

中文目次

水圈微生物专栏

- 4471 水圈微生物生态、功能与资源：水圈微生物专栏序言
黄力, 董海良, 蒋宏忱, 全哲学
- 4473 滨海湿地合成微生物生态学与微生物组工程
杨新蕾, 于晓莉, 钱露, 赵振锐, 颜庆云, 黄晓红, 贺志理
- 4480 低能量环境中微生物生存策略
钟超, 任媛媛, 鲁安怀, 刘娟
- 4504 海洋氨氧化古菌合成维生素B₁₂的生态意义
徐娟, 谢伟
- 4515 南海F-冷泉和冲绳海槽热液区可培养二甲基巯基丙酸内盐合成与降解细菌的分离鉴定及其多样性
高熠, 刘秀杰, 刘仪, 李倩宇, 郭瑞红, 张晓华, 张蕴慧
- 4537 深海冷泉微生物遗传资源研究进展
廖静, 姜秋云, 韩迎春, 肖曦, 董西洋
- 4561 近岸微生物群落演替特征对浓缩溶解有机质添加的响应
孙凯旋, 辛宇, 刘吉文
- 4578 电缆细菌：水生态系统中的“生物电缆”驱动元素循环与生态修复
陈柯江, 黄友达, 董美君, 严金平, 许玫英
- 4593 菌毛可视化及其在蓝细菌研究中的应用
张静超, 李威, 赵坤, 张卫文
- 4607 黄河小浪底库区旱季上游和下游原核生物群落与固碳功能微生物群的环境驱动因素
桂泽威, 吴壮惠, 赵博, 杨国坤, 常绪路, 高肖飞, 孟晓林, 张艳敏
- 4624 气候变化下的流域饮用水微生物风险来源与评估
王洁, 王尚, 李瞳, 张昱, 邓晔
- 4641 两座亚热带水库真核浮游生物群落变化与构建机制
张宏腾, 马国琳, 金磊, 于佳立, 薛媛媛, 陈辉煌, 杨军
- 4656 微生物脱氮与希瓦氏菌异化硝酸盐还原途径抉择机制
刘亚琦, 魏贺红, 戴景程, 刘双元, 邱东茹

综述

- 4669 酿酒酵母高级醇代谢的转录调控研究进展
陈璐, 刘延琳, 秦义
- 4681 极端环境中异养硝化-好氧反硝化微生物的研究进展
吕鹏翼, 李小曼, 罗晓, 刘云琦, 林冬庆
- 4701 豆科植物根瘤衰老机制与影响因素研究进展
任明霞, 艾加敏, 张瑞丽, 李洋, 邓振山
- 4727 海洋哺乳动物微生物组研究进展
郭丹媛, 杨子文, 李文均

- 4746 植物病原真菌环磷酸腺苷信号通路研究进展
蔡云飞, 应佳丽, 叶友菊, 文爽爽, 钱仁卷

- 4760 阿卡波糖代谢途径、酶系及发酵菌种改造的研究进展
王雨晴, 张贤, 李闯, 薛正莲, 李翔飞

研究报告

- 4774 ZntR调控副溶血弧菌锌稳态、氧化应激抗性和毒力
王梦娴, 翟怡梦, 邱军, 徐正中, 陈祥, 郑成坤, 焦新安
- 4789 携带Fluc与mCherry双报告基因的重组痘苗病毒WR株的构建及体外应用
孙洁伟, 黄保英, 王梦微, 吴依依, 楚巧鸿, 霍恕婷, 赵莉, 翟德胜, 邓瑶, 赵营, 谭文杰
- 4804 青风藤内生链霉菌SZC001生物合成潜力分析及抗肿瘤天然产物 η -rhodomycinone的鉴定
秦雨晴, 田程, 杨浩, 蒲洪, 漆宇昕, 邹玮, 江丹丹, 黄雪霜, 孙润泽
- 4817 宁夏引黄灌区稻蟹共作对土壤微生物群落结构及理化因子的影响
徐程, 倪成, 邱小琮, 王凯, 袁金龙
- 4833 青春双歧杆菌对溃疡性结肠炎小鼠的缓解作用
侯千暑, 胡静怡, 黄钻元, 张金源, 曾雪骄, 李鑫, 林佳琪, 李语玲, 廖丽君
- 4850 猪流行性腹泻病毒劫持DNA损伤通路操纵细胞周期促进自身复制
龚晋祥, 张仟禧, 杨子银, 王文清, 冯康, 张志榜, 杨涛涛, 李凯, 孙子龙, 张晓燕, 李鹏成
- 4859 一株李维斯链霉菌的鉴定及其抗病促生性能
黄军, 唐滢, 黄彬彬, 李晔, 张翠央, 郭照辉, 刘清术
- 4869 三苯基膦柱[5]芳烃的制备及其对金黄色葡萄球菌的抑制
张玉君, 吴惠香, 陈浩, 周依榆, 黄建颖
- 4882 贝莱斯芽孢杆菌XY40-1：全基因组特征分析及对辣椒疫病的生物防治效果评价
周池, 周诗晶, 陶禹, 张评美, 邱芳颖, 彭宇翔, 李雪峰, 李鑫
- 4902 紫外突变型盐单胞菌株的基因突变位点与四氢嘧啶高产的分子变异机制
薛彬娟, 韩睿, 乔丽娟, 李永臻, 邢江娃, 王嵘, 沈国平, 朱德锐

数据论文

- 4918 柴达木盆地河流与湖泊水体微生物群落结构及共现网络模式差异
贾海超, 王丹丹, 黄跃飞, 殷恒芝, 苏子淇, 李伯荣, 高印轩, 夏中帅, 孙继瑶
- 4936 江汉平原人口稠密区地表水和地下水细菌群落的时间动态变化
田家林, 楚栋良, 张皓鸿, 宁康

CONTENTS

HYDROSPHERE MICROBIOLOGY

- 4471 Microbial ecology, function, and resources: the special issue on microorganisms in hydrosphere
HUANG Li, DONG Hailiang, JIANG Hongchen, QUAN Zhexue
- 4473 Synthetic microbial ecology and microbiome engineering in coastal wetlands
YANG Xinlei, YU Xiaoli, QIAN Lu, ZHAO Zhenrui, YAN Qingyun, HUANG Xiaohong, HE Zhili
- 4480 Survival strategies of microorganisms in low-energy environments
ZHONG Chao, REN Yuanyuan, LU Anhuai, LIU Juan
- 4504 Ecological significance of vitamin B₁₂ synthesis by ammonia-oxidizing archaea
XU Juan, XIE Wei
- 4515 Isolation, identification, and diversity analysis of culturable DMSP-synthesizing and -degrading bacteria in F-cold seep of the South China Sea and hydrothermal fields of the Okinawa Trough
GAO Yi, LIU Xiujie, LIU Yi, LI Qianyu, GUO Ruihong, ZHANG Xiaohua, ZHANG Yunhui
- 4537 Research progress of microbial genetic resources in deep-sea cold seeps
LIAO Jing, JIANG Qiuyun, HAN Yingchun, XIAO Xi, DONG Xiyang
- 4561 Responses of coastal microbial communities to addition of concentrated dissolved organic matter
SUN Kaixuan, XIN Yu, LIU Jiwen
- 4578 Cable bacteria: “biological cables” driving element recycling and ecological restoration in aquatic ecosystems
CHEN Kejiang, HUANG Youda, DONG Meijun, YAN Jinping, XU Meiyang
- 4593 Visualization of pili and its applications in the study of cyanobacteria
ZHANG Jingchao, LI Wei, ZHAO Kun, ZHANG Weiwen
- 4607 Environmental drivers of prokaryotic microbial communities and carbon-fixing microbial groups in the upper and lower reaches of the Xiaolangdi Reservoir of the Yellow River during the dry season
GUI Zewei, WU Zhuanghui, ZHAO Bo, YANG Guokun, CHANG Xulu, GAO Xiaofei, MENG Xiaolin, ZHANG Yanmin
- 4624 Origins and assessments of microbiological risks to drinking water in watershed under climate change
WANG Jie, WANG Shang, LI Tong, ZHANG Yu, DENG Ye
- 4641 Community dynamics and assembly mechanisms of eukaryotic plankton in two subtropical reservoirs
ZHANG Hongteng, MA Guolin, JIN Lei, YU Jiali, XUE Yuanyuan, CHEN Huihuang, YANG Jun
- 4656 Microbial nitrogen removal and the molecular mechanisms underlying modulation and switching of dissimilatory nitrate reduction pathways in *Shewanella* strains
LIU Yaqi, WEI Hehong, DAI Jingcheng, LIU Shuangyuan, QIU Dongru

REVIEWS

- 4669 Transcriptional regulation of higher alcohol metabolism in *Saccharomyces cerevisiae*
CHEN Lu, LIU Yanlin, QIN Yi
- 4681 Heterotrophic nitrifying and aerobic denitrifying microorganisms in extreme environments
LYU Pengyi, LI Xiaoman, LUO Xiao, LIU Yunqi, LIN Dongqing
- 4701 Research progress in mechanism and influencing factors of root nodule senescence in leguminous plants
REN Mingxia, AI Jiamin, ZHANG Ruili, LI Yang, DENG Zhenshan
- 4727 Advances in marine mammal microbiomes
GUO Danyuan, YANG Ziwen, LI Wenjun

- 4746 Research progress of cAMP signaling pathway in phytopathogenic fungi
CAI Yunfei, YING Jiali, YE Youju, WEN Shuangshuang, QIAN Renjuan

- 4760 Advances in biosynthetic pathways, enzymes, and fermentation strain modification of acarbose
WANG Yuqing, ZHANG Xian, LI Chuang, XUE Zhenglian, LI Xiangfei

RESEARCH ARTICLES

- 4774 ZntR modulates zinc homeostasis, oxidative stress resistance, and virulence of *Vibrio parahaemolyticus*
WANG Mengxian, ZHAI Yimeng, QIU Jun, XU Zhengzhong, CHEN Xiang, ZHENG Chengkun, JIAO Xin'an
- 4789 Construction and application *in vitro* of a recombinant vaccinia virus strain WR expressing dual reporters Fluc and mCherry
SUN Jiewei, HUANG Baoying, WANG Mengwei, WU Yiyi, CHU Qiaohong, HUO Shuting, ZHAO Li, ZHAI Desheng, DENG Yao, ZHAO Ying, TAN Wenjie
- 4804 Biosynthetic potential and anti-tumor natural product η-rhodomycinone of the endophyte *Streptomyces* sp. SZC001 in *Sinomenium acutum*
QIN Yuqing, TIAN Cheng, YANG Hao, PU Hong, QI Yuxin, ZOU Wei, JIANG Dandan, HUANG Xueshuang, SUN Runze
- 4817 Rice-crab co-culture influences microbial community structure and physicochemical indicators of soil in the Yellow River irrigation area of Ningxia
XU Cheng, NI Cheng, QIU Xiaocong, WANG Kai, YUAN Jinlong
- 4833 *Bifidobacterium adolescentis* alleviates ulcerative colitis in mice
HOU Qianhao, HU Jingyi, HUANG Zuanyuan, ZHANG Jinyuan, ZENG Xuejiao, LI Xin, LIN Jiaqi, LI Yuling, LIAO Lijun
- 4850 PEDV hijacks DNA damage pathways and manipulates the cell cycle to promote self-replication
GONG Jinxian, ZHANG Qianxi, YANG Ziyan, WANG Wenqing, FENG Kang, ZHANG Zhibang, YANG Taotao, LI Kai, SUN Zilong, ZHANG Xiaoyan, LI Pengcheng
- 4859 Characterization of *Streptomyces levis* L2 with plant disease-inhibiting and growth-promoting effects
HUANG Jun, TANG Ying, HUANG Birbin, LI Ye, ZHANG Cuiyang, GUO Zhaojun, LIU Qingshu
- 4869 Synthesis of triphenylphosphine pillar[5]arene with inhibitory effect on *Staphylococcus aureus*
ZHANG Yujun, WU Huixiang, CHEN Hao, ZHOU Yiyu, HUANG Jianying
- 4882 *Bacillus velezensis* XY40-1: whole genomic characteristics and biocontrol effects on pepper Phytophthora blight
ZHOU Chi, ZHOU Shijing, TAO Yu, ZHANG Pingmei, QIU Fangying, PENG Yuxiang, LI Xuefeng, LI Xin
- 4902 Mutation sites and high ectoine production mechanism of a *Halomonas* mutant induced by ultraviolet radiation
XUE Binjuan, HAN Rui, QIAO Lijuan, LI Yongzhen, XING Jiangwa, WANG Rong, SHEN Guoping, ZHU Derui

DATA PAPER

- 4918 Differences of microbial community structures and co-occurrence networks in rivers and lakes in the Qaidam Basin
JIA Haichao, WANG Dandan, HUANG Yuefei, YIN Hengzhi, SU Ziqi, LI Borong, GAO Yinxuan, XIA Zhongshuai, SUN Jiayao
- 4936 Temporal dynamics of bacterial communities in surface water and groundwater in the densely populated area of the Jianghan Plain
TIAN Jialin, CHU Dongliang, ZHANG Haohong, NING Kang