

中文目次

序言

- i 2021年地质微生物学专刊序言
李文均, 蒋宏忱

极端环境微生物

- 1371 一株耐酸微藻的分离鉴定及其对锰离子胁迫的生理响应
张露, 邵锐, 潘鑫, 王绍平, 王广成, 李伟, 岳正波, 王进
- 1383 马里亚纳海沟可培养水生细菌的多样性
李毅, 党研茹, 任雪冰, 蔡倩倩, 秦启龙, 夏呈强, 冯焱, 李宏, 张锋
- 1399 古丸菌*Archaeoglob*的代谢特征
林丹丹, 刘一凡, 刘忠林, 周蕾, 牟伯中
- 1416 暗黑菌(*Atribacteria*)的环境分布和功能特征
刘忠林, 刘一凡, 林丹丹, 周蕾, 牟伯中
- 1428 嗜盐细菌中四氢嘧啶和羟基四氢嘧啶的生物合成及其生物学功能
邢庆花, 张英杰, 廖子亚, 赵百锁
- 1441 深部生物圈古菌的研究进展与展望
林喜铮, 谢伟

微生物与元素生物地球化学循环

- 1463 微生物驱动硝酸盐还原耦合亚铁氧化成矿过程的锌胁迫
郑春菊, 陈曼佳, 童辉, 孟方圆, 吕亚辉, 刘承帅
- 1474 长江口外低氧区及其邻近海域表层沉积物反硝化微生物多样性和分布特征
王鹏, 吴莹, 刘素美, 王晓娜, 戴金龙, 叶祁
- 1488 化能自养硫氧化细菌*Halothiobacillus* sp. LS2介导的以乙炔为电子受体的硫氧化反应
曲珊珊, 严洪珊, 林炜铁, 罗剑飞
- 1496 电子穿梭体对菌株*Clostridium butyricum* LQ25异化铁还原性质影响
刘洪艳, 袁媛, 张姍, 李凯强
- 1507 导电材料强化微生物直接种间电子传递产甲烷的研究进展
李静, 张宝刚, 刘青松, 韩亚伟
- 1525 岩溶区土壤微生物驱动的自养固碳过程与机制研究进展
程澳琪, 康卫华, 李为, 余龙江
- 1536 微生物介导硝酸盐还原耦合亚铁氧化过程的动力学及其影响因素
杨泽胜, 陈国俊, 张相杰, 程宽, 龙明亮, 刘同旭
- 1551 真菌反硝化过程及其驱动的N₂O产生机制研究进展
邓文芳, 吴佳鹏, 洪义国, 刘晓晗, 胡耀豪
- 1567 微生物硫循环网络的研究进展
张宏, 李颖杰, 王文颖, 王禄山

- 1582 大洋最小含氧带生物地球化学循环及微生物多样性研究进展

靳蕊, 何耀东, 李佳倩, 汪光义

- 1598 地下水微生物功能群及生物地球化学循环

李平, 谭添, 刘韩, 王和林

地质微生物应用

- 1610 硫酸盐还原菌*Desulfotomaculum reducens* ZTS1厌氧降解昭通褐煤
刘微, 李啸宇, 何环, 陈子豪, 陈凡, 王江泽, 刘健, 陈林勇, 黄再兴
- 1621 尖孢镰刀菌(*Fusarium oxysporum*)诱导矿化回收稀土离子La(III)
卢园园, 陈龙照, 余倩怡, 程超, 程扬健
- 1632 地质封存二氧化碳与深地微生物相互作用研究进展
李术艺, 冯旗, 董依然

环境微生物生态

- 1650 河南卢氏和江西宜春两处锂矿山地表微生物群落分布特征差异及成因分析
赵婷, 陆现彩, 殷哲, 崔向杰, 刘欢, 李玉妹, 冯抗抗, 李娟, 张冬梅
- 1666 不同演替阶段岩溶石灰土可培养细菌的群落特征
严嘉慧, 周岐海, 胡林安, 钟菊新, 李强
- 1681 咸海湖泊退缩对岸边土壤真菌和植物内生真菌的影响研究
黄建蓉, 高磊, 李丽, 李文均, 蒋宏忱
- 1698 锡林河流域不同植被带土壤绿菌门微生物群落的空间分布特征
王红越, 于景丽, 李干雪, 马巧丽, 特日格乐, 魏亚茹, 夏晶晶, 吕赫, 赵吉, 希尼尼根
- 1715 水热增加下黑土细菌群落共生网络特征
李东, 肖娟, 孙波, 梁玉婷
- 1728 湿度盐度pH协同驱动锡林河景观疣微菌群空间异质性
王泽铭, 李传虹, 马巧丽, 李干雪, 魏亚茹, 赵吉, 于景丽, 希尼尼根
- 1743 全球变化下海岸带微生物生态研究进展
周煜琦, 张照婧, 位光山, 张政, 邓晔

其他

- 封二 《微生物学报》2020年度“优秀论文”名单
文后I 《微生物学报》编委会名单
文后II 《微生物学报》征稿简则
封三 欢迎订阅《微生物学报》

广告

- 文前(I/II) 镇江东方生物工程设备有限公司

CONTENTS

Preface

- i The special issue of Geomicrobiology in 2021
Wenjun Li, Hongchen Jiang

Microbiology in Extreme Environments

- 1381 Isolation and identification of an acid-tolerant microalgae and its physiological response to manganese ion stress
Lu Zhang, Rui Shao, Xin Pan, Shaoping Wang, Guangcheng Wang, Wei Li, Zheng-bo Yue, Jin Wang
- 1398 Diversity of culturable aquatic bacteria at different depths of the Mariana Trench
Yi Li, Yanru Dang, Xuebing Ren, Qianqian Cha, Qilong Qin, Chengqiang Xia, Yan Feng, Hong Li, Feng Zhang
- 1415 Metabolic characteristics of *Archaeoglobi*
Dandan Lin, Yifan Liu, Zhonglin Liu, Lei Zhou, Bo-Zhong Mu
- 1427 Environmental distribution and functions of the *Atribacteria*
Zhonglin Liu, Yifan Liu, Dandan Lin, Lei Zhou, Bo-Zhong Mu
- 1440 Ectoine and hydroxyectoine: biosynthesis and its biological function in halophilic bacteria
Qinghua Xing, Yingjie Zhang, Ziya Liao, Baisuo Zhao
- 1462 Research progresses and prospects of archaea in deep biosphere
Xizheng Lin, Wei Xie

Microbiome Involved in Biogeochemical Cycling of Elements

- 1473 Effect of Zn on Fe(II) oxidation and nitrate reduction by a denitrifying bacterium, *Pseudomonas stutzeri* LS-2
Chunju Zheng, Manjia Chen, Hui Tong, Fangyuan Meng, Yahui Lü, Chengshuai Liu
- 1487 Diversity and distribution of denitrifying microorganisms in the surface sediments of the hypoxic zone near the Changjiang Estuary and its offshore
Peng Wang, Ying Wu, Sumei Liu, Xiaona Wang, Jinlong Dai, Qi Ye
- 1495 Anaerobic sulfur oxidation with acetylene as electron acceptor mediated by chemoautotrophic sulfur-oxidizing bacterium *Halothiobacillus* sp. LS2
Shanshan Qu, Hongshan Yan, Weitie Lin, Jianfei Luo
- 1506 Characteristics of Fe(III) reduction by Fe(III)-reducing bacterium *Clostridium butyricum* LQ25 under the condition of electron shuttles
Hongyan Liu, Yuan Yuan, Shan Zhang, Kaiqiang Li
- 1524 Research progress on enhancement of methane production through direct interspecific electron transfer by conductive materials
Jing Li, Baogang Zhang, Qingsong Liu, Yawei Han
- 1535 Research progress in the process and mechanisms of autotrophic carbon sequestration driven by soil microorganisms in karst areas
Aoqi Cheng, Weihua Kang, Wei Li, Longjiang Yu
- 1550 Kinetics and influencing factors of microbially-mediated nitrate reduction coupled with Fe(II) oxidation process
Zesheng Yang, Guojun Chen, Xiangjie Zhang, Kuan Cheng, Mingliang Long, Tongxu Liu

- 1566 The diversity distribution and N₂O production driven by fungal denitrification in different natural ecosystems
Wenfeng Deng, Jiapeng Wu, Yiguo Hong, Xiaohan Liu, Yaohao Hu

- 1581 Research progress of the microbial sulfur-cycling network
Hong Zhang, Yingjie Li, Wenying Wang, Lushan Wang

- 1597 Advances in biogeochemical cycles and microbial diversity in the oxygen minimum zone
Rui Jin, Yaodong He, Jiaqian Li, Guangyi Wang

- 1609 Functional microbial communities and the biogeochemical cycles in groundwater
Ping Li, Tian Tan, Han Liu, Helin Wang

Geomicrobiological Applications

- 1620 Anaerobic degradation of Zhaotong lignite by sulfate reducing bacterium *Desulfotomaculum reducens* ZTS1
Wei Liu, Xiaoyu Li, Huan He, Zihao Chen, Fan Chen, Jiangze Wang, Jian Liu, Linyong Chen, Zaixing Huang
- 1631 *Fusarium oxysporum* induces mineralization recovery rare earth ions Lanthanum (III)
Yuanyuan Lu, Longzhao Chen, Qianyi Yu, Chao Cheng, Yangjian Cheng
- 1649 Interactions between geological sequestration of carbon dioxide and deep subsurface microorganisms
Shuyi Li, Qi Feng, Yiran Dong

Environmental Microbial Ecology

- 1664 Differences and causes of the terrestrial surface distribution of microbial communities in two lithium mines located in Lushi, Henan and Yichun, Jiangxi
Ting Zhao, Xiancai Lu, Zhe Yin, Xiangjie Cui, Huan Liu, Yumei Li, Kangkang Feng, Juan Li, Dongmei Zhang
- 1680 Community characteristics of culturable bacteria in calcareous soil at different succession stages
Jiahui Yan, Qihai Zhou, Lin'an Hu, Juxin Zhong, Qiang Li
- 1696 Influence of lake desiccation on the entophytic and soil fungal communities on the Aral Sea shore
Jianrong Huang, Lei Gao, Li Li, Wenjun Li, Hongchen Jiang
- 1713 Spatial distribution characteristics of soil microbial communities from *Chlorobi* phylum in different vegetation zones from Xilin River Basin
Hongyue Wang, Jingli Yu, Qianxue Li, Qiaoli Ma, Terigele, Yaru Wei, Jingjing Xia, He Lv, Ji Zhao, Xininigen
- 1727 Co-occurrence network of bacterial communities in mollisol soils under increasing hydrothermal conditions
Dong Li, Xian Xiao, Bo Sun, Yuting Liang
- 1741 Moisture, salinity and pH co-driving spatial heterogeneity of *Verrucomicrobial* populations in Xilin River landscape
Zeming Wang, Chuanhong Li, Qiaoli Ma, Qianxue Li, Yaru Wei, Ji Zhao, Jingli Yu, Xininigen
- 1760 The impact of global change on microbes in coastal ecosystem
Yuqi Zhou, Zhaojing Zhang, Guangshan Wei, Zheng Zhang, Ye Deng

(本期责编: 张晓丽)