

- ◆ 全国中文核心期刊
- ◆ 中国科学引文数据库（核心库）
- ◆ 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《艾博思科数据库》（EBSCO）收录期刊
- ◆ 美国化学文摘（CA）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.45 No.2  
2022



## Environmental Science & Technology



湖北省生态环境厅 主管  
湖北省环境科学研究院 主办

目 次

黄酮类物质对铜绿微囊藻的抑制效应研究  
..... 赵倩名, 钟佳峻, 何培民, 邵留(1)

固定化硫酸盐还原菌降低盐藻砷含量研究  
..... 郭瑾, 朱大玲, 张港生, 孙鑫, 马迪, 项军, 程鹏高, 唐娜(8)

胁迫条件下DEHP降解菌的分离及特性研究  
..... 周慧, 冯红丽, 董彤彤, 卢存龙, 陆鹏, 刘爱民(16)

荧光分子印迹传感器同时测定水中BPA和2,4-D  
..... 王胜, 黄常刚, 肖永华, 伍雅婷(25)

六氯丁二烯降解菌BJ-04的筛选鉴定及降解特性  
..... 梁俊龙, 张慧玲, 张维树, 汪丰, 晁红军, 吴菁, 闫达中(30)

Co-PbO<sub>2</sub>电极电催化氧化SMX的降解研究  
..... 杨收, 韩东晖, 万金泉, 马邕文, 王艳, 张桂华, 闫志成(37)

Bi<sub>2</sub>MoO<sub>6</sub>纳米片催化氧还原及在电芬顿中的应用  
..... 何盈盈, 王鑫, 李瑞康, 卢维鹏(47)

原位构建CdS/MoS<sub>2</sub>异质结及其光催化性能  
..... 吴福礼, 黄有鹏, 李兵, 杨本宏(54)

聚乙烯微塑料对水中萘的吸附-解吸作用研究  
..... 陆思齐, 陈智锋, 包振宗, 祁增华, 蔡宗苇(60)

微波碳化-K<sub>2</sub>FeO<sub>4</sub>活化制备生物炭及其对Cr<sup>6+</sup>吸附性能  
..... 刘转年, 邓伦聪, 刘凯, 李悦, 罗璐楠(67)

柳叶湖水域沉积物中PAHs污染特征与潜在生态风险  
..... 杨基峰, 刘锋, 郑丽英, 杨宇锋, 罗胜联(75)

山东近岸海洋垃圾赋存及黄河口表层微塑料分布  
..... 何健龙, 靳洋, 张超, 解镇蔓, 王晓霞, 于广磊(84)

人工湿地微生物燃料电池阳极预制及应用研究  
..... 沈伟航, 杨梦颖, 李楠, 曹俊, 叶脉, 扈华庚(90)

光暗比对藻类技术净化沼液沼气效果的影响  
..... 武涛, 陈龙, 王聪, 史鑫, 赵永军(96)

椰壳活性炭对水中F-53B、OBS和PFOS的协同去除性能研究  
..... 周佳钰, 吴少林, 吴永明, 邓觅, 朱林, 梁培瑜, 吴施婧(106)

PVA/CaO <sub>2</sub> 底泥原位修复材料的制备及其应用	陈晨, 赵东华, 邢思阳, 贾飞跃, 翟春晓, 于飞, 马杰(112)
ZVI活化PMS联合核桃壳调理污泥脱水效能的研究	何妙琳, 张彦平, 薛协平, 高珊珊, 李一兵(121)
活性污泥衍生碳的制备及在锂硫电池中的应用	贾金柱, 何欣健, 吴忠辉, 杨雄智, 孙菱浩, 杨小兰, 周俊丽(129)
微塑料降解的主要方法、影响因素及环境风险	黄志琴, 徐颂军, 秦俊豪(134)
铈锰改性ZIF-8材料催化氧化甲苯的性能研究	费轲, 荣超, 赵梦奇, 廖银念(142)
施肥量对罗时江小流域农田土壤氮淋失的影响	李佳琛, 侯磊, 王艳霞, 段鲜秋, 陈茂, 梁启斌(147)
湖南省国控背景点表层土壤重金属源解析及评价	谭菊, 吕丹阳, 陈丹丹, 杨海君(156)
长江口国控断面水质参数演变的模型优化预测	李晓瑛, 王华, 曾一川, 李保, 袁伟皓, 吴怡(165)
银川平原地下水中氟分布特征及健康风险评价	荆秀艳, 李小珍, 王文姬, 张文媛, 董强飞(174)
山西省植被覆盖度多因子探测特征与驱动力分析	邓椿, 蒋晓辉, 聂桐, 蔡文娟, 何佳瑛(182)
冬季北京城市住宅室内细颗粒物的来源分析	马哲, 黄立辉, 魏燕如(192)
两次疫情管控对石家庄市空气质量特征的影响	曹琦, 邹凌云, 武柏林, 蒋晋博, 樊卓, 宋波(202)
中国各省份碳排放脱钩效应、驱动因素及预测研究	吕靖焯, 李珏(210)
疫情背景下湖北省“十四五”时期碳排放情景分析	傅振仪, 李雅薇(221)
工业园区的建材行业物质链构建及效益分析	伊俊颖, 中华臻, 荆国华, 吕碧洪, 王盼(228)
《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

期刊基本参数: CN 42-1245/X\*1978\*m\*A4\*242\*zh\*P\*¥40\*5000\*30\*2022-02

本期责任编辑: 刘慕凡

## CONTENTS

Study on Allelopathic Inhibition of Flavonoids on <i>Microcystis Aeruginosa</i> .....	
.....ZHAO Qianming, ZHONG Jiajun, HE Peimin, SHAO Liu(1)	
Study on the Reduction of Arsenic Content in <i>Dunaliella salina</i> by Immobilized Sulfate-reducing Bacteria.....	
GUO Jin, ZHU Daling, ZHANG Gangsheng, SUN Xin, MA Di, XIANG Jun, CHENG Penggao, TANG Na(8)	
DEHP Degradation Bacteria under Stress Condition: Isolation and Characterization.....	
.....ZHOU Hui, FENG Hongli, DONG Tongtong, LU Cunlong, LU Peng, LIU Aimin (16)	
Simultaneous Determination of BPA and 2,4-D in Water by Multifunctional Fluorescent Sensor Array.....	
.....WANG Sheng, HUANG Changgang, XIAO Yonghua, WU Yating (25)	
Screening and Identification of Hexachlorobutadiene Degrading Bacterium BJ-04 and Its Degradation Characteristics.....	
LIANG Junlong, ZHANG Huiling, ZHANG Weishu, WANG Feng, CHAO Hongjun, WU Jing, YAN Dazhong(30)	
Degradation of Sulfamethoxazole by Electrochemical Oxidation with Co-PbO <sub>2</sub> Electrode.....	
YANG Shou, HAN Donghui, WAN Jinquan, MA Yongwen, WANG Yan, ZHANG Guihua, YAN Zhicheng(37)	
Catalysis of Bi <sub>2</sub> MoO <sub>6</sub> Nanoplates for Electro-chemical Reduction of Oxygen and Its Use in Electro-Fenton.....	
.....HE Yingying, WANG Xin, LI Ruikang, LU Weipeng (47)	
<i>In situ</i> Growth of CdS/MoS <sub>2</sub> Heterojunction and Its Photocatalytic Properties.....	
.....WU Fuli, HUANG Youpeng, LI Bing, YANG Benhong(54)	
Study on the Adsorption-Desorption Mechanism of Naphthalene in Aqueous Solution by Polyethylene Microplastics.....	
.....LU Siqu, CHEN Zhifeng, BAO Zhenzong, QI Zenghua, CAI Zongwei (60)	
Preparation of Magnetic Biochar Using K <sub>2</sub> FeO <sub>4</sub> Microwave Assisted for Activation of Pomelo Peel and Its Adsorption Capacity for the Removal of Cr <sup>6+</sup> .....	
.....LIU Zhuannian, DENG Luncong, LIU Kai, LI Yue, LUO Junnan(67)	
Pollution Characterization and Potential Ecological Risks of Polycyclic Aromatic Hydrocarbons in Surface Sediments of Liuye Lake and Adjacent Waters.....	
.....YANG Jifeng, LIU Feng, ZHENG Liying, YANG Yufeng, LUO Shenglian(75)	
Storage of Marine Refuse in Coastal Waters of Shandong Province and Distribution Characteristics of Microplastics in the Surface Layer of the Yellow River Estuary.....	
.....HE Jianlong, JIN Yang, ZHANG Chao, XIE Zhenman, WANG Xiaoxia, YU Guanglei(84)	
Biofilm Prefabrication and the Applications in Constructed Wetland Microbial Fuel Cells.....	
.....SHEN Weihang, YANG Mengying, LI Nan, CAO Jun, YE Mai, HU Huageng(90)	
Simultaneously Biogas Upgrading and Biogas Slurry Purifying by Microalgae-based Technologies Under Various Photoperiod.....	
.....WU Tao, CHEN Long, WANG Cong, SHI Xin, ZHAO Yongjun (96)	

Study on Synergistic Removal of F-53B, OBS and PFOS from Water by Coconut Shell Activated Carbon	106
.....ZHOU Jiayu, WU Shaolin, WU Yongming, DENG Mi, ZHU Lin, LIANG Peiyu, WU Shijing	
Preparation of PVA/CaO <sub>2</sub> and Its Application to in-situ Bottom Mud Remediation	112
.....CHEN Chen, ZHAO Donghua, XING Siyang, JIA Feiyue, ZHAI Chunxiao, YU Fei, MA Jie	
Conditioning Sludge by Use of ZVI-activated PMS in Combination with Walnut Shell: Study on Its Dewatering Efficiency	121
.....HE Miaolin, ZHANG Yanping, XUE Xieping, GAO Shanshan, LI Yibing	
Preparation of Activated Sludge-derived Porous Carbon and Its Application in Lithium-Sulfur Batteries	129
.....JIA Jinzhu, HE Xinjian, WU Zhonghui, YANG Xiongzhi, SUN Linghao, YANG Xiaolan, ZHOU Junli	
Main Methods, Influencing Factors and Environmental Risks of Degradation of Microplastics	134
.....HUANG Zhiqin, XU Songjun, QIN Junhao	
Study on Catalytic Oxidation of Toluene by ZIF-8 Modified with Manganese and Cerium	142
.....FEI Ke, RONG Chao, ZHAO Mengqi, LIAO Yinnian	
Effects of Fertilizer Application Rates on Soil Nitrogen Leaching of Typical Farmland in Luoshijiang River Sub-basin from Erhai Lake	147
.....LI Jiachen, HOU Lei, WANG Yanxia, DUAN Xunqiu, CHEN Mao, LIANG Qibin	
Source Analysis and Pollution Assessment of Heavy Metals in Surface Soil of Some State-controlled Spots in Hunan Province	156
.....TAN Ju, LYU Danyang, CHEN Dandan, YANG Haijun	
Modified Model Prediction of the Evolution of Water Quality Parameters of the State-controlled Section in the Yangtze River Estuary	165
.....LI Xiaoying, WANG Hua, ZENG Yichuan, LI Bao, YUAN Weihao, WU Yi	
Distribution Characteristics and Health Risk Assessment of Fluorine in Groundwater in Yinchuan Plain	174
.....JING Xiuyan, LI Xiaozhen, WANG Wenji, ZHANG Wenyuan, DONG Qiangfei	
Multi-factor Detection Characteristics and Driving Force Analysis of Vegetation Coverage in Shanxi Province	182
.....DENG Chun, JIANG Xiaohui, NIE Tong, CAI Wenjuan, HE Jiaying	
Source Analysis of Fine Particulate Matter in Urban Residential Environment of Beijing in Wintertime	192
.....MA Zhe, HUANG Lihui, WEI Yanru	
Impact of Two Epidemic Control on Air Quality Characteristics in Shijiazhuang City	202
.....CAO Qi, ZOU Lingyun, WU Bailin, JIANG Jinbo, FAN Zhuo, SONG Bo	
Research on the Decoupling Effect, Driving Factors and Forecast of China's Carbon Emissions	210
.....LYU Jingye, LI Jue	
Scenario Analysis on Carbon Emissions of Hubei Province in 14th Five-Year Plan Under Epidemic Situation	221
.....FU Zhenyi, LI Yawei	
Material Chain Construction and Benefit Analysis of Building Materials Industry Based on Symbiosis Theory	228
.....YI Junying, SHEN Huazhen, JING Guohua, LYU Bihong, WANG Pan	

# 兴山县古昭公路

兴山县古昭公路是我国首条生态环保公路，位于王昭君的出生地湖北省兴山县，为双车道二级公路，这条公路全长10.9公里，其中有4.4公里是建在峡谷的“水上”，宛如一条长长的碧池玉带，故得名“水上公路”。

图片摄影作者：沈东升

