

重庆大学环境与生态学院

# 科研简报

2022 年第 3 期（总第 19 期）

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二〇二二年九月

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## 一、学术获奖

| 序号 | 获奖名称             | 单位<br>排名 | 获奖人                  | 获奖类别      | 获奖等级 |
|----|------------------|----------|----------------------|-----------|------|
| 1  | 村镇污水处理关键技术与装备产业化 | 1        | 何强(1),柴宏祥(2),皇甫小留(3) | 华夏建设科学技术奖 | 一等奖  |

## 二、科研论文

2022 年 1-9 月学院发表各类学术论文 195 篇，SCI 期刊收录 167 篇，其中 JCR 一区论文 150 篇（自然指数期刊论文 24 篇），二区论文 12 篇，三、四区论文 5 篇。

| 序号 | 论文题目   | 期刊名称                               | 出版时间       | 参与作者      | JCR 分区 |
|----|--|------------------------------------|------------|-----------|--------|
| 1  | Kinetics of Thallium(I) Oxidation by Free Chlorine in Bromide-Containing Waters: Insights into the Reactivity with Bromine Species                           | ENVIRONMENTAL SCIENCE & TECHNOLOGY | 2022-03-26 | 何强, 皇甫小留* | 一区     |
| 2  | Light- and H <sub>2</sub> O <sub>2</sub> -Mediated Redox Transformation of Thallium in Acidic Solutions Containing Iron: Kinetics and Mechanistic Insights   | ENVIRONMENTAL SCIENCE & TECHNOLOGY | 2022-05-03 | 皇甫小留*, 何强 | 一区     |
| 3  | Photoaging of Baby Bottle-Derived Polyethersulfone and Polyphenylsulfone Microplastics and the Resulting Bisphenol S Release                                 | ENVIRONMENTAL SCIENCE & TECHNOLOGY | 2022-03-01 | 张利兰       | 一区     |
| 4  | High-Resolution Environmentally Extended Input-Output Model to Assess the Greenhouse Gas Impact of Electronics in South Korea                                | ENVIRONMENTAL SCIENCE & TECHNOLOGY | 2022-02-15 | 杨易*       | 一区     |
| 5  | Photo-Reactivity and Photo-Transformation of Algal Dissolved Organic Matter Unraveled by Optical Spectroscopy and High-Resolution Mass Spectrometry Analysis | ENVIRONMENTAL SCIENCE & TECHNOLOGY | 2022-09-20 | 马华*, 崔福义  | 一区     |
| 6  | Integrated multi-omics analyses reveal the key microbial phylotypes affecting anaerobic digestion performance under ammonia stress                           | WATER RESEARCH                     | 2022-02-02 | 李蕾*, 彭绪亚  | 一区     |

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| 7  | Multi-scale analysis of the foaming mechanism in anaerobic digestion of food waste: From physicochemical parameter, microbial community to metabolite response | WATER RESEARCH | 2022-06-30 | 袁荣焕, 王小铭, 李蕾*, 彭绪亚 | 一区 |
| 8  | FeS-mediated mobilization and immobilization of Cr(III) in oxic aquatic systems  | WATER RESEARCH | 2022-03-16 | 李伟, 刘斌, 刘元元*       | 一区 |
| 9  | Thermodynamics of volatile fatty acid degradation during anaerobic digestion under organic overload stress: The potential to better identify process stability | WATER RESEARCH | 2022-05-01 | 李蕾, 彭绪亚*, 王小铭      | 一区 |
| 10 | New insight into filamentous sludge bulking: Potential role of AHL-mediated quorum sensing in deteriorating sludge floc stability and structure                | WATER RESEARCH | 2022-04-01 | 郭劲松, 方芳, 陈猷鹏, 晏鹏*  | 一区 |
| 11 | A novel strategy for rapid development of a self-sustaining symbiotic algal-bacterial granular sludge: Applying algal-mycelial pellets as nuclei               | WATER RESEARCH | 2022-05-01 | 张冰*, 时文歆           | 一区 |
| 12 | Synergistic oxidation-filtration process of electroactive peroxydisulfate with a cathodic composite CNT-PPy/PVDF ultrafiltration membrane                      | WATER RESEARCH | 2022-02-15 | 赵纯*, 韩乐*           | 一区 |
| 13 | Removal of micro organic pollutants in high salinity wastewater by comproportionation system of Fe(VI)/Fe(III): Enhancement of chloride and bicarbonate        | WATER RESEARCH | 2022-05-01 | 梁嘉良, 吉芳英*          | 一区 |
| 14 | Indirect charring of carbon by aqueous redox mediators contributes to the enhanced desalination performance in flow-electrode CDI                              | WATER RESEARCH | 2022-07-15 | 何强, 陈一*            | 一区 |
| 15 | Impact of microplastics on the treatment performance of constructed wetlands: Based on substrate characteristics and microbial activities                      | WATER RESEARCH | 2022-06-15 | 何强, 陈一*            | 一区 |

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| 16 | New insight into ammonium oxidation processes and mechanisms mediated by manganese oxide in constructed wetlands  | WATER RESEARCH  | 2022-05-15 | 程呈*,何强,柴宏祥          | 一区 |
| 17 | Strategy to enhance semi-continuous anaerobic digestion of food waste by combined use of calcium peroxide and magnetite   | WATER RESEARCH  | 2022-08-01 | 古励*                 | 一区 |
| 18 | Upgrade the high-load anaerobic digestion and relieve acid stress through the strategy of side-stream micro-aeration: biochemical performances, microbial response and intrinsic mechanisms | WATER RESEARCH  | 2022-08-01 | 古励*                 | 一区 |
| 19 | Retention of thallium(I) on goethite, hematite, and manganite: Quantitative insights and mechanistic study  | WATER RESEARCH  | 2022-08-01 | 皇甫小留*,刘鸿霞,何强,刘彩虹,陈瑶 | 一区 |
| 20 | Electroless deposition of copper nanoparticles integrates polydopamine coating on reverse osmosis membranes for efficient biofouling mitigation   | WATER RESEARCH  | 2022-06-15 | 刘彩虹*,何强             | 一区 |
| 21 | Single-Atom Iron Anchored Tubular g-C <sub>3</sub> N <sub>4</sub> Catalysts for Ultrafast Fenton-Like Reaction: Roles of High-Valency Iron-Oxo Species and Organic Radicals                 | ADVANCED MATERIALS  | 2022-08-01 | 陈飞                  | 一区 |
| 22 | Roles of Relative Humidity and Particle Size on Chemical Aging of Tropical Peatland Burning Particles: Potential Influence of Phase State and Implications for Hygroscopic Property         | JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES                                     | 2022-07-27 | 陈静*                 | 一区 |
| 23 | Perylenetetracarboxylic acid nanosheets with internal electric fields and anisotropic charge migration for photocatalytic hydrogen evolution  | NATURE COMMUNICATIONS   | 2022-04-19 | 时文歆,崔福义             | 一区 |
| 24 | Biosafety of human environments can be supported by effective use of renewable biomass  | PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA | 2022-01-18 | 杨易                  | 一区 |
| 25 | Deep Insights into the Roles of Iron in the Structure and Function of the Anammox Granular Sludge System  | ACS SUSTAINABLE CHEMISTRY & ENGINEERING   | 2022-06-06 | 晏鹏,方芳,郭劲松,陈猷鹏*      | 一区 |

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| 26 | Facilitating Digester Recovery from Acid Inhibition at High Organic Load Rates by Limited Calcium Peroxide Addition                             | ACS SUSTAINABLE CHEMISTRY & ENGINEERING | 2022-06-27 | 古励*          | 一区 |
| 27 | Edge electronic vacancy on ultrathin carbon nitride nanosheets anchoring O <sub>2</sub> to boost H <sub>2</sub> O <sub>2</sub> photoproduction  | APPLIED CATALYSIS B-ENVIRONMENTAL       | 2022-03-01 | 陈飞*          | 一区 |
| 28 | Spatial disparity of life-cycle greenhouse gas emissions from corn straw-based bioenergy production in China                                    | APPLIED ENERGY                          | 2022-01-01 | 杨易           | 一区 |
| 29 | Linking SDG 7 to assess the renewable energy footprint of nations by 2030   | APPLIED ENERGY                          | 2022-07-01 | 杨易           | 一区 |
| 30 | Eukaryotic community composition and dynamics during solid waste decomposition  | APPLIED MICROBIOLOGY AND BIOTECHNOLOGY  | 2022-04-01 | 杨舒, 李蕾, 彭绪亚* | 一区 |
| 31 | Source apportionment and wet deposition of atmospheric poly- and per-fluoroalkyl substances in a metropolitan city centre of southwest China    | ATMOSPHERIC ENVIRONMENT                 | 2022-03-15 | 王锋文*, 卢培利    | 一区 |
| 32 | Enhancement of denitrification in biofilters by immobilized biochar under low-temperature stress  | BIORESOURCE TECHNOLOGY                  | 2022-03-01 | 吴正松, 何强, 陈一* | 一区 |
| 33 | Enhanced anaerobic digestion of tar solution from rice husk thermal gasification with hybrid upflow anaerobic sludge-biochar bed reactor        | BIORESOURCE TECHNOLOGY                  | 2022-03-01 | 马海元          | 一区 |
| 34 | Role of rotating speed on the stability of a self-sustaining algal-bacterial photo-granules process   | BIORESOURCE TECHNOLOGY                  | 2022-06-01 | 时文歆, 张冰*     | 一区 |
| 35 | Revealing the influencing mechanisms of polystyrene microplastics (MPs) on the performance and stability of the algal-bacterial granular sludge | BIORESOURCE TECHNOLOGY                  | 2022-06-01 | 张冰*, 时文歆     | 一区 |

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| 36 | Enhanced thermophilic denitrification performance and potential microbial mechanism in denitrifying granular sludge system   | BIORESOURCE TECHNOLOGY | 2022-01-01 | 周健*       | 一区 |
| 37 | High-temperature biofilm system based on heterotrophic nitrification and aerobic denitrification treating high-strength ammonia wastewater: Nitrogen removal performances and temperature-regulated metabolic pathways | BIORESOURCE TECHNOLOGY | 2022-01-01 | 周健*, 何强   | 一区 |
| 38 | Unravelling the biodegradation performance and mechanisms of acid orange 7 by aerobic granular sludge at different salinity levels   | BIORESOURCE TECHNOLOGY | 2022-08-01 | 张冰*, 时文歆  | 一区 |
| 39 | Denitrification performance and mechanism of denitrification biofilm reactor based on carbon-nitrate counter-diffusional   | BIORESOURCE TECHNOLOGY | 2022-03-01 | 吉芳英*      | 一区 |
| 40 | Constructed wetlands for rural domestic wastewater treatment: A coupling of tidal strategy, in-situ bio-regeneration of zeolite and Fe (II)-oxygen denitrification   | BIORESOURCE TECHNOLOGY | 2022-01-01 | 吉芳英*, 石德智 | 一区 |
| 41 | Response of nitrogen removal performance and microbial community to a wide range of pH in thermophilic denitrification system  | BIORESOURCE TECHNOLOGY | 2022-05-01 | 周健*       | 一区 |
| 42 | Biologically induced phosphate precipitation in heterotrophic nitrification processes of different microbial aggregates: Influences of nitrogen removal metabolisms and extracellular polymeric substances             | BIORESOURCE TECHNOLOGY | 2022-07-01 | 周健*, 何强   | 一区 |
| 43 | Anaerobic dynamic membrane bioreactors for synthetic blackwater treatment under room temperature and mesophilic conditions   | BIORESOURCE TECHNOLOGY | 2022-07-01 | 古励, 何强    | 一区 |
| 44 | Global patterns and predictors of soil microbial biomass carbon, nitrogen, and phosphorus in terrestrial ecosystems  | CATENA                 | 2022-04-01 | 何先进*      | 一区 |

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| 45 | Nitrite-enhanced N-nitrosamines formation during the simulated tetracycline polluted groundwater chlorination: Experimental and theoretical investigation  | CHEMICAL ENGINEERING JOURNAL | 2022-03-01 | 梁志杰*, 阳春, 崔福义, 赵志伟* | 一区 |
| 46 | A new filamentous bulking control strategy: The role of N-acyl homoserine lactone (AHL)-mediated quorum sensing in filamentous bacteria proliferation within activated sludge  | CHEMICAL ENGINEERING JOURNAL | 2022-01-15 | 郭劲松, 方芳, 陈猷鹏, 晏鹏*   | 一区 |
| 47 | Complete nitrogen removal from over-aeration treated black-odorous water via adding aerobic denitrifiers and iron-carbon micro-electrolysis carriers   | CHEMICAL ENGINEERING JOURNAL | 2022-04-01 | 陈一, 叶姜瑜*, 李芸邑       | 一区 |
| 48 | A novel NH <sub>2</sub> -MIL-88B(Fe)-modified ceramic membrane for the integration of electro-Fenton and filtration processes: A case study on naproxen degradation  | CHEMICAL ENGINEERING JOURNAL | 2022-04-01 | 叶志洪                 | 一区 |
| 49 | Hydraulic-driven piezo-activation of peroxymonosulfate for carbamazepine degradation with ultralow energy consumption  | CHEMICAL ENGINEERING JOURNAL | 2022-08-01 | 郑怀礼, 赵纯*            | 一区 |
| 50 | A comparative study of free chlorine and peroxymonosulfate activated by Fe(II) in the degradation of iopamidol: Mechanisms, density functional theory (DFT) calculations and formation of iodinated disinfection by-products | CHEMICAL ENGINEERING JOURNAL | 2022-05-01 | 梁嘉良, 吉芳英*           | 一区 |
| 51 | A newly designed graphite-polyaniline composite current collector to enhance the performance of flow electrode capacitive deionization   | CHEMICAL ENGINEERING JOURNAL | 2022-05-01 | 赵志伟*, 时文歆, 崔福义      | 一区 |
| 52 | Intensified interactions of triclosan and diclofenac mitigation and nitrogen removal in manganese oxide constructed wetlands   | CHEMICAL ENGINEERING JOURNAL | 2022-04-01 | 程呈, 何强*             | 一区 |
| 53 | The potential of electrotrophic denitrification coupled with sulfur recycle in MFC and its responses to COD/SO <sub>4</sub> <sup>2-</sup> -ratios  | CHEMOSPHERE                  | 2022-01-01 | 程鸿, 何强, 艾海男*        | 一区 |



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| 54 | Phosphorus deficiency leads to the loosening of activated sludge: The role of exopolysaccharides in aggregation  | CHEMOSPHERE | 2022-03-01 | 陈猷鹏, 晏鹏, 郭劲松, 方芳* | 一区 |
| 55 | Selective separation and recovery of lithium, nickel, MnO <sub>2</sub> , and Co <sub>2</sub> O <sub>3</sub> from LiNi <sub>0.5</sub> Mn <sub>0.3</sub> Co <sub>0.2</sub> O <sub>2</sub> in spent battery | CHEMOSPHERE | 2022-01-01 | 高小峰               | 一区 |
| 56 | Kinetics and mechanism of Thallium(I) oxidation by Permanganate: Role of bromide   | CHEMOSPHERE | 2022-04-01 | 皇甫小留*, 何强         | 一区 |
| 57 | Removal of diclofenac and oxytetracycline from synthetic urine by furfuryl alcohol-derived mesoporous carbon   | CHEMOSPHERE | 2022-02-01 | 石德智, 吉芳英*         | 一区 |
| 58 | A light-enhanced alpha-FeOOH nanowires/polyaniline anode for improved electricity generation performance in microbial fuel cells   | CHEMOSPHERE | 2022-06-01 | 马华*, 崔福义          | 一区 |
| 59 | Discrepant effects of monovalent cations on membrane fouling induced by colloidal polymer: Evaluation and mechanism investigation  | CHEMOSPHERE | 2022-05-01 | 张冰*, 时文歆          | 一区 |
| 60 | Temporal changes of microbial community structure and nitrogen cycling processes during the aerobic degradation of phenanthrene  | CHEMOSPHERE | 2022-01-01 | 张利兰*, 卢培利, 柏宏成    | 一区 |
| 61 | Photodegradation of acebutolol in natural waters: Important roles of carbonate radical and hydroxyl radical  | CHEMOSPHERE | 2022-01-01 | 张利兰               | 一区 |
| 62 | High-efficiency oxidation of norfloxacin by Fe <sup>3+</sup> /H <sub>2</sub> O <sub>2</sub> process enhanced via vacuum ultraviolet irradiation: Role of newly formed Fe <sup>2+</sup>                   | CHEMOSPHERE | 2022-01-01 | 赵志伟*, 时文歆, 崔福义*   | 一区 |
| 63 | Selective adsorption of anions on hydrotalcite-like compounds derived from drinking water treatment residuals  | CHEMOSPHERE | 2022-08-01 | 梁志杰*, 赵志伟, 崔福义    | 一区 |

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| 64 | Co-occurrence of autotrophic and heterotrophic denitrification in electrolysis assisted constructed wetland packing with coconut fiber as solid carbon source  | CHEMOSPHERE                            | 2022-08-01 | 周健,刘彩虹*       | 一区 |
| 65 | Distribution and ecological risks of pharmaceuticals and personal care products with different anthropogenic stresses in a coastal watershed of China  | CHEMOSPHERE                            | 2022-09-01 | 王尘辰*          | 一区 |
| 66 | Copper removal and elemental sulfur recovery from fracturing flowback water in a microbial fuel cell with an extra electrochemical anode   | CHEMOSPHERE                            | 2022-09-01 | 卢培利,张代钧*      | 一区 |
| 67 | Photodegradation of propranolol in surface waters: An important role of carbonate radical and enhancing toxicity phenomenon  | CHEMOSPHERE                            | 2022-06-01 | 张利兰           | 一区 |
| 68 | Human-Climate Coupled Changes in Vegetation Community Complexity of China Since 1980s  | EARTHS FUTURE                          | 2022-07-01 | 杨永川           | 一区 |
| 69 | Meta-analysis of the removal of trace organic contaminants from constructed wetlands: Conditions, parameters, and mechanisms   | ECOLOGICAL ENGINEERING                 | 2022-05-01 | 胡学斌, 陈一*      | 一区 |
| 70 | Freeze-thaw alternations accelerate plasticizers release and pose a risk for exposed organisms   | ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY | 2022-08-01 | 陈忠礼,邵迎,方芳,郭劲松 | 一区 |
| 71 | Electricity generation and acid and alkaline recovery from pickled waters/ wastewaters through anaerobic digestion, bipolar membrane electrodialysis and solid oxide fuel cell hybrid system                       | ENERGY CONVERSION AND MANAGEMENT       | 2022-01-01 | 许林季, 何强       | 一区 |
| 72 | Per- and poly-fluoroalkyl substances in sediments from the water-level-fluctuation zone of the Three Gorges Reservoir, China: Contamination characteristics, source apportionment, and mass inventory and loadings | ENVIRONMENTAL POLLUTION                | 2022-04-15 | 张代钧, 王锋文*     | 一区 |

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| 73 | Benzalkonium chlorides (C12) inhibits growth but motivates microcystins release of <i>Microcystis aeruginosa</i> revealed by morphological, physiological, and iTRAQ investigation | ENVIRONMENTAL POLLUTION | 2022-01-01 | 李宏, 张利兰*        | 一区 |
| 74 | Effects of pyrene on the structure and metabolic function of soil microbial communities  | ENVIRONMENTAL POLLUTION | 2022-07-15 | 张利兰*, 卢培利       | 一区 |
| 75 | Occurrence, distribution and risk assessment of organophosphate esters (OPEs) in water sources from Northeast to Southeast China   | ENVIRONMENTAL POLLUTION | 2022-08-15 | 高俊敏             | 一区 |
| 76 | Assessing potential risks of aquatic polycyclic aromatic compounds via multiple approaches: A case study in Jialing and Yangtze Rivers in downtown Chongqing, China                | ENVIRONMENTAL POLLUTION | 2022-02-01 | 陈静, 田密*         | 一区 |
| 77 | Sustainable and effective degradation of aniline by sodium percarbonate activated with UV in aqueous solution: Kinetics, mechanism and identification of reactive species          | ENVIRONMENTAL RESEARCH  | 2022-05-01 | 李莉, 张赛*         | 一区 |
| 78 | Singlet oxygen-dominated electrocatalytic oxidation treatment for the high-salinity quaternary ammonium compound wastewater with Ti/(Ru/Ir)O <sub>2</sub> anode                    | ENVIRONMENTAL RESEARCH  | 2022-06-01 | 赵汉卿*, 丁阿强, 卢培利* | 一区 |
| 79 | Carbon nanotubes mediated chemical and biological decolorization of azo dye: Understanding the structure-activity relationship   | ENVIRONMENTAL RESEARCH  | 2022-07-01 | 赵汉卿, 卢培利        | 一区 |
| 80 | Response of CO <sub>2</sub> and CH <sub>4</sub> transport to damming: A case study of Yulin River in the Three Gorges Reservoir, China   | ENVIRONMENTAL RESEARCH  | 2022-05-15 | 何强, 李宏, 程呈*     | 一区 |
| 81 | Atmospheric wet and dry depositions of polycyclic aromatic compounds in a megacity of Southwest China  | ENVIRONMENTAL RESEARCH  | 2022-03-01 | 陈静, 王锋文, 田密*    | 一区 |

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| 82 | A full-view management method based on artificial neural networks for energy and material-savings in wastewater treatment plants   | ENVIRONMENTAL RESEARCH  | 2022-08-01 | 晏鹏,陈猷鹏*               | 一区 |
| 83 | Influence of iron species on the simultaneous nitrate and sulfate removal in constructed wetlands under low/high COD concentrations                                      | ENVIRONMENTAL RESEARCH  | 2022-09-01 | 程呈                    | 一区 |
| 84 | The GHG mitigation opportunity of sludge management in China   | ENVIRONMENTAL RESEARCH  | 2022-09-01 | 晏鹏,方芳,郭劲松,李伟民,陈猷鹏*    | 一区 |
| 85 | Giant Trees Exhibited Great Cooling Effect in Residential Area Southwest of China  | FORESTS   | 2022-09-01 | 张荣飞*                  | 一区 |
| 86 | Earthworms exert long lasting afterlife effects on soil microbial communities  | GEODERMA  | 2022-08-15 | 林敦梅*,朱广宇,钱深华,赵亮,杨永川   | 一区 |
| 87 | Phylogenetic structure of alien and native species in regional plant assemblages across China: Testing niche conservatism hypothesis versus niche convergence hypothesis | GLOBAL ECOLOGY AND BIOGEOGRAPHY                                   | 2022-09-01 | 钱深华*                  | 一区 |
| 88 | An Analysis of the Colony Structure of Prokaryotes in the Jialing River Waters in Chongqing  | INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH | 2022-05-01 | 李宏*                   | 一区 |
| 89 | Influence of nitrogen-poor wastewater on activated sludge aggregation and settling: Sequential responses of extracellular proteins and exopolysaccharides                | JOURNAL OF CLEANER PRODUCTION                                     | 2022-07-20 | 郭劲松,方芳*,陈猷鹏,晏鹏        | 一区 |
| 90 | Effects of long-term exposure to low-concentration PS-NPs on anammox granular sludge: Resistance and inhibition depend on PS-NP accumulation                             | JOURNAL OF CLEANER PRODUCTION                                     | 2022-09-10 | 刘智萍,龙曼,郭劲松,晏鹏,陈猷鹏,方芳* | 一区 |
| 91 | New mechanistic insights into the effect of cations on membrane fouling caused by anionic polyacrylamide   | JOURNAL OF COLLOID AND INTERFACE SCIENCE                          | 2022-01-15 | 张冰*,时文歆               | 一区 |

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| 92  | Comparative analysis of membrane fouling mechanisms induced by colloidal polymer: Effects of sodium and calcium ions   | JOURNAL OF COLLOID AND INTERFACE SCIENCE | 2022-02-15 | 张冰*, 时文歆                | 一区 |
| 93  | Effects of incineration leachate on anaerobic digestion of excess sludge and the related mechanisms  | JOURNAL OF ENVIRONMENTAL MANAGEMENT      | 2022-06-01 | 古励*                     | 一区 |
| 94  | Particle-size-based elution of petroleum hydrocarbon contaminated soil by surfactant mixture   | JOURNAL OF ENVIRONMENTAL MANAGEMENT      | 2022-01-15 | 刘元元*                    | 一区 |
| 95  | Effect of magnetite on the catalytic oxidation of polycyclic aromatic hydrocarbons in fly ash from MSW incineration: A comparative study of one-step and two-step hydrothermal processes     | JOURNAL OF ENVIRONMENTAL MANAGEMENT      | 2022-02-01 | 石德智*                    | 一区 |
| 96  | Organic matter removal performance, pathway and microbial community succession during the construction of high-ammonia anaerobic biosystems treating anaerobic digestate food waste effluent | JOURNAL OF ENVIRONMENTAL MANAGEMENT      | 2022-09-01 | 周健*                     | 一区 |
| 97  | Characterizing composition profile and diversity patterns of spontaneous urban plants across China's major cities  | JOURNAL OF ENVIRONMENTAL MANAGEMENT      | 2022-09-01 | 黄俊龙, 钱深华, 林敦梅, 赵亮, 杨永川* | 一区 |
| 98  | Deep convolutional neural networks for construction and demolition waste classification: VGGNet structures, cyclical learning rate, and knowledge transfer                                   | JOURNAL OF ENVIRONMENTAL MANAGEMENT      | 2022-09-15 | 高小峰*                    | 一区 |
| 99  | Thermodynamic and kinetic coupling modeling for thallium(I) sorption at a heterogeneous titanium dioxide interface   | JOURNAL OF HAZARDOUS MATERIALS           | 2022-04-15 | 刘鸿霞, 皇甫小留*, 何强, 刘彩虹, 陈瑶 | 一区 |
| 100 | Potassium supplement enhanced cadmium removal in a Microcystis aeruginosa photobioreactor: Evidence from actual and simulated wastewater   | JOURNAL OF HAZARDOUS MATERIALS           | 2022-02-15 | 何强, 胡学斌, 李宏*            | 一区 |

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| 101 | Microplastics benefit bacteria colonization and induce microcystin degradation  | JOURNAL OF HAZARDOUS MATERIALS | 2022-06-05 | 杨永川, 李宏*                 | 一区 |
| 102 | Tailoring S-vacancy concentration changes the type of the defect and photocatalytic activity in ZFS   | JOURNAL OF HAZARDOUS MATERIALS | 2022-04-15 | 时文歆*, 崔福义                | 一区 |
| 103 | Structural, metabolic, and functional characteristics of soil microbial communities in response to benzo[a]pyrene stress  | JOURNAL OF HAZARDOUS MATERIALS | 2022-06-05 | 张利兰*                     | 一区 |
| 104 | High-efficiency oxidation of fluoroquinolones by the synergistic activation of peroxymonosulfate via vacuum ultraviolet and ferrous iron                              | JOURNAL OF HAZARDOUS MATERIALS | 2022-01-15 | 梁志杰, 梁嘉良, 赵志伟*, 崔福义, 时文歆 | 一区 |
| 105 | Enhanced selective adsorption of lead(II) from complex wastewater by DTPA functionalized chitosan-coated magnetic silica nanoparticles based on anion-synergism       | JOURNAL OF HAZARDOUS MATERIALS | 2022-01-15 | 郑怀礼*, 胡学斌, 何强            | 一区 |
| 106 | Chitin-biocalcium as a novel superior composite for ciprofloxacin removal: Synergism of adsorption and flocculation   | JOURNAL OF HAZARDOUS MATERIALS | 2022-02-05 | 孙强, 郑怀礼*                 | 一区 |
| 107 | Sulfide enhances the Fe(II)/Fe(III) cycle in Fe(III)-peroxymonosulfate system for rapid removal of organic contaminants: Treatment efficiency, kinetics and mechanism | JOURNAL OF HAZARDOUS MATERIALS | 2022-04-22 | 陈飞*                      | 一区 |
| 108 | Soil microbial ecological effect of shale gas oil-based drilling cuttings pyrolysis residue used as soil covering material  | JOURNAL OF HAZARDOUS MATERIALS | 2022-08-15 | 王翔*                      | 一区 |
| 109 | Encapsulins from <i>Ca. Brocadia fulgida</i> : An effective tool to enhance the tolerance of engineered bacteria (pET-28a-cEnc) to Zn <sup>2+</sup>                   | JOURNAL OF HAZARDOUS MATERIALS | 2022-08-05 | 晏鹏, 郭劲松, 方芳, 陈猷鹏*        | 一区 |
| 110 | Quantitative proteomics and phosphoproteomics elucidate the molecular mechanism of nanostructured TiO <sub>2</sub> -stimulated biofilm formation                      | JOURNAL OF HAZARDOUS MATERIALS | 2022-06-01 | 陈猷鹏                      | 一区 |

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|-----|---|---|------------|-----------------|----|
| 111 | Aging behavior of microplastics affected DOM in riparian sediments: From the characteristics to bioavailability   | JOURNAL OF HAZARDOUS MATERIALS              | 2022-06-05 | 陈一*             | 一区 |
| 112 | Unexpected nitrogen flow and water quality change due to varying atmospheric deposition   | JOURNAL OF HYDROLOGY                        | 2022-06-01 | 郭劲松             | 一区 |
| 113 | Pre-coagulation for membrane fouling mitigation in an aerobic granular sludge membrane bioreactor: A comparative study of modified microbial and organic flocculants  | JOURNAL OF MEMBRANE SCIENCE                 | 2022-02-15 | 张冰*, 时文歆        | 一区 |
| 114 | Ultrafine Bi Nanoparticles Confined in Hydrothermal Carbon-Modified Carbon Nanotubes for Highly Efficient CO <sub>2</sub> Electroreduction to Formate   | JOURNAL OF THE ELECTROCHEMICAL SOCIETY      | 2022-04-01 | 张代钧*            | 一区 |
| 115 | Insight into thiosulfate-driven denitrification and anammox process: Bigger aggregates driving better nitrite utilization on ammonium and nitrate contained wastewater  | JOURNAL OF WATER PROCESS ENGINEERING        | 2022-06-01 | 马海元, 邵知宇*, 柴宏祥* | 一区 |
| 116 | Enhanced removal of nutrients and diclofenac by birnessite sand vertical flow constructed wetlands  | JOURNAL OF WATER PROCESS ENGINEERING        | 2022-04-01 | 程呈, 何强*         | 一区 |
| 117 | allodb: An R package for biomass estimation at globally distributed extratropical forest plots  | METHODS IN ECOLOGY AND EVOLUTION            | 2022-02-01 | 林敦梅             | 一区 |
| 118 | Application of Exogenous Iron Alters the Microbial Community Structure and Reduces the Accumulation of Cadmium and Arsenic in Rice ( <i>Oryza sativa</i> L.)  | NANOMATERIALS                               | 2022-04-01 | 李宏              | 一区 |
| 119 | Regulation of ZnFe <sub>2</sub> O <sub>4</sub> synthesis for optimizing photoelectric response and its application for ciprofloxacin degradation: The synergistic effect with peroxymonosulfate and visible light | PROCESS SAFETY AND ENVIRONMENTAL PROTECTION | 2022-09-01 | 张赛, 李莉*         | 一区 |

|     |   |  |            |                    |    |
|-----|---|--|------------|--------------------|----|
| 120 | The sustainability of staple crops in China can be substantially improved through localized strategies                                      | RENEWABLE & SUSTAINABLE ENERGY REVIEWS | 2022-02-01 | 杨易*                | 一区 |
| 121 | Improving the efficiency of wastewater treatment and microalgae production for biofuels   | RESOURCES CONSERVATION AND RECYCLING   | 2022-03-01 | 龙天渝*               | 一区 |
| 122 | Ni(II), Cr(VI), Cu(II) and nitrate removal by the co-system of <i>Pseudomonas hibiscicola</i> strain L1 immobilized on peanut shell biochar | SCIENCE OF THE TOTAL ENVIRONMENT       | 2022-03-25 | 安强*, 赵彬            | 一区 |
| 123 | Insight into the structure and metabolic function of iron-rich nanoparticles in anammox bacteria  | SCIENCE OF THE TOTAL ENVIRONMENT       | 2022-02-01 | 晏鹏, 方芳, 郭劲松, 陈猷鹏*  | 一区 |
| 124 | Occurrence, potential sources and risks of organophosphate esters in the high-elevation region, Tibet, China                                | SCIENCE OF THE TOTAL ENVIRONMENT       | 2022-02-01 | 郭劲松, 王尘辰, 高俊敏*     | 一区 |
| 125 | Distinct granulation pathways of aerobic granular sludge under poly aluminum chloride enhancement   | SCIENCE OF THE TOTAL ENVIRONMENT       | 2022-02-10 | 何强, 张冰, 刘彩虹*, 皇甫小留 | 一区 |
| 126 | Detection and treatment of organic matters in hydraulic fracturing wastewater from shale gas extraction: A critical review                  | SCIENCE OF THE TOTAL ENVIRONMENT       | 2022-06-10 | 刘彩虹*, 何强           | 一区 |
| 127 | Plastic leachates lead to long-term toxicity in fungi and promote biodegradation of heterocyclic dye  | SCIENCE OF THE TOTAL ENVIRONMENT       | 2022-02-01 | 马岚茜娅, 何梅, 马华*, 崔福义 | 一区 |
| 128 | Antibiotics and antibiotic resistance genes in landfills: A review  | SCIENCE OF THE TOTAL ENVIRONMENT       | 2022-02-01 | 杨舒                 | 一区 |
| 129 | Rapid start-up of photo-granule process in a photo-sequencing batch reactor under low aeration conditions: Effect of inoculum AGS size      | SCIENCE OF THE TOTAL ENVIRONMENT       | 2022-05-10 | 张冰*, 时文歆           | 一区 |



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|-----|--|----------------------------------|------------|--------------------|----|
| 130 | Photodegradation of three antidepressants in natural waters: Important roles of dissolved organic matter and nitrate   | SCIENCE OF THE TOTAL ENVIRONMENT | 2022-01-01 | 张利兰                | 一区 |
| 131 | Mineralization, characteristics variation, and removal mechanism of algal extracellular organic matter during vacuum ultraviolet/ozone process                                     | SCIENCE OF THE TOTAL ENVIRONMENT | 2022-05-10 | 赵志伟*, 崔福义          | 一区 |
| 132 | Mechanisms of orthophosphate removal from water by lanthanum carbonate and other lanthanum-containing materials  | SCIENCE OF THE TOTAL ENVIRONMENT | 2022-05-10 | 智悦*                | 一区 |
| 133 | Mesophilic condition favors simultaneous partial nitrification and denitrification (SPND) and anammox for carbon and nitrogen removal from anaerobic digestate food waste effluent | SCIENCE OF THE TOTAL ENVIRONMENT | 2022-04-10 | 周健*                | 一区 |
| 134 | Enhanced degradation capability of white-rot fungi after short-term pre-exposure to silver ion: Performance and selectively antimicrobial mechanisms                               | SCIENCE OF THE TOTAL ENVIRONMENT | 2022-04-20 | 周健*                | 一区 |
| 135 | Soil seedbank: Importance for revegetation in the water level fluctuation zone of the reservoir area   | SCIENCE OF THE TOTAL ENVIRONMENT | 2022-07-10 | 邵迎, 陈忠礼*           | 一区 |
| 136 | Regulating autogenic vegetation in the riparian zone reduces carbon emissions: Evidence from a microcosm study   | SCIENCE OF THE TOTAL ENVIRONMENT | 2022-09-20 | 程呈, 何强, 李宏*        | 一区 |
| 137 | Contribution of nitrification and denitrification to nitrous oxide turnovers in membrane-aerated biofilm reactors (MABR): A model-based evaluation                                 | SCIENCE OF THE TOTAL ENVIRONMENT | 2022-02-01 | 柴宏祥                | 一区 |
| 138 | The dominant microbial metabolic pathway of the petroleum hydrocarbons in the soil of shale gas field: Carbon fixation instead of CO <sub>2</sub> emissions                        | SCIENCE OF THE TOTAL ENVIRONMENT | 2022-02-10 | 王里奥, 黄川, 王翔*, 刘元元* | 一区 |
| 139 | Deep dewatering of activated sludge using composite conditioners of surfactant, acid and flocculant: The mechanism and dosage model  | SCIENCE OF THE TOTAL ENVIRONMENT | 2022-02-01 | 周健*                | 一区 |

|     |   |  |            |          |    |
|-----|---|--|------------|----------|----|
| 140 | Occurrence, seasonal variation, potential sources, and risks of organophosphate esters in a cold rural area in Northeast China                                      | SCIENCE OF THE TOTAL ENVIRONMENT       | 2022-04-27 | 郭劲松,高俊敏* | 一区 |
| 141 | Deep insights into the anaerobic co-digestion of waste activated sludge with concentrated leachate under different salinity stresses                                | SCIENCE OF THE TOTAL ENVIRONMENT       | 2022-09-10 | 古励*      | 一区 |
| 142 | Molybdenum disulfide as excellent Co-catalyst boosting catalytic degradation of sulfamethoxazole by nZVI/PDS process  | SEPARATION AND PURIFICATION TECHNOLOGY | 2022-03-15 | 时文歆,崔福义  | 一区 |
| 143 | Effect of modified microbial flocculant on membrane fouling alleviation in a hybrid aerobic granular sludge membrane system for wastewater reuse                    | SEPARATION AND PURIFICATION TECHNOLOGY | 2022-06-01 | 张冰*,时文歆  | 一区 |
| 144 | Functionalized chitosan-magnetic flocculants for heavy metal and dye removal modeled by an artificial neural network  | SEPARATION AND PURIFICATION TECHNOLOGY | 2022-02-01 | 翟俊,郑怀礼   | 一区 |
| 145 | Miraculous dye-photosensitization-assisted peroxymonosulfate activation at the carbon nitride interface: Enhanced activity and synergistic mechanism                | SEPARATION AND PURIFICATION TECHNOLOGY | 2022-09-01 | 陈飞*      | 一区 |
| 146 | Spinel ferrite-enhanced Cr(VI) removal performance of micro-scale zero-valent aluminum: Synergistic effects of oxide film destruction and lattice spacing expansion | SEPARATION AND PURIFICATION TECHNOLOGY | 2022-08-01 | 赵志伟,李莉*  | 一区 |
| 147 | Eco-friendly poly(dopamine)-modified glass microspheres as a novel self-floating adsorbent for enhanced adsorption of tetracycline                                  | SEPARATION AND PURIFICATION TECHNOLOGY | 2022-07-01 | 李宏*,郑怀礼* | 一区 |
| 148 | Separable and reactivated magnetic mZVAL/nFe(3)O(4) composite induced by ball milling for efficient adsorption-reduction-sequestration of aqueous Cr (VI)           | SEPARATION AND PURIFICATION TECHNOLOGY | 2022-05-01 | 阳春,赵志伟*  | 一区 |
| 149 | Removal of harmful components from MSWI fly ash as a pretreatment approach to enhance waste recycling   | WASTE MANAGEMENT                       | 2022-08-01 | 魏云梅*,高俊敏 | 一区 |

|     |  |  |            |                       |    |
|-----|--|--|------------|-----------------------|----|
| 150 | Microbial mercury methylation potential in a large-scale municipal solid waste landfill, China   | WASTE MANAGEMENT                                 | 2022-05-15 | 杨舒*                   | 一区 |
| 151 | Cyanophycin Granule Polypeptide: a Neglected High Value-Added Biopolymer, Synthesized in Activated Sludge on a Large Scale   | APPLIED AND ENVIRONMENTAL MICROBIOLOGY           | 2022-07-26 | 陈猷鹏                   | 二区 |
| 152 | Assessing the impacts of urbanization on stream ecosystem functioning through investigating litter decomposition and nutrient uptake in a forest and a hyper-eutrophic urban stream                              | ECOLOGICAL INDICATORS                            | 2022-05-01 | 智悦, 姚婧梅*, 韩乐, 林敦梅, 何强 | 二区 |
| 153 | Performance investigation of electrochemical assisted HClO/Fe <sup>2+</sup> process for the treatment of landfill leachate   | ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH     | 2022-07-01 | 叶志洪*                  | 二区 |
| 154 | Removal effects and potential mechanisms of bisphenol A and 17 alpha-ethynylestradiol by Biogenic Mn oxides generated by Bacillus sp. WH4  | ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH     | 2022-08-01 | 林衍*                   | 二区 |
| 155 | Tracing the impact of stack configuration on interface resistances in reverse electrodialysis by in situ electrochemical impedance spectroscopy  | FRONTIERS OF ENVIRONMENTAL SCIENCE & ENGINEERING | 2022-04-01 | 刘彩虹                   | 二区 |
| 156 | The essential role of hydrophobic interaction within extracellular polymeric substances in auto-aggregation of P. stutzeri strain XL-2   | INTERNATIONAL BIODETERIORATION & BIODEGRADATION  | 2022-07-01 | 赵彬*, 安强, 郭劲松          | 二区 |
| 157 | Experimental and numerical study on multi-wavemodes of H <sub>2</sub> /O <sub>2</sub> rotating detonation combustor  | INTERNATIONAL JOURNAL OF HYDROGEN ENERGY         | 2022-03-26 | 智悦                    | 二区 |
| 158 | Enhanced photocatalytic performance of spinel ferrite (MFe <sub>2</sub> O <sub>4</sub> , M=Zn, Mn, Co, Fe, Ni) catalysts: The correlation between morphology-microstructure and photogenerated charge efficiency | JOURNAL OF ENVIRONMENTAL CHEMICAL ENGINEERING    | 2022-06-01 | 张赛, 李莉*               | 二区 |

|     |   |  |            |                                  |    |
|-----|---|--|------------|----------------------------------|----|
| 159 | Effects of pine sawdust and shrimp shell biochar on anaerobic digestion under different acidification conditions  | JOURNAL OF ENVIRONMENTAL CHEMICAL ENGINEERING          | 2022-02-01 | 古励*                              | 二区 |
| 160 | Effects of Elevation Gradient on Soil Carbon and Nitrogen in a Typical Karst Region of Chongqing, Southwest China   | JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES         | 2022-06-01 | 朱广宇, 何先进, 魏培, 林敦梅, 钱深华, 赵亮, 杨永川* | 二区 |
| 161 | Effects of compositional and configurational heterogeneity of the urban matrix on the species richness of woody plants in urban remnant forest patches                                      | LANDSCAPE ECOLOGY                                      | 2022-02-01 | 杨永川                              | 二区 |
| 162 | Composition Characterization and Transformation Mechanism of Dissolved Organic Matters in a Full-Scale Membrane Bioreactor Treating Co-Digestion Wastewater of Food Waste and Sewage Sludge | SUSTAINABILITY   | 2022-06-01 | 周健*, 何强                          | 二区 |
| 163 | Differences in exopolysaccharides of three microbial aggregates   | ENVIRONMENTAL TECHNOLOGY                               | 2022-08-24 | 方芳*, 郭劲松, 龙曼                     | 三区 |
| 164 | Effects of Environmental Factors on the Spatial Succession of the Bacterial Community in Municipal Solid-Waste Landfills  | JOURNAL OF ENVIRONMENTAL ENGINEERING                   | 2022-07-01 | 石德智, 王小铭                         | 三区 |
| 165 | The Fate of Xylene Spilled into Soil: Effects of Heavy Metals and Rainfall  | WATER AIR AND SOIL POLLUTION                           | 2022-05-01 | 刘元元*                             | 三区 |
| 166 | Synergistic Effects of Aquatic Plants and Cyanobacterial Blooms on the Nitrous Oxide Emission from Wetlands   | BULLETIN OF ENVIRONMENTAL CONTAMINATION AND TOXICOLOGY | 2022-03-01 | 钱深华*, 李伟                         | 四区 |
| 167 | Removal of humic acid from aqueous solution by a carbon nanotubes/ reduced graphene oxide composite hydrogel  | DESALINATION AND WATER TREATMENT                       | 2022-03-01 | 智悦                               | 四区 |

### 三、授权专利

| 序号 | 专利名称                            | 专利类型 | 参与专利人        | 授权日期       |
|----|---------------------------------|------|--------------|------------|
| 1  | 测定垃圾渗滤液中全氟辛酸浓度的高效液相色谱荧光检测法      | 发明   | 曾晓岚, 丁文川     | 2022-06-17 |
| 2  | 一种适用于低温条件下污水氨氮处理的潜流人工湿地装置       | 实用新型 | 陈一, 程呈, 胡碧波  | 2022-01-28 |
| 3  | 一种微污染河流水体生态修复装置                 | 发明   | 陈忠礼, 晏鹏, 郭劲松 | 2022-07-22 |
| 4  | 一种 Cu-TiO <sub>2</sub> 复合材料及应用  | 发明   | 丁魏, 郑怀礼      | 2022-06-24 |
| 5  | 一种六价铬污染土壤的修复方法                  | 发明   | 李东           | 2022-09-09 |
| 6  | 一种高盐高有机物工业废水的生物处理系统及方法          | 发明   | 刘彩虹, 何强      | 2022-01-18 |
| 7  | 一种基于过碳酸钠的石油烃污染土壤修复法             | 发明   | 刘元元          | 2022-03-18 |
| 8  | 一种基于泡沫强化的石油烃污染土壤原位修复法           | 发明   | 刘元元          | 2022-03-08 |
| 9  | 一种用于吸附硫化氢的 Cu-HAP-生物炭复合材料及其制备方法 | 发明   | 石德智, 吉芳英     | 2022-04-15 |
| 10 | 一种核壳结构磁性纳米复合催化剂的制备方法及应用         | 发明   | 赵志伟          | 2022-02-22 |
| 11 | 强化臭氧氧化有机污染物的铁基催化剂及其制备方法         | 发明   | 赵志伟          | 2022-03-15 |
| 12 | 一种磁性羧甲基壳聚糖吸附剂的制备方法              | 发明   | 郑怀礼          | 2022-03-01 |
| 13 | 一种生活污水序批式生物膜-电解处理与回用设备及方法       | 发明   | 周健           | 2022-04-19 |

## 四、数据对比

