

# 生态环境学报

ECOLOGY AND ENVIRONMENTAL SCIENCES

2021年8月 第30卷 第8期 Vol.30 No.8





广 东 省 土 壤 学 会 主办 广东省科学院生态环境与土壤研究所

http://www.jeesci.com E-mail:editor@jeesci.com

## 生 态 环 境 学 报

#### 第30卷第8期 2021年8月18日

#### 目 次

#### 研究论文

W176762
中国大陆地区—种归化植物新记录——二十蕊商陆(Phytolacca icosandra L.)… 席辉辉,吴丽新,冯景秋,殷根深(1555)
高寒草地沙化过程植物群落构成及生态位特征变化
太行山南麓不同海拔梯度天然林优势树种生态位特征 闫东锋,张妍妍,吕康婷,周梦丽,王婷,赵宁(1571)
川西亚高山彩叶林景观分布格局及其地形影响研究李巧玉,张小晶,陈娟,刘媛,刘锦春,陶建平(1581)
典型喀斯特山区优势树种钙吸收能力的海拔分异特征研究刘进,龙健,李娟,李红(1589)
武夷山天然针阔混交林与毛竹人工林土壤性质差异
·····································
喜旱莲子草入侵群落主要物种生态位和种间联结研究 郭佳琦,陈俊辰,黄旬,黄佳乐,赵丽娅,李兆华(1607)
南方红壤典型花岗岩侵蚀区主要治理模式的土壤碳汇效应 … 胡瑞, 房焕英, 肖胜生, 段剑, 张杰, 刘洪光, 汤崇军(1617)
耕作方式对早稻-再生稻稻田氨挥发的影响
典型农田土壤酶活性分布特征及影响因素分析李欣、陈小华、顾海蓉、钱晓雍、沈根祥、赵庆节、白玉杰(1634)
玉米农田水热通量及能量变化研究邹旭东、蔡福、李荣平、米娜、赵胡笳、王笑影、张云海、汪宏宇、贾庆宇(1642)
五小农山小黑 <u>超重</u> 及此重文的明九
北京西山国家森林公园空气负离子与 NO,浓度动态特征分析 李少宁, 赵旭, 王君怡, 鲁绍伟, 赵娜, 徐晓天(1654)
阜新市绿化树种对大气颗粒物及重金属滞留能力研究
基于 DNDC 模型不同降水年型下氮肥管理对马铃薯田 N <sub>2</sub> O 减排及增产潜力影响研究
金 1 DNDC 侯至不问拜水平至下氮几百年对与 6 者由 N20 城市及省) 值 7 影响切九 张开, 王立为, 高西宁, 贺明慧 (1672)
一株菲降解细菌产生生物表面活性剂特性的研究。
10 株高效菌株对人工污水净化能力研究潘国营,林凤莲、袁锋、罗倩、高倩倩、李键、吴承祯、陈灿(1695)
生活污水处理中微藻的优选及氮、磷转化研究张萍、方淳、朱思涵、韩松、李凯、王志康(1706)
基于 GAM 模型的鄱阳湖叶绿素 a 与水质因子相关性分析
高速公路路堑边坡客土喷播的长期防护效果
不同钝化剂对铅镉复合污染土壤钝化效果及影响因素研究
贵州湘江锰矿区优势植物重金属富集特征研究  程俊伟,蔡深文,黄明琴(1742)
镉污染菜地叶面阻隔剂对不同品种辣椒镉积累影响王卫红,高双全,杜衍红,李志丰,窦飞,曾晓舵(1751)
不同水稻品种幼苗响应碱胁迫的生理差异及胁迫等级构建
松嫩平原生态系统服务供需研究相恒星,张健,王宗明,毛德华(1769)

封面照片: 广西北海红树林景观



期刊基本参数: CN 44-1661/X \* 1992 \* m \* A4 \* 222 \* zh \* P \* ¥ 40.00 \* 750 \* 24 \* 2021-08

### **ECOLOGY AND ENVIRONMENTAL SCIENCES**

Vol.30 No.8

August 18, 2021

#### **Contents**

Research Articles
A New Record of Naturalized Species in Mainland China: <i>Phytolacca icosandra</i> LXI Huihui, WU Lixin, FENG Jingqiu, YIN Genshen (1555)
Changes of Plant Community Composition and Niche Characteristics during Desertification Process in An Alpine Steppe
ZONG Ning, SHI Peili, ZHU Juntao (1561)
Niche Characteristics of Dominant Tree Species in Natural Forests at Different Altitudes in the South of Taihang Mountains
YAN Dongfeng, ZHANG Yanyan, LV Kangting, ZHOU Mengli, WANG Ting, ZHAO Ning (1571)
Landscape Distribution Pattern of Subalpine Color-leaved Forests and the Influence of Topographic Factors in Western Sichuan
LI Qiaoyu, ZHANG Xiaojing, CHEN Juan, LIU Yuan, LIU Jinchun, TAO Jianping (1581)
Differentiation Characteristics of Calcium Bioabsorption Capacity of Dominant Tree Species with Altitude in Typical Karst Mountain Area
LIU Jin, LONG Jian, LI Juan, LI Hong(1589)
Differences of Soil Properties between Natural Mixed Coniferous and Broad-leaved Forest and Moso Bamboo Plantation in Wuyi Mountains
······································
Niche Characteristics and Interspecific Associations of the Dominant Species of the Communities Invaded by Alternanthera philoxeroides
GUO Jiaqi, CHEN Junchen, HUANG Xun, HUANG Jiale, ZHAO Liya, LI Zhaohua(1607)
Soil Carbon Sink Effect of Main Management Models in Typical Granite Erosion Area of Red Soil in South China
······································
Effects of Tillage Methods on Ammonia Volatilization of Early Season Rice-ratooning Rice Fields
**************************************
Distribution Characteristics and Influencing Factors of Enzyme Activities in Typical Farmland Soils
LI Xin, CHEN Xiaohua, GU Hairong, QIAN Xiaoyong, SHEN Genxiang, ZHAO Qingjie, BAI Yujie (1634)
Study on Water and Heat Flux and Energy Change of Maize Field
ZOU Xudong, CAI Fu, LI Rongping, MI Na, ZHAO Hujia, WANG Xiaoying, ZHANG Yunhai, WANG Hongyu, JIA Qingyu (1642)
Dynamic Characteristic Analysis of Negative Air Ion and NO <sub>x</sub> Concentration in Beijing Xishan National Forest Park LI Shaoning, ZHAO Xu, WANG Junyi, LU Shaowei, ZHAO Na, XU Xiaotian (1654)
Study on Retention Capacity of Green Tree Species to Atmospheric Particulate Matter and Heavy Metals in Fuxin
ZHAO Xiaoliang, GUO Meng, LV Meiting, ZHAO Xueying, JIANG Guiguo, HUANG Yuanyuan, WANG Fan, JI Yaqin (1662)
Effects of Nitrogen Management on the Potential of N <sub>2</sub> O Emission Reduction and Yield Increase in Potato Field under Different Precipitation Patterns
Based on DNDC Model
Research on the Characterization of Surfactant Produced by A Phenanthrene-degrading Strain
YAN Jie, YU Xuewei, LI Jianbo, GU Haiping, GUO Erhui (1683)
Study on Purification Ability of 10 Highly Efficient Strains in Artificial Wastewater
PAN Guoying, LIN Fenglian, YUAN Feng, LUO Qian, GAO Qianqian, LI Jian, WU Chengzhen, CHEN Can (1695)
Optimization of Microalgae Species and Nitrogen and Phosphorus Conversion for Domestic Sewage Treatment  ZHANG Ping, FANG Chun, ZHU Sihan, HAN Song, LI Kai, WANG Zhikang (1706)
Relationship of Chlorophyll A and Water Quality Factors in Poyang Lake Based on GAM Model
YUAN Weihao, WANG Hua, XIA Yubao, ZENG Yichuan, DENG Yanqing, LI Yuanyuan, ZHANG Xinyue (1716)
Long-term Protective Effect of External-Soil Spray Seeding on Highway Cutting Slope
WANG Yimin, TAO Yuechen, CHENG Zhiyuan, LI Bowen (1724)
Passivation Effect and Influencing Factors of Different Passivators on Lead-cadmium Compound Contaminated Soils
Bioconcentration of Heavy Metals in Dominant Plants of Xiangjiang Manganese Mining Area in Guizhou Province
CHENG Junwei, CAI Shenwen, HUANG Mingqin (1742)
Effects of Foliar Barriers Agent on Cadmium Accumulation in Different Varieties of Pepper Planted in Cadmium Contaminated Vegetable Field
WANG Weihong, GAO Shuangquan, DU Yanhong, LI Zhifeng, DOU Fei, ZENG Xiaoduo (1751)
Physiological Differences of Seedlings of Different Rice Varieties in Response to Alkali Stress and Construction of Stress Levels
LU Xuping, LI Fanglan, SHI Yafei, ZHANG Juanwei, YANG Wenwei, LUO Chengke, TIAN Lei, LI Peifu (1757)
Relationships between Supply and Demand of Ecosystem Services in the Songnen Plain
XIANG Hengxing, ZHANG Jian, WANG Zongming, MAO Dehua(1769)
5 10, 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2