

- ◆ 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全文收录期刊
- ◆ 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

Q K 1 9 2 9 7 3 8



环境科学与技术

Huanjing Kexue yu Jishu

ISSN1003—6504

Vol.42 No.5

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

- 更新率对小球藻生长与油脂积累的影响 刘晓亚, 洪喻, 占晶晶, 鄱然(1)
- 四溴联苯醚对3种典型水生生物的急性毒性 孟顺龙, 陈曦, 裴丽萍, 宋超, 范立民, 郑亮, 陈家长, 徐跑(7)
- 絮凝预处理对微囊藻机械过滤的影响 蔡启佳, 王纯波, 杨甜甜, 肖邦定(13)
- 冬季河流中抗生素抗性基因和微生物群落相关性研究 罗晓, 张文丽, 许曼, 张迎, 蒋永丰, 何磊, 钟为章(20)
- 同步亚硝化/反硝化除磷的调控因子及菌群分析 刘煜, 方茜, 徐诗燕, 黄紫龙, 李灿(27)
- 硫酸盐还原菌的分纯及对Cd²⁺钝化研究 董净, 代群威, 赵玉连, 邓远明, 黄雪菊, 韩林宝, 罗红霞(34)
- 一种耐Cr(VI)微生物筛选新方法 梅丽娟, 殷仕学, 朴哲, 胡建, 施林林(41)
- 4A分子筛去除水中Pb²⁺、Cd²⁺、Zn²⁺、Cu²⁺性能和机理 范先媛, 谢升昌, 刘红, 丁俊霞, 卢琦, 薛壮壮, 刘宇卓, 白静(46)
- 溶解氧对HLB-MR反应器回收城市污水中有机物的影响 万立国, 林巧, 张丽君, 张文华, 龙北生, 熊玲(53)
- 一种新型SAnMBR污水处理工艺性能试验研究 刘建伟, 徐嵩, 张畅, 朱昕荣, 陈雪威, 田洪钰, 高柳堂(58)
- 磁纳米材料结合化学计量学分析邻苯二甲酸酯 张斌, 刘超, 白珊, 彭娟莹, 蔡青云(63)
- 磁性焙烧态锌铝类水滑石吸附腐殖酸与再生 李绍秀, 杨玉和, 彭士城, 王志红, 李冬梅(70)
- 载锰活性炭吸附去除水中亚甲基蓝的研究 康瑾, 崔龙哲, 蔡俊雄(77)
- Fe(0)复合材料的制备及其去除对氯硝基苯的研究 李津涛, 刘红, 张挺, 汪茜, 范先媛(82)
- Fe₃O₄@生物炭磁性材料光-类Fenton降解水中盐酸四环素 林鑫辰, 于晓丹, 肖成龙, 林森, 冯威(89)
- 剩余污泥与柑橘渣协同厌氧消化特性研究 赵婷, 姜鑫, 陈永栋, 于青, 唐立展, 古励, 何强(94)

- 厌氧氨氧化系统的快速启动及其脱氮性能研究 杜帅, 李凤娟, 李南银, 祝铭韩, 杨静丹, 亚涛, 王晓慧(101)
- 锆柱撑煤系高岭土对氟离子的吸附研究 段宁, 刘佳珊, 张银凤(109)
- 海洋微塑料分析方法研究现状及其应对措施 姜双城, 林培梅, 吴立锋, 罗冬莲(117)
- 全氟辛酸污染及检测方法的研究进展 陈鑫, 刘杰, 曾晓岚, 黄永周, 杨占强, 马志伟(125)
- 抗生素在城市污水处理过程中的去除研究进展 王玉玺, 丁笑寒, 王烁阳, 陈栋(135)
- 废水处理膜分离工艺中膜抗污染技术展望 陈仕光, 孙洪伟, 林冲, 卓献荣, 王志红, 徐炳基(143)
- 钚污染土壤化学去污过程强化技术研究进展 沈忠, 徐辉, 占佳, 王耀芹, 马特奇, 柴娜娜, 王卫宪(154)
- 巢湖蓝藻水华衰亡初期营养盐浓度变化的研究 李慧, 徐方, 杨柳, 宋春雷, 周易勇, 陈文(161)
- 电子竞争机制下内源反硝化过程N₂O变化特性 巩有奎, 任丽芳, 彭永臻(168)
- 耕作制度对河北农业生产系统氮流的影响 王方方, 王延华, 蔡祖聪, 牛新胜, 张雅娟(174)
- 武河湿地碳氮净化长效性及其内源分布与释放 屈杰, 李宝, 李肖正, 林政全, 李凯旋, 王凤良(181)
- 珠三角干季边界层垂直温度结构对空气质量的影响 吴蒙, 罗云, 吴兑, 曾志雄, 范绍佳(189)
- 利用荧光区域积分法解析鄱阳湖DOM组成及来源 申钊颖, 弓晓峰, 江良, 章绍康, 袁少芬, 易佳璐(196)
- 安徽省新型城镇化与生态环境耦合测度研究 王乃举, 王塞, 陈晓华(204)
- 城市道路交叉口颗粒物浓度及行人暴露研究 高嵘, 净新苗, 何红弟(214)
- 河南省经济发展对PM_{2.5}污染的门槛效应分析 谢志祥, 秦耀辰, 张荣荣, 李阳, 牛超(222)
- 城市交通绿地土壤重金属含量的高光谱反演 刘晓清, 柳云龙(230)
- 《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*33*2019-05

本期责任编辑: 胡 霖

CONTENTS

Effects of Renewal Rates on the Growth and Lipid Accumulation of <i>Chlorella</i> under Semi-continuous Cultivation.....	LIU Xiaoya, HONG Yu, ZHAN Jingjing, YAN Ran(1)
Acute Toxicity Effects of Tetrabromodiphenyl Ether on Three Model Aquatic Organisms.....	MENG Shunlong, CHEN Xi, QIU Liping, SONG Chao, FAN Limin, ZHENG Yao, CHEN Jiazhang, XU Pao(7)
Effect of Pre-flocculation on the Performance of Mechanical Filter in Removal of <i>Microcystis</i>	CAI Qijia, WANG Chunbo, YANG Tiantian, XIAO Bangding(13)
Correlation between Antibiotic Resistance Genes and Microbial Community in Winter Rivers.....	LUO Xiao, ZHANG Wenli, XU Man, ZHANG Ying, JIANG Yongfeng, HE Lei, ZHONG Weizhang(20)
Control Factors of Simultaneous Nitrification/Denitrification Phosphorus Removal and Analysis of Flora.....	LIU Yu, FANG Qian, XU Shiyan, HUANG Zilong, LI Can(27)
Isolation of Sulfate-reducing Bacteria and Study on Its Passivation of Cd ²⁺	DONG Jing, DAI Qunwei, ZHAO Yulian, DENG Yuanming, HUANG Xueju, HAN Linbao, LUO Hongxia(34)
A Novel Screening Method for Hexavalent Chromium Resistance Microbe.....	MEI Lijuan, YIN Shixue, PIAO Zhe, HU Jian, SHI Linlin(41)
Performances and Mechanism for Pb ²⁺ , Cd ²⁺ , Zn ²⁺ and Cu ²⁺ Removal from Aqueous Solution by 4A-Molecular Sieve.....	FAN Xianyuan, XIE Shengchang, LIU Hong, DING Junxia, LUQi, XUE Zhuangzhuang, LIU Yuzhuo, BAI Jing(46)
Effects of Dissolved Oxygen on Organic Matter Recovery with High Loaded Bioflocculation Membrane Reactor Treating Municipal Wastewater.....	WAN Liguo, LIN Qiao, ZHANG Lijun, ZHANG Wenhua, LONG Beisheng, XIONG Ling(53)
Experimental Study on Performance of a New Type of SAnMBR Wastewater Treatment.....	LIU Jianwei, XU Song, ZHANG Chang, LUAN Xinrong, CHEN Xuewei, TIAN Hongyu, GAO Liutang(58)
Magnetic Nanomaterials Combined with Chemometrics for the Analysis of Phthalic Acid Esters.....	ZHANG Bin, LIU Chao, BAI Shan, PENG Juanying, CAI Qingyun(63)
Magnetic Zn/Al-calcined Layered Double Hydroxides Adsorbing Humic Acid from Aqueous Solution and Regeneration.....	LI Shaoxiu, YANG Yuhe, PENG Shicheng, WANG Zhihong, LI Dongmei(70)
Adsorptive Removal of Methylene Blue from Aqueous Solution by Manganese-loaded Activated Carbon.....	KANG Jin, CUI Longzhe, CAI Junxiong(77)
Preparation of Zero Valent Iron Composite and Its Removal of Parachloronitrobenzene.....	LI Jintao, LIU Hong, ZHANG Ting, WANG Qian, FAN Xianyuan(82)
Preparation of Fe ₃ O ₄ @Biological Carbon Magnetic Material and Photo-Fenton-like Synergistic Degradation of Tetracycline Hydrochloride in Water.....	LIN Xinchen, YU Xiaodan, XIAO Chenglong, LIN Sen, FENG Wei(89)

Study on Anaerobic Co-digestion of Excess Sludge and Citrus Pulp.....	ZHAO Ting, JIANG Xin, CHEN Yongdong, YU Qing, TANG Lizhan, GU Li, HE Qiang(94)
Study on Start-up and Denitrification Performance of Anaerobic Ammonium Oxidation System.....	DU Shuai, LI Fengjuan, LI Nankun, ZHU Minghan, YANG Jingdan, YA Tao, WANG Xiaohui(101)
Study on Adsorption of Fluoride Ion by Zirconium Pillared Coal-bearing Kaolin.....	DUAN Ning, LIU Jiashan, ZHANG Yinfeng(109)
Research Status and Countermeasures of Marine Microplastics Analysis Methods.....	JIANG Shuangcheng, LIN Peimei, WU Lifeng, LUO Donglian(117)
Review on the Pollution Status and Detection Methods of Perfluorooctanoic Acid.....	CHEN Xin, LIU Jie, ZENG Xiaolan, HUANG Yongzhou, YANG Zhanqiang, MA Zhiwei(125)
The Research Progress of Removal of Antibiotics in Municipal Wastewater Treatment.....	WANG Yuxi, DING Xiaohan, WANG Shuoyang, CHEN Dong(135)
Technology Prospects of Membrane Antifouling in Wastewater Treatment.....	CHEN Shiguang, SUN Hongwei, LIN Chong, ZHUO Xianrong, WANG Zhihong, XU Jiongji(143)
Recent Progress of the Process Intensification Technology in the Chemical Decontamination of Plutonium Contaminated Soils.....	SHEN Zhong, XU Hui, ZHAN Jia, WANG Yaoqin, MA Teqi, CHAI Nana, WANG Weixian(154)
Studies on the Changes of Nutrient Salts Concentration at the Initial Stage of the Cyanobacteria Bloom Decay in Lake Chaohu.....	LI Hui, XU Fang, YANG Liu, SONG Chunlei, ZHOU Yiyong, CHEN Wen(161)
Effect of Electron Competition on N ₂ O Accumulation Characteristics during Endogenous Denitrification.....	GONG Youkui, REN Lifang, PENG Yongzhen(168)
Influence of Farming System on the Nitrogen Flow in the Agricultural Production System in Hebei Province.....	WANG Fangfang, WANG Yanhua, CAI Zucong, NIU Xinsheng, ZHANG Yajuan(174)
Long-term Effectiveness of Carbon and Nitrogen Purification of Wuhe Constructed Wetland and Their Internal Distribution and Release.....	QU Jie, LI Bao, LI Xiaozheng, LIN Zhengquan, LI Kaixuan, WANG Fengliang(181)
Influence of Vertical Temperature Structure on Air Quality over Pearl River Delta Region during Dry Season.....	WU Meng, LUO Yun, WU Dui, ZENG Zhixiong, FAN Shaojia(189)
Analysis of the Composition and Source of DOM in Poyang Lake by Using Regional Integration Method.....	SHEN Zhaoying, GONG Xiaofeng, JIANG Liang, ZHANG Shaokang, YUAN Shaofen, YI Jialu(196)
Coupling Measurement of New Urbanization and Ecological Environment in Anhui Province.....	WANG Naiju, WANG Sai, CHEN Xiaohua(204)
Particle Concentration and Pedestrian Exposure Assessment at Urban Road Intersections.....	GAO Rong, JING Xinmiao, HE Hongdi(214)
The Threshold Effect of Economic Development on PM _{2.5} Pollution in Henan Province.....	XIE Zhixiang, QIN Yaochen, ZHANG Rongrong, LI Yang, NIU Chao(222)
Soil Heavy Metals Estimation Based on Hyperspectral in Urban Traffic Greenbelt.....	LIU Xiaoqing, LIU Yunlong(230)



提倡臭氧 安全阳光
ACT OZONE FRIENDLY STAY SUN SAFE

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

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.



2040

2030-2040年
允许保留年均2.5%的维修用

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