

目 次

特别关注

- 1 福岛核泄漏对北太平洋海洋生物的影响研究进展
李孟奇,陈新军,刘必林,方舟

“新污染物筛查与评估”专栏

- 11 筛查全/多氟烷基化合物(PFASs)生物活性的卷积神经网络模型
张涛,朱明华,傅志强,陈景文,肖子君
- 22 基于机器学习算法的化学品肝毒性筛查模型
王孟含,朱明华,肖子君,陈景文,吴超
- 33 基于极限梯度提升算法和特征筛选方法的羊角月牙藻(*Selenastrum capricornutum*)急性毒性定量构效关系(QSAR)模型的建立与应用
滕跃发,王晓晴,李斐,吉成龙,吴惠丰
- 46 蚯蚓对土壤中四溴双酚 A 的富集特征及影响因素
韩伟,王硕,吕继涛,刘婉蓉,王玉晶,赵瑞锋

“21 世纪计算毒理学”专栏

- 54 P450 酶活性中心催化全氟烷基羧酸前体化合物的代谢转化路径研究
常新,于晓梅,傅志强
- 68 细胞色素 P450 酶代谢 N-亚硝胺类化合物的反应机理研究
宋润芊,金玲敏,苏丽静,季力

综述

- 78 土壤-植物系统中抗生素抗性的传播过程与影响机制
宋超,贾伟丽,应光国
- 93 养殖水环境中抗生素对鱼类肠道菌群结构、功能和抗性组的影响研究进展
王美茹,崔鹏飞,汝少国
- 111 双酚 A 及其替代物的受体作用信号通路研究进展
张鑫达,田华,汝少国
- 124 环境中的硫化汞及其生物可利用性
沙胜男,白旭,李东瑞,李红,赵甲亭,高愈希
- 143 手性新污染物 HBCDs 在近海生态系统中的分布、毒性效应与作用机制研究
卢娜,李怡君,王钊宁,周星方,郭颖,王悠
- 158 双酚 A 及其替代物对肠-脑调节的潜在影响及相关机制研究进展
刘再腾,赵小余,张义宁,李亚梦,邱静,穆希岩,姜敬哲,钱永忠
- 174 生物可降解微纳米塑料生物毒性效应的研究进展与展望
黄丹妮,章敏,高富龙,郑榕辉,黄文树,薄军,方超
- 201 金属纳米颗粒在水环境中的食物链传递、转化行为的影响与重要性
邓仁全,董仕鹏,李瑞宾,毛亮
- 212 植物毒理学文献计量分析及其研究思路与方法评论
冯宇希,徐明,阚杰元,林钰涓
- 222 农田残留地膜累积生态效应研究进展
张美,刘金铜,付同刚,高会
- 237 环境中纳米颗粒物的凝聚现象及其机理解释
武亚宁,李亚男,张国凯
- 247 阿维菌素在水产养殖生态系统中降解、毒性及其生态风险分析
向阳,王元,李乐天,张卫卫,胡鲲,房文红

研究论文

- 259 血液组分的快速分离及元素分布特征研究
代玉冰,刘佳欣,耿柠波,金静,王丽霞,张海军,陈吉平
- 270 广州市新生儿胎发中金属元素水平及对新生儿出生体质量影响的初步研究
蔡凤珊,李嘉璐,李敏,严骁,唐斌,郑晶,麦碧娴
- 284 苯并三唑紫外光稳定剂对斑马鱼成鱼的免疫毒性
张继晔,黄莹,李志彤,梁雪芳,陈辉辉,查金苗
- 295 文蛤甲状腺激素受体 MmTR 互作蛋白筛选及其对 Aroclor 1254 胁迫的转录响应研究
蔡月凤,谭皓文,吴钰泽,胡杰,姬南京,申欣
- 311 米氏凯伦藻对海水青鳉影响效应的转录组学分析
杨桂琴,李晓东,路玮静,李健鑫,李靖,常阳,王紫阳,张伟妮,陈新华
- 325 小鼠体内砷甜菜碱向无机砷的生物降解
赵芊瑜,熊海燕,叶紫君,黄莉萍,张伟
- 335 纳米氧化钴对组蛋白 H3 修饰的影响及其机制
赵晓旭,李纹,侯巧利,吕源财
- 346 基于蛋白质组学研究微/纳塑料对巨噬细胞的潜在影响
王小霞,官司敏,杨贺然,何欢,任肖敏,潘学军
- 356 四氯双酚 A 对斑马鱼幼鱼运动行为的影响及神经毒性机制研究
申泽宇,李红艳,韩雅静,陈晓雯,唐斌,党垚,向明灯,胡国成,李廷真,于云江
- 365 典型抗生素在城市污水处理厂各单元出水中的分布及受纳水体生态风险
牟霄,张崇森,李永强,刘瑶
- 375 典型酰胺类除草剂的水生生物水质基准
赵晋,樊怡利,张瑞卿,李会仙,蔡婷
- 387 汞对雪衣藻光合系统 II 及能量分配的影响
夏亦雪,许萍萍,阮港,涂晓杰,毕永红
- 397 环境相关浓度的氟西汀和帕罗西汀对章鱼脑组织五羟色胺能系统的影响
彭希健,徐秋霞,张博,郭远明
- 409 呋虫胺在水培草莓植株中的吸收及转运特征
董欣越,邱志豪,魏朝俊,高凡,郭家选
- 417 氯化镉对斑马鱼幼鱼视网膜发育的影响
唐颖,王丹,彭星宇,曹晗霖,谭海萍,张春慧,谷红梅,郭庶
- 429 上海郊区典型河道卤代烃类消毒副产物污染特征与生态风险研究
周萌萌,沈根祥,朱英,胡双庆,凌思源,张洪昌,张红霞
- 445 多菌灵对泥鳅肝脏典型生物标志物的影响及其可逆性分析
谭婷,杨超超,杨娜,王琪,雷忻
- 456 不同珊瑚对酸化、苯并[a]芘单一和复合胁迫的生理响应
陈雨梅,齐钊,尹连政,常逢彤,鞠涵焯,刁晓平
- 465 3 种增塑剂对发光菌 Q67 联合毒性作用定量评估
张颖,张瑾,周娜娜,陈如荔,申慧彦
- 478 西草净对四角蛤蜊的毒性效应
彭中校,刘鸽,黄会,韩典峰,曹伟,王明磊,杨玉艳,宫向红,张秀珍
- 491 我国吡啶硫酮锌水生生物水质基准研究
张成,冯兵,张萌,王强,夏威,王文倩,刘足根

CONTENTS

- 1 Research Progress on Impact of Fukushima Nuclear Leakage on North Pacific Organisms
Li Mengqi, Chen Xinjun, Liu Bilin, Fang Zhou
- 11 Convolutional Neural Network Models for Screening Bioactivities of Per- and Polyfluoroalkyl Substances (PFASs)
Zhang Tao, Zhu Minghua, Fu Zhiqiang, Chen Jingwen, Xiao Zijun
- 22 Machine Learning Models for Screening Hepatotoxic Chemicals
Wang Menghan, Zhu Minghua, Xiao Zijun, Chen Jingwen, Wu Chao
- 33 Development and Application of Quantitative Structure-activity Relationship (QSAR) Model for Acute Toxicity of *Selenastrum capricornutum* Based on Extreme Gradient Boosting Algorithm and Feature Selection Method
Teng Yuefa, Wang Xiaoqing, Li Fei, Ji Chenglong, Wu Huifeng
- 46 Accumulation Characteristics and Influencing Factors of Tetrabromobisphenol A in Soil by Earthworms
Han Wei, Wang Shuo, Lv Jitao, Liu Wanrong, Wang Yujing, Zhao Ruifeng
- 54 Investigation on Transformation Pathways of Perfluorinated Carboxylic Acids Precursors Catalyzed by Active Species of P450 Enzymes
Chang Xin, Yu Xiaomei, Fu Zhiqiang
- 68 Mechanisms of *N*-nitrosamines Metabolized by Cytochrome P450 Enzymes
Song Runqian, Jin Lingmin, Su Lijing, Ji Li
- 78 Transmission and Influencing Mechanisms of Antibiotic Resistance in Soil-Plant System
Song Chao, Jia Weili, Ying Guangguo
- 93 Research Progress on Effects of Antibiotics in Aquaculture Water Environment on Structure, Function and Resistome of Fish Intestinal Microbiota
Wang Meiru, Cui Pengfei, Ru Shaoguo
- 111 Advances in Study of Receptor Signaling Pathways of Bisphenol A and Its Substitutes
Zhang Xinda, Tian Hua, Ru Shaoguo
- 124 Mercuric Sulfide in Environment and Its Bioavailability
Sha Shengnan, Bai Xu, Li Dongrui, Li Hong, Zhao Jiating, Gao Yuxi
- 143 Research Advances on Chiral Contaminants of Emerging Concern HBCDs in Coastal Ecosystems: Distribution, Toxicity and Mechanism
Lu Na, Li Yijun, Wang Zhaoning, Zhou Xingfang, Guo Ying, Wang You
- 158 Advances in Potential Impacts of Bisphenol A and Its Alternatives on Gut-Brain Regulation and Involved Mechanisms
Liu Zaiteng, Zhao Xiaoyu, Zhang Yining, Li Yameng, Qiu Jing, Mu Xiyan, Jiang Jingzhe, Qian Yongzhong
- 174 Research Progress and Prospect of Biological Toxicity Effects of Biodegradable Micro-nano Plastics
Huang Danni, Zhang Min, Gao Fulong, Zheng Ronghui, Huang Wenshu, Bo Jun, Fang Chao
- 201 Trophic Transfer of Metal-based Nanoparticles in Aquatic Environments: Importance of Transformation
Deng Renquan, Dong Shipeng, Li Ruibin, Mao Liang
- 212 Bibliometric Analysis and Review of Ideas and Methodology in Phytotoxicology
Feng Yuxi, Xu Ming, Kan Jieyuan, Lin Yujuan
- 222 Review on Cumulative Ecological Effects of Mulching Film Residues in Farmland
Zhang Mei, Liu Jintong, Fu Tonggang, Gao Hui
- 237 Aggregation Phenomenon and Mechanism of Nanoparticles in the Environment
Wu Yaning, Li Yanan, Zhang Guokai
- 247 Degradation, Toxicity and Ecological Risk Analysis of Avermectin in Aquaculture Ecosystem
Xiang Yang, Wang Yuan, Li Letian, Zhang Weiwei, Hu Kun, Fang Wenhong

- 259 Separation of Blood Fractions and Element Distribution Patterns
Dai Yubing, Liu Jiaxin, Geng Ningbo, Jin Jing, Wang Lixia, Zhang Haijun, Chen Jiping
- 270 A Preliminary Study on Levels of Metal(loid)s in Infant Hair and Associated Influence on Birth Weight of Neonates in Guangzhou
Cai Fengshan, Li Jialu, Li Min, Yan Xiao, Tang Bin, Zheng Jing, Mai Bixian
- 284 Immunotoxicity of Benzotriazole Ultraviolet Stabilizers in Adult Zebrafish (*Danio rerio*)
Zhang Jiye, Huang Ying, Li Zhitong, Liang Xuefang, Chen Huihui, Zha Jinmiao
- 295 Screening of MmTR Interacting Proteins of *Meretrix meretrix* and Transcriptional Response to Aroclor 1254 Stress
Cai Yuefeng, Tan Haowen, Wu Yuze, Hu Jie, Ji Nanjing, Shen Xin
- 311 Transcriptome Analysis about Effect of *Karenia mikimotoi* on *Oryzias melastigma*
Yang Guiqin, Li Xiaodong, Lu Weijing, Li Jianxin, Li Jing, Chang Yang, Wang Ziyang, Zhang Weini, Chen Xinhua
- 325 Biodegradation of Arsenobetaine into Inorganic Arsenic in Mice
Zhao Qianyu, Xiong Haiyan, Ye Zijun, Huang Liping, Zhang Wei
- 335 Effects of Cobalt Oxide Nanoparticles on Histone H3 Modification and Its Mechanism
Zhao Xiaoxu, Li Wen, Hou Qiaoli, Lv Yuancai
- 346 Potential Effects of Micro- and Nano-Plastics on Macrophages Based on Proteomics
Wang Xiaoxia, Guan Simin, Yang Heran, He Huan, Ren Xiaomin, Pan Xuejun
- 356 Effects of Tetrachlorobisphenol A (TCBPA) on Locomotion Behavior of Zebrafish Larvae and Its Neurotoxic Mechanism
Shen Zeyu, Li Hongyan, Han Yajing, Chen Xiaowen, Tang Bin, Dang Yao, Xiang Mingdeng, Hu Guocheng, Li Tingzhen, Yu Yunjiang
- 365 Distribution of Typical Antibiotics in Effluent from Different Units of Municipal Wastewater Treatment Plants and Ecological Risks in Receiving Waters
Mou Xiao, Zhang Chongmiao, Li Yongqiang, Liu Yao
- 375 Aquatic Life Water Quality Criteria for Typical Amide Herbicides
Zhao Jin, Fan Yili, Zhang Ruiqing, Li Huixian, Cai Ting
- 387 Toxic Effects of Mercury on Photosynthetic System II and Energy Allocation in *Chlamydomonas nivalis*
Xia Yixue, Xu Pingping, Ruan Gang, Tu Xiaojie, Bi Yonghong
- 397 Effects of Environmentally Relevant Concentrations of Fluoxetine and Paroxetine on Serotonergic Neurotransmitter Systems in Octopus Brain Tissue
Peng Xijian, Xu Qiuxia, Zhang Bo, Guo Yuanming
- 409 Uptake and Transport of Dinotefuran in Hydroponic Strawberry Plants
Dong Xinyue, Qiu Zhihao, Wei Chaojun, Gao Fan, Guo Jiaxuan
- 417 Effects of Cadmium Chloride on Retinal Development in Larval Zebrafish
Tang Ying, Wang Dan, Peng Xingyu, Cao Hanlin, Tan Haiping, Zhang Chunhui, Gu Hongmei, Guo Shu
- 429 Pollution Characteristics and Ecological Risks of Halogenated Hydrocarbon Disinfection Byproducts in Typical River Channels in Shanghai Suburbs
Zhou Mengmeng, Shen Genxiang, Zhu Ying, Hu Shuangqing, Ling Siyuan, Zhang Hongchang, Zhang Hongxia
- 445 Effect of Carbendazim on Typical Biomarkers in Loach Liver and Its Reversibility Analysis
Tan Ting, Yang Chaochao, Yang Na, Wang Qi, Lei Xin
- 456 Physiological Responses of Different Corals under Single and Combined Stress of Acidification and Benzo[a]pyrene
Chen Yumei, Qi Zhao, Yin Lianzheng, Chang Fengtong, Ju Hanye, Diao Xiaoping
- 465 Quantitative Evaluation of Combined Toxicity Interactions of Three Plasticizers on *Phtobacterium Q67*
Zhang Ying, Zhang Jin, Zhou Nana, Chen Ruli, Shen Huiyan
- 478 Toxic Effect of Simetryn on *Mactra veneriformis*
Peng Zhongxiao, Liu Ge, Huang Hui, Han Dianfeng, Cao Wei, Wang Minglei, Yang Yuyan, Gong Xianghong, Zhang Xiuzhen
- 491 Aquatic Life Water Quality Criteria of Zinc Pyrithione in China
Zhang Cheng, Feng Bing, Zhang Meng, Wang Qiang, Xia Wei, Wang Wenqian, Liu Zugen