



- ★ 中文核心期刊  
★ 中国科技核心期刊 (CSTPCD)  
★ 《国家哲学社会科学学术期刊数据库》(NSSD) 收录  
★ 国际检索: Scopus、CSA: NS、AJ、CABI、ZR、JST、IC、EBSCOhost 等



## 目次

第33卷 第10期 2020年10月

### 大气环境

- 京津冀典型城市一次重污染过程特征及边界层结构变化对其影响……… 韩笑颜，周颖，吕喆，王晓琦 (2235)  
杭州湾北岸上海段石化集中区臭氧重污染过程研究  
…………… 徐家洛，段炼，朱雨欣，陈凌霄，黄晴，修光利 (2246)  
宝鸡市冬季一次持续性重污染过程特征分析……… 杨雪玲，邢莉，王颖，刘随心，刘文霞 (2256)  
基于热异常探测的北京水泥厂大气污染排放评估  
…………… 邱昀，李令军，鹿海峰，李金香，王新辉，姜磊，栗京平 (2265)

### 水环境

- 基于熵值法的云南高原浅水湖泊水生态健康评价……… 项颂，庞燕，侯泽英，许秋瑾，万玲 (2272)  
长江流域上游地区“三磷”污染现状及对策研究  
…………… 时瑶，秦延文，马迎群，赵艳民，温泉，曹伟，乔飞 (2283)  
伊逊河流域总磷污染来源解析  
…………… 王子为，钱昶，张成波，贾晓波，张新飞，后希康，林佳宁，丁森，塔拉 (2290)  
滦河秋季大型底栖动物群落结构空间格局与关键环境影响因子识别  
…………… 沈月含，丁森，王慧，代阳，安瑞永，张晓娇，高欣 (2298)  
天津市河流生态完整性评价……… 徐香勤，蔡文倩，雷坤，殷旭旺，韩洁，孙明东 (2308)  
三角帆蚌对白洋淀底泥氮磷释放及微生物的影响探究……… 李乾岗，魏婷，张光明，仙光 (2318)  
响应面法优化 CANON 工艺处理猪场沼液脱氮性能研究……… 王子凌，信欣，刘琴，杨豪，曹惜霜 (2326)

## 纳米 Fe/Co 催化降解土霉素效果及影响因素研究

..... 韩金栋，蒋进元，李君超，谭伟，谢鑫，洪尉淞 (2335)

## 生态环境

### 基于选择试验法的受威胁物种保护偏好及价值评估 ..... 张殷波，牛杨杨，王文智，李俊生 (2342)

### 秸秆还田方式对东北农田土壤 NH<sub>3</sub> 挥发和 N<sub>2</sub>O 排放的影响

..... 马玲，王丹蕾，韩昌东，范丽娟，金鑫鑫，叶旭红，邹洪涛 (2351)

## 土壤与固废

### 石灰组配有机改良剂对农田铅镉污染土壤微生物活性的影响

..... 曾秀君，黄学平，程坤，何国庆，傅志强，赵雪莹 (2361)

### 瘤胃微生物强化醋糟厌氧消化及其机制

..... 李倩，许之扬，周云龙，何迪，白玲，晏习鹏，阮文权 (2370)

### 含油污泥石油烃在生物强化堆肥处理中降解特性研究

..... 张传涛，张璐，徐开慧，徐娟娟，韩智超，陈丽华 (2378)

## 环境经济与管理

### 中国旅游业全要素碳生产率动态演进及其影响因素 ..... 王凯，马月琴，甘畅，张淑文，刘浩龙 (2388)

### 甘肃省迭部县居民森林生态环境支付意愿影响因素分析 ..... 张颖，李晓格 (2399)

### 基于 LCOE 模型的光伏发电经济效益分析：以宜昌农村地区光伏扶贫电站项目为例

..... 昌敦虎，田川，张泽阳，缪琪，匡雨静，霍黎明 (2412)

## 环境污染与健康

### 空气污染的健康经济损失评价研究进展 ..... 李惠娟，周德群，魏永杰 (2421)

### 我国人群胃肠消化环境中土壤 Pb 的人体可给性 ..... 雷国龙，韩丹，钟茂生，姜林，彭超 (2430)

## 信息

《环境科学研究》第五届编委会名单 (封二)

欢迎订阅 2021 年《环境科学研究》(2387)

征稿启事 (封三)



# Contents

Vol.33 No.10 October 2020

## ATMOSPHERIC ENVIRONMENT

- Characteristics of Heavy Air Pollution Process and Influence of Structure Variation of Planetary Boundary Layer in Typical Cities of Beijing-Tianjin-Hebei Region..... HAN Xiaoyan, ZHOU Ying, LÜ Zhe, WANG Xiaoqi (2235)
- Heavy Ozone Pollution in Shanghai Petrochemical Concentration Area of Hangzhou Bay North Shore ..... XU Jialuo, DUAN Lian, ZHU Yuxin, CHEN Lingxiao, HUANG Qing, XIU Guangli (2246)
- Characteristics and Mechanism of a Heavy Haze Episode in Baoji City ..... YANG Xueling, XING Li, WANG Ying, LIU Suixin, LIU Wengxia (2256)
- Estimation of Air Pollution Emission from Cement Plant in Beijing Based on Thermal Anomaly Detection ..... QIU Yun, LI Lingjun, LU Haifeng, LI Jinxiang, WANG Xinhui, JIANG Lei, SU Jingping (2265)

## WATER ENVIRONMENT

- Health Evaluation of Shallow Lake Aquatic Ecosystem in Yunnan Plateau Based on Entropy Method ..... XIANG Song, PANG Yan, HOU Zeying, XU Qiujin, WAN Ling (2272)
- Pollution Status and Control Strategy of ‘Three Phosphorus’ Pollution in the Upper Reaches of Yangtze River Basin, China..... SHI Yao, QIN Yanwen, MA Yingqun, ZHAO Yanmin, WEN Quan, CAO Wei, QIAO Fei (2283)
- Source Apportionment of Total Phosphorus Pollution in Yixun River Basin..... WANG Ziwei, QIAN Chang, ZHANG Chengbo, JIA Xiaobo, ZHANG Xinfei, HOU Xikang, LIN Jianing, DING Sen, TA La (2290)
- Spatial Pattern of Macroinvertebrates Community Structure and Identification of Key Environmental Factors in Luanhe River in Autumn..... SHEN Yuehan, DING Sen, WANG Hui, DAI Yang, AN Ruiyong, ZHANG Xiaojiao, GAO Xin (2298)
- Assessment of Ecological Integrity of Rivers in Tianjin City ..... XU Xiangqin, CAI Wenqian, LEI Kun, YIN Xuwang, HAN Jie, SUN Mingdong (2308)
- Effects of *Hyriopsis cumingii* on Nitrogen and Phosphorus Releases from Sediment and on Wetland Microorganisms in Baiyangdian Wetland..... LI Qiangang, WEI Ting, ZHANG Guangming, XIAN Guang (2318)
- Optimization of Denitrification Performance of CANON Process for Treating Anaerobic Digester Liquor of Swine Wastewater by Response Surface Methodology..... WANG Ziling, XIN Xin, LIU Qin, YANG Hao, CAO Xishuang (2326)
- Oxidative Degradation of Oxytetracycline Using Nano Fe/Co Catalyst and H<sub>2</sub>O<sub>2</sub> under Fenton Conditions ..... HAN Jindong, JIANG Jinyuan, LI Junchao, TAN Wei, XIE Xin, HONG Weisong (2335)

## Contents

### ECOLOGICAL ENVIRONMENT

- Conservation Preference and Value Evaluation of Endangered Species Based on Choice Experiment Methods ..... ZHANG Yinbo, NIU Yangyang, WANG Wenzhi, LI Junsheng (2342)  
Effects of Straw Returning Mode on NH<sub>3</sub> Volatilization and N<sub>2</sub>O Emission of Farmland in Northeast China ..... MA Ling, WANG Danlei, HAN Changdong, FAN Lijuan, JIN Xinxin, YE Xuhong, ZOU Hongtao (2351)

### SOIL AND SOLID WASTE

- Effects of Lime Mixed with Organic Modifiers on Microbial Activity in Lead and Cadmium Contaminated Farmland Soil ..... ZENG Xiujun, HUANG Xueping, CHENG Kun, HE Guoqing, FU Zhiqiang, ZHAO Xueying (2361)  
Bio-Augmented Anaerobic Digestion of Vinegar Residue by Rumen Microbes and Its Mechanisms ..... LI Qian, XU Zhiyang, ZHOU Yunlong, HE Di, BAI Ling, YAN Xipeng, RUAN Wenquan (2370)  
Composting of Mixed Bacteria Enhanced the Degradation Characteristics of Petroleum Hydrocarbons in Oily Sludge ..... ZHANG Chuantao, ZHANG Lu, XU Kaihui, XU Juanjuan, HAN Zhichao, CHEN Lihua (2378)

### ENVIRONMENTAL ECONOMY AND MANAGEMENT

- Dynamic Evolution and Influencing Factors of Total Factor Carbon Productivity in China's Tourism Industry ..... WANG Kai, MA Yueqin, GAN Chang, ZHANG Shuwen, LIU Haolong (2388)  
Influence Factors of Residents' Willingness to Pay for Forest Ecological Environment in Diebu County, Gansu Province ..... ZHANG Ying, LI Xiaoge (2399)  
Economic Benefit Analysis on Photovoltaic Power Generation with LCOE Model: the Case of Poverty Alleviation Project in Rural Areas of Yichang City ..... CHANG Dunhu, TIAN Chuan, ZHANG Zeyang, MIAO Qi, KUANG Yujing, HUO Liming (2412)

### ENVIRONMENTAL POLLUTION AND HEALTH

- Review on Health Economic Loss Assessment of Air Pollution ..... LI Huijuan, ZHOU Dequn, WEI Yongjie (2421)  
Bioaccessibility of Lead in Soil Based on Chinese Gastrointestinal Digestion Characteristics ..... LEI Guolong, HAN Dan, ZHONG Maosheng, JIANG Lin, PENG Chao (2430)

