

目 次

1 序言

于红霞,王遵尧

综述

3 全氟和多氟化合物替代品的研究进展

周秀鹃,盛南,王建设,戴家银

13 重金属对水生生物的生态毒理效应及生物耐受机制研究进展

邢艳帅,朱桂芬

27 石墨烯类纳米材料作为药物载体的研究进展及其潜在风险

孙小艳,卢坤,李奥,高士祥,毛亮,叶新华

38 计算毒理学在内分泌干扰物筛选上的应用和展望

陈钦畅,谭皓月,史薇,于红霞

49 北京市大气挥发性有机物(VOCs)的污染特征及来源

刘奇琛,黄婧,郭新彪

62 组合指数在环境混合物联合毒性研究中的初步应用

李恺,刘树深,屈锐

72 混合污染物联合毒性评价模型曲线和实际浓度效应曲线之间交叉现象的研究进展

潘永正,孙昊宇,王大力,林志芬,印春生,巫晓丹

86 污染水体中河蚬的生物毒性响应研究进展

郭晓宇,李茹枫,冯成洪,韩志华

110 肠道微生物受环境污染的影响及其对宿主疾病的调控作用

王泓鸥,董四君

120 氯代多环芳烃的污染现状及毒性研究进展

罗云,张保琴,任晓倩,王菲迪,耿柠波,张海军,陈吉平

135 邻苯二甲酸二乙基己酯(DEHP)污染及其毒性研究进展

王晓南,张瑜,王婉华,余若祯,刘征涛,曹宇,陈丽红,孙东燕

151 土壤还原过程对氯代有机污染物还原脱氯的影响与机制

冯曦,朱敏,何艳

专论

162 双酚 A 对斑马鱼幼鱼神经递质和神经行为的影响

杨丽华,史奇朋,周炳升

170 青藏高原纳木错流域持久性有机污染物的多介质迁移与归趋模拟

任娇,王小萍,王传飞,龚平,姚檀栋

180 大连地区唐氏筛查孕中期妇女羊水中甲状腺激素水平与 PBDEs 内暴露关系初探

韩璐,尚小娜,于华,郭邑,么建萍,王雨新,刘晓晖,李亚晨,邵静

191 四种短链全氟化合物替代物在城市污水处理厂的污染特征研究

马洁,陈红瑞,王娟,郑兴灿,杨敏,张昱

203 基于小流域尺度的目标抗生素排放量估算方法——以梅江流域为例

张涛,陈求稳,齐笑,刘卓,王敏

214 p,p' -DDE 与雄激素受体突变体 H874Y 及 T877A 激动性作用机制的理论研究

朱婧涵,薛娇,刘娟,张爱茜

225 几类有机污染物的微塑料/水分配系数的线性溶解能关系模型

李广宇,陈景文,李雪花,乔显亮

- 234 二苯甲酮类紫外防晒剂发光菌急性毒性及 QSAR 研究
魏东斌,赵慧敏,杜宇国
- 243 石墨烯与抑癌基因 *p53* DNA 片段相互作用的分子模拟与光谱学验证
吴惠丰,张明兴,李斐,曹天贵,李雪花,赵建民
- 251 羟基多溴代二苯醚与甲状腺素运载蛋白相互作用的 3D-QSAR 研究
梁峰,穆云松,李会仙,冯承莲
- 261 密度泛函理论方法研究铝-麦芽酚配合物的形态结构与水交换反应
张婧,董绍楠,侯晓霞,毕树平
- 273 离子液体[BMI_m][PF₆]增强抗性质粒 RP4 介导的接合转移基因 mRNA 的表达水平
汪庆,罗义,崔玉晓,齐丽英,周烁磊,杨光
- 282 基于 QSAR 模型的磺胺与群体感应抑制剂对枯草芽孢杆菌联合慢性毒性规律初探
张跃恒,王大力,高丹,孙昊宇,印春生,林志芬
- 290 磺胺与群体感应抑制剂对费氏弧菌发光和生长联合毒性效应对比研究
高丹,马清萍,张跃恒,姚志峰,林志芬,于洋
- 301 肠道微生物对土壤中铜、锌、锰生物可给性的影响
都慧丽,尹乃毅,张震南,蔡晓琳,李泽姣,王鹏飞,孙国新,崔岩山
- 309 铅和得克隆联合暴露对斑马鱼胚胎的神经毒性作用
陈香平,黄长江,陈元红,刘滨,刘翠平,朱亚先,张勇
- 317 焦化废水处理试验系统出水的生物毒性变化
方元狄,张静,郑中原,温东辉
- 327 垃圾渗滤液中典型内分泌干扰物质(EDCs)细胞毒性分析
侯昌成,赵玲,尹平河,陆钢
- 336 环境有毒有害物质快速鉴别方法与应用
郭惠卫,于南洋,王学兵,韦斯
- 346 黄、渤海滨海带大气颗粒物时空分布与来源特征
许芸松,刘伟健,赵永志,余双雨,沈国锋,李静雅,熊冠男,刘洋,蔡传洋,李尧,陶澍,刘文新
- 358 六六六(HCHs)在小白洋淀水生植物中的分布与富集
李新元,吴文婧,朱樱,何伟,刘文秀,兰心宇,徐福留
- 366 氯代阻燃剂得克隆对纤细裸藻的生态毒性效应
常叶倩,于文汐,俞爽,刘程曦,李梅
- 373 五氯酚(PCP)对鸡肝癌细胞(LMH)毒性效应的机制研究
蒋鹏,盛南,王建设,戴家银
- 382 基于 Tenax 脱附技术评价沉积物中不同碳质对菊酯类农药生物有效性的影响研究
石文瑄,陈美娜,席培恒,谷义杰,李娟英
- 391 3 种微藻对全氟烷基化合物的生物富集效应
苑晓佳,田颖,孙红文
- 398 基于物种敏感性分布法的毒死蜱对稻田生态系统生态风险评价
肖鹏飞,林晓雅,刘毅华,赵颖,沈坚,徐吉洋,耿翠敏,朱国念
- 408 城市污水中典型卤代苯酚分布及其光降解行为研究
赵洪霞,孙世宾,姜菁秋,王运涛

- 416 氧化石墨烯对大型溞的生物毒性效应研究
石柳,王栋,张瑛,曹迪,孟甜甜,郭溪,周集体
- 425 武汉地区水环境中全氟化合物污染水平及其分布特征
周珍,胡宇宁,史亚利,蔡亚岐,梁勇
- 434 中国典型河湖水体铅的水生生物安全基准与生态风险评价
王菲,廖静,茅丹俊,孙成,杨绍贵,周俊丽,刘红玲,高士祥,李梅
- 446 邻苯二甲酸二甲酯在离体人红细胞内的分布和含量研究
池振兴,王东麟,凌嘉佳,宋雪梅,王明静
- 453 4种喹诺酮类抗生素对发光菌毒性作用研究
汪皓琦,董玉璞,汪灵伟,高玮岐,邹学军
- 460 沉积物与盐度对罗红霉素生物有效性的影响
陈悦,周俊良
- 470 电镀企业周边大气颗粒物 PM_{2.5}、PM₁₀ 和 TSP 中重金属分布特征及健康风险评价
赵委托,陈娟,胡渭平,黄庭,郭莉,程胜高,古晓雯
- 485 长三角地区池塘养殖水产品体内农药类污染与食用风险评价
徐佳艳,彭自然,和庆,石文瑄,陈美娜,李娟英
- 496 生产企业及周边环境中全氟化合物的污染特征
许静,翦敏林,蔡印莹,钱汪洋,孔德洋,王懿
- 506 广州夏季办公室内细颗粒中多环芳烃污染特征研究
张漫雯,陈燕燕,黎玉清,庄僖,苏海英,雷杰妮,王玉洁,蔡宗第,任明忠
- 516 多环芳烃典型电子性质与其大型蚤光致毒性的构效关系研究
谷成刚,朱梦荣,刘畅,提清清,何欢,孙成,蒋新
- 526 徐州市售蔬菜中多环芳烃污染与健康危害
王丽萍,夏忠欢,吴敏敏,张倩倩,杨浩
- 535 菲和铬(VI)单一及复合暴露对土壤微生物多样性的影响
胡双庆,沈根祥,顾海蓉,赵庆节,汪杏,张鸿飞
- 544 环草隆与重金属复合污染对黄瓜及小麦的毒性效应评估
姜蓉,王美娥,陈卫平
- 556 氯代阻燃剂得克隆对孔石莼(*Ulva pertusa*)繁殖及早期发育的影响
巩宁,邵魁双,张钰昆,景德清,孙野青
- 564 生物质炭对土霉素胁迫下小白菜种子萌发的影响
马瑞阳,闫聪聪,符博敏,俞花美,葛成军
- 572 菲和镉单一及复合污染条件下在毛蚶体内的富集动力学研究
阎波,谭送琴,马晓芳,刘宪斌,田胜艳,张涛,王璐
- 579 汾河流域水系和表层沉积物中多环芳烃的空间变化规律及其生态风险研究
赵颖,党晋华,王飞
- 597 酶催化降解四溴双酚 A 反应引起的碳纳米管急性毒性变化
卢坤,董仕鹏,高士祥,毛亮
- 604 自动化前处理-气相色谱串联质谱法测定淡水鱼体中的有机磷阻燃剂
张莹,魏立菲,刘胜玉,刘威,刘昕宇,李逸

- 611 基于统计方法的辽东湾沉积物中多环芳烃来源特征分析
张玉凤,宋永刚,刘传涛,杨萌,田金,于彩芬,杨爽,吴金浩
- 620 双齿围沙蚕对苾的生物可利用性研究
蔡富才,赵欢,李艳楠,张文龙,杨大佐,周一兵
- 629 生物扰动作用对河口沉积物中蒽蒽去除的影响
贾新苗,李井懿,杨宇,张彤,田胜艳
- 636 城市污水厂污泥倾倒对海洋生物的毒性研究
吕向立,吴鹏,朱艾嘉,倪志鑫,张敬怀,陈斌
- 644 植物-微生物修复石油烃污染土壤与根际微生态环境变化
孔德康,王红旗,刘自力,许洁,熊樱
- 652 赤霉酸暴露对 SD 大鼠青春期发育的影响
王小燕,陈静,柏丁丁,程微波,黄毅娜
- 658 超声辅助乳化液相微萃取分析绿茶饮料和番茄汁中有机磷农药残留
赵越,熊亚兵,杨中华,李建洪
- 667 Interaction between Humic Acid and p-Arsanilic Acid Using Fluorescence Quenching Approach
Ge Siyi, Zhou Hong, Song Jia, Yu Jia, Wei Wei, Li Shiyin
- 675 酚类化合物臭氧氧化速率的神经网络研究
堵锡华,吴琼,陈艳,冯惠
- 681 不同暴露途径下有机污染物对大鼠急性毒性的相关性研究
王朔,王羽,赵元慧
- 687 有机污染物对发光菌和鱼的毒性相关性研究
冯晓娜,杨芷,孙洁,王宁,杨柳,王晓红,赵元慧
- 695 全氟辛酸(PFOA)对菲律宾蛤仔体内酶活性的影响
刘芝余,翟毓秀,姚琳,江艳华,李凤铃,王联珠,尚德荣,杨元昊,郭萌萌,谭志军
- 705 除草定在土壤中的降解和移动特性研究
吴文铸,何健,李菊颖,孔祥吉,孔德洋,单正军
- 710 酚类化合物结构与醇/水分配系数($\log K_{ow}$)关系研究
廖立敏
- 717 五氧化二钒类 Fenton 降解邻苯二甲酸二乙酯的机制研究
邓亚梅,王荣富,方国东,周东美
- 726 彗星试验检测地下水有机污染物的遗传毒性效应
刘瑞祥,边高鹏,兰婷婷,孙学茹,常惠丽,任嘉红
- 732 部分含氯芳烃结构与孔雀鱼半数致死浓度($-\log LC_{50}$)定量活性相关研究
李建凤,黄茜,雷光东
- 739 邻苯二甲酸酯类雌激素活性联合作用模型分析
何颖,张晖,甄士琪,张丽娟,曹驰程,章奇
- 747 ZnO 纳米粒子抑制体外小鼠光感受器细胞 MnSOD 的表达及活性
孙园园,郭大东,刘滨,丁红燕,徐溢,毕宏生

CONTENTS

- 1 Preface
Yu Hongxia, Wang Zunyao
- 3 The Current Research Status of Several Kinds of Fluorinated Alternatives
Zhou Xiujuan, Sheng Nan, Wang Jianshe, Dai Jiayin
- 13 Advances on Ecotoxicological Effects of Heavy Metals to Aquatic Organisms and the Tolerance Mechanisms of Aquatic Organisms
Xing Yanshuai, Zhu Guifen
- 27 Application of Graphene-based Materials as Drug Carrier Materials and Their Potential Risks: A Review
Sun Xiaoyan, Lu Kun, Li Ao, Gao Shixiang, Mao Liang, Ye Xinhua
- 38 Application and Prospect of Computational Toxicology in Screening of Endocrine Disrupting Chemicals
Chen Qinchang, Tan Haoyue, Shi Wei, Yu Hongxia
- 49 Pollution Characteristics and Sources of Ambient Volatile Organic Compounds (VOCs) in Beijing
Liu Qichen, Huang Jing, Guo Xinbiao
- 62 Application of the Combination Index in the Assessment of Combined Toxicity of Environmental Mixture
Li Kai, Liu Shushen, Qu Rui
- 72 Progress in Researches on Cross Phenomenon between Evaluation Model Curve and Actual Concentration-response Curve of Mixture Pollutants
Pan Yongzheng, Sun Haoyu, Wang Dali, Lin Zhifen, Yin Chunsheng, Wu Xiaodan
- 86 A Review of Biological Toxicity Response of Asian Clam *Corbicula fluminea* to Contaminated Environment
Guo Xiaoyu, Li Rufeng, Feng Chenghong, Han Zhihua
- 110 Influences of the Environment Pollution on the Intestinal Microbiota and Its Regulations on Host Diseases
Wang Hongou, Dong Sijun
- 120 Advances in the Researches on the Occurrence and Toxicity of Chlorinated Polycyclic Aromatic Hydrocarbons
Luo Yun, Zhang Baoqin, Ren Xiaoqian, Wang Feidi, Geng Ningbo, Zhang Haijun, Chen Jiping
- 135 Environmental Pollution and Toxicity of DEHP
Wang Xiaonan, Zhang Yu, Wang Wanhua, Yu Ruozhen, Liu Zhengtao, Cao Yu, Chen Lihong, Sun Dongyan
- 151 Effects and Mechanisms of Soil Redox Processes on Reductive Dechlorination of Chlorinated Organic Pollutants
Feng Xi, Zhu Min, He Yan
- 162 The Effects of BPA on Neurobehavior and Neurotransmitters of Larval Zebrafish (*Danio rerio*)
Yang Lihua, Shi Qipeng, Zhou Bingsheng
- 170 Multimedia Fate Modeling of Persistent Organic Pollutants in Nam Co Basin, Tibetan Plateau
Ren Jiao, Wang Xiaoping, Wang Chuanfei, Gong Ping, Yao Tandong
- 180 Evaluation of Maternal PBDEs Exposure on the Thyroid Hormones in Amniotic Fluid of the Women Undergoing Amniocentesis at Late Second Trimester of Pregnancy in Dalian City
Han Lu, Shang Xiaona, Yu Hua, Guo Yi, Yao Jianping, Wang Yuxin, Liu Xiaohui, Li Yachen, Shao Jing
- 191 Pollution Characteristics of Four Short Chain Perfluorinated Compound Substitutes in Municipal Wastewater Treatment Plant
Ma Jie, Chen Hongrui, Wang Juan, Zheng Xingcan, Yang Min, Zhang Yu
- 203 Estimation Method of Target Antibiotics Emissions in Small Watershed, Case of Meijiang River Basin
Zhang Tao, Chen Qiuwen, Qi Xiao, Liu Zhuo, Wang Min
- 214 Theoretical Investigation on Agonism Mechanism of *p,p'*-DDE via Interacting with Androgen Receptor Mutants H874Y and T877A
Zhu Jinghan, Xue Qiao, Liu Xian, Zhang Aiqian
- 225 LSER Models for Several Classes of Organic Pollutants Partitioning between Microplastics and Water
Li Guangyu, Chen Jingwen, Li Xuehua, Qiao Xianliang

- 234 Acute Toxicity and QSAR Studies on Benzophenone-type UV-filters to Photobacterium
Wei Dongbin, Zhao Huimin, Du Yuguo
- 243 Studies on the Interaction between Graphene and *p53*-DNA by Molecular Dynamics Simulations and Spectroscopic Methods
Wu Hui Feng, Zhang Mingxing, Li Fei, Cao Tianguai, Li Xuehua, Zhao Jianmin
- 251 3D-QSAR Study on Interactions between Hydroxylated PBDEs and Thyroid Hormones Transport Proteins
Liang Feng, Mu Yunsong, Li Huixian, Feng Chenglian
- 261 Investigation of the Configuration Characteristics and Water- Exchange Reactions of Aluminium(III)-Maltolate Complexes by Density Functional Theory
Zhang Jing, Dong Shaonan, Hou Xiaoxia, Bi Shuping
- 273 An Ionic Liquid [BMIm][PF₆] Enhanced the mRNA Expression Levels of Conjugative Transfer Genes Mediated by Plasmid RP4
Wang Qing, Luo Yi, Cui Yuxiao, Qi Liying, Zhou Shuolei, Yang Guang
- 282 A Preliminary Investigation on the Chronic Single and Mixture Toxicity of Sulfonamides and Quorum Sensing Inhibitors to *Bacillus subtilis* Based on QSAR
Zhang Yueheng, Wang Dali, Gao Dan, Sun Haoyu, Yin Chunsheng, Lin Zhifen
- 290 The Comparative Study on the Combined Toxicity of Sulfonamides and Quorum Sensing Inhibitors on the Luminescence and Cell Proliferation of *Vibrio fischeri*
Gao Dan, Ma Qingping, Zhang Yueheng, Yao Zhifeng, Lin Zhifen, Yu Yang
- 301 Effect of Human Gut Microbiota on Bioaccessibility of Soil Cu, Zn and Mn
Du Huili, Yin Naiyi, Zhang Zhennan, Cai Xiaolin, Li Zejiao, Wang Pengfei, Sun Guoxin, Cui Yanshan
- 309 Neurotoxic Effects of Co-exposure to Lead and Dechlorane Plus on Zebrafish (*Danio rerio*) Embryos
Chen Xiangping, Huang Changjiang, Chen Yuanhong, Liu Bin, Liu Cuiping, Zhu Yaxian, Zhang Yong
- 317 The Variation of Effluent Bio-toxicity in an Experimental System for Coking Wastewater Treatment
Fang Yuandi, Zhang Jing, Zheng Zhongyuan, Wen Donghui
- 327 Cytotoxicity Analysis of Typical Endocrine Disrupting Chemicals (EDCs) in Landfill Leachate
Hou Changcheng, Zhao Ling, Yin Pinghe, Lu Gang
- 336 A Rapid High-Throughput Method for Screening Environmental Toxic and Hazardous Substances in Solid Waste
Guo Huiwei, Yu Nanyang, Wang Xuebing, Wei Si
- 346 Spatial and Temporal Distribution of Atmospheric Particle Matter and Source Characteristics in the Littoral Areas of Bohai Sea and Yellow Sea
Xu Yunsong, Liu Weijian, Zhao Yongzhi, Yu Shuangyu, Shen Guofeng, Li Jingya, Xiong Guannan, Liu Yang, Cai Chuanyang, Li Yao, Tao Shu, Liu Wenxin
- 358 Distributions and Bioconcentration of Hexachlorocyclohexanes (HCHs) in Macrophytes from Lake Small Baiyangdian
Li Xinyuan, Wu Wenjing, Zhu Ying, He Wei, Liu Wenxiu, Lan Xinyu, Xu Fuli
- 366 Ecological Toxic Effects of A Chlorinated Flame Retardant—Dechlorane Plus on *Euglena gracilis*
Chang Yeqian, Yu Wenxi, Yu Shuang, Liu Chengxi, Li Mei
- 373 The Toxicity and Mechanism of Pentachlorophenol Exposure on Chicken Hepatoma Cells
Jiang Peng, Sheng Nan, Wang Jianshe, Dai Jiayin
- 382 Study on the Effect of Different Carbon Sorbents on the Bioavailability of Sediment-associated Pyrethroids Based on Tenax Desorption Technology
Shi Wenxuan, Chen Meina, Xi Peiheng, Gu Yijie, Li Juanying
- 391 Bioconcentration of Perfluoroalkyl Substances in 3 Microalgae
Yuan Xiaojia, Tian Ying, Sun Hongwen
- 398 Application of Species Sensitivity Distribution in Aquatic Ecological Risk Assessment of Chlopyrifos for Paddy Ecosystem
Xiao Pengfei, Lin Xiaoya, Liu Yihua, Zhao Ying, Shen Jian, Xu Jiyang, Geng Cuimin, Zhu Guonian
- 408 Distribution and Photodegradation of Typical Halophenols in WWTP Effluents of Dalian
Zhao Hongxia, Sun Shibin, Jiang Jingqiu, Wang Yuntao

- 416 The Toxic Effects of Graphene Oxide on Crustacean *Daphnia magna*
Shi Liu, Wang Dong, Zhang Ying, Cao Di, Meng Tiantian, Guo Xi, Zhou Jiti
- 425 Occurrence and Distribution of Per- and Polufluoroalkyl Substances in Waste Water and Surface Water Samples in Wuhan
Zhou Zhen, Hu Yuning, Shi Yali, Cai Yaqi, Liang Yong
- 434 Aquatic Quality Criteria and Ecological Risk Assessment for Lead in Typical Waters of China
Wang Fei, Liao Jing, Mao Danjun, Sun Cheng, Yang Shaogui, Zhou Junli, Liu Hongling, Gao Shixiang, Li Mei
- 446 Distribution and Level of Dimethyl Phthalate in Erythrocytes *in Vitro*
Chi Zhenxing, Wang Donglin, Ling Jiajia, Song Xuemei, Wang Mingjing
- 453 The Toxicity of Four Quinolones to *Photobacterium phosphoreum*
Wang Haoqi, Dong Yuying, Wang Lingwei, Gao Weiqi, Zou Xuejun
- 460 Effects of Sediment and Salinity on the Bioavailability of Roxithromycin
Chen Yue, Zhou Junliang
- 470 Distribution Characteristics of Heavy Metals in PM_{2.5}, PM₁₀ and TSP around Electroplating Factories and the Health Risk Assessment
Zhao Weituo, Chen Juan, Hu Weiping, Huang Ting, Guo Li, Cheng Shenggao, Gu Xiaowen
- 485 Assessing Pesticide Residues in Pond Aquaculture Products in Yangtze River Delta and the Health Hazard for Human Consumption
Xu Jiayan, Peng Ziran, He Qing, Shi Wenxuan, Chen Meina, Li Juanying
- 496 Pollution Characteristics of Perfluorinated Compounds in Environment in Production Enterprise and Surrounding Area
Xu Jing, Jian Minlin, Cai Yinying, Qian Wangyang, Kong Deyang, Wang Yi
- 506 Characteristics of Indoor PM_{2.5}-Bound Polycyclic Aromatic Hydrocarbons in Office Areas of Guangzhou in Summer
Zhang Manwen, Chen Yanyan, Li Yuqing, Zhuang Xi, Su Haiying, Lei Jieni, Wang Yujie, Cai Zongwei, Ren Mingzhong
- 516 Investigation of Structure-Activity Relationship between Typical Electronic Properties and Phototoxicity of Polycyclic Aromatic Hydrocarbons to *Daphnia Magna*
Gu Chenggang, Zhu Mengrong, Liu Chang, Ti Qingqing, He Huan, Sun Cheng, Jiang Xin
- 526 Pollution and Health Hazards of PAHs in Vegetables Sold in Xuzhou City, China
Wang Liping, Xia Zhonghuan, Wu Minmin, Zhang Qianqian, Yang Hao
- 535 Effects of Single and Combined Exposure to Phenanthrene and Chromium (VI) on Microbial Diversity in Soils
Hu Shuangqing, Shen Genxiang, Gu Hairong, Zhao Qingjie, Wang Xing, Zhang Hongfei
- 544 Joint Toxicity Assessment of Siduron and Heavy Metals on Cucumber and Wheat Seed Germination and Seedling Growth
Jiang Rong, Wang Meie, Chen Weiping
- 556 Effects of Dechlorane Plus on Reproduction and Early Development of *Ulva pertusa*
Gong Ning, Shao Kuishuang, Zhang Yukun, Jing Deqing, Sun Yeqing
- 564 Effects of Biochar on Seed Germination of Cabbage under the Stress of Oxytetracycline
Ma Ruiyang, Yan Congcong, Fu Bomin, Yu Huamei, Ge Chengjun
- 572 Kinetics of Bioconcentrations of Phenanthrene and Cadmium in Tissues of *Anadara subcrenata* under Single and Joint Exposures
Yan Bo, Tan Songqin, Ma Xiaofang, Liu Xianbin, Tian Shengyan, Zhang Tao, Wang Lu
- 579 Spatial Variety and Ecological Risk of Polycyclic Aromatic Hydrocarbons (PAHs) in Water and Surface Sediments of Fenhe River Basin, China
Zhao Ying, Dang Jinhua, Wang Fei
- 597 The Toxic Effect of Multiwall Carbon Nanotubes Modified by the Peroxidase-Mediated Tetrabromobisphenol A Reaction on *Daphnia magna* and *Scenedesmus obliquus*
Lu Kun, Dong Shipeng, Gao Shixiang, Mao Liang
- 604 Automatic Pretreatment and Determination of Organophosphorus Flame Retardants in Freshwater Fish Samples by Gas Chromatography Tandem Mass Spectrometry
Zhang Ying, Wei Lifei, Liu Shengyu, Liu Wei, Liu Xinyu, Li Yi
- 611 Source Identification of Polycyclic Aromatic Hydrocarbon of Surface Sediments from Liaodong Bay Based on Statistical Analysis
Zhang Yufeng, Song Yonggang, Liu Chuantao, Yang Meng, Tian Jin, Yu Caifen, Yang Shuang, Wu Jinhao

- 620 Bioavailability of Pyrene in the *Perinereis aibuhitensis*
Cai Fucai, Zhao Huan, Li Yannan, Zhang Wenlong, Yang Dazuo, Zhou Yibing
- 629 Impact of Bioturbation on the Removal of Fluoranthene in Muddy Estuarine Sediment
Jia Xinmiao, Li Jingyi, Yang Yu, Zhang Tong, Tian Shengyan
- 636 Toxicity of Municipal Sewage Sludge to Marine Organisms
Lyu Xiangli, Wu Peng, Zhu Aijia, Ni Zhixin, Zhang Jinghui, Chen Bin
- 644 Remediation of Petroleum Hydrocarbon Contaminated Soil by Plant-Microbe and the Change of Rhizosphere Microenvironment
Kong Dekang, Wang Hongqi, Liu Zili, Xu Jie, Xiong Ying
- 652 The Influence of Gibberellic Acid Exposure on the Pubertal Development of SD Rats
Wang Xiaoyan, Chen Jing, Bai Dingding, Cheng Weibo, Huang Yina
- 658 Analysis of Organophosphorus Pesticide Residues in Green Tea and Tomato Juice by Ultrasound-Assisted Emulsification Micro-extraction (USAEME)
Zhao Yue, Xiong Yabing, Yang Zhonghua, Li Jianhong
- 667 Interaction between Humic Acid and p-Arsanilic Acid Using Fluorescence Quenching Approach
Ge Siyi, Zhou Hong, Song Jia, Yu Jia, Wei Wei, Li Shiyin
- 675 Research on Ozonation Rates of Phenolic Compound by Neural Network Method
Du Xihua, Wu Qiong, Chen Yan, Feng Hui
- 681 Relationship between Acute Toxicity of Organic Pollutants in Rats from Different Exposure Routes
Wang Shuo, Wang Yu, Zhao Yuanhui
- 687 Investigation of Toxicity Correlation of Organic Pollutants between *Vibrio fischeri* and Fish
Feng Xiaona, Yang Zhi, Sun Jie, Wang Ning, Yang Liu, Wang Xiaohong, Zhao Yuanhui
- 695 The Effects of Perfluorooctanoic Acid (PFOA) on Enzyme Activities in *Ruditapes philippinarum*
Liu Zhiyu, Zhai Yuxiu, Yao Lin, Jiang Yanhua, Li Fengling, Wang Lianzhu, Shang Derong, Yang Yuanhao, Guo Mengmeng, Tan Zhijun
- 705 Degradation and Mobility of Bromacil in Soils
Wu Wenzhu, He Jian, Li Juying, Kong Xiangji, Kong Deyang, Shan Zhengjun
- 710 Study on the Relationship between Structure and Alcohol/water Partition Coefficients ($\log K_{ow}$) of Phenolic Compounds
Liao Limin
- 717 Vanadium Pentoxide-Based Fenton-like Reactions for Diethyl Phthalate Degradation
Deng Yamei, Wang Rongfu, Fang Guodong, Zhou Dongmei
- 726 Genotoxicity Evaluation of Organic Pollutants in Ground Water with Comet Assay
Liu Ruixiang, Bian Gaopeng, Lan Tingting, Sun Xueru, Chang Huili, Ren Jiahong
- 732 Study on the Correlation between Structure and Quantitative Activity of Half Lethal Concentration ($-\log LC_{50}$) to Guppy for Some Chlorinated Aromatic Compounds
Li Jianfeng, Huang Xi, Lei Guangdong
- 739 Model Assessing for the Combination Effects of Estrogenic Activity of Phthalates
He Ying, Zhang Hui, Zhen Shiqi, Zhang Lijuan, Cao Chicheng, Zhang Qi
- 747 Zinc Oxide Nanoparticles Inhibit the Expression and Activity of MnSOD in Murine Photoreceptor Cells *in Vitro*
Sun Yuanyuan, Guo Dadong, Liu Bin, Ding Hongyan, Xu Yi, Bi Hongsheng