbial diversity in gastrointestinal tract of wild *Grammophilites scaber* collected from the Pearl River Estuary  
*CUI Linqing ZENG Qi SHI Songbiao ZHANG Kun HUANG Wenjing TIAN Xinpeng*

#### Fundamentals of Microbiology

- 4586 Identification and validation of reference genes for RT-qPCR normalization in *Komagataella phaffii* at different growth stages  
*LÜ Mengjiao ZHAN Chunjun BAI Zhonghu YANG Yankun*
- 4598 Construction and application of plasmid-based opportunistic autolytic bacteria based on gene *lys* of MS2 bacteriophage  
*LÜ Minjia LIU Jiejing ZHOU Yuting CHEN Ping OUYANG Yongchang*

#### Microbial Genetics

- 4608 *In vitro* biochemical function of cyclodipeptide oxidase DmtD3\_E3 from *Streptomyces aidingensis* CGMCC 4.5739  
*JIANG Yuechen YAO Tingting YUAN Weicheng LI Wenli*
- 4617 Transport function and dynamic assembly of a recombinant bacterial multidrug efflux pump, AcrAB-TolC  
*JIANG Jiafeng XIAO Lan XIE Hao SHEN Lei CHEN Ziren*
- 4629 Cloning and expression of keratinase gene from a marine-derived *Pseudomonas aeruginosa* Gxun-7 and enzymatic properties of the recombinant enzyme  
*YANG Mengying XIE Chenjie LI Shiyong ZHANG Hongyan WANG Yibing SHEN Naikun JIANG Mingguo*

#### Agricultural Microbiology

- 4644 Isolation, identification, and characterization of *Vibrio parahaemolyticus* phage Vpas\_PP24  
*WU Chunguang FU Jingyun LI Ying HE Zengguo*
- 4659 Isolation and identification of arbuscular mycorrhizal fungi from high phosphate soils  
*ZHOU Xiaoqin HUANG Xinru HE Junliang XIE Hongyun LI Jiangyong CHEN Hui TANG Ming XIE Xian'an*
- 4674 Preparation and optimization of lyophilized powder of *Aspergillus nidulans*  
*CHANG Xiaotong LI Suyan SUN Xiangyang HAO Dan LI Yalin*
- 4686 Characteristics of soil bacterial communities in different cowsheds in a dairy farm of Ningxia in spring  
*YANG Shuangming REN Wenyi GOU Yan ZHANG Lili XU Xiaofeng*
- 4699 Vertical distribution of bacterial community in purple soil of winter-flooded paddy fields in different seasons  
*YU Zijie GUO Dalu LI Zhitong KANG Zongjing WANG Zhihui LUO Hongyan*

# Microbiology China

- 4713 Effects of *wbnH2* on biological characteristics and pathogenicity of *Erwinia beijingensis*  
CHANG Xiaoning LIU Yu GU Tongtong GUO Jinying SONG Zhongjuan RONG Chengbo
- 4727 Identification and activity of *Streptomyces* YNF36 against walnut blight  
QU Jia SUN Xiaoyu ZHAO Lingxia MEN Xin CHEN Rui NING Shuoying
- 4740 Isolation, identification, and growth-promoting ability of efficient silicate-solubilizing strains  
ZHANG Chengkai MENG Yue YIN Zhiqiu KANG Yaowei YUAN Ying WANG Dandan XIE Zhihong
- 4752 *Pseudomonas* sp. T1-3-2 with antimicrobial activities improves the disease resistance and promotes the growth of *Cunninghamia lanceolata*  
TIAN Longyan HUANG Hua YANG Hua LI Zijun QIU Hualong ZHANG Chunhua  
XU Jinzhu QIN Changsheng

## Food Microbiology

- 4766 Role of multiple copies of *arc* operon genes in arginine metabolism of *Tetragenococcus halophilus*  
FANG Jun LI Jialian WANG Bo FANG Fang

## Veterinary Microbiology

- 4778 Isolation, identification, and biological characterization of *Riemerella anatipestifer* epidemic strains  
FENG Yating ZHU Min LIU Dan SHEN Ruyu NIU Pengfei GUO Rong YU Shengqing
- 4786 Overexpression of grass carp (*Ctenopharyngodon idella*) antimicrobial peptide Hepcidin activates NF- $\kappa$ B pathway and its effect on the growth *Vibrio mimicus*  
ZHAO Wenping YUE Xiaozhen CHANG Jiaojiao LI Jinnian
- 4798 Isolation, screening, identification, and biological characterization of antagonistic strains in intestinal tract of *Bombus breviceps*  
CAO Zhe ZHOU Chenye LI Dan HE Lanting CONG Yuefei LI Wanli HUANG Qi TANG Qihe GUO Jun
- 4809 Establishment of RT-qPCR detection method and molecular epidemiological investigation of Enterovirus G (EV-G) in Sichuan province  
XIAO Dai ZHANG Luwen LI Shiqian YU Enbo CAO Sanjie HUANG Xiaobo

## Microbial Breeding

- 4821 Breeding of a high xiamenmycin A-producing strain by random mutagenesis and reporter-based selection  
LI Jiabin BU Xuliang ZHANG Guizhen JIANG Xianghai XU Jun XU Minjuan

## Medical Microbiology

- 4832 Isolation, purification, and genomic analysis of the virulent phage vB\_Ncarnea\_KYD1 from *Nocardia* spp.  
XIONG Wenbin LU Han LIU Xinchun
- 4848 Structural identification and phylogenetic analysis of MBT from *Mycobacteroides abscessus*  
XUE Song FAN Shuxuan SHI Junhan FU Xiang DENG Zixin MA Wei

\*\*\*\*\*

## REVIEWS

- 4860 A new tool for tackling challenges in forensic medicine: microbial community  
LI Weihang DENG Shixiong
- 4869 Biosynthesis and optimization of cholesterol in *Saccharomyces cerevisiae*  
LI Yue PANG Yaru CHENG Xu LI Chun LÜ Bo
- 4886 Application of single-cell sequencing in infectious diseases and microbiology: a review  
CHEN Biqing LIU Xixi ZHU Xuejun
- 4893 Skin-gut axis and atopic dermatitis from the microbial perspective  
ZHANG Xueer WANG Xurui YANG Zhengru LIU E WANG Yanjin YAO Yejing YANG Simin  
ZENG Jinhao GUO Jing

\*\*\*\*\*

## EDUCATION

- 4909 Strategy and practice of online and offline effective blended teaching: taking Microbiology course as an example  
SUN Feilong NING Jingye LIU Gaomin SHEN Ling WANG Xiaojun

\*\*\*\*\*

## PERSPECTIVES AND COMMENTS

- 4918 Bibliometric and visual analysis on the association between the gut microbiota and ulcerative colitis  
CHEN Qin LOU Long YANG Wenzhi WAN Weiping TAN Wen ZHANG Zhiyun
- 4934 A bibliometric analysis of research on development of *Rhodococcus* over the past decade  
TAN Yawen ZHANG Qianrou XU Jia'nan JIANG Hui
- 4942 Research hotspots and trends of *Pseudomonas aeruginosa* drug resistance: a study based on CiteSpace  
NING Wanqing YANG Jianshe CHENG Juanli LIN Jinshui