

## 目 次

## 专论与综述

- 污水处理中腐殖质的来源及其演变过程 ..... 郝晓地, 周鹏, 曹亚莉(1)  
废弃高分子聚合物再生转化环境功能材料的研究进展 ..... 张付申, 王磊, 夏冬, 张军平(12)

## 研究报告

- 紫外线/氯高级氧化降解甲基异噻唑啉酮 ..... 王婷, 吴乾元, 王文龙, 李昂, 胡洪营(21)  
响应曲面法优化强化混凝工艺处理微污染水 ..... 狄军贞, 赵微, 朱志涛, 安文博, 任亚东(27)  
零价铁渗透性反应墙原位修复含砷地下水的柱实验研究 ..... 马会强, 吴束, 李爽(33)  
NUA-DAS 生态滤池中氨氧化菌群特征及脱氮效果 ..... 汪龙眠, 仇皓雨, 车呈晓, 张松贺, 张毅敏(41)  
膜蒸馏处理页岩气井压裂返排液 ..... 刘宇程, 吴东海, 袁建梅, 陈菊, 张波(48)  
碳氮比对不同滤料反硝化滤池脱氮效果的影响 ..... 吴兴海, 李咏梅(55)  
混凝-A<sup>3</sup>-MBR 处理餐厨垃圾发酵废液运行条件优化与特性 ..... 李梦琪, 陈吕军(63)  
漂浮型可见光复合光催化剂 B-N-TiO<sub>2</sub>/EP 的制备、表征及其光催化性能 ..... 马荣荣, 王学江, 王伟, 张晶, 黄嘉瑜(71)  
不同氧化方式对 4 种常见农药的降解效果 ..... 刘昆, 段晋明, 刘玉灿, 李伟(78)  
膜曝气生物反应器对受污染地表水的处理效果 ..... 焦玉佩, 李意, 刘启明, 张凯松(85)  
三维电催化氧化技术处理草铵膦农药废水 ..... 赵泽华, 张后虎, 许彬, 刘茹, 张静(93)  
凹凸棒石-钢渣复合滤料用于农村分散式生活污水脱氮除磷 ..... 马会强, 吴束, 李爽(98)  
颗粒物对不同材质管道出水的影响 ..... 周贺, 王双玲, 徐梦瑶, 张明露, 张灿(105)  
微生物絮凝剂与聚合氯化铝复配处理污水厂二级出水 ..... 刘皓月, 王磊, 吕永涛, 鞠恺, 陈宣, 王志盈(111)  
厌氧氨氧化反应器启动阶段氨氮对 N<sub>2</sub>O 产生量的影响 ..... 王华琴, 谭发, 张琴, 叶畔, 金樾, 张文杰(116)  
动态电化学反应器还原硝基苯废水的效能分析 ..... 季兵, 朱兆连, 陈慧, 周桃玉, 王海玲(121)  
无烟煤去除水中亚硝酸盐氮的机理研究 ..... 郑苗, 周秋红, 何靖, 方芳, 郭劲松(127)  
城市内河综合水质对再生水补水的响应 ..... 夏高原, 葛军, 柯正辰, 金菊良, 陈国炜, 刘丽(136)  
淮河流域河南段退化河流生态系统修复模式 ..... 徐艳红, 于鲁冀, 吕晓燕, 范鹏宇(143)  
多孔陶瓷滤球对杭州西湖沉积物 5 种形态磷的吸附性能 ..... 刘子森, 张义, 张垚磊, 贺锋, 刘碧云, 曾磊, 吴振斌(151)  
周进周出辐流式沉淀池三维数值模拟与 PIV 实验对比研究 ..... 王涛, 施周, 施清华, 涂朦朦, 周石庆(159)  
淮河中上游轮虫群落结构分析及水质评价 ..... 左其亭, 陈豪, 张永勇, 窦明, 刘静(165)  
曝气量对短程硝化过程中 N<sub>2</sub>O 产量的影响 ..... 黄楠, 赵剑强, 葛光环, 贾璐维(174)  
RES/PIP 混合聚酰胺纳滤膜的制备 ..... 张晓婷, 王磊, 杨若松, 王佳璇, 张一, 李珍贤(181)  
净水污泥为载体的生物膜法在印染废水处理中的应用 ..... 刘晴, 杨兰, 王东田, 王炼, 徐知雄(188)  
3 种正渗透膜对水中卡马西平的截留 ..... 王珏, 黄满红, 张翠翠, 孟李君(197)  
填充粒子对三维电极处理 MDEA 污水的影响 ..... 王兵, 舒帮云, 任宏洋, 王波(205)  
西北干旱缺水城市污水再生利用系统决策优化 ..... 刘晓君, 付汉良, 孙伟(211)  
UV 光降解有机砷废水 ..... 胡平, 郑星, 刘玉坤, 许倩, 李素娟, 郑经堂(218)  
ZnIn<sub>2</sub>S<sub>4</sub> 光催化降解水中痕量药物卡马西平的特性 ..... 谭娜, 卜龙利, 高波, 刘嘉栋, 冯奇奇, 孟海龙, 何克博(223)  
不同挂膜方式对人工快渗系统处理性能的影响 ..... 陈俊, 张建强, 李佳, 杨旭(230)  
电解催化氧化法废水处理机制研究 ..... 杨尚源, 林靖华, 黄燕, 任晋峰, 王松岳, 卢金孟, 刘阳, 薛磊(237)  
鱼类循环水养殖系统 DO 变动及污染物去除 ..... 刘青松, 李华, 董宏标, 石广辉, 张真真, 周子明, 张家松(244)  
竹炭吸附对硝基苯胺的过程与机理研究 ..... 吴光前, 吴冠男, 张齐生, DETLEF R. U. KNAPPE(251)  
两级预处理/MBR 工艺处理制药废水 ..... 陈威, 黄燕萍, 袁书保(260)  
催化芬顿氧化处理苯酚废水 ..... 李阳, 王芬, 于雷, 季民(267)  
高有机物浓度下氨氮的好氧硝化 ..... 兰善红, 黄娜, 吴鹏举(273)  
PVDF/ZrO<sub>2</sub> 杂化膜的制备及其吸附刚果红的性能 ..... 曹洪玉, 王凯, 王会东, 张曼, 邹丽飞, 崔广金(278)  
臭氧联合混凝沉淀法去除浮选废水中有机磷 ..... 马宏涛, 孙水裕, 许明鑫(285)  
含聚丙烯酰胺类油田污水的电化学氧化处理 ..... 刘咚, 储昭奎, 王洪福, 屈撑圆(291)  
硫化钠法和亚铁法处理印制线路板络合铜废水对比研究 ..... 蔡辰, 王宏杰, 董文艺(297)  
Zn<sub>0.9</sub>Fe<sub>0.1</sub>S 硫化物的制备及其光催化降解双酚 A 的性能 ..... 苏荣军, 薛雅内, 张广山, 王鹏, 袁一星(303)  
活性炭上吸附态重金属稳定性 ..... 范明霞, 童仕唐(312)  
硝化液循环比对 DBF-BAF 工艺处理焦化废水效能的影响 ..... 郑俊, 贺倩倩, 张德伟, 张海涛, 鲍荟荟(317)  
强化循环厌氧反应器(SCAR)处理碱减量废水的启动特性 ..... 杨波, 张冉冉, 李方, 田晴, 马春燕(322)

全固态硝酸根离子选择电极的性能分析	杨金凤, 杨慧中(329)
初始 pH 值对皂苷强化污泥生产短链挥发性脂肪酸的影响	张娟(336)
复配 Na <sub>2</sub> S-DDTC 处理高浓度含 Ni 电镀废水	戴文灿, 周发庭, 黄晴, 严革方, 孙水裕(341)
微生物燃料电池在高盐榨菜废水处理中的产电性能	付国楷, 吴越, 张林防, 潘成勇(348)
电-Fenton 法预处理糖蜜酒精废液厌氧发酵出水	任云, 张利亚, 张书廷(353)
不同供氧策略和氨氮浓度下 SBR 中微生物群落的演变	李志静, 孙宝盛, 张笑雪, 魏佳虹, 琼绍雷(359)
D201 树脂的 SO <sub>4</sub> <sup>2-</sup> 吸附及脱附性能	熊桂慧, 赵东风, 李石, 刘皓瑛(366)
盐酸酸洗废液制备纳米氧化铁	唐剑昭, 裴毓雯, 胡勤海, 裴冬冬, 徐俊鹏(371)
不同填料潮汐流人工湿地处理 SBR 尾水的对比	孔令华, 施春红, 马方曙, 周北海(379)
载纳米铁花生壳的制备及其吸附除磷性能	孙霄, 盛梅, 沈晓强, 曹国民(386)
MFPAC 混凝沉淀-矿化垃圾吸附预处理垃圾渗滤液	刘占孟, 刘荣荣, 聂发辉(393)
新型光-类芬顿催化剂纳米 FeVO <sub>4</sub> 的制备及其对盐酸四环素的降解性能	俞幼萍, 高品, 刘保江, 何瑾馨(401)
MoO <sub>3</sub> /ZrO <sub>2</sub> -TiO <sub>2</sub> 固体酸催化水解 HCFC-22	黄家卫, 唐光阳, 贾丽娟, 王访, 徐元强, 赵光琴, 俞芳, 刘天成(408)
基于 EGR 的乙醇-生物柴油-柴油发动机排放性能	梁昱, 周立迎, 韩志蝶, 黄昊旻, 彭利春, 黄辉耀(413)
基于非均匀入口条件 SCR 系统气固相组分的分布特性优化	周英贵, 金保昇(421)
膜基活性炭吸附轻烃的实验研究	张齐正, 黄维秋, 徐先阳, 王翊红, 王兆利(427)
风机盘管回风口加装驻极体过滤器过滤 PM <sub>2.5</sub> 性能分析	周刘轲, 沈恒根, 马欢, 沈云鹏, 水甜甜(432)
以磷矿石为填料的生物滴滤塔处理含挥发性脂肪酸的臭气	邓志华, 宁平, 周成, 陈奇伯, 孙孝龙(439)
Fe 掺杂 Mn-Ce/AC 催化剂的制备及其低温脱硝	甘玲, 刘琪琪, 李建军, 王婷, 熊天龙, 陈通平(445)
电催化配合吸收对克劳斯含硫尾气的净化	刘森, 王黎, 胡宁, 程诚, 孙杨(450)
不同孔结构对活性炭动态吸附高浓度甲苯的影响	宋磊, 王春颖, 陈虹霖, 王夔(457)
内置涡核破碎翼旋风分离器内颗粒受力数值分析	宋承明, 刘鹤, 裴斌斌, 王博, 陈延信, 徐德龙(465)
燃烧条件对灰渣中重金属元素形态的影响	孙晓, 钱枫, 魏新鲜, 张驰(473)
助剂(C <sub>2</sub> H <sub>4</sub> , NH <sub>3</sub> )添加对 AC/DC 流光放电等离子体脱硝效果的影响	浦鹏, 刘啸, 彭亚东, 任旭婷, 周红军(483)
RDF 与煤粉混合燃烧特性及动力学分析	施江, 谢峻林, 梅书霞, 杨虎(490)
瘤胃液用于玉米秸秆产酸的影响因素	孟尧, 魏志谋, 郑明霞, 马海玲, 葛艳菊, 王凯军(497)
硫酸盐对电子垃圾拆解地底泥中重金属形态的影响	林娜娜, 任源, 周卓为(503)
不同有机质含量进泥的污泥干化芦苇床运行效能	崔玉波, 张万筠, 孙红杰, 冉春秋(509)
污泥干燥焚烧工程系统质能平衡分析	陈少卿, 王飞, 池涌, 严建华, 岑可法(515)
温度和紧实度对秸秆水解产酸的影响	陈广银, 吕利利, 杜静, 常志州, 叶小梅(522)
微波/超声波对污泥粒度与水分的影响	周翠红, 凌鹰, 曾萌, 李艺萍(529)
锰尾矿基胶凝材料配方优化及水化机理分析	张树光, 王华庆, 李江山(535)
接种量对餐厨垃圾中温厌氧产甲烷潜能的影响	王佳君, 陆洪宇, 陈志强, 温沁雪(541)
磷渣-粉煤灰基地聚物材料固化含砷废渣	史桂杰, 周新涛, 何欢, 张明琴, 罗中秋, 周元康(546)
城市生活垃圾土的强度机理及复合幂-指数应力-应变模型	李修磊, 李金凤(552)
低强度超声波预处理对污泥自热式高温好氧消化的影响	朱亮, 周兴求, 曾庆洋, 郑龙(560)
MBR 污泥热水解强化厌氧消化中试研究	李烨, 马文瑾, 孙冀沪(566)
基于不同破解方法的市政污泥厌氧消化产气量优化	汪辉, 肖庆聪, 赵阳, 陈毓道(572)
碱催化下厨余垃圾中白菜叶的水热转化	王隽哲, 唐黎华, 郭建新(578)
水热法外加硅铝添加剂稳定垃圾焚烧飞灰中的重金属	石德智, 李鹏飞, 张超, 魏云梅(582)
4 种表面活性剂及其混合物对 p,p'-DDT 污染土壤洗脱效果	李登宇, 孙丽娜, 吴昊(589)
8 种植物对铀和镉的富集特性	向文明, 王丹, 姚天月, 陈立(594)
一株耐汞菌的分离鉴定及其去汞特性	杨文, 陈小敏, 朱保虎, 朱毅(602)
响应面分析法优化纳米零价铁铜双金属修复土壤浸提液中 Cr(VI)	李璐玮, 祝方, 马少云, 商执峰(608)
光合产氢-膜曝气生物膜反应器耦合系统产氢与底物降解特性	田鑫, 孙少鹏, 周崇波, 俞铁铭(613)
AC-GO 空气阴极对微生物燃料电池产电性能的影响	杨娜, 薛丽仙, 任月萍, 李秀芬, 王新华(620)
固定毒性配比法研究重金属与土霉素的联合毒性	吴晓亭, 王晓昌, 马晓妍(626)
江苏省高淳地区磷酸活化生物质制炭的综合效益分析	郑琳, 李坤权, 朱洪祥(632)
污水碳源对复合垂直流-水平流人工湿地脱氮效果的影响	夏艳阳, 崔理华, 黄小龙(638)
彩云湖湿地公园 7 种湿地植物吸氮纳磷能力在不同季节的比较研究	祝浩翔, 林立, 徐伟, 唐源英, 曹冉, 王海洋(645)

## CONTENTS

Origins and evolution processes of humic substances in wastewater treatment .....	HAO Xiaodi, ZHOU Peng, CAO Yali (1)
Research progress on recycling waste polymers into environmental functional materials .....	ZHANG Fushen, WANG Lei, XIA Dong, ZHANG Junping (12)
Degradation of methylisothiazolinone by UV/chlorine advanced oxidation process .....	WANG Ting, WU Qianyuan, WANG Wenlong, LI Ang, HU Hongying (21)
Treatment of response surface methodology to optimize enhanced coagulation process for micro-polluted water .....	DI Junzhen, ZHAO Wei, ZHU Zhitao, AN Wenbo, REN Yadong (27)
Column experimental study on arsenic contained groundwater remediation using zero valent iron permeable reactive barriers .....	MA Huiqiang, WU Shu, LI Shuang (33)
Characteristics of ammonia-oxidizing bacteria and effect of nitrogen removal for wastewater treatment using NUA-DAS ecofilter .....	WANG Longmian, QIU Haoyu, CHE Yuxiao, ZHANG Songhe, ZHANG Yimin (41)
Treatment of fracturing flowback fluids of shale gas wells by membrane distillation .....	LIU Yucheng, WU Donghai, YUAN Jianmei, CHEN Ju, ZHANG Bo (48)
Effect of C/N ratio on denitrification of denitrification filters with different filter materials .....	WU Xinghai, LI Yongmei (55)
Optimization operating conditions and characteristic of treatment for kitchen waste fermentation wastewater by coagulation-A <sup>3</sup> -MBR process .....	LI Mengqi, CHEN Lijun (63)
Preparation, characterization and photocatalytic performance of floating visible-light photocatalysts B-N-TiO <sub>2</sub> /EP .....	MA Rongrong, WANG Xuejiang, WANG Wei, ZHANG Jing, HUANG Jiayu (71)
Influences of different oxidation methods on degradation of four commonly used pesticides .....	LIU Kun, DUAN Jinming, LIU Yucon, LI Wei (78)
Treatment effect of membrane-aerated biofilm reactor (MABR) on polluted surface water .....	JIAO Yupei, LI Yi, LIU Qiming, ZHANG Kaisong (85)
Treating gluconate-ammonium wastewater used by oxidation technology on three-dimensional electrode .....	ZHAO Zehua, ZHANG Houhu, XU Bin, LIU Ru, ZHANG Jing (93)
Attapulgite-steel slag composit filter media for ammonium-nitrogen and phosphorus removal in decentralized rural decentralized domestic wastewater treatment .....	MA Huiqiang, WU Shu, LI Shuang (98)
Effect of particulate matters on pipe effluent quality of different materials .....	ZHOU He, WANG Shuangling, XU Mengyao, ZHANG Minglu, ZHANG Can (105)
Combination of bioflocculant and PAC for treatment of secondary effluent in a wastewater treatment plant .....	LIU Haoyue, WANG Lei, LYU Yongtao, JU Kai, CHEN Xuan, WANG Zhiying (111)
Effect of NH <sub>4</sub> <sup>+</sup> -N concentrations on N <sub>2</sub> O emission in anammox reactor during start-up period .....	WANG Huaiqin, TAN Fa, ZHANG Qin, YE Ye, JIN Yue, ZHANG Wenjie (116)
Energy efficiency analysis of reduction of nitrobenzene wastewater by dynamic electrochemical reactor .....	JI Bing, ZHU Zhaolian, CHEN Hui, ZHOU Taoyu, WANG Hailing (121)
Mechanism study of nitrite nitrogen remove from water by anthracite .....	ZHENG Qian, ZHOU Qiuhong, HE Jing, FANG Fang, GUO Jinsong (127)
Comprehensive water quality of urban river in response to reclaimed water recharge .....	XIA Gaoyuan, GE Jun, KE Zhengchen, JIN Juliang, CHEN Guowei, LIU Li (136)
Ecological restoration modes for Huaihe River basin of Henan, China .....	XU Yanhong, YU Luji, LYU Xiaoyan, FAN Pengyu (143)
Adsorption performance of porous ceramic filter material (PCFM) on sediments five phosphorus fractions in West Lake, Hangzhou, China .....	LIU Zisen, ZHANG Yi, ZHANG Yaolei, HE Feng, LIU Biyun, ZENG Lei, WU Zhenbin (151)
Comparative experimental investigations between PIV and three dimensional numerical simulation of circular clarifier .....	WANG Tao, SHI Zhou, SHI Qinghua, TU Mengmeng, ZHOU Shiqing (159)
Rotifers community structure analysis and water quality evaluation of upper and middle Huai River basin .....	ZUO Qiting, CHEN Hao, ZHANG Yongyong, DOU Ming, LIU Jing (165)
Effect of aeration rates on N <sub>2</sub> O emission during nitrification process .....	HUANG Nan, ZHAO Jianqiang, GE Guanghuan, JIA Luwei (174)
Preparation of RES/PIP mixtures polyamide composite nanofiltration membranes .....	ZHANG Xiaoting, WANG Lei, YANG Ruosong, WANG Jiaxuan, ZHANG Yi, LI Zhenxian (181)
Application of water purification sludge as biofilm carrier in dyeing wastewater treatment .....	LIU Qing, YANG Lan, WANG Dongtian, WANG Lian, XU Zhixiong (188)
Carbamazepine rejection in water by three kinds of forward osmosis membranes .....	WANG Jue, HUANG Manhong, ZHANG Cuicui, MENG Lijun (197)
Effects of three dimensional electrode filling particles on treatment of MDEA effluent .....	WANG Bing, SHU Bangyun, REN Hongyang, WANG Bo (205)
Optimized decision-making of reclaimed water reuse system of water resources constraint cities in northwest China .....	LIU Xiaojun, FU Hanliang, SUN Wei (211)
Photolysis of aqueous organoarsenic under UV irradiation .....	HU Ping, ZHENG Xing, LIU Yukun, XU Qian, LI Sujuan, ZHENG Jingtang (218)
Characteristics of photocatalytic degradation by ZnIn <sub>2</sub> S <sub>4</sub> for trace pharmaceutical carbamazepine in aqueous solution .....	TAN Na, BO Longli, GAO Bo, LIU Jiadong, FENG Qiqi, MENG Hailong, HE Kebo (223)
Effect of different biofilm formation methods on treatment performance of constructed rapid infiltration system .....	CHEN Jiao, ZHANG Jianqiang, LI Jia, YANG Xu (230)
Study on electrochemical enhanced catalytic oxidation reaction for wastewater treatment .....	YANG Shangyuan, LIN Jinghua, HUANG Yan, REN Jinfeng, WANG Songyue, LU Jimeng, LIU Yang, XUE Lei (237)
Variation of dissolved oxygen in fish recirculating aquaculture system and its removal performance of pollutants .....	LIU Qingsong, LI Hua, DONG Hongbiao, SHI Guanghui, ZHANG Zhenzhen, ZHOU Ziming, ZHANG Jiasong (244)
Study on adsorption process and mechanism of p-nitroaniline on bamboo charcoal .....	WU Guangqian, WU Guannan, ZHANG Qisheng, DETLEF R. U. KNAPPE (251)
Treatment of pharmaceutical wastewater using two-stage pretreatment/MBR combined process .....	CHEN Wei, HUANG Yanping, YUAN Shubao (260)
Catalytic Fenton oxidation process for phenol wastewater .....	LI Yang, WANG Fen, YU Lei, JI Min (267)
Aerobic nitrification of ammonia nitrogen under high organic concentration .....	LAN Shanhong, HUANG Na, WU Pengyu (273)
Preparation of PVDF/ZrO <sub>2</sub> hybrid membranes and their adsorption property for Congo Red .....	CAO Hongyu, WANG Kai, WANG Huidong, ZHANG Man, ZOU Lifei, CUI Guangjin (278)
Dephosphorization of flotation wastewater containing organic phosphorus using ozone-coagulation sedimentation method .....	MA Hongtao, SUN Shuiyu, XU Mingxin (285)
Electrochemical oxidation treatment of polyacrylamide-based oil field wastewater .....	LIU Dong, CHU Zhaokui, WANG Hongfu, QU Chengtun (291)
Comparative study of sodium sulfide method and ferrous method for removing chelated copper from printed circuit board wastewater .....	CAI Chen, WANG Hongjie, DONG Wenyi (297)
Preparation and performance of Zn <sub>0.9</sub> Fe <sub>0.1</sub> S sulfide for photocatalytic degradation of BPA .....	SU Rongjun, XUE Yanqi, ZHANG Guangshan, WANG Peng, YUAN Yixing (303)
Stability of heavy metals by adsorption on activated carbons .....	FAN Mingxia, TONG Shitang (312)
Influence of cycle ratio of nitration liquid on efficiency of DBF-BAF process in treating coking wastewater .....	ZHENG Jun, HE Qianqian, ZHANG Dewei, ZHANG Haitao, BAO Huihui (317)
Start-up characteristic of strengthen circulation anaerobic reactor for treating alkali-minimization wastewater .....	YANG Bo, ZHANG Ranran, LI Fang, TIAN Qing, MA Chunyan (322)

Performance analysis of all-solid-state nitrate ion-selective electrode .....	YANG Jinfeng, YANG Huizhong(329)
Effect of initial pH on short chain fatty acid production from sludge anaerobic fermentation enhance by saponin .....	ZHANG Juan(336)
Na <sub>2</sub> S-DDTC composite agents for treatment of electroplating wastewater with high Ni concentrations .....	DAI Wenean, ZHOU Fating, HUANG Qing, YAN Pingfang, SUN Shuiyu(341)
Microbial fuel cell for electricity generation during high-salinity mustard tuber wastewater treatment .....	FU Guokai, WU Yue, ZHANG Linfang, PAN Chengyong(348)
Pretreatment of molasses alcohol anaerobic effluent by electro-Fenton oxidation .....	REN Yun, ZHANG Liya, ZHANG Shuting(353)
Succession of microbial community in SBR under different aeration strategy and concentration of ammonia nitrogen .....	LI Zhijing, SUN Baosheng, ZHANG Xiaoxue, WEI Jiahong, QU Shaolei(359)
SO <sub>4</sub> <sup>2-</sup> adsorption and desorption performance on D201 macroreticular ion exchange resin .....	XIONG Guihui, ZHAO Dongfeng, LI Shi, LIU Haoying(366)
Preparation of nano-sized iron oxide from steel pickling liquors .....	TANG Jianzhao, PEI Yuwen, HU Qinhai, PEI Dongdong, XU Junpeng(371)
Comparison of treatment on SBR tail water in tidal flow constructed wetlands with different packing .....	KONG Linghua, SHI Chunhong, MA Fangshu, ZHOU Beihai(379)
Preparation of nano-iron loaded peanut hull and its performance on removal of phosphate from water .....	SUN Xiao, SHENG Mei, SHEN Xiaoqiang, CAO Guomin(386)
MFPAC coagulation and aged refuse adsorption pretreatment of landfill leachate .....	LIU Zhanmeng, LIU Rongrong, NIE Fahui(393)
Preparation and degradation properties toward tetracycline hydrochloride of a new photo-Fenton-like catalyst nano FeVO <sub>4</sub> .....	YU Youping, GAO Pin, LIU Baojiang, HE Jinxin(401)
Catalytic hydrolysis of chlorodifluoromethane (HCFC-22) over MoO <sub>3</sub> /ZrO <sub>2</sub> -TiO <sub>2</sub> solid acid catalyst .....	HUANG Jiawei, TANG Guangyang, JIA Lijuan, WANG Fang, XU Yuanqiang, ZHAO Guangqin, YU Fang, LIU Tiancheng(408)
Emission performance of ethanol-biodiesel-diesel engine with exhaust gas recirculation .....	LIANG Yu, ZHOU Liying, HAN Zhirong, HUANG Haomin, PENG Lichun, HUANG Huiyao(413)
Distribution characteristics optimization of gas-solid fluid for SCR system based on non-uniform inlet condition .....	ZHOU Yinggui, JIN Baosheng(421)
Experimental study on adsorption of light hydrocarbons by membrane-based activated carbon .....	ZHANG Qizheng, HUANG Weiqiu, XU Xianyang, WANG Yihong, WANG Zhaoli(427)
Analysis of PM <sub>2.5</sub> filtration performance of electret filter in return grille of fan coil unit .....	ZHOU Liuke, SHEN Henggen, MA Huan, SHEN Yunpeng, SHUI Tiantian(432)
Treatment of a waste gas containing volatile fatty acids by bio-trickling filter with phosphate rock as matrix .....	DENG Zhihua, NING Ping, ZHOU Cheng, CHEN Qibo, SUN Xiaolong(439)
Preparation and activity of Mn-Ce/AC catalysts doping with Fe and its low-temperature denitrification .....	GAN Ling, LIU Qiqi, LI Jianjun, WANG Ting, XIONG Tianlong, CHEN Tongping(445)
Removal of Claus sulfur exhausts via electro-catalysis absorbed process .....	LIU Sen, WANG Li, HU Ning, CHENG Cheng, SUN Yang(450)
Effects of pore structure on activated carbon adsorption on toluene with high concentration .....	SONG Lei, WANG Chunying, CHEN Honglin, WANG Kui(457)
Numerical analysis of forces on particles exerted on particles in a cyclone separator with vortex core broken wings .....	SONG Chengming, LIU He, PEI Binbin, WANG Bo, CHEN Yanxin, XU Delong(465)
Effects of combustion conditions on migration and transformation of heavy metals during coal combustion .....	SUN Xiao, QIAN Feng, WEI Xinxian, ZHANG Chi(473)
Effect of additive (C <sub>2</sub> H <sub>4</sub> , NH <sub>3</sub> ) addition on denitrification effect of AC/DC streamer discharge plasma .....	PU Peng, LIU Xiao, PENG Yadong, REN Xuting, ZHOU Hongjun(483)
Combustion characteristics and kinetic analysis of RDF and coal blends .....	SHI Jiang, XIE Junlin, MEI Shuxia, YANG Hu(490)
Influencing factor of VFA production with corn straw inoculated with rumen fluid .....	MENG Yao, WEI Zhimou, ZHENG Mingxia, MA Hailing, GE Yanju, WANG Kajun(497)
Effect of sulfate on the form of heavy metals in E-waste sediment .....	LIN Nana, REN Yuan, ZHOU Zhuowei(503)
Efficiency of sludge drying reed bed for stabilization of sewage sludges with different organic matter contents .....	CUI Yubo, ZHANG Wanjun, SUN Hongjie, RAN Chunqiu(509)
Analysis on mass and energy balance of sludge drying and incineration system .....	CHEN Shaoqing, WANG Fei, CHI Yong, YAN Jianhua, CEN Kefa(515)
Effects of temperature and compaction on hydrolysis and acidification of agricultural straw .....	CHEN Guangyin, LYU Lili, DU Jing, CHANG Zhizhou, YE Xiaomei(522)
Analysis of particle size distribution and water content on microwave/ultrasound pretreated sludge .....	ZHOU Cuihong, LING Ying, ZENG Meng, LI Yiping(529)
Formula optimization and hydration mechanism analysis of cementitious material prepared with manganese tailings .....	ZHANG Shuguang, WANG Huaqing, LI Jiangshan(535)
Effect of inoculation ratio for methane potential of food waste on mesotherm anaerobic digestion .....	WANG Jiajun, LU Hongyu, CHEN Zhiqiang, WEN Qinxue(541)
Solidification of arsenic-containing solid wastes using phosphorus slag-fly ash based geopolymers .....	SHI Guijie, ZHOU Xintao, HE Huan, ZHANG Mingqin, LUO Zhongqiu, ZHOU Yuankang(546)
Shear strength mechanism and composite power-exponential stress-strain model of municipal solid waste .....	LI Xiulei, LI Jinfeng(552)
Effect of low intensity ultrasonic pretreatment on autothermal thermophilic aerobic sludge digestion .....	ZHU Liang, ZHOU Xingqiu, ZENG Qingyang, ZHENG Long(560)
Pilot-scale study of MBR sludge treated by thermal hydrolysis enhanced anaerobic digestion .....	LI Ye, MA Wenjin, SUN Jili(566)
Biogas production optimization from sludge anaerobic digestion based on different sludge disintegration methods .....	WANG Hui, XIAO Qingcong, ZHAO Yang, CHEN Yuqiu(572)
Alkali catalysis hydrothermal conversion of cabbage leaf in kitchen waste .....	WANG Junzhe, TANG Liuhua, GUO Jianxin(578)
Hydrothermal process for stabilization of heavy metals in MSW incineration fly ash with external silicon-aluminum additive .....	SHI Dezhi, LI Pengfei, ZHANG Chao, WEI Yunmei(582)
Effectiveness of 4 surfactants and their mixtures in p,p'-DDT contaminated soil flushing .....	LI Dengluy, SUN Lina, WU Hao(589)
Enrichment characteristics of eight plants to uranium and cadmium .....	XIANG Mingwen, WANG Dan, YAO Tianyue, CHEN Li(594)
Isolation of mercury-resistant strains and its characteristic for mercury-removed .....	YANG Wen, CHEN Xiaomin, ZHU Baohu, ZHU Yi(602)
Optimization of remediation of Cr (VI) contaminated soil leachate by nano-zero valent iron/copper by response surface methodological analysis .....	LI Luwei, ZHU Fang, MA Shaoyun, SHANG Zhipeng(608)
Improving hydrogen production and substrate degradation in a photobioreactor coupling with a membrane-aerated biofilm reactor .....	TIAN Xin, SUN Shaopeng, ZHOU Chongbo, YU Tieming(613)
Effect of activated carbon-graphene oxide cathode on performance of microbial fuel cell .....	YANG Na, XUE Lixian, REN Yueping, LI Xiufen, WANG Xinhua(620)
Joint toxicities of binary mixtures between heavy metals and OTC based on predefined TU ratios .....	WU Xiaoting, WANG Xiaochang, MA Xiaoyan(626)
Comprehensive benefits analysis of phosphoric-acid activate biomass to carbon of Gaochun district in Jiangsu province, China .....	ZHENG Lin, LI Kunquan, ZHU Hongxiang(632)
Effect of internal carbon source supplement on nitrogen removal in integrated vertical-flow and horizontal-flow constructed wetland .....	XIA Yanyang, CUI Libua, HUANG Xiaolong(638)
Comparative study on nitrogen and phosphorus absorbeny of seven wetland plants in Caiyun lake wetland park in different seasons .....	ZHU Haoxiang, LIN Li, XU Wei, TANG Yuanying, CAO Ran, WANG Haiyang(645)