

目 次

厦门大学环境学科成立 40 周年特别专题

- 1 海洋环境中持久性有机污染物的生物累积研究进展
刘亚雯,李有绅,杨忆菁,陈茜茜,王新红
- 15 长江口-东海陆架咸淡水混合影响下溶解性有机质的分布及荧光特征
李明洋,王锐,李梓轩,黄清辉,尹大强
- 29 海绵动物对微塑料的生物累积和排出
王婷婷,陈荣
- 37 微纳米塑料和有机磷阻燃剂的联合毒性效应研究进展
钟圳,陈肇文,王有基,黄伟
- 69 不同粒径轮胎微塑料对大型溞的慢性毒性研究
王宁,王梅,徐晨馨,许心怡,谭巧国,罗专溪

“新污染物筛查与评估”专栏

- 77 化学物质环境信息调查工作思路探讨
葛海虹,王燕飞,杨力,赵静,林军

综述

- 85 双酚 A 类似物的生殖毒性及人体生殖健康风险研究进展
魏锦博,何正宇,王昌泽,户业丽,汪畅,曹慧明,曹梦西,梁勇
- 108 畜禽养殖环境中典型病毒的分布、传播与控制
高颖,贲伟伟,郭影,强志民
- 118 离子液体生态毒理研究进展
褚玲珑,赵晓祥
- 135 洗护用品中的抗菌成分对水生态环境的危害作用
孙伟莲,孙东雷,黄维,张遵真
- 144 微生物-植物联合修复镉砷污染农田土壤技术与应用
赵宇,艾雯妍,文思颖,杨晓莉,刘雪
- 163 杀菌剂对蜜蜂生理和行为的毒性效应研究
熊曼琼,覃淦,王梨竹,黄少康,李江红,段辛乐
- 176 空气微塑料的分布特征、暴露评估及毒性效应
戚婵婵,华正罡,蒋莹,潘国伟,杨佐森
- 188 军事训练场地特征污染物的生态和健康效应研究进展
倪坤瑶,朱勇兵,赵三平,许安,裴诚诚,赵亚南,聂亚光
- 203 微/纳米塑料与抗生素相互作用研究进展
吴渊,李亚男
- 213 水产养殖环境中抗生素与重金属耐药共选择机制研究
谢家莹,江梦琪,张红敏,潘迎捷,刘海泉,谢庆超,赵勇
- 225 重金属镉的分布、暴露与健康风险评价研究进展
邹长伟,江玉洁,黄虹

专论

- 244 2 种微米级聚苯乙烯颗粒对菘蓝幼苗生长及土壤群落结构的影响
杨雅杰,褚玲珑,宋新山,赵晓祥
- 256 二氧化硫体内衍生物通过 ROS/JNK/AP-1 通路诱导大鼠切牙成釉器细胞 AE2 蛋白表达上调
任洪玥,杨进,刘霞,姚杰,林昌虎,涂成龙

- 266 海河水系重金属污染特征及风险评价
刘思达,肖淑敏,刘金鑫,高富
- 277 烟草悬浮细胞在镉胁迫下微丝形态与黏弹性变化的实时监测
刘艺璇,周铁安,兰雅琴,潘炜松
- 287 微(纳米)塑料对海洋渔业水域中重要饵料藻类的生态风险评估研究
章敏,薄军,郑榕辉,高富龙,洪幅坤,陈锦灿,方超
- 301 聚乙烯微塑料对尼罗罗非鱼(*Oreochromis niloticus*)生长、抗氧化、免疫和肠道微生物的影响
张晓飞,余秋然,赵宇航,石展耀,周利,李二超,谢嘉
- 315 小球藻(*Chlorella vulgaris*)耐受短期模拟酸雨及紫外辐射的光合生理特性研究
杨雨玲,章鹏,李亚鹤,蔡飞,毕淑峰,李伟
- 325 镉对集胞藻光合活性的影响
阮港,许萍萍,殷旭旺,张春梅,宋高飞,米武娟,毕永红
- 333 扑草净胁迫对四角蛤蜊解毒相关基因表达的影响
刘丽娟,姜向阳,刘慧慧,黄会,宫向红,何金霞,刘小静,王玮云,张秀珍
- 345 澄迈冬季蔬菜种植区地表水体中新烟碱类杀虫剂的分布特征、影响因素及其生态风险评估
谭华东,王传咪,吴秋敏,崔艳梅,武春暖
- 357 3种氟喹诺酮联合暴露对铜锈环棱螺的急性致死效应
张小旭,马陶武,李金曼,罗奔向,周影茹,何兴兵,王萌
- 365 过量硒-L-蛋氨酸对青鳉鱼胚胎的毒性作用及与氧化应激机制的关联
周漪妮,王欢,杨景峰,于永利,董武
- 376 西北某典型工业园区土壤重金属污染源解析及其健康风险评估
张博晗,毕思琪,王宇,普聿,周旭,高越,于青春,姜文娟,曹红斌
- 389 邻苯二甲酸单甲酯对大鼠血液生化指标的影响及毒理研究
高旭,于霞,李信薇,池振兴
- 400 黄河流域阿特拉津的水质基准研究
刘萌硕,王召丁,马云龙,刘梦洁,高盟,李宛星,王莉
- 409 双酚 A 对合果芋叶片气体交换参数、叶绿素荧光参数和氧化损伤的影响
刘梦,董欣越,杨爱珍,黄艳虹,高凡,郭家选
- 419 不同粒径商品聚乙烯微塑料对 2 种蔬菜种子发芽和幼苗生长的影响
栗敏,刘强,曹东东,邵梦莹,刘一帆,罗先香,李锋民,郑浩
- 434 杀虫剂阿维菌素、伊维菌素对斜生栅藻和大型蚤的毒性作用
陈彦吉,柳川江,宋怡彤,林以诗,徐冬梅
- 441 毒死蜱和苯醚甲环唑联合暴露诱导小鼠精原细胞凋亡
潘志辉,席令仪,孙景然,刘伟丽,吴瑾,房彦军
- 452 氯虫苯甲酰胺对环境生物的急性毒性与安全性评价
陈吉祥,于伟丽,王广友,苏磊,魏成彩,李丽霞,刘小缙,吴培
- 462 我国 59 个长期覆膜样地的表层土壤中邻苯二甲酸酯污染状况分析
靳拓,许丹丹,薛颖昊,刁斌,孙建鸿,彭可为,张杰,金德才

学术微视角

- 472 量子毒理学的理论依据、研究方法与未来发展
姜允申
- 477 总目录

CONTENTS

- 1 Bioaccumulation and Trophic Magnification of Persistent Organic Pollutants in Marine Environment
Liu Yawen, Li Youshen, Yang Yijing, Chen Xixi, Wang Xinhong
- 15 Distribution and Fluorescence Characteristics of Dissolved Organic Matter along the Yangtze River Estuary-East China Sea Shelf
Transect under Impacts of Freshwater-Seawater Mixing
Li Mingyang, Wang Rui, Li Zixuan, Huang Qinghui, Yin Daqiang
- 29 Bioaccumulation and Elimination of Microplastics by Sponges
Wang Tingting, Chen Rong
- 37 Research Progress on Joint Toxicity of Micro-nano Plastics and Organophosphorus Flame Retardants
Zhong Zhen, Chen Zhaowen, Wang Youji, Huang Wei
- 69 Chronic Toxicity of Tire-derived Microplastics of Different Sizes to *Daphnia magna*
Wang Ning, Wang Mei, Xu Chenxin, Xu Xinyi, Tan Qiaoguo, Luo Zhuanxi
- 77 Discussion on Working Thoughts of Chemical Substances Environmental Information Investigation
Ge Haihong, Wang Yanfei, Yang Li, Zhao Jing, Lin Jun
- 85 Progress in Reproductive Toxicity and Human Reproductive Health Risk of Bisphenol A Analogues
Wei Jinbo, He Zhengyu, Wang Changze, Hu Yeli, Wang Chang, Cao Huiming, Cao Mengxi, Liang Yong
- 108 Distribution, Transmission and Control of Typical Viruses in Livestock and Poultry Breeding Environment
Gao Ying, Ben Weiwei, Guo Ying, Qiang Zhimin
- 118 Advances in Ecotoxicology of Ionic Liquids
Chu Linglong, Zhao Xiaoxiang
- 135 Adverse Effects of Antibacterial Ingredients in Sanitary Products on Aquatic Ecological Environment
Sun Weilian, Sun Donglei, Huang Wei, Zhang Zunzhen
- 144 Microbe-plant Combined Remediation of Cadmium and Arsenic Contaminated Agricultural Soils: A Review
Zhao Yu, Ai Wenyan, Wen Siying, Yang Xiaoli, Liu Xue
- 163 Toxic Effects of Fungicides on Physiology and Behavior of Honeybee
Xiong Manqiong, Qin Gan, Wang Lizhu, Huang Shaokang, Li Jianghong, Duan Xinle
- 176 Distribution Characteristics, Exposure Assessment and Toxic Effects of Airborne Microplastics
Qi Chanchan, Hua Zhenggang, Jiang Ying, Pan Guowei, Yang Zuosen
- 188 Research Progress on Ecological and Health Effects of Typical Pollutants in Military Training Ranges
Ni Shenyao, Zhu Yongbing, Zhao Sanping, Xu An, Pei Chengcheng, Zhao Yanan, Nie Yaguang
- 203 Research Progress on Interaction between Micro/nanoplastics and Antibiotics
Wu Yuan, Li Yanan
- 213 Co-selection Mechanism of Antibiotics and Heavy Metal Resistance in Aquaculture Environment
Xie Jiaying, Jiang Mengqi, Zhang Hongmin, Pan Yingjie, Liu Haiquan, Xie Qingchao, Zhao Yong
- 225 Distribution, Exposure and Health Risk Assessment of Heavy Metal Cadmium: A Review
Zou Changwei, Jiang Yujie, Huang Hong
- 244 Effects of Two Micron-sized Polystyrene Particles on *Isatis indigotica* Seedlings Growth and Soil Community Structure
Yang Yajie, Chu Linglong, Song Xinshan, Zhao Xiaoxiang
- 256 Internal Derivatives of Sulfur Dioxide Induced Up-regulation of AE2 Protein Expression of Rat Enamel Organ through ROS/JNK/AP-1 Pathway
Ren Hongyue, Yang Jin, Liu Xia, Yao Jie, Lin Changhu, Tu Chenglong
- 266 Pollution Characteristics and Risk Assessment of Heavy Metals in Haihe Basin
Liu Sida, Xiao Shumin, Liu Jinxin, Gao Fu

- 277 Real-time Monitoring of Microfilament Morphology and Viscoelasticity of Tobacco Suspension Cells under Cadmium Stress
Liu Yixuan, Zhou Tian, Lan Yaqin, Pan Weisong
- 287 Ecological Risk Assessment of Micro(nano)plastics to Important Bait Algae in Marine Fishery Waters
Zhang Min, Bo Jun, Zheng Ronghui, Gao Fulong, Hong Fukun, Chen Jincan, Fang Chao
- 301 Effect of High Density-polyethylene on Growth Performance, Antioxidant Capacity, Immune Functions and Intestinal Microbiota of *Oreochromis niloticus*
Zhang Xiaofei, Yu Qiuran, Zhao Yuhang, Shi Zhanyao, Zhou Li, Li Erchao, Xie Jia
- 315 Study on Photosynthetic Physiological Characters of *Chlorella vulgaris* under Stress of Short-term Simulated Acid Rain and UV Radiation
Yang Yuling, Zhang Peng, Li Yahe, Cai Fei, Bi Shufeng, Li Wei
- 325 Effects of Cadmium on Photosynthetic Activity of *Synechocystis* PCC 6803
Ruan Gang, Xu Pingping, Yin Xuwang, Zhang Chunmei, Song Gaofei, Mi Wujuan, Bi Yonghong
- 333 Prometryn Stress in Expression of Detoxification-related Genes in *Mactra veneriformis*
Liu Lijuan, Jiang Xiangyang, Liu Huihui, Huang Hui, Gong Xianghong, He Jinxia, Liu Xiaojing, Wang Weiyun, Zhang Xiuzhen
- 345 Distribution, Interfering Factors and Ecological Risks of Neonicotinoid Insecticides in Surface Water of Winter Vegetable Planting Area from Chengmai, China
Tan Huadong, Wang Chuanmi, Wu Qiumin, Cui Yanmei, Wu Chunyuan
- 357 Acute Lethal Effects of Combined Exposure to 3 Fluoroquinolones on *Bellamyia aeruginosa*
Zhang Xiaoxu, Ma Taowu, Li Jinman, Luo Benxiang, Zhou Yingru, He Xingbing, Wang Meng
- 365 Toxicity of Excess Selenium-L-methionine on Medaka Embryos and Its Relationship with Oxidative Stress Mechanism
Zhou Yini, Wang Huan, Yang Jingfeng, Yu Yongli, Dong Wu
- 376 Source Identification and Health Risk Assessment of Soil Heavy Metals in a Typical Industrial Park in Northwest China
Zhang Bohan, Bi Siqi, Wang Yu, Pu Yu, Zhou Xu, Gao Yue, Yu Qingchun, Jiang Wenjuan, Cao Hongbin
- 389 Effects of Monomethyl Phthalate on Blood Biochemical Indicators of Rats and Its Toxicology
Gao Xu, Yu Xia, Li Xinwei, Chi Zhenxing
- 400 Water Quality Criteria for Atrazine in the Yellow River Basin
Liu Mengshuo, Wang Zhaoding, Ma Yunlong, Liu Mengjie, Gao Zhao, Li Wanxing, Wang Li
- 409 Effects of Bisphenol A on Gas Exchange Parameters, Chlorophyll Fluorescence Parameters and Oxidative Damage in Leaves of *Syngonium podophyllum* Schott
Liu Meng, Dong Xinyue, Yang Aizhen, Huang Yanhong, Gao Fan, Guo Jiaxuan
- 419 Effects of Different Commercial Polyethylene Microplastics with Different Particle Sizes on Seed Germination and Seedling Growth of Two Vegetables
Li Min, Liu Qiang, Cao Dongdong, Shao Mengying, Liu Yifan, Luo Xianxiang, Li Fengmin, Zheng Hao
- 434 Toxic Effects of Avermectin and Ivermectin on *Scenedesmus obliquus* and *Daphnia magna*
Chen Yanji, Liu Chuanjiang, Song Yitong, Lin Yishi, Xu Dongmei
- 441 Apoptosis of GC-1 Cells Induced by Combined Exposure of Chlorpyrifos and Difenconazole
Pan Zhihui, Xi Lingyi, Sun Jingran, Liu Weili, Wu Jin, Fang Yanjun
- 452 Acute Toxicity and Safety Evaluation of Chlorantraniliprole to Environmental Organisms
Chen Jixiang, Yu Weili, Wang Guangyou, Su Lei, Wei Chengcai, Li Lixia, Liu Xiaoman, Wu Pei
- 462 Analysis of Phthalate Esters Pollution in 59 Topsoils of Long-term Film Mulching Plots in China
Jin Tuo, Xu Dandan, Xue Yinghao, Xi Bin, Sun Jianhong, Peng Kewei, Zhang Jie, Jin Decai
- 472 Quantum Toxicology: Theory Basis, Research Methods, Future Development
Jiang Yunshen
- 477 Total contents