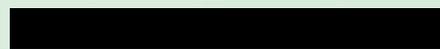


# 生态与农村环境学报



目次

□ 专论与综述

微生物燃料电池(MFC)型生物毒性传感器用于重金属离子检测的研究进展..... 鲁 洵 林莉莉 肖恩荣 吴振斌(1)

沟渠 N<sub>2</sub>O 排放研究进展 ..... 张丰粟 王小国(10)

农药生产场地污染土壤的化学氧化修复技术研究进展 ..... 李 倩 杨 璐 姜 越 温东东 李梦雪 王潇潇  
 覃彩蝶 钱雨婷 赵 美 付融冰 张胜田 林思劼(19)

竹类植物修复重金属污染土壤的研究进展 ..... 张 颖 赵 欣 张圣虎 漆 丹 马红璐 张 芹 陆建刚(30)

□ 研究报告

区域环境与发展

流域特征对南苕溪溶解有机质浓度的影响 ..... 徐兵兵(39)

1995—2015年淮河生态经济区生态系统服务评估与时空变化分析 ..... 黄 颖 李 鑫(49)

自然保护与生态

浙北稻麦连作区水直播稻田杂草群落组成及多样性差异 ..... 徐伟东 黎 菊 陆 强 王晔青(57)

粪食性龟龟功能群对草原牛粪分解过程中温室气体排放的影响  
 ..... 王亚东 王 昊 程建伟 张俊珍 王桢楠 刘 阳 刘新民 李永宏(65)

污染控制与修复

改性稻壳生物炭对水中 Cd<sup>2+</sup>的吸附性能研究 ..... 任浩青 王朝旭 张 峰 李红艳 崔建国(73)

猪粪有机肥中可溶性有机组分对小白菜生长及 Cu 吸收的影响 ..... 黄兴洁 吴 昊 李婉秋 李恋卿 潘根兴(80)

不同秸秆材料与制备工艺下生物炭性质及对土壤重金属的钝化效应  
 ..... 占国艳 陈振宁 童 非 沈华光 高 岩 刘丽珠 张振华 卢 信(86)

强化生物堆法修复多环芳烃污染土壤的初步研究 ..... 谢林培 祝冲之 张晓东 余 冉 展漫军 孙丽伟(96)

载铁沸石分子筛催化降解地下水中氯代烃的影响因素及机制研究  
 ..... 潘 杰 李越焯 李鹏飞 王 萍 吕正勇 叶 茂 李静文 董元华 刘 云(103)

□ 研究方法

基于计算流体动力学(CFD)的湖泊因子对城市湖泊增湿效应的模拟研究:以湖南烈士公园湖泊为例  
 ..... 张 伟 陈存友 胡希军 王凯丽 赵 荻(110)

□ 研究简报

硅肥和氮肥配施对优质稻植株养分含量、产量和品质的影响 ..... 潘韬文 陈 侃 蔡昆争(120)

晋北露天煤矿区重构土壤容重差异研究:探地雷达识别与反演 ..... 徐韩笑 曹银贵 罗古拜 白中科(127)

\* \* \* \* \*

2020年本刊审稿专家名单..... (136)

本期执行编辑:王昌群

**Contents**

Review of Development in Heavy Metals Monitoring with Microbial Fuel Cell-based Toxicity Biosensor  
 ..... *LU Rui, LIN Li-li, XIAO En-rong, WU Zhen-bin*(1)

Research Progress on N<sub>2</sub>O Emissions from Ditches ..... *ZHANG Feng-su, WANG Xiao-guo*(10)

Chemical Oxidation Techniques for Soil Remediation of Contamination at Pesticide-production Sites  
 ..... *LI Qian, YANG Lu, JIANG Yue, WEN Dong-dong, LI Meng-xue, WANG Xiao-xiao, QIN Cai-die, QIAN Yu-ting, ZHAO Mei, FU Rong-bing, ZHANG Sheng-tian, LIN Si-jie*(19)

Research Progress of Bamboo Species in Phytoremediation of Heavy Metal Contaminated Soil  
 ..... *ZHANG Ying, ZHAO Xin, ZHANG Sheng-hu, QI Dan, MA Hong-lu, ZHANG Qin, LU Jian-gang*(30)

Effects of Watershed Characteristics on Dissolved Organic Matter Concentrations in the South Tiaoxi River  
 Watershed ..... *XU Bing-bing*(39)

Ecosystem Services Evaluation and Spatiotemporal Analysis of Huaihe River Eco-economic Zone from 1995 to 2015  
 ..... *HUANG Ying, LI Xin*(49)

Weed Community Composition and Difference of Diversity in Wet Direct-seeding Paddy Fields in Rice-wheat  
 Rotation Areas in Northern Zhejiang Province ..... *XU Wei-dong, LI Ju, LU Qiang, WANG Ye-qing*(57)

Effects of Different Functional Groups of Dung Beetles on Greenhouse Gas Emissions from Cattle Dung Pats on  
 Steppe Grassland ..... *WANG Ya-dong, WANG Hao, CHENG Jian-wei, ZHANG Jun-zhen, WANG Ya-nan, LIU Yang, LIU Xin-min, LI Yong-hong*(65)

Adsorption of Cd<sup>2+</sup> from Aqueous Solution by Modified Rice Husk-derived Biochars  
 ..... *REN Jie-qing, WANG Chao-xu, ZHANG Feng, LI Hong-yan, CUI Jian-guo*(73)

Effects of Soluble Organic Components from Pig Manure on the Growth and Cu Uptake of Chinese Cabbage  
 ..... *HUANG Xing-jie, WU Hao, LI Wan-qiu, LI Lian-qing, PAN Gen-xing*(80)

Effects of Different Biomass and Pyrolysis Technique on Biochar Characterization and Immobilization of  
 Heavy Metal in Contaminated Soil ..... *ZHAN Guo-yan, CHEN Zhen-ning, TONG Fei, SHEN Hua-guang, GAO Yan, LIU Li-zhu, ZHANG Zhen-hua, LU Xin*(86)

Preliminary Study on Remediation of PAH-contaminated Soil by Enhanced Biopile  
 ..... *XIE Lin-pei, ZHU Chong-zhi, ZHANG Xiao-dong, YU Ran, ZHAN Man-jun, SUN Li-wei*(96)

Catalytic Degradation of Chlorinated Hydrocarbons by Fe-zeolite: Influence Factors and Degradation Mechanism  
 ..... *PAN Jie, LI Yue-xuan, LI Peng-fei, WANG Ping, LÜ Zheng-yong, YE Mao, LI Jing-wen, DONG Yuan-hua, LIU Yun*(103)

Simulation Study on the Effect of Lake Factors on the Humidification of Urban Lakes Based on CFD:  
 Take the Lake of Lieshi Park in Hunan as an Example  
 ..... *ZHANG Wei, CHEN Cun-you, HU Xi-jun, WANG Kai-li, ZHAO Di*(110)

Effect of Nitrogen and Silicon Fertilizer on Plant Nutrient Content, Yield and Quality of High Quality Rice  
 ..... *PAN Tao-wen, CHEN Yu, CAI Kun-zheng*(120)

Differences of Reconstructed Soil Bulk Density in Open Pit Coal Mine of Northern Shanxi Province: Based on  
 Feature Identification and Inversion of Ground Penetrating Radar  
 ..... *XU Han-xiao, CAO Yin-gui, LUO Gu-bai, BAI Zhong-ke*(127)