



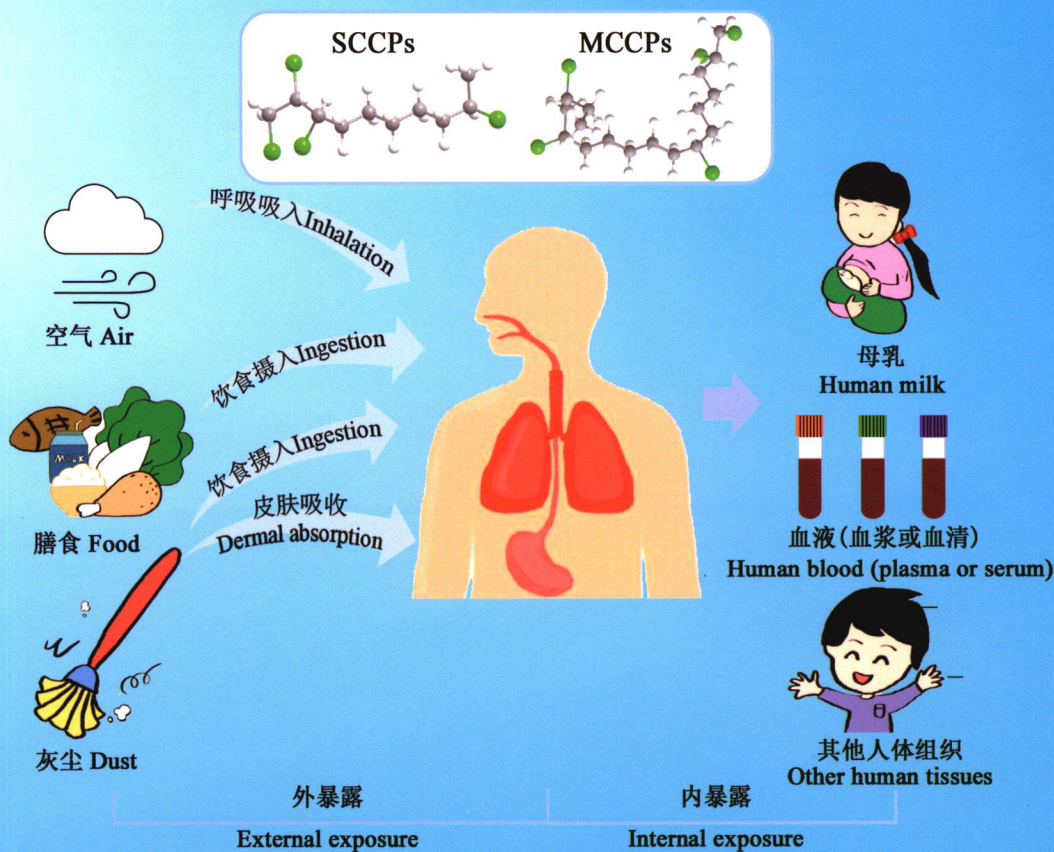
Q K 2 3 0 3 7 6 1

环境化学

ENVIRONMENTAL CHEMISTRY



2023 Jul. Vol. 42 No. 7
7 月 第42卷 第7期



——氯化石蜡的人体暴露研究进展



环境化学

(HUANJING HUAXUE)
第42卷 第7期 2023年7月



环境化学与生态毒理学国家重点实验室
资助出版

目次

氯化石蜡的人体暴露研究进展	
..... 程欣 高丽荣 张滢心 曹小颖 乔林 黄帝 刘杨 艾俏锋 郑明辉 (2139)	
长三角地区水体中全氟化合物的污染特征及风险评价	
..... 金梦 刘丽君 赵波 闫雅楠 李彦希 黎玉清 韩静磊 丁紫荣 (2153)	
四膜虫摄取与外排 AuNPs 和 Au(III) 的差异及单细胞异质性分析	
..... 张柳 吴琪 曲广波 史建波 江桂斌 (2163)	
可待因对鲫鱼体内神经化学物质的影响	
..... 沈怡 章诗涵 杨方星 (2171)	
我国东部沿海地区蔬菜中稀土元素的累积分布特征及健康风险评价	
..... 代玉冰 孙帅 耿柠波 曹蓉 杨甲甲 张承彬 张海军 陈吉平 (2180)	
太平洋两大典型鱿钓渔场鱿鱼有机氯农药赋存及健康风险评估	
..... 李铁军 涂淑仪 刘必林 陶玲 谢婧倩 (2190)	
婴幼儿配方奶粉中 22 种抗生素污染特征及暴露风险	
..... 刘子言 厉文辉 (2200)	
全氟烷基化合物的去除技术研究进展	
..... 滕影 王雯冉 黄柳青 张浴瞳 王新皓 徐翊宸 谷成 陈张浩 (2210)	
市政污水处理系统中不同工艺段多氟/全氟烷基化合物 (PFASs) 的赋存、转化和去除	
..... 陈森 王新皓 徐翊宸 黄柳青 王雯冉 张浴瞳 谷成 俞学如 陈张浩 (2228)	
不同重金属对土壤中四溴双酚 A 环境归趋的影响	
..... 辜建强 王永峰 季荣 (2242)	
Pd/TiO ₂ 催化水体中四溴双酚 A 的电催化还原脱溴	
..... 胡佳佳 孙玉菡 万玉秋 郑寿荣 (2251)	
分子模拟研究苯酚在大气冰表面的吸附行为	
..... 蔡雪莹 付自豪 谢宏彬 (2262)	
尘螨过敏原硝基化的位点选择性分析	
..... 田婧宜 杨方星 (2273)	
2019 年三亚市 PM _{2.5} 微量元素的源解析和健康评价	
..... 李曾曾 王平 丁文慈 路放 赵由之 郭昭伟 黄鼎 (2282)	
地下停车场内挥发性有机物变化特征、来源及人体健康风险评估: 以北京市某一地下停车场 为例	
..... 柴建伟 牛月圆 闫雨龙 段小琳 张翔宇 邢怡然 郑旭 彭林 (2292)	
孕期微量元素家庭灰尘暴露和内暴露特征及健康风险评估	
..... 李嘉璐 蔡凤珊 严骁 唐斌 李敏 郑晶 谢春 (2304)	
上海市不同微环境室内灰尘中有机磷酸酯污染特征及健康风险评价	
..... 周佳敏 赵静 韦旭 顾卫华 白建峰 (2317)	
安阳市夏季道路积尘水溶性离子污染特征及来源分析	
..... 王毅东 王明姬 韩桥 李梦飞 王文钜 张雪纯 熊钦卿 张春辉 姜凤成 王明仕 (2328)	
基于酮胺型共价有机骨架固相微萃取的水体多溴联苯醚检测	
..... 李玉凡 马璞 陶庆文 付嵩云 (2340)	

超高效液相色谱-串联质谱法同时测定 PIVAS 工作环境中 5 种细胞毒性药物残留
..... 袁中珍 李巧巧 唐甜甜 张 敏 刘 宇 刘 玲 (2349)

钡渣处理与综合利用现状及发展
..... 刘 萍 岳 勇 李绍华 刘春燕 刘嫦娥 刘 峰 焦文涛 马 栋 (2359)

Pb(Ⅱ)、Cd(Ⅱ) 和 Cr(Ⅲ) 对羟基磷酸钙结晶过程及产物的影响 郭 婷 李 想 吕锡武 (2372)

生活垃圾生物炭源溶解性有机质分馏和络合重金属的作用
..... 吴文雨 唐剑锋 郑思俊 耿春女 (2382)

黑锰矿催化氧化 Fe(Ⅱ) 生成铁氧化物过程及影响因素
..... 卢 涛 罗 瑶 刘立虎 李安玉 王伟华 邱国红 (2392)

UV/H₂O₂ 对盐酸林可霉素的光催化降解及生物毒性分析 王婷婷 任 刚 关健聪 余 燕 (2403)

炭化温度对植物基生物质炭与易腐垃圾炭的理化特性影响比较
..... 施腾楠 张 敏 陈志安 姜建武 沈思翰 施 贇 刘晓霞 虞轶俊 单胜道 (2411)

热活化过硫酸钠氧化去除水中邻苯二甲酸酯
..... 王安宇 张德新 焦文涛 刘 峰 崔 静 杨顺美 李烜桢 王 军 (2421)

添加腐殖酸对猪粪/玉米秸秆厌氧发酵中铜、锌钝化效果的影响
..... 薛锦辉 赵斌成 毛林强 彭明国 张文艺 (2431)

紫外/过二硫酸盐对组胺 H₂ 受体拮抗剂的降解特性及自由基模拟
..... 周子琳 黄金晶 商伟伟 钱雅洁 (2442)

载体酸蚀预处理对 CuMnCeO_x/堇青石催化氧化甲苯性能的影响
..... 李明昕 陶婉毅 任帅康 卜龙利 (2456)

黄麻固定化漆酶去除水中 Cd²⁺和刚果红 孙秀贤 孟昭福 曹雪雯 胡啸龙 盛 莉 (2467)

铁氮生物炭的制备及催化过一硫酸盐 (PMS) 降解水体中四环素 刘 丽 范世锁 梅杨璐 (2478)

分析应用快报

三重四极杆液相色谱质谱法测定工作场所空气中 β-萘胺
..... 岳小春 邱景富 杨 伟 戴锐睿 杨乾展 (2492)

吹扫捕集-气相色谱-质谱法同时测定水体中 14 种挥发性消毒副产物
..... 陈秋玲 高回香 姜妍君 杨昕蕊 吴 艳 张鸣珊 何书海 (2496)

哌拉西林的水解机理研究
..... 孙成一 胡杉杉 凌文翠 蒋 宝 王亚玲 张 冲 刘 菲 荆降龙 李国傲 (2501)

广告目录 岛津国际贸易 (上海) 有限公司 (封四)

CONTENTS

A review on human exposure to chlorinated paraffins	CHENG Xin, GAO Lirong, ZHANG Yingxin, CAO Xiaoying, QIAO Lin, HUANG Di, LIU Yang, AI Qiaofeng, ZHENG Minghui (2139)
Pollution characteristics and risk assessment of perfluoroalkyl substances in surface water from Yangtze River Delta	JIN Meng, LIU Lijun, ZHAO Bo, YAN Yanan, LI Yanxi, LI Yuqing, HAN Jinglei, DING Zirong (2153)
Uptake and efflux of AuNPs and ionic Au(III) by <i>Tetrahymena thermophila</i> and the single-cell heterogeneity	ZHANG Liu, WU Qi, QU Guangbo, SHI Jianbo, JIANG Guibin (2163)
Effects of codeine on neurochemicals in crucian carp	SHEN Yi, ZHANG Shihan, YANG Fangxing (2171)
Accumulation characteristics and health risk assessment of rare earth elements in vegetables from the eastern coastal region of China	DAI Yubing, SUN Shuai, GENG Ningbo, CAO Rong, YANG Jiajia, ZHANG Chengbin, ZHANG Haijun, CHEN Jiping (2180)
Organochlorine pesticides in squids from the two typical squid fisheries in Pacific Ocean: Occurrence and health risks	LI Tiejun, TU Shuyi, LIU Bilin, TAO Ling, XIE Jingqian (2190)
Study on pollution characteristics and human exposure of 22 antibiotic in infant milk powder	LIU Ziyang, LI Wenhui (2200)
Research progress on the removal of perfluorinated alkyl substances: A review	TENG Ying, WANG Wenran, HUANG Liuqing, ZHANG Yutong, WANG Xinhao, XU Yichen, GU Cheng, CHEN Zhanghao (2210)
Review on the occurrence, transformation and removal of per- and polyfluoroalkyl substances (PFASs) in different process segments of sewage wastewater treatment systems	CHEN Sen, WANG Xinhao, XU Yichen, HUANG Liuqing, WANG Wenran, ZHANG Yutong, GU Cheng, YU Xueru, CHEN Zhanghao (2228)
Effect of different heavy metals on the fate of TBBPA in two kinds of soil	GU Jianqiang, WANG Yongfeng, JI Rong (2242)
Study on electrocatalytic reduction of tetrabromobisphenol A on Pd/TiO ₂ in water	HU Jiajia, SUN Yuhan, WAN Yuqiu, ZHENG Shourong (2251)
Molecular simulation study on adsorption behavior of phenol on atmospheric ice surface	CAI Xueying, FU Zihao, XIE Hongbin (2262)
Analysis of site-selective nitration in house dust mite allergens	TIAN Jingyi, YANG Fangxing (2273)
Source analysis and health assessment of PM _{2.5} trace elements in Sanya City in 2019	LI Cengceng, WANG Ping, DING Wenci, LU Fang, ZHAO Youzhi, GUO Zhaowei, HUANG Ding (2282)
Variation, source and health risk assessment of volatile organic compounds in underground park: A case study of an underground park in Beijing	CHAI Jianwei, NIU Yueyuan, YAN Yulong, DUAN Xiaolin, ZHANG Xiangyu, XING Yiran, ZHENG Xu, PENG Lin (2292)
Characteristics and health risk assessment of household dust exposure and internal exposure to trace elements during pregnancy	LI Jialu, CAI Fengshan, YAN Xiao, TANG Bin, LI Min, ZHENG Jing, XIE Chun (2304)
The pollution characteristics and health risk assessment of organophosphate esters in indoor dust from different microenvironments in Shanghai	ZHOU Jiamin, ZHAO Jing, WEI Xu, GU Weihua, BAI Jianfeng (2317)
Pollution characteristics and source analysis of water-soluble ions in road dust in Anyang city during summer	WANG Yidong, WANG Mingya, HAN Qiao, LI Mengfei, WANG Wenju, ZHANG Xuechun, XIONG Qingqing, ZHANG Chunhui, Jiang Fengcheng, WANG Mingshi (2328)
β -Ketoenamine-linked covalent organic framework coated solid-phase microextraction fiber for the determination of polybrominated diphenyl ethers in water	LI Yufan, MA Pu, TAO Qingwen, FU Heyun (2340)
Simultaneous determination of 5 cytotoxic drugs residues in PIVAS workplace ultra-performance liquid chromatography-tandem mass spectrometry	YUAN Zhongzhen, LI Qiaoqiao, TANG Tiantian, ZHANG Min, LIU Yu, LIU Ling (2349)

Present situation and development of barium slag treatment and comprehensive utilization
..... *LIU Ping, YUE Yong, LI Shaohua, LIU Chunyan, LIU Chang'e, LIU Feng, JIAO Wentao, MA Dong* (2359)

Effects of Pb(II), Cd(II) and Cr(III) on crystallization process and products of hydroxyapatite
..... *GUO Ting, LI Xiang, LU Xiwu* (2372)

Fractionation of dissolved organic matter from domestic waste biochar and its complexation with heavy metals
..... *WU Wenyu, TANG Jianfeng, ZHENG Sijun, GENG Chunnyu* (2382)

Catalytic oxidation process of Fe(II) to iron oxides by hausmannite in the presence of dissolved oxygen and its influence
factors *LU Tao, LUO Yao, LIU Lihu, LI Anyu, WANG Weihua, QIU Guohong* (2392)

Photocatalytic degradation and biotoxicity evaluation of lincomycin hydrochloride by the UV/H₂O₂ process
..... *WANG Tingting, REN Gang, GUAN Jiancong, YU Yan* (2403)

Effects of carbonization temperature on physicochemical properties of plant-based biochar and perishable waste biochar
..... *SHI Tengnan,*
ZHANG Min, CHEN Zhian, JIANG Jianwu, SHEN Sihan, SHI Yun, LIU Xiaoxia, YU Yijun, SHAN Shengdao (2411)

Removal of phthalates from water by thermally activated sodium persulfate oxidation
..... *WANG Anyu, ZHANG Dexin, JIAO Wentao, LIU Feng, CUI Jing, YANG Shunmei, LI Xuanzhen, WANG Jun* (2421)

Effect of adding humic acid on the passivation of copper and zinc during anaerobic digestion of pig manure/corn stover
..... *XUE Jinhui, ZHAO Bincheng, MAO Linqiang, PENG Mingguo, ZHANG Wenyi* (2431)

Degradation of histamine H₂-receptor antagonists by UV/PDS: Kinetics and radical modeling
..... *ZHOU Zilin, HUANG Jinjing, SHANG Weiwei, QIAN Yajie* (2442)

Effects of acid etching pretreatment on toluene performance of CuMnCeO_x/cordierite catalyst
..... *LI Mingxin, TAO Wanyi, REN Shuaikang, BU Longli* (2456)

The removal of Cd²⁺ and Congo red from water by immobilized laccase on jute
..... *SUN Xiuxian, MENG Zhaofu, CAO Xuwen, HU Xiaolong, SHENG Li* (2467)

Preparation of Fe-N modified biochar and its application in tetracycline degradation activated by peroxymonosulfate
..... *LIU Li, FAN Shisuo, MEI Yanglu* (2478)

Determination of β-naphthylamine in workplace air by mass spectrometry with triple quadrupole liquid chromatography
..... *YUE Xiaochun, QIU Jingfu, YANG Wei, DAI Ruirui, YANG Qianzhan* (2492)

Study on determination of 14 kinds of volatile disinfection by-products in water by purge and trap /gas chromatography
/mass spectrometry
..... *CHEN Qiuling, GAO Huixiang, JIANG Yanjun, YANG Xinrui, WU Yan, ZHANG Mingshan, HE Shuhai* (2496)

Mechanism study on hydrolysis of piperacillin *SUN Chengyi,*
HU Shanshan, LING Wencui, JIANG Bao, WANG Yaling, ZHANG Chong, LIU Fei, JING Xianglong, LI Guoao (2501)

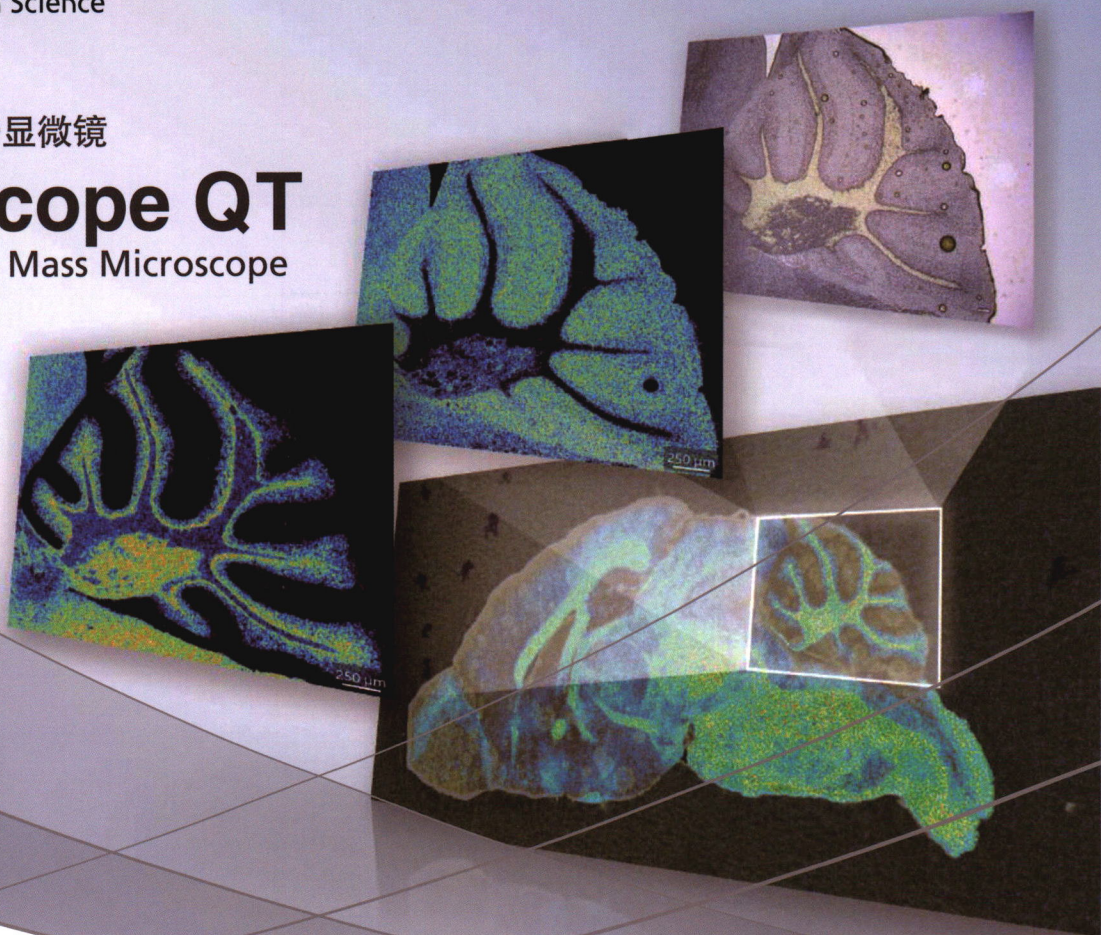


Excellence in Science

成像质谱显微镜

iMScope QT

Imaging Mass Microscope



iMScope™ QT 开创质谱成像新时代

iMScope QT 沿袭iMScope系列光学显微镜质谱仪的设计理念，为Q-TOF质谱成像领域提供标杆产品。

iMScope QT 既可融合形态学图像，又可实现高速、高灵敏度和高空间分辨率分析，开启真正质谱成像革新时代。

• Combined Analysis

显微镜观察和质谱成像分析的融合。

• Quantification and Distribution

只需一台仪器即可获得LC-MS的定性·定量信息和质谱成像的位置信息*。

• High Resolution, Speed and Accuracy

快速获取高精度·高空间分辨率的质谱成像图并进行有效的分析。

* LC系统和LCMS-9030必须单独订购。



官方网站 www.shimadzu.com.cn

客服热线 800-8100439 400-6500439

万方数据



官方微信



官方微博