

重庆大学环境与生态学院

科研简报

2020 年第 1 期（总第 10 期）

行政办公室编

二〇二〇年六月

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一、学术获奖

序号	获奖名称	获奖人	获奖类别	获奖等级
1	盆缘山区页岩气绿色开发技术研究与示范	王里奥(2)、卢培利(3) (重大为第二完成单位)	国土资源科学技术进步奖	二等奖

二、科研论文

2020 年 1-6 月学院发表各类学术论文 81 篇，其中 SCI 期刊收录论文 76 篇：SCI1 区论文 65 篇，SCI2 区论文 10 篇，SCI3、4 区期刊论文 1 篇。

序号	论文题目	期刊名称	出版时间	参与作者	SCI 分区
1	Beneficial CNT Intermediate Layer for Membrane Fluorination toward Robust Superhydrophobicity and Wetting Resistance in Membrane Distillation	ACS APPLIED MATERIALS & INTERFACES	2020-04-10	姚婧梅,韩乐	1 区
2	A plant economics spectrum of litter decomposition among coexisting fern species in a sub-tropical forest	ANNALS OF BOTANY	2020-01-03	林敦梅,钱深华,赵亮,杨永川	1 区
3	Enhanced photoactivity and oxidizing ability simultaneously via internal electric field and valence band position by crystal structure of bismuth oxyiodide	APPLIED CATALYSIS B-ENVIRONMENTAL	2020-03-01	时文歆,崔福义	1 区
4	Sulfide-mediated azo dye degradation and microbial community analysis in a single-chamber air cathode microbial fuel cell	BIOELECTROCHEMISTRY	2020-02-01	张赛,李莉	1 区
5	Sludge reduction based on microbial metabolism for sustainable wastewater treatment	BIORESOURCE TECHNOLOGY	2020-02-01	郭劲松,方芳,晏鹏,陈猷鹏	1 区
6	Anaerobic co-digestion of food waste and sewage sludge under mesophilic and thermophilic conditions: Focusing on synergistic effects on methane production	BIORESOURCE TECHNOLOGY	2020-04-01	李蕾,彭绪亚,王小铭	1 区
7	Unraveling sorption of Cr (VI) from aqueous solution by FeCl ₃ and ZnCl ₂ -modified corn stalks biochar: Implicit mechanism and application	BIORESOURCE TECHNOLOGY	2020-02-01	安强,罗宁	1 区
8	Effects of COD/TN ratio on nitrogen removal efficiency, microbial community for high saline wastewater treatment based on heterotrophic nitrification-aerobic denitrification process	BIORESOURCE TECHNOLOGY	2020-04-01	周健	1 区
9	Impact of biochar on greenhouse gas emissions from constructed wetlands under various influent chemical oxygen demand to nitrogen ratios	BIORESOURCE TECHNOLOGY	2020-05-01	何强,陈一	1 区
10	Enhanced nitrogen removal from low C/N wastewater using biodegradable and inert carriers: Performance and microbial shift	BIORESOURCE TECHNOLOGY	2020-03-01	叶姜瑜,李芸邑	1 区

11	An improved CFD modeling approach applied for the simulation of gas-liquid interaction in the ozone contactor along with structure optimization	CHEMICAL ENGINEERING JOURNAL	2020-03-01	姚娟娟,张智	1 区
12	Cr(VI) removal by micron-scale iron-carbon composite induced by ball milling: The role of activated carbon	CHEMICAL ENGINEERING JOURNAL	2020-06-01	胡碧波,梁志杰,崔福义,赵志伟,阳春	1 区
13	Microcystis aeruginosa-laden water treatment using peroxymonosulfate enhanced Fe(II) coagulation: Performance and the role of in situ formed Fe ₃ O ₄	CHEMICAL ENGINEERING JOURNAL	2020-02-15	赵志伟,崔福义,梁志杰	1 区
14	Energy-saving photo-degradation of three fluoroquinolone antibiotics under VUV/UV irradiation: Kinetics, mechanism, and antibacterial activity reduction	CHEMICAL ENGINEERING JOURNAL	2020-03-01	梁志杰,崔福义,赵志伟	1 区
15	Fast adsorption of BPA with high capacity based on pi-pi electron donor-acceptor and hydrophobicity mechanism using an in-situ sp ² C dominant N-doped carbon	CHEMICAL ENGINEERING JOURNAL	2020-02-01	刘彩虹	1 区
16	Degradation of benzotriazole by DBD plasma and peroxymonosulfate: Mechanism, degradation pathway and potential toxicity	CHEMICAL ENGINEERING JOURNAL	2020-03-15	梁嘉良,何强,陈一	1 区
17	Exceptional levofloxacin removal using biochar-derived porous carbon sheets: Mechanisms and density-functional-theory calculation	CHEMICAL ENGINEERING JOURNAL	2020-05-01	何强,陈一	1 区
18	Electrochemical characteristics of the decolorization of three dyes by laccase mediator system (LMS) with synthetic and natural mediators	CHEMOSPHERE	2020-01-01	马华	1 区
19	Thermal remediation of cyanide-contaminated soils : process optimization and mechanistic study	CHEMOSPHERE	2020-01-01	魏云梅,石德智,李芸邑	1 区
20	Removing PFOA and nitrate by quaternary ammonium compounds modified carbon and its mechanisms analysis: Effect of base, acid or oxidant pretreatment	CHEMOSPHERE	2020-03-01	梁志杰,赵志伟	1 区
21	New insights into filamentous sludge bulking: The potential role of extracellular polymeric substances in sludge bulking in the activated sludge process	CHEMOSPHERE	2020-06-01	李伟民,郭劲松,陈猷鹏,方芳,晏鹏	1 区
22	Chemical removal and selectivity reduction of nitrate from water by (nano) zero-valent iron/activated carbon micro-electrolysis	CHEMOSPHERE	2020-06-01	翟俊,艾海男,石德智,古励,何强	1 区

23	Intensified nutrients removal in a modified sequencing batch reactor at low temperature: Metagenomic approach reveals the microbial community structure and mechanisms	CHEMOSPHERE	2020-04-01	周健	1 区
24	Copper oxide nanoparticles inhibited denitrifying enzymes and electron transport system activities to influence soil denitrification and N ₂ O emission	CHEMOSPHERE	2020-04-01	何强,陈一	1 区
25	AOPs-based remediation of petroleum hydrocarbons-contaminated soils: Efficiency, influencing factors and environmental impacts	CHEMOSPHERE	2020-05-01	刘元元	1 区
26	On the permselectivity of di- and mono-valent cations: Influence of applied current density and ionic species concentration	DESALINATION	2020-04-26	姚婧梅,韩乐	1 区
27	Response mechanism of microbial community to the environmental stress caused by the different mercury concentration in soils	ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY	2020-01-30	王里奥,黄永葵,王翔	1 区
28	Simultaneous reduction of nitrate and Cr(VI) by <i>Pseudomonas aeruginosa</i> strain G12 in wastewater	ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY	2020-03-15	安强	1 区
29	Interpreting the role of NO ₃ ⁻ , SO ₄ ²⁻ , and extracellular polymeric substances on aggregation kinetics of CeO ₂ nanoparticles: Measurement and modeling	ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY	2020-05-01	刘彩虹,何强,蒋绍阶,吴正松,皇甫小留	1 区
30	Granular activated carbon assisted nitrate-dependent anaerobic methane oxidation-membrane bioreactor: Strengthening effect and mechanisms	ENVIRONMENT INTERNATIONAL	2020-05-01	卢培利,丁阿强	1 区
31	Enhanced Transformation of Emerging Contaminants by Permanganate in the Presence of Redox Mediators	ENVIRONMENTAL SCIENCE & TECHNOLOGY	2020-02-04	张静,赵志伟	1 区
32	Thallium(I) Oxidation by Permanganate and Chlorine: Kinetics and Manganese Dioxide Catalysis	ENVIRONMENTAL SCIENCE & TECHNOLOGY	2020-06-16	何强,刘彩虹,皇甫小留	1 区
33	Fate simulation and risk assessment of TBT and TPhT considering water level fluctuations in the TGR before and after AFS Convention implementation in China	ENVIRONMENTAL SCIENCES EUROPE	2020-01-16	高俊敏,郭劲松,曾洁	1 区
34	Moderate inundation stimulates plant community assembly in the drawdown zone of China's Three Gorges Reservoir	ENVIRONMENTAL SCIENCES EUROPE	2020-05-12	陈忠礼	1 区

35	The EMR-rural project: key techniques and devices' development for rural environmental monitoring and remediation in China	ENVIRONMENTAL SCIENCES EUROPE	2020-05-07	陈忠礼,邵迎,梁嘉良,蒋艳雪,郭劲松,方芳	1 区
36	The social, economic, and environmental implications of biomass ethanol production in China: A multi-regional input-output-based hybrid LCA model	JOURNAL OF CLEANER PRODUCTION	2020-03-10	庞明月	1 区
37	Sulfite activation on a silica-supported well-dispersed cobalt catalyst via an electron transfer complex path	JOURNAL OF CLEANER PRODUCTION	2020-06-01	丁魏,郑怀礼	1 区
38	Membrane fouling in microfiltration of alkali/surfactant/polymer flooding oilfield wastewater: Effect of interactions of key foulants	JOURNAL OF COLLOID AND INTERFACE SCIENCE	2020-06-15	时文歆	1 区
39	Enhanced hydrolysis of lignocellulose in corn cob by using food waste pretreatment to improve anaerobic digestion performance	JOURNAL OF ENVIRONMENTAL MANAGEMENT	2020-01-15	翟俊,石德智,艾海男,古励,何强	1 区
40	Influence of pH and DO on the ofloxacin degradation in water by UVA-LED/TiO ₂ nanotube arrays photocatalytic fuel cell: mechanism, ROSs contribution and power generation	JOURNAL OF HAZARDOUS MATERIALS	2020-02-05	姚娟娟,张智	1 区
41	Copper substituted zinc ferrite with abundant oxygen vacancies for enhanced ciprofloxacin degradation via peroxymonosulfate activation	JOURNAL OF HAZARDOUS MATERIALS	2020-05-15	赵志伟,崔福义	1 区
42	Dam operation altered profiles of per- and polyfluoroalkyl substances in reservoir	JOURNAL OF HAZARDOUS MATERIALS	2020-06-01	李伟,钱深华,姚婧梅,王小铭	1 区
43	Carbon quantum dots modified tubular g-C ₃ N ₄ with enhanced photocatalytic activity for carbamazepine elimination: Mechanisms, degradation pathway and DFT calculation	JOURNAL OF HAZARDOUS MATERIALS	2020-01-05	赵纯,叶姜瑜,梁嘉良,李芸邑	1 区
44	Thermodynamic and dynamic dual regulation Bi ₂ O ₂ CO ₃ /Bi ₅ O ₇ I enabling high-flux photogenerated charge migration for enhanced visible-light-driven photocatalysis	JOURNAL OF MATERIALS CHEMISTRY A	2020-05-28	崔福义,时文歆	1 区
45	Layer-by-layer assembly of high negatively charged polycarbonate membranes with robust antifouling property for microalgae harvesting	JOURNAL OF MEMBRANE SCIENCE	2020-02-01	崔福义,时文歆	1 区
46	Microalgal-bacterial consortia: From interspecies interactions to biotechnological applications	RENEWABLE & SUSTAINABLE ENERGY REVIEWS	2020-02-01	时文歆,崔福义	1 区

47	Spatial variations of soil phosphorus forms and the risks of phosphorus release in the water-level fluctuation zone in a tributary of the Three Gorges Reservoir	SCIENCE OF THE TOTAL ENVIRONMENT	2020-01-10	方芳,郭劲松	1 区
48	New insight into filamentous sludge bulking during wastewater treatment: Surface characteristics and thermodynamics	SCIENCE OF THE TOTAL ENVIRONMENT	2020-04-10	陈猷鹏,晏鹏	1 区
49	A self-assembled nanocompartment in anammox bacteria for resisting intracellular hydroxylamine stress	SCIENCE OF THE TOTAL ENVIRONMENT	2020-01-31	郭劲松,晏鹏,方芳,陈猷鹏	1 区
50	Chemical fractions, diffusion flux and risk assessment of potentially toxic elements in sediments of Baiyangdian Lake, China	SCIENCE OF THE TOTAL ENVIRONMENT	2020-03-19	曾晓岚	1 区
51	Cytotoxic effects of polystyrene nanoplastics with different surface functionalization on human HepG2 cells	SCIENCE OF THE TOTAL ENVIRONMENT	2020-04-25	苗肖君,何强,李宏	1 区
52	Aquatic toxicity of heavy metal-containing wastewater effluent treated using vertical flow constructed wetlands	SCIENCE OF THE TOTAL ENVIRONMENT	2020-06-20	李宏	1 区
53	Coupling of thermophilic biofilm-based systems and ozonation for enhanced organics removal from high-temperature pulping wastewater: Performance, microbial communities, and pollutant transformations	SCIENCE OF THE TOTAL ENVIRONMENT	2020-04-20	周健	1 区
54	Long-term performance of denitrifying anaerobic methane oxidation under stepwise cooling and ambient temperature conditions	SCIENCE OF THE TOTAL ENVIRONMENT	2020-04-15	卢培利,张利兰,丁阿强,张代钧	1 区
55	Size-controllable Fe-N/C single-atom nanozyme with exceptional oxidase-like activity for sensitive detection of alkaline phosphatase	SENSORS AND ACTUATORS B-CHEMICAL	2020-02-15	柴宏祥	1 区
56	Roles of natural iron oxides in the promoted sequestration of chromate using calcium polysulfide: pH effect and mechanisms	SEPARATION AND PURIFICATION TECHNOLOGY	2020-04-15	刘元元,李伟,李芸邑,刘斌	1 区
57	Adsorption mechanisms of crude oil onto polytetrafluoroethylene membrane: Kinetics and isotherm, and strategies for adsorption fouling control	SEPARATION AND PURIFICATION TECHNOLOGY	2020-03-18	时文歆	1 区
58	Biogeographic and anthropogenic factors shaping the distribution and species assemblage of heritage trees in China	URBAN FORESTRY & URBAN GREENING	2020-04-01	钱深华,林敦梅,赵亮,杨永川	1 区

59	Local cultural beliefs and practices promote conservation of large old trees in an ethnic minority region in southwestern China	URBAN FORESTRY & URBAN GREENING	2020-03-01	钱深华,林敦梅,赵亮,杨永川	1 区
60	Constructing zwitterionic polymer brush layer to enhance gravity-driven membrane performance by governing biofilm formation	WATER RESEARCH	2020-01-01	刘彩虹,何强,皇甫小留	1 区
61	Removal of the environmental pollutant carbamazepine using molecular imprinted adsorbents: Molecular simulation, adsorption properties, and mechanisms	WATER RESEARCH	2020-01-01	梁建军,郑怀礼,刘鸿霞	1 区
62	Metagenomic analysis reveals enhanced nutrients removal from low C/N municipal wastewater in a pilot-scale modified AAO system coupling electrolysis	WATER RESEARCH	2020-04-15	周健,何强	1 区
63	Efficient nitrogen removal in a modified sequencing batch biofilm reactor treating hypersaline mustard tuber wastewater: The potential multiple pathways and key microorganisms	WATER RESEARCH	2020-06-15	周健,何强	1 区
64	Simultaneous regeneration of cathodic activated carbon fiber and mineralization of desorbed contaminations by electro-peroxydisulfate process: Advantages and limitations	WATER RESEARCH	2020-03-15	赵纯,王圃	1 区
65	A sustainable strategy for effective regulation of aerobic granulation: Augmentation of the signaling molecule content by cultivating AHL-producing strains	WATER RESEARCH	2020-02-01	时文歆,崔福义	1 区
66	Evaluating the effects of micro-zones of granular sludge on one-stage partial nitritation-anammox nitrogen removal	BIOPROCESS AND BIOSYSTEMS ENGINEERING	2020-06-01	方芳,陈猷鹏,晏鹏,郭劲松	2 区
67	Microbial Fuel Cells Simultaneously Treating Sulfide and Nitrate under Different Influent Sulfide to Nitrate Molar Ratios	ENERGY & FUELS	2020-03-19	丁阿强	2 区
68	Araneose Ti ³⁺ self-doping TiO ₂ /SiO ₂ nanowires membrane for removal of aqueous MB under visible light irradiation	ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH	2020-03-01	李伟	2 区
69	Release of deposited MnO ₂ nanoparticles from aqueous surfaces	JOURNAL OF ENVIRONMENTAL SCIENCES	2020-04-01	刘彩虹,何强,吴正松,皇甫小留	2 区
70	Quantitative three-dimensional nondestructive imaging of whole anaerobic ammonium-oxidizing bacteria	JOURNAL OF SYNCHROTRON RADIATION	2020-05-01	陈猷鹏,晏鹏,郭劲松,方芳	2 区

71	An alkali modified biochar for enhancing Mn ²⁺ adsorption: Performance and chemical mechanism	MATERIALS CHEMISTRY AND PHYSICS	2020-06-01	安强,赵彬	2 区
72	One-step synthesis of zwitterionic polyethersulfone ultrafiltration membranes crosslinked by BSA	MATERIALS LETTERS	2020-02-15	崔福义,时文歆	2 区
73	Removal of Ammonium from Swine Wastewater Using Synthesized Zeolite from Fly Ash	SUSTAINABILITY	2020-04-01	石德智	2 区
74	Recent Developments and Future Challenges of Hydrogels as Draw Solutes in Forward Osmosis Process	WATER	2020-03-01	崔福义,时文歆	2 区
75	Research on Forward Osmosis Membrane Technology Still Needs Improvement in Water Recovery and Wastewater Treatment	WATER	2020-01-01	时文歆	2 区
76	Synthesis of Hydrophobic Cationic Polymeric Flocculants by the Introduction of a Hydrophobic Monomer, Cationic Monomer and the Application in Sludge Dewatering	SCIENCE OF ADVANCED MATERIALS	2020-05-01	郑怀礼,丁魏	4 区

三、发明专利

序号	专利名称	专利类型	参与专利人	授权日期	专利证书号
1	一种基于 SWMM 水力模型确定城市雨水管网管径和坡度的方法	发明	邵知宇,柴宏祥	2020-03-10	3713123
2	一种分析单级生物脱氮系统硝化与反硝化过程氧化亚氮排放速率的方法	发明	方芳,郭劲松,陈猷鹏	2020-04-07	3742337
3	一种钙离子和焦亚硫酸根离子混合物及其应用	发明	李东	2020-05-26	3812309

四、数据对比

