

- ◆ 全国中文核心期刊
- ◆ 中国科学引文数据库
- ◆ 中文科技期刊数据库收录期刊
- ◆ 中国期刊全文数据库收录期刊
- ◆ 中国生物医学文献数据库 (CBM)
- ◆ 中国学术期刊综合评价数据库统计源期刊
- ◆ 中国科技论文统计源期刊 (中国科技核心期刊)
- ◆ 万方数据—数字化期刊群 (中国核心期刊遴选数据库)

- ◆ RCCSE中国核心学术期刊
- ◆ 美国化学文摘 (CA) 收录期刊
- ◆ 波兰哥白尼索引 (IC) 收录期刊
- ◆ 美国乌利希期刊指南 (Ulrich PD) 收录期刊
- ◆ 美国《剑桥科学文摘 (自然科学)》(CSAI) 收录期刊
- ◆ 日本科学技术振兴机构中国文献数据库 (JST) 收录期刊
- ◆ 英国国际农业与生物科学研究中心数据库 (CABI) 收录期刊



环境科学与技术

Huanjing Kexue yu Jishu

ISSN1003—6504
Vol.42 No.7
2019



Environmental Science & Technology

ISSN 1003-6504



湖北省生态环境厅 主管
湖北省环境科学研究院 主办

目次

腐解对水-底泥-黑藻系统中氮迁移转化的影响
..... 魏伟伟, 李春华, 叶春, 戴婉晴, 郑培儒, 黄晓艺, 中国辉(1)

pH对生物硝化过程动力学抑制及N₂O释放影响
..... 巩有奎, 任丽芳, 彭永臻(10)

生物质炭对富磷镉土壤中磷镉形态转化的影响
..... 张沙沙, 刘扬, 曹坤坤, 黄洋, 李成成, 郭晓, 胡学玉(16)

嘉峪关草湖区域土壤养分分布及与地形的关系
..... 段凯祥, 张松林, 赵连春, 杨鹏, 彭鑫波, 隗伟超, 骆艳, 赵成章(23)

大庆油田石油污染土壤磷酸酶促反应特征研究
..... 冯程程, 卢嫚, 苏鑫, 郭迎岚, 罗慧, 岳中辉(31)

不同土地类型的土壤扬尘特征与控制技术
..... 赵福梅, 李绍才, 孙海龙, 李乃稳, 李广辉(38)

柠檬酸对铝胁迫下苗期黑麦草生长生理的影响
..... 黄玉婷, 刘大林, 张卫红, 陈思, 刘歆宇(44)

典型家用消毒剂对稀有鮐鲫毒性及酶活性影响
..... 朱英(51)

草甘膦与氰氟草酯对隆线蚤的慢性生殖毒性研究
..... 彭微, 李佳, 袁玲(57)

模型化合物在天然有机质相关研究中的应用
..... 马象书, 孙孝龙(64)

不同改良剂对金矿尾砂适生性能的影响研究
..... 钱玲, 林海, 董颖博, 李冰(70)

聚丙烯球对表面流人工湿地氮磷时空分布的影响
..... 黄焱涸, 石雷, 张玉瑜(75)

反硝化菌YYD4强化生物滤池处理低碳氮比污水效果研究
..... 闫沛涵, 兰书焕, 涂卫国, 罗雪梅, 李旭东, 王凌, 夏祥, 谢翼飞(83)

一体化厌氧氨氧化反应器工艺运行优化研究
..... 梁启煜, 王迎春, 刘志刚, 朱彤, 谢元华(88)

邻苯二甲酸二乙酯芬顿降解中的碳同位素分析
..... 彭学伟(95)

改性海藻酸钠微球对Pb²⁺吸附性能的研究
..... 孙俊芝, 王静霞, 倪茂君, 张晓彬, 陈屿恒, 刘思阳, 李华(100)

无纺布-生物反应器快速启动厌氧氨氧化脱氮工艺
..... 邢家丽, 梁甘, 孟凡刚(105)

一种复合菌剂在生物除臭滤池中的试验研究
..... 谢珊珊, 邹海清, 彭爱龙, 戴其根, 陈广元, 朴哲(111)

污水处理中的菌藻关系和污染物去除效能	王玉莹, 支丽玲, 马鑫欣, 王硕, 李激(116)
活化剂与植物联合修复Cd污染土壤的田间研究	许伟伟, 李方洲, 任静华, 张亚平, 王俊杰, 龙珍(126)
TiO ₂ 光催化降解去除土壤中荧蒽研究	蒋燕, 柴超, 陈清华(131)
α -FeOOH/Ag ₂ O复合光催化剂的制备与研究	段帅, 蒋阮经, 陈怡, 张英, 黄向阳(136)
聚合硫酸铁-瓜尔胶复合絮凝剂的制备及絮凝效果研究	卢素敏, 田一哲, 王汉昌, 权志康(141)
羊粪生物炭对水体氨氮吸附特性研究	向江涛, 黄应平, 凌海波, 张栋栋, 刘慧刚, 胥燕(147)
中国近10年SO ₂ 时空格局变化遥感监测	孙乾, 顾晓鹤, 孙林, 曾文, 杨贵军(154)
固相萃取-气相色谱同步检测水中壬酸和焦酚	高云霓, 付琴琴, 张方, 武静, 骆锐峰(161)
ICP-MS法测水中汞的记忆效应消除方法研究	战锡林, 葛璇, 孟鑫(167)
珠三角地区大气污染物浓度改善气象与减排影响分析	贾海鹰, 马晶昊, 程念亮, 宁廷州(172)
京沪航线碳排放环境损害评估及其机型替代分析	高伟, 路紫, 杜欣儒, 韩瑞玲(181)
广东揭东土壤硒的分布特征及影响因素研究	张晓慧, 温汉辉, 蔡立梅, 罗杰, 穆桂珍, 王秋爽, 蒋慧豪, 王硕(189)
江汉平原地下水中铁的分布特征及其成因研究	童晨, 冯予诚, 尚睿华, 王志强, 马腾, 洪军(197)
基于距离协调发展度模型的乌伦古湖健康评价	邹兰, 高凡, 马英杰, 何兵(206)
深圳红坳渣土受纳场污染及人体健康风险评价	王婧, 冯春华, 曾庆军, 周红星(213)
基于循环农业的湖北省畜禽废弃物承载力研究	李家轩, 李兆华, 公勤, 张静, 牛端丹(219)
费用-效益法在环境影响经济损益分析中的应用	郭雪琪, 吴仁海, 张毅强, 费蕾蕾, 周丽旋, 刘斌, 陈桂华(227)
《环境科学与技术》编辑部关于不法分子冒用《环境科学与技术》编辑部名义征稿欺诈的郑重声明	封三

CONTENTS

Effect of Decomposition on Nitrogen Migration and Transformation in Water–Sediment–*Hydrilla verticillata* Royle Macrophytes System.....

.....WEI Weiwei, LI Chunhua, YE Chun, DAI Wanqing, ZHENG Peiru, HUANG Xiaoyi, SHEN Guohui(1)

The Effect of pH on Inhibitory Kinetics of Nitrification Process and Characteristic of N₂O Emission.....

.....GONG Youkui, REN Lifang, PENG Yongzhen(10)

Effect of Biochar on the Morphological Transformation of Phosphorus and Cadmium in Phosphorus–cadmium Enriched Soil.....

.....ZHANG Shasha, LIU Yang, CAO Kunkun, HUANG Yang, LI Chengcheng, GUO Xiao, HU Xueyu(16)

Distribution Characteristics of Soil Nutrients in Grass Lake Area of Jiayuguan City and Its Relationship with Topography.....

.....DUAN Kaixiang, ZHANG Songlin, ZHAO Lianchun, YANG Peng, PENG Xinbo, JUAN Weichao, LUO Yan, ZHAO Chengzhang(23)

Phosphatase Reaction Characteristics of Petroleum Pollution Soil in Daqing Oilfield.....

.....FENG Chengcheng, LU Man, SU Xin, GUO Yinglan, LUO Hui, YUE Zhonghui(31)

Characteristics and Control Technology of Soil Dust in Different Land Types.....

.....ZHAO Fumei, LI Shaocai, SUN Hailong, LI Naiwen, LI Guanghui(38)

Effects of Citric Acid on Growth Physiology of Ryegrass Seedlings under Aluminum Stress.....

.....HUANG Yuting, LIU Dalin, ZHANG Weihong, CHEN Si, LIU Xinyu(44)

Toxicity and Enzyme Activity Effects of Typical Family–use Disinfectants on Rare Minnow.....

.....ZHU Ying(51)

Chronic Toxicity of Glyphosate and Cyhalofop–butyl to Reproduction of *Daphnia carinata*.....

.....PENG Wei, LI Jia, YUAN Ling(57)

Application of Model Compounds to the Related Study of Natural Organic Matter.....

.....MA Xiangshu, SUN Xiaolong(64)

Study on Amelioration of Gold Mine Tailings Using Different Amendments.....

.....QIAN Ling, LIN Hai, DONG Yingbo, LI Bing(70)

Effect of Polypropylene Pellets on the Temporal and Spatial Distribution of Nitrogen and Phosphorus in Surface Wetland.....

.....HUANG Yaoyin, SHI Lei, ZHANG Yuyu(75)

Effect of Denitrifying Bacteria YYD4 Enhanced Biofilter on the Treatment of Low C/N Ratio Sewage.....

.....YAN Peihan, LAN Shuhuan, TU Weiguo, LUO Xuemei, LI Xudong, WANG Ling, XIA Xiang, XIE Yifei(83)

Optimization of Nitrosated–ANAMMOX Integration Reactor.....

.....LIANG Qiyu, WANG Yingchun, LIU Zhigang, ZHU Tong, XIE Yuanhua(88)

Stable Carbon Isotope Analysis during Fenton Degradation of Diethyl Phthalate.....

.....PENG Xuewei(95)

Studies on Adsorption Properties of Pb²⁺ by Modified Sodium Alginate Microspheres.....

.....SUN Junzhi, WANG Jingxia, NI Maojun, ZHANG Xiaobin, CHEN Yuheng, LIU Siyang, LI Hua(100)

Rapid Start–up of Anammox Denitrification Process in a Novel Nonwoven Bioreactor.....

.....XING Jiali, LIANG Gan, MENG Fangang(105)

Experimental Study on a Composite Microbial Inoculum in Biological Deodorant Filter.....
.....XIE Shanshan, ZOU Haiqing, PENG Ailong, DAI Qigen, CHEN Guangyuan, PIAO Zhe(111)

The Relationship Between Bacteria and Algae and Contaminants Removal in Wastewater Treatment.....
.....WANG Yuying, ZHI Liling, MA Xinxin, WANG Shuo, LI Ji(116)

Enhanced Phytoextraction for Contaminated Soil with Cd by Cole (*Brassica napus* L.) in Field-based Research.....
.....XU Weiwei, LI Fangzhou, REN Jinghua, ZHANG Yaping, WANG Junjie, LONG Zhen(126)

Study on TiO₂ Photocatalytic Degradation of Fluoranthene in Contaminated Soil.....
.....JIANG Yan, CHAI Chao, CHEN Qinghua(131)

Synthesis and Study of α-FeOOH/Ag₂O Composite Photocatalyst.....
.....DUAN Shuai, JIANG Ruanjing, CHEN Yi, ZHANG Ying, HUANG Xiangyang(136)

Study of Synthesis and Flocculation Property of PFS-Guar Composite Flocculant.....
.....LU Sumin, TIAN Yizhe, WANG Hanchang, QUAN Zhikang(141)

Adsorption Characteristics of Ammonia Nitrogen from Water in Sheep Manure Biochar.....
.....XIANG Jiangtao, HUANG Yingping, LING Haibo, ZHANG Dongdong, LIU Huigang, XU Tao(147)

Spatial and Temporal Variations of SO₂ over China by Remote Sensing Monitoring in the Last Decade.....
.....SUN Qian, GU Xiaohe, SUN Lin, ZENG Wen, YANG Guijun(154)

Simultaneous Determination of Nonanoic Acid and Pyrogallol in Water by SPE-GC Analysis.....
.....GAO Yunni, FU Qinqin, ZHANG Fang, WU Jing, LUO Kunfeng(161)

Study on Eliminating Mercury Memory Effect Method for the Mercury Detection of ICP-MS in Water.....
.....ZHAN Xilin, GE Xuan, MENG Xin(167)

Effects of Meteorology and Emission Reduction Measures on Atmospheric Pollutants' Concentrations in Pearl River Delta.....
.....JIA Haiying, MA Jinghao, CHENG Nianliang, Ning Tingzhou(172)

Assessment of Environmental Damage of Aviation Carbon Emission and Analysis of Aircraft Type Replacement in PEK-SHA.....
.....GAO Wei, LU Zi, DU Xinru, HAN Ruiling(181)

Distribution of Selenium and Its Influencing Factors in Soils of Jiedong Area, Guangdong Province.....
ZHANG Xiaohui, WEN Hanhui, CAI Limei, LUO Jie, MU Guizhen, WANG Qiushuang, JIANG Huihao, WANG Shuo(189)

Distribution and Causes of Iron in Groundwater in Jiangnan Plain.....
.....TONG Chen, FENG Yucheng, SHANG Ruihua, WANG Zhiqiang, MA Teng, HONG Jun(197)

Health Assessment of Ulungur Lake Based on Distance Coordination Degree Model.....
.....ZOU Lan, GAO Fan, MA Yingjie, HE Bing(206)

Risk Assessment of Environmental Pollution and Human Health in Hong'ao Construction and Demolition Waste Landfill in Shen-zhen.....
.....WANG Jing, FENG Chunhua, ZENG Qingjun, ZHOU Hongxing(213)

Study on the Bearing Capacity of Livestock Breeding Waste in Hubei Province Based on Circulating Agriculture.....
.....LI Jiaxuan, LI Zhaohua, GONG Qin, ZHANG Jing, NIU Duandan(219)

Application of Cost-Benefit Approach in Environmental Impact Economic Profit and Loss Analysis.....
.....GUO Xueqi, WU Renhai, ZHANG Yiqiang, FEI Leilei, ZHOU Lixuan, LIU Bin, CHEN Guihua(227)



善待臭氧 安享阳光
ACT OZONE FRIENDLY STAY SUN SAFE

中国保护臭氧层行动
Ozone Layer Protection In China

加速淘汰含氢氯氟烃

HCFC ACCELERATED PHASEOUT

2009-2010

基线水平
2009-2010平均值
Baseline
Average of 2009 and
2010 levels

2013

冻结在基线水平
Freeze at baseline

2015

削减基线水平10%
10% reduction of baseline

2020

削减基线水平35%
35% reduction of baseline

2025

削减基线水平67.5%
67.5% reduction of baseline

2030

削减基线水平97.5%
97.5% reduction of baseline

2040

2030-2040年间
允许保留年均2.5%的维修用途

Annual average of 2.5% of baseline
for servicing during 2030-2040

HCFCs的生产和使用涉及化工、制冷空调、建筑保温、泡沫塑料以及医疗器械等行业的相关产品。加速淘汰HCFCs不仅对保护臭氧层意义重大，也会为减缓全球气候变化带来好处。

HCFC production and consumption involve products in a number of sectors, such as chemical production, refrigeration and air conditioning, building insulation, foam production and medical devices. By accelerating the phaseout of HCFCs, there are potentials for doubling benefits to the ozone and climate.

