



全国中文核心期刊
中国科技核心期刊

环境工程学报

Chinese Journal of Environmental Engineering



第7卷 第7期

Vol.7 No.7

中国科学院
生态环境研究中心 主办
科学出版社 出版

7
2013

目次

水污染防治

铁碳微电解-Fenton 法预处理苯胺基乙腈生产废水	方俊华	刘 兰	穆军伟 (2401)
曝气生物滤池深度处理混合印染废水	陆洪宇	马文成	张 梁 陈志强 (2409)
不同的消毒方式对砂滤池出水消毒效果的影响	李 芳	陆少鸣	(2414)
耐低温贫营养好氧反硝化菌群脱氮特性及安全性	黄廷林	李 娜	张海涵 王 堃 刘婷婷 (2419)
生物氧化磁黄铁矿产生铁离子	李 杰	朱 琳	李睿华 (2424)
改性玉米芯吸附溶液中的铀	李小燕	刘义保	李 寻 张 明 刘云海 (2429)
曝气量对悬浮系统单级自养脱氮性能的影响	吕永涛	王 磊	孙 婷 王旭东 王志盈 (2433)
PAFC 对水体中持久性有机污染物 PFOA 的混凝效果	赵 莉	杨 柳	常 青 李宗硕 刘鹏宇 高彩丽 (2437)
聚合氯化铝与粉末活性炭联合强化混凝处理垃圾渗滤液	郑淑平	李亚静	孙力平 (2443)
超声前处理强化活性炭吸附活性艳红 X-3B 染料废水	陈 蓉	武 超	王 宏 王永忠 张倩茹 李淑哲 王智彬 廖 强 朱 恂 (2447)
基于成本-效能分析的氧化沟工艺运行条件优化	李 峥	齐 嵘	安 伟 顾 剑 文 洋 李生涛 杨 敏 (2453)
应用于维生素 C 凝结水处理反渗透膜清洗策略	肖入峰	刘景洋	张建强 孙晓明 (2459)
密集生长条件下丝状菌结构分析	李志华	莫丹丹	王晓昌 (2466)
我国不同区域水源水拉森指数比较分析	刘 娟	于建伟	安 伟 魏 魏 杨 敏 (2471)
低曝气下 PAC 强化 SBR 工艺同步脱氮除磷	卢 慧	杨朝晖	罗远玲 罗飞杭 汪理科 邓久华 (2475)
不同改性方式对控释碳源材料脱氮性能的影响	余三江	汪家权	林 函 褚华男 王曼曼 (2481)
不同污泥源条件下 ANAMMOX 启动及其与反硝化协同脱氮对比	于德爽	王晓霞	李 津 李宁宁 李伟刚 (2487)
进口高效菌用于青藏铁路污水处理应急保障的可行性研究	王亚娥	王 霞	李 杰 董贵奇 (2494)
高岭土与腐殖酸对混凝过程中药物去除效能的影响	吴运松	封 莉	张立秋 (2501)
厌氧后猪场废水资源化制备微生物絮凝剂	邱国良	杨春平	郭俊元 彭蓝艳 (2506)
全细胞脂肪酶(菌)对 SBR 系统中活性污泥性能的影响	宋慧婷	袁 珍	王 蕊 詹 威 罗培元 (2511)
响应曲面优化法合成 CTMAB-膨润土吸附剂	孟瑞军	杨玺萌	李 鑫 余晓皎 黄媛媛 张 科 (2517)
修复铬污染地下水的可渗透反应墙介质筛选	王兴润	翟亚丽	舒新前 朱文会 何 洁 刘 锋 于泓锦 (2523)
电-Fenton 法预处理干法腈纶生产废水	魏 健	邓雪娇	宋永会 肖书虎 徐东耀 (2529)
聚丙烯超滤膜的低温等离子体改性方法比较	许小艳	杨 庆	李树金 张彦成 李 鹏 (2536)
鸟粪石循环利用处理高氨氮废水的热解行为	曾庆玲	王 露	沈春花 李 飞 (2541)
V ₂ O ₅ -TiO ₂ -AlF ₃ /Al ₂ O ₃ 催化臭氧氧化 2,4-滴丙酸的氧化效能	蓝小飞	曹利刚	恽正兴 童少平 (2547)
磷酸钙盐结晶除磷工艺性能研究	陈小光	张 萌	厉 帅 蒋 演 郑 平 (2552)
Fe(Ⅲ)-酒石酸盐配合物体系的光解特性	封享华	牟 娟	丁世敏 (2557)
聚乙烯醇-海藻酸钠固定铜绿微囊藻对磷的吸附	贲 月	陈一明	刘云国 卢 明 曾晓霞 (2563)
盐液浸提辅助微波再生废油脱水树脂及机制分析	吴 云	张贤明	陈国需 (2569)
Fenton 氧化降解垃圾渗滤液中 COD 的动力学研究	陈云嫩	刘春花	范景彪 丁丽超 (2574)
广西城镇污水处理厂建设和运行的现状分析	成官文	朱宗强	徐子涵 蒙金结 梁宁书 覃许江 (2579)
昆明主城区城市地表径流污染特征分析	谷 雨	张乃明	(2587)
好氧颗粒污泥动态膜生物反应器工艺参数及运行性能	桂永馨	黄天寅	李文卫 姚 嘉 (2596)
醇对柴油微乳体系性能的影响	冷立健	袁兴中	曾光明 黄华军 王雪丽 段 严 祝慧娜 李 辉 (2601)
5 种水培植物对富营养化水体的净化能力	刘晓丹	李 军	龚一富 周友凤 朱正刚 周占清 (2607)
MnO ₂ 表面结合 Fe(Ⅱ)对三氯乙烯的还原脱氯作用	杨吉睿	顾晓清	孙红文 马小东 (2613)
氯离子对氨氮电化学氧化的影响	朱 艳	汪家权	陈少华 胡 洁 (2619)

低动力复合净水系统净化生态农庄景观池水质	金树权	陈若霞	周金波	王扬军	姚红燕	冯善根(2624)
一体式 A/O 反应器中不同碳硫比对除碳脱臭效率的影响	姜丹妮	吴忆宁(2629)				
活性炭-臭氧体系处理含氰废水的作用机理						
..... 尚会建	周艳丽	蒋良鹤	赵彦	张少红	赵丹	张高
不同材料负载 Ani/TiO ₂ 光降解印染废水	郑学明(2635)	龚艳伟	李晓秀	樊颜波(2641)		

大气污染防治

纳米片自组装原位 N 掺杂 (BiO) ₂ CO ₃ 分级微球的可控合成及其优异可见光催化性能						
..... 董帆	刘海涛	傅敏	张海东	蒋彦可	边际	吴忠标(2648)
氧化物催化剂对非热等离子体催化降解甲苯的影响						
..... 张玮	杨懿	王沛涛	吴军良	付名利	黄碧纯	叶代启(2655)
中空纤维膜吸收甲苯气体	黄倩茹	叶杞宏	李华琴	罗雨薇	魏在山(2662)	
输煤皮带转载点密闭罩流场模拟与结构优化	吕太	车晟	郭澄昆	王旭东(2667)		
旋风分离器排气管最佳插入深度的实验与分析	杨景轩	马强	孙国刚(2673)			

固体废物处置

酸改性沸石对污泥调理的影响	赵瑞娟	李小明	杨麒	陈畅亚	罗琨(2678)	
碱预处理污泥产酸效果及其生物群落研究	刘亚利	袁一星	杜茂安	康晓荣(2685)		
污泥脱水性能的关键影响因素研究	刘轶	周健	刘杰	杨志	龙熙(2689)	
酸碱联合调节剩余污泥对有机质的释放和脱水性能的影响	苑宏英	牛四芳	宋建阳	祁丽	汤韬(2694)	
磷酸活化-微波热解法制备污泥吸附剂	张伟	杨柳	李黎武	徐舜开	张骅(2699)	
餐厨垃圾自然升温堆肥工艺研究	郭倩倩	吴拥军	韩丽珍	王婧	薛伟	卢彪(2705)
水解溶菌酶污泥减量过程中的微生物群落变化	宋勇	施周	陈世洋	罗璐(2711)		
典型建筑固体废弃物再生骨料对环保砖性能的影响	程国淡	张凯松	寇世聪	潘智生(2716)		
电镀污泥的还原焙烧-酸浸	顾冬梅	邓开宇	陈炯	程洁红(2721)		
芦苇和香蒲在人工湿地城市污泥处理系统中的应用	张纯	裴丽蓉	汪彩文	汪爱河(2728)		
柠檬酸盐络合铜在污泥上的吸附			贾鹏	俞马宏(2733)		

土壤污染防治

不同纳米修复剂对污染土壤中胡萝卜吸收、转运 Cd 的影响	王萌	刘继芳	陈世宝	马义兵(2738)		
焦化厂污染土壤堆肥修复过程的毒性变化		张旭红	董芬	林爱军(2745)		
降解菌 ZQ ₃ 与紫茉莉对花污染土壤的联合修复	赵媛媛	张万坤	马慧	白鹏	林景卫	钟鸣(2752)
不同利用方式土壤中磷的吸附与解吸特性	邱亚群	甘国娟	刘伟	刘妍	侯红波	彭佩钦
微生物矿化修复重金属污染土壤					许燕波	钱春香
土壤粒径及有机质对多溴二苯醚热脱附的影响	傅海辉	黄启飞	朱晓华	何洁	唐振武	孟昭福(2769)
重金属离子在钠基膨润土中的吸附特征与机理			杨秀敏	钟子楠	潘宇	程晓霞(2775)
柠檬酸对褐土中 DTPA 提取态铜、镉含量及对紫花苜蓿吸收铜、镉的影响						
..... 刘芳	陈娇君	刘世亮	刘红恩	介晓磊	王书凤(2781)	

环境生物技术

降解聚丁二酸丁二醇酯菌株的诱变选育及降解性能	董骞	梁英梅	田呈明	梅雪立(2788)		
影响钝顶螺旋藻固碳的环境因子优化	杨玉娟	任洪艳	缪恒锋	阮文权(2795)		

CONTENTS

Pretreatment of N-phenylglycinonitrile wastewater by combining iron-carbon micro-electrolysis with Fenton reagent	Fang Junhua Liu Lan Mu Junwei(2401)
Advanced treatment of mixing dyeing wastewater using biological aerated filter process	Lu Hongyu Ma Wencheng Zhang Liang Chen Zhiqiang(2409)
Influence of different disinfecting modes on disinfection efficiency of outlet water from sand filter	Li Fang Lu Shaoming(2414)
Denitrification characters and safety of communities of cold tolerant oligotrophic and aerobic denitrifying bacteria	Huang Tinglin Li Na Zhang Haihan Wang Kun Liu Tingting(2419)
Production of iron ions from biooxidation of pyrrhotite	Li Jie Zhu Lin Li Ruihua(2424)
Adsorption of uranium in aqueous solution by modified corn cob	Li Xiaoyan Liu Yibao Li Xun Zhang Ming Liu Yunhai(2429)
Effect of aeration on single-stage autotrophic nitrogen removal in suspended system	Lü Yongtao Wang Lei Sun Ting Wang Xudong Wang Zhiying(2433)
Coagulation effects of persistent organic pollutant PFOA in water by PAFC	Zhao Li Yang Liu Chang Qing Li Zongshuo Liu Pengyu Gao Caili(2437)
Enhanced coagulation of landfill leachate with combination of polyaluminum chloride and powdered activated carbon	Zheng Shuping Li Yajing Sun Liping(2443)
Enhancement of activated carbon adsorbing reactive brilliant red X-3B dye wastewater by ultrasound pretreatment	Chen Rong Wu Chao Wang Hong Wang Yongzhong Zhang Qianru Li Shuzhe Wang Zhibin Liao Qiang Zhu Xun(2447)
Operational strategy optimization of full-scale oxidation ditch process based on cost-performance analysis	Li Zheng Qi Rong An Wei Gu Jian Wen Yang Li Shengtao Yang Min(2453)
Cleaning strategy of reverse osmosis membrane for treating C condensate	Xiao Rufeng Liu Jingyang Zhang Jianqiang Sun Xiaoming(2459)
Structure of filamentous microorganisms under overspreading growth condition	Li Zhihua Mo Dandan Wang Xiaochang(2466)
Comparison and analysis of the Larson ratios of source waters in different areas of China	Liu Juan Yu Jianwei An Wei Wei Wei Yang Min(2471)
Powder activated carbon strengthening SBR for simultaneous nitrogen and phosphorus removal under limited aeration	Lu Hui Yang Zhaohui Luo Yuanling Luo Feihang Wang Like Deng Jihua(2475)
Influence of different modified methods on denitrification performance of controlled-release carbon-source materials	Yu Sanjiang Wang Jiaquan Lin Han Chu Huanan Wang Manman(2481)
Comparison of ANAMMOX start-up and its synergistic effect with denitrifying with different seeding sludge sources	Yu Deshuang Wang Xiaoxia Li Jin Li Ningning Li Weigang(2487)
Feasibility study of drawing imported efficient microorganism into sewage treatment along Qinghai-Tibet railway in an emergency	Wang Yae Wang Xia Li Jie Dong Guiqi(2494)
Influences of kaolin and humic acid on removal of pharmaceuticals in coagulation processes	Wu Yunsong Feng Li Zhang Liqiu(2501)
Preparation of biofloculant using anerobic treated piggery wastewater as substrate	Qiu guoliang Yang Chunping Guo Junyuan Peng Lanyan(2506)
Influence of whole cell lipases on capability of activated sludge in SBR system	Song Huiting Yuan Zhen Wang Rui Zhan Wei Luo Peiyuan(2511)
Preparation of CTMAB-bentonite adsorbent with response surface methodology	Meng Ruijun Yang Ximeng Li Xin Yu Xiaojiao Huang Yuanyuan Zhang Ke(2517)
Selection of permeable reactive barrier media for remediation of contaminated groundwater with chromium	Wang Xingrun Zhai Yali Shu Xinqian Zhu Wenhui He Jie Liu Feng Yu Hongjin(2523)
Pretreatment of dry-spun acrylic fiber manufacturing wastewater by electro-Fenton process	Wei Jian Deng Xuejiao Song Yonghui Xiao Shuhu Xu Dongyao(2529)
Comparison of modification methods of polypropylene ultrafiltration membrane by low temperature plasma	Xu Xiaoyan Yang Qing Li Shujin Zhang Yancheng Li Peng(2536)
Thermal decomposition behavior of struvite in recycling treatment of high ammonia-nitrogen wastewater	Zeng Qingling Wang Lu Shen Chunhua Li Fei(2541)
Oxidative efficiency of ozonation of 2-(2,4-dichlorophenoxy) propionic acid in the presence of V₂O₅-TiO₂-AlF₃/Al₂O₃	Lan Xiaofei Cao Ligang Yun Zhengxing Tong Shaoping(2547)
Performance of calcium phosphates crystallization process for phosphorus removal	Chen Xiaoguang Zhang Meng Li Shuai Jiang Yan Zheng Ping(2552)
Photolysis characteristics of Fe(Ⅲ)-tartrate complex system	Feng Xianghua Mou Juan Ding Shimin(2557)
Adsorption of phosphorus by polyvinyl alcohol-sodium alginate immobilized <i>Microcystis aeruginosa</i>	Ben Yue Chen Yiming Liu Yunguo Lu Ming Zeng Xiaoxia(2563)
Regenerating resin used for dewatering of waste oil by salt solution leaching assisting microwave and mechanism analysis	Wu Yun Zhang Xianming Chen Guoxu(2569)
Study on kinetics of treating COD from landfill leachate by Fenton oxidation	Chen Yunnan Liu Chunhua Fan Jingbiao Ding Lichao(2574)
Analysis on construction and operation of municipal wastewater treatment plants in Guangxi	Cheng Guanwen Zhu Zongqiang Xu Zihan Meng Jinjie Liang Ningshu Qin Xujiang(2579)
Characterization of urban surface runoff in main districts of Kunming	Gu Yu Zhang Naiming(2587)

Operating process parameters and performance of aerobic granular sludge dynamic membrane bioreactor	Gui Yongxin Huang Tianyin Li Wenwei Yao Jia(2596)
Effects of cosurfactant alcohol on performance of diesel microemulsions	Leng Lijian Yuan Xinzhong Zeng Guangming Huang Huajun Wang Xueli Duan Yan Zhu Huina Li Hui(2601)
Purification of eutrophic water by five aqua-cultured plants	Liu Xiaodan Li Jun Gong Yifu Zhou Youfeng Zhu Zhenggang Zhou Zhanqing(2607)
Reductive dechlorination of trichloroethylene by surface-bound Fe(II) associated with manganese dioxide	Yang Jirui Gu Xiaoqing Sun Hongwen Ma Xiaodong(2613)
Effect of chloride ion on ammonia electrochemical oxidation	Zu Yan Wang Jiaquan Chen Shaohua Hu Jie(2619)
Purification of landscape pool water in ecology village by low-power compound water purification system	Jin Shuquan Chen Ruoxia Zhou Jinbo Wang Yangjun Yao Hongyan Feng Shangen(2624)
Effect of different COD/SO ₄ ²⁻ ratios in integrated A/O wastewater treatment systems on simultaneous organics and undesirable odor removal	Jiang Danni Wu Yining(2629)
Mechanism for treating cyanide wastewater by activated carbon and ozone	Shang Huijian Zhou Yanli Jiang Lianghe Zhao Yan Zhang Shaohong Zhao Dan Zhang Gao Zheng Xueming(2635)
Photocatalytic degradation of dyeing wastewater by different materials loaded Ani/TiO ₂	Gong Yanwei Li Xiaoxiu Fan Yanbo(2641)
Controlled synthesis and excellent visible light photocatalytic performance of in situ N-doped (BiO) ₂ CO ₃ hierarchical microspheres self-assembled by nanosheets	Dong Fan Liu Haitao Fu Min Zhang Haidong Jiang Yanke Bian Ji Wu Zhongbiao(2648)
Impact of oxide catalysts on toluene destruction by non-thermal plasma	Zhang Wei Yang Yi Wang Peitao Wu Junliang Fu Mingli Huang Bichun Ye Daiqi(2655)
Removal of toluene from air by a hollow fiber membrane absorption	Huang Qianru Ye Qihong Li Huaqin Luo Yuwei Wei Zaishan(2662)
Flow field simulation and structure optimization of confined hood at transshipment point of coal conveyor belt	Lü Tai Che Sheng Guo Chengkun Wang Xudong(2667)
Experiment and analysis of vortex finder optimum length in cyclone separator	Yang Jingxuan Ma Qiang Sun Guogang(2673)
Effect of acid-modified zeolite on conditioning of sludge	Zhao Ruijuan Li Xiaoming Yang Qi Chen Changya Luo Kun(2678)
Studies on microbial structure and volatile fatty acids accumulation with different alkaline pretreatment	Liu Yali Yuan Yixing Du Maoan Kang Xiaorong(2685)
Key influencing factors of sludge dewatering performance	Liu Yi Zhou Jian Liu Jie Yang Zhi Long Xi(2689)
Effect of co-adjusting excess sludge with acid and alkaline on release of organic matter and dewatering performance	Yuan Hongying Niu Sifang Song Jianyang Qi Li Tang Tao(2694)
Preparation of sludge adsorbents by phosphoric acid activation-microwave pyrolysis method	Zhang Wei Yang Liu Li Liwu Xu Shunkai Zhang Hua(2699)
Study on natural composting process of kitchen waste	Guo Qianqian Wu Yongjun Han Lizhen Wang Qiang Xue Wei Lu Biao(2705)
Changes of microbial ecological communities of activated sludge in a sludge reduction process using lysozyme	Song Yong Shi Zhou Chen Shiyang Luo Lu(2711)
Effect of typical construction solid waste on properties of environment-friendly block	Cheng Guodan Zhang Kaisong Kou Shicong Poon Chi Sun(2716)
Reduction roasting-sulphuric acid leaching of electroplating sludge	Gu Dongmei Deng Kaiyu Chen Xian Cheng Jiehong(2721)
Application of reeds and cattails in constructed wetlands for treatment of municipal sludge	Zhang Chun Pei Lirong Wang Caiwen Wang Aihe(2728)
Adsorption of Cu(II) onto sludge in the presence of citrate	Jia Peng Yu Mahong(2733)
Effects of nanoscale amendments on uptake and transfer of Cd by carrot (<i>Daucus carota</i>) in polluted soils	Wang Meng Liu Jifang Chen Shibao Ma Yibing(2738)
Change in toxicity during compost remediation of contaminated soil in a coking plant	Zhang Xuhong Dong Fen Lin Aijun(2745)
Microbial-phytoremediation of pyrene contaminated soil using pyrene-degrading strain ZQ ₅ with <i>Mirabilis Jalapa</i>	Zhao Yuanyuan Zhang Wankun Ma Hui Bai Peng Lin Jingwei Zhong Ming(2752)
Characteristics of phosphate adsorption and desorption in soils under different utilization	Qiu Yaqun Gan Guojuan Liu Wei Liu Yan Hou Hongbo Peng Peiqin Gao Tiejun(2757)
Remediation of heavy metal contaminated soils by bacteria biomineralization	Xu Yanbo Qian Chunxiang Lu Zhaowen(2763)
Effects of soil particle size and organic matter content on thermal desorption of polybrominated diphenyl ether	Fu Haihui Huang Qifei Zhu Xiaohua He Jie Tang Zhenwu Meng Zhaofu(2769)
Adsorption characters and mechanisms of heavy metal ions in Na-bentonite	Yang Xiumin Zhong Zinan Pan Yu Cheng Xiaoxia(2775)
Effect of citric acid(CA) on DTPA extractable Cu & Cd content in cinnamon soil and Cu & Cd uptake by alfalfa	Liu Fang Chen Jiaojun Liu Shiliang Liu Hongen Jie Xiaolei Wang Shufeng(2781)
Mutation breeding of poly(butylene succinate)-degrading strain and its degradability	Dong Qian Liang Yingmei Tian Chengming Mei Xueli(2788)
Optimization of environmental factors affecting potential of carbon fixation of <i>Spirulina platensis</i>	Yang Yujuan Ren Hongyan Miao Hengfeng Ruan Wenquan(2795)