



Q K 2 0 4 4 0 7 8

中文核心期刊 | 中国科技核心期刊 | CSCD核心期刊 | 百种中国杰出学术期刊

微生物学通报

Microbiology China

主办 / 中国科学院微生物研究所 中国微生物学会
出版 / 科学出版社

ISSN 0253-2654

CN 11-1996/Q

09

2020 VOL.47

CODEN WSWPDI

An Issue for Microbial Ecology

微生物生态学主题

特邀主编: 刘学端 杨云锋



ISSN 0253-2654



9 770253 265204

万方数据

微生物学通报

(Weishengwuxue Tongbao)



1974 年创刊 第 47 卷 第 9 期 2020 年 9 月 20 日出版

月 刊 目 次

序言

- 2681 微生物生态学驱动社会与经济“绿色高效发展”
刘学端

观点

- 2683 微生物“暗物质”研究曙光
杨云锋

研究报告

自然生态系统微生物生态学

- 2685 南海环境微生物对聚球藻有机物质的响应
谢睿 王煜 焦念志 郑强
- 2697 不同寡营养培养条件下南海水体细菌群落结构及其对碳源的利用特征
庄康 胡晓娟 曹煜成 许云娜 张建设 文国樑
- 2711 海洋沉积物中铁还原细菌组成及异化铁还原与产氢性质分析
刘洪艳 刘淼 袁媛
- 2720 马里亚纳海沟不同深度水样微生物分离与多样性分析
黄莹 秦纹静 戴红 张汝毅 全哲学
- 2732 粉粒氮和水分影响浮霉菌门群落的空间分化
魏亚茹 王怡静 马巧丽 李千雪 李传虹 李新 夏晶晶 芦燕 于景丽 希尼尼根
- 2746 青藏高原冰川棘豆(*Oxytropis glacialis*)内生菌核心微生物组的界定及其互作网络分析
许国琪 刘怡萱 曹鹏熙 刘星
- 2759 大兴安岭典型永久冻土土壤细菌群落组成和多样性
余炎炎 李梦莎 刘啸林 尹伟平 李国富 穆立菁 崔晓阳 程智超
- 2771 云南岩溶断陷盆地土地利用方式对丛枝菌根真菌群落结构的影响
邱江梅 曹建华 李强
- 2789 农牧交错带草地土壤剖面微生物总量、多样性和互作网络的垂直分布特征
杜雄峰 厉舒祯 冯凯 何晴 王朱琨 吴悦妮 王丹蕊 彭玺 王尚 邓晔
- 2807 水分驱动半干旱区河流沉积物/土壤厌氧绳菌群落的空间异质性
王怡静 夏晶晶 于景丽 希尼尼根 李传虹 李新 芦燕

人工生态系统微生物生态学

- 2822 两种气候条件下不同有机质含量农田黑土真菌群落结构特征
侯萌 陈一民 焦晓光 孙波 隋跃宇
- 2833 长期不同施肥措施下岩溶水稻土可培养细菌群落变化及其主要影响因素
严嘉慧 周岐海 蒋云伟 陈济宇 李强 李忠义

- 2848 烟草连作障碍与土壤理化性质及微生物多样性特征的关联
滕凯 陈前锋 周志成 向青松 张敏 尹华群 刘勇军
- 2857 云南文山健康三七种植年限对根际微生物群落的影响
唐彬彬 董姚君 贺密密 刘健峰 吴凯 官会林 赵立兴 尹芳 张无敌 龚明
- 2867 不同生境重楼内生真菌及土壤真菌多样性比较
王艳 郭良栋 程虎印 赵乐 常帆 万一 王汉屏
- 2877 高通量测序分析重庆地区茅苍术根际丛枝菌根真菌多样性
曹敏 胡开治 刘燕琴 刘春雷 唐祥友 肖忠 余米
- 2887 紫金山铜矿酸性矿山废水微生物群落多样性
彭玛萍 曾伟民

多学科交叉研究

- 2897 16S/18S/ITS 扩增子高通量测序引物的生物信息学评估和改进
吴悦妮 冯凯 厉舒祯 王朱珺 张照婧 邓晔
- 2913 吸烟对健康人群唾液微生物组的影响
蒋刘一琦 包黎明 钱巧霞 金力 王久存
- 2923 一株低温玉米秸秆降解真菌的筛选、鉴定及降解特性
邢慧珍 宋水山 黄媛媛 黄亚丽
- 2934 基于可培养法分析亚热带植物内生与根际芽胞杆菌种类分布异质性
刘国红 姚运法 车建美 陈倩倩 刘波
- 2947 基于 Biolog-ECO 方法的两种不同草原中 5 种不同植物根际土壤微生物群落特征
李慧 李雪梦 姚庆智 李强

专论与综述

- 2959 中国温泉微生物物种多样性及其酶活性研究进展
马瑞 陈成 李海峰 祝雪禧 宋可馨 袁梦 肖文 杨晓燕 王开玲
- 2974 温带荒漠生物土壤结皮微生物群落结构与功能演替研究综述
刘玉冰 王增如 高天鹏
- 2984 土壤农药污染与细菌农药-抗生素交叉抗性研究进展
郭艾云 鲍艳宇 周启星
- 2996 生物冶金中耐盐浸矿微生物的研究进展
毛振华 孙见行 周文博 王玉光 周洪波 程海娜
- 3004 污水处理过程中微生物群落多样性及其对环境因子响应的研究进展
房平 李雨娥 魏东洋 金德才
- 3021 微生物基因数据库在氮循环功能基因注释中的应用
张博雅 余珂
- 3039 锰氧化细菌的生理生态功能与作用机制研究进展
段国文 耿新燕 魏绪宇 赵国琰
- 3054 铁氧化菌耐砷机制及其砷污染修复应用的研究进展
陈淋霞 张萌 石佳佳 张笛 郭永 包智华
- 3065 CRISPR/Cas9 在 Epstein-Barr 病毒感染免疫中的研究进展
陈静 陈英虎

其他

编辑部公告(2933) 征稿简则(2770, 3074)

PREFACE

- 2681 Microbial Ecology drives "Green and Efficient Development" of society and economy

LIU Xue-Duan

NEWS AND VIEWS

- 2683 Dawn of microbial "Dark Matter" research

YANG Yun-Feng

ARTICLES**Microbial Ecology of Natural Ecosystems**

- 2685 The responses of environmental microbes from the South China Sea to *Synechococcus*-derived organic matter addition
XIE Rui WANG Yu JIAO Nian-Zhi ZHENG Qiang
- 2697 Bacterial community structure and its utilization characteristics of carbon sources in water of South China Sea under different low-nutrient culture conditions
ZHUANG Kang HU Xiao-Juan CAO Yu-Cheng XU Yun-Na ZHANG Jian-She WEN Guo-Liang
- 2711 Composition of Fe(III)-reducing bacteria from marine sediments and characteristics of dissimilatory iron reduction coupled to hydrogen production
LIU Hong-Yan LIU Miao YUAN Yuan
- 2720 Microbial isolation and biodiversity analysis of water samples at different depth in the Mariana Trench
HUANG Ying QIN Wen-Jing DAI Hong ZHANG Ru-Yi QUAN Zhe-Xue
- 2732 Effects of silt particles, ammonia nitrogen and water content on structural and functional differentiation of *Plantomycetes* communities
WEI Ya-Ru WANG Yi-Jing MA Qiao-Li LI Qian-Xue LI Chuan-Hong LI Xin XIA Jing-Jing LU Yan YU Jing-Li Xininigen
- 2746 Core microflora and endophytic interaction network of *Oxytropis glacialis* in Qinghai-Tibet Plateau
XU Guo-Qi LIU Yi-Xuan CAO Peng-Xi LIU Xing
- 2759 Soil bacterial community composition and diversity of typical permafrost in Greater Khingan Mountains
YU Yan-Yan LI Meng-Sha LIU Xiao-Lin YIN Wei-Ping LI Guo-Fu MU Li-Qiang CUI Xiao-Yang CHENG Zhi-Chao
- 2771 Influence of land use patterns on arbuscular mycorrhiza fungi community structure in the karst graben basin of Yunnan province, China
QIU Jiang-Mei CAO Jian-Hua LI Qiang
- 2789 Vertical distribution features of microbial quantity, diversity and interactions along soil profiles in an agropasture grassland
DU Xiong-Feng LI Shu-Zhen FENG Kai HE Qing WANG Zhu-Jun WU Yue-Ni WANG Dan-Rui PENG Xi WANG Shang DENG Ye
- 2807 Moisture determined spatial heterogeneity of river sediment/soil *Anaerolineaceae* communities in semiarid region
WANG Yi-Jing XIA Jing-Jing YU Jing-Li Xininigen LI Chuan-Hong LI Xin LU Yan

Microbial Ecology of Engineering Ecosystems

- 2822 Characteristics of fungal community structure in arable mollisols with different organic matter content under two climatic conditions
HOU Meng CHEN Yi-Min JIAO Xiao-Guang SUN Bo SUI Yue-Yu
- 2833 Variation of cultivable bacterial community structure and the main influencing factors in karst paddy soil under different fertilization regimes
YAN Jia-Hui ZHOU Qi-Hai JIANG Yun-Wei CHEN Ji-Yu LI Qiang LI Zhong-Yi

- 2848 Effect of soil physical and chemical properties and microbial community on continuous cropping obstacles in tobacco field
TENG Kai CHEN Qian-Feng ZHOU Zhi-Cheng XIANG Qing-Song ZHANG Min YIN Hua-Qun LIU Yong-Jun
- 2857 Effects of different planting years of healthy *Panax notoginseng* on the rhizosphere microbial community in Wenshan of Yunnan province
TANG Bin-Bin DONG Yao-Jun HE Mi-Mi LIU Jian-Feng WU Kai GUAN Hui-Lin ZHAO Li-Xing
YIN Fang ZHANG Wu-Di GONG Ming
- 2867 Comparison of endophytic and soil fungi of *Paris polyphylla* diversity from different habitat
WANG Yan GUO Liang-Dong CHENG Hu-Yin ZHAO Le CHANG Fan WAN Yi WANG Han-Ping
- 2877 Arbuscular mycorrhizal fungi diversity in rhizosphere soil of *Atractylodes lancea* (Thunb.) DC. in Chongqing region by high-throughput sequencing
CAO Min HU Kai-Zhi LIU Yan-Qin LIU Chun-Lei TANG Xiang-You XIAO Zhong YU Mi
- 2887 Diversity of microbial community in acid mine drainage from Zijinshan copper mine
PENG Yu-Ping ZENG Wei-Min

Multidisciplinary Research in Microbial Ecology

- 2897 *In-silico* evaluation and improvement on 16S/18S/ITS primers for amplicon high-throughput sequencing
WU Yue-Ni FENG Kai LI Shu-Zhen WANG Zhu-Jun ZHANG Zhao-Jing DENG Ye
- 2913 Effect of smoking on salivary microbiome
JIANG Liu-Yi-Qi BAO Li-Ming QIAN Qiao-Xia JIN Li WANG Jiu-Cun
- 2923 Screening, identification and characterization of a low-temperature maize straw degradation fungus
XING Hui-Zhen SONG Shui-Shan HUANG Yuan-Yuan HUANG Ya-Li
- 2934 Distribution heterogeneity of *Bacillus*-like species in endophyte and rhizosphere of subtropical crops based on culturable method
LIU Guo-Hong YAO Yun-Fa CHE Jian-Mei CHEN Qian-Qian LIU Bo
- 2647 Biolog-ECO analysis of rhizosphere soil microbial community characteristics of five different plants in two different grasslands
LI Hui LI Xue-Meng YAO Qing-Zhi LI Qiang

REVIEWS

- 2959 Species diversity and enzymatic activity of microorganisms in Chinese hot springs: a review
MA Rui CHEN Cheng Li Hai-Feng ZHU Xue-Xi SONG Ke-Xin YUAN Meng XIAO Wen
YANG Xiao-Yan WANG Kai-Ling
- 2974 Succession of microbial community structure and their functions of biological soil crusts in temperate desert: a review
LIU Yu-Bing WANG Zeng-Ru GAO Tian-Peng
- 2984 Advances in soil pesticide contamination and bacterial pesticide-antibiotic cross-resistance
GUO Ai-Yun BAO Yan-Yu ZHOU Qi-Xing
- 2996 Salt-tolerant microorganisms in biohydrometallurgy: a review
MAO Zhen-Hua SUN Jian-Xing ZHOU Wen-Bo WANG Yu-Guang ZHOU Hong-Bo CHENG Hai-Na
- 3004 Microbial community diversity and its response to environmental factors during sewage treatment
FANG Ping LI Yu-E WEI Dong-Yang JIN De-Cai
- 3021 Application of microbial gene databases in the annotation of nitrogen cycle functional genes
ZHANG Bo-Ya YU Ke
- 3039 Advances in physiological and ecological functions of manganese oxidizing bacteria and the underlying molecular mechanisms
DUAN Guo-Wen GENG Xin-Yan WEI Xu-Yu ZHAO Guo-Yan
- 3054 Advances in arsenic-resistant mechanism of Fe(II)-oxidizing bacteria and its arsenic pollution remediation applications
CHEN Lin-Xia ZHANG Meng SHI Jia-Jia ZHANG Di GUO Yong BAO Zhi-Hua
- 3065 CRISPR-Cas9 in immunity of Epstein-Barr virus infection: a review
CHEN Jing CHEN Ying-Hu

微生物学通报

Microbiology China



每月20日出版

ISSN 0253-2654

CN 11-1996/Q

国外发行代号: M413

国内邮发代号: 2-817

电话: 010-64807511

邮箱: tongbao@im.ac.cn

定价: 130元/期

网址: <http://journals.im.ac.cn/wswxtbcn>