

ISSN 0254-6108

CN 11-1844/X

CODEN HUHUBD



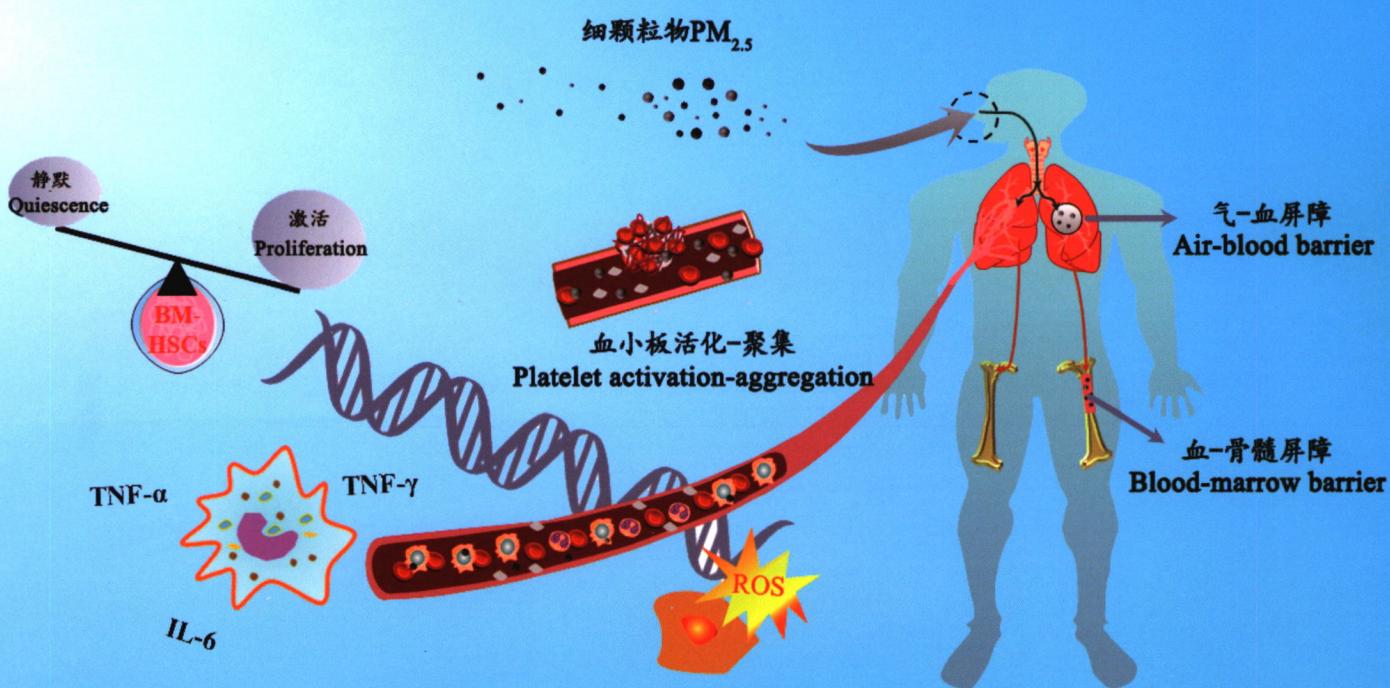
环境化学

ENVIRONMENTAL CHEMISTRY



2023

Apr. Vol. 42 No. 4
4月 第42卷 第4期



——空气细颗粒物造血毒性与生物学机制研究进展

ISSN 0254-6108

04>



中国科学院生态环境研究中心 主办

科学出版社出版

万方知库
Eco-Environmental
Knowledge Web

环境化学

(HUANJING HUAXUE)
第42卷 第4期 2023年4月



环境化学与生态毒理学国家重点实验室
资助出版

目 次

- 空气细颗粒物造血毒性与生物学机制研究进展 王阳 马俐 李广科 桑楠 (1057)
- 二恶英暴露下奶牛血液代谢组学研究 胡晓旭
- 许彤 陈旸升 谢群慧 郝艳芬 王楚程 劫王璞 张庆华 徐丽 赵斌 (1067)
- 雌激素的 3D-QSAR 模型构建及其在饲料与鸡肉中含量的测定以及对人体的影响 方菁 申哲民 袁涛 张徐祥 (1077)
- 十溴二苯乙烷 (DBDPE) 在斑马鱼体内的生物富集和生物转化 古顺茜 唐斌 蔡凤珊 严骁 姚丽君 李嘉璐 姚丽丽 谢春 郑晶 (1085)
- 肠道微生物对蔬菜中铬生物可给性的影响及人体健康风险评价 郑煜 罗杨 吴永贵 彭小裕 伍建业 彭子乐 罗鉴 (1097)
- 全二维气相色谱-飞行时间质谱 (GC×GC-TOFMS) 非靶向筛查水源地中微量有机污染物 张博超 章丽萍 王大伟 王艳 董慧峪 强志民 (1109)
- 傅里叶变换离子回旋共振质谱分子表征¹⁵N 同位素标记羟胺衍生化天然有机质 曹冬 耿方兰 饶子渔 康跃惠 (1118)
- 液相萃取-气相色谱-质谱法快速分析血清中有机磷酸酯类三 (2,4-二叔丁基苯基)-磷酸酯 (AO168O) 和 2,4-二叔丁基苯基 (2,4DtBP) 卢柏灵 蔡利梅 刘思 郭丽琼 彭子娟 王晓丽 宋善军 李彭辉 (1128)
- QuEChERS-超高效液相色谱-串联质谱法测定昆虫体内 35 种全氟和多氟烷基化合物 张兴绘 汤爱萍 郭会琴 涂文清 刘煜 (1137)
- 新型消毒副产物 *cis*-2-丁烯-1,4-二醛的检测方法建立与评估 李俊芳 华哲超 周志洪 黄雄飞 方晶云 (1148)
- 多参数人口模型的建立及其在精神活性物质评估中的应用 张海清 李豪 孙涛 刘和平 李先国 张大海 (1156)
- 直接进样- LC-MS/MS 测定水中 16 种有机磷酸酯类化合物 刘殿甲 吴宇峰 张静 左明 王效国 王洪乾 张肇元 郭栋 (1165)
- 基于 MOFs 的 CuO@CeO₂ 双金属催化剂的制备及其对 1,2-二氯苯的低温催化降解 张鸿宇 于颖 樊芸 张海军 陈吉平 (1176)
- 低温等离子体耦合 Co-Mn 双金属催化剂降解三氯乙烯 侯浩 党小庆 李世杰 于欣 王鹏勇 孟祥康 (1185)
- 铁碳微电解基质在人工湿地中的作用机理及研究现状 王文荟 季闻翔 赵杰 韩玉泽 田业超 朱道旭 李冬梅 李爱民 (1196)
- 过渡金属掺杂 MnO_x/ZSM-5 对甲苯吸附和催化氧化的影响 刘晗 周媛媛 邓琳 万杰 刘雁军 王晓丽 于先坤 杨晓军 胡纯政 吴功德 (1209)

- Cu(II) 协同热活化过氧乙酸降解水中双氯芬酸 邓杰文 张琳悦 付永胜 刘义青 (1222)
高压针-板脉冲火花放电协同 Ag 改性的复合型催化材料处理盐酸盐四环素
..... 董冰岩 涂文娟 李贞栋 王佩祥 罗 婷 (1230)
聚吡咯/凯夫拉中空纤维复合纳滤膜的制备及其染料脱盐性能
..... 赖 星 王黎明 王 纯 肖长发 陈欢欢 付梦洁 曹刘奇 郝慧敏 陈扣琴 (1239)
碱联合微波预处理污泥及交联聚合回收上清液中有机质和氮磷
..... 戴启才 张瑞良 般 健 秦 曜 刘兆斌 甄广印 陆雪琴 (1249)
青藏高原阿里地区大气颗粒物质量浓度的季节变化特征
..... 谢会晴 邬光剑 曹 泊 于正良 石洪发 张宇轩 黄 菊 (1260)
基于无人机研究长三角化工园区颗粒物垂直廓线
..... 袁锴彬 庞小兵 李晶晶 陈 浪 韩张亮 陈建孟 张宝峰 王军良 (1270)
济南市冬季 PM_{2.5} 中元素的污染特征、来源及健康风险评价
..... 周瑞文 陈 敏 李园园 王亚晨 李 政 孟静静 侯战方 朱成达 (1280)
田间条件下猪粪炭与黄磷渣配施对土壤镉污染的修复效果
..... 刘 昭 侯艳伟 蔡 超 张又驰 林姗娜 邓晟宁 李云驹 (1293)
水源水库沉积物碳氮磷分布特征及污染评价 王 斌 黄廷林 翟振起 陈 凡 周闪闪 (1304)
滇池东大河湿地沉积物重金属空间分异特征及生态风险评价
..... 岑言霸 苏 斌 陈越豪 徐 瑞 史正涛 (1313)
贵州油茶主产区土壤重金属环境质量状况及风险评价
..... 黄安香 柏文恋 邬能英 王忠伟 杨守禄 张彦雄 张福安 (1325)
广东省龙川县深孔碳酸地热水的水化学特征
..... 黄雷辉 陈 斌 谢林君 林宣浩 刘俊洪 李 岩 胡虹羽 曾拥军 卢国平 (1337)
2020 年夏季长江口邻近海域的营养盐含量及分布特征
..... 邢志远 祝文鑫 徐焕志 李 博 胡海燕 (1349)
排水管道沉积物-水系统中不同微生物群落下氮的迁移转化
..... 周 婕 刘翠云 王易扬 刘 琪 吕文科 韦昊东 陶 洋 (1357)
微生物植酸酶及其对土壤植酸的矿化作用综述
..... 苏奇倩 丁豪杰 李晓锋 李 林 RENSING Christopher 刘 雪 (1366)
贵金属负载氧化石墨烯二氧化钛光催化消除甲硫醇三甲胺性能探究
..... 齐 宇 陈发旺 孙任辉 孙少凡 韩瑞炎 杨 凯 (1381)

* * * * *

分析应用快报

- 多元材料组合 TVOC 的释放规律
..... 董雪梅 关红艳 袁庆丹 赵同新 周 建 郭中宝 田菲菲 (1389)

以麻黄汤药渣为例探究中药渣资源化利用途径
..... 肖鹿昆 王彩霞 崔 宇 郑 谳 陈 莎 张爱平 刘 艳 (1393)

* * * * *

广告目录 岛津国际贸易（上海）有限公司（封四）

ENVIRONMENTAL CHEMISTRY

(Monthly)

Volume 42

Number 4

April 2023

CONTENTS

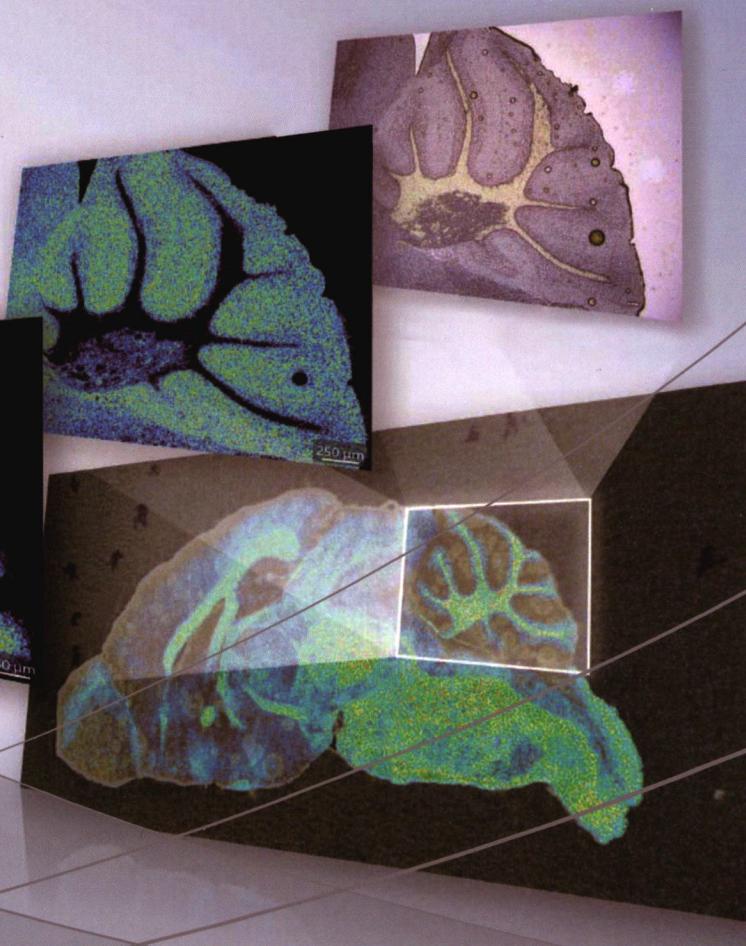
- Research progress on hematopoietic toxicity and biological mechanism of ambient fine particulate matters *WANG Yang, MA Li, LI Guangke, SANG Nan* (1057)
- Metabolomics study on blood of cow exposed to PCDD/Fs *HU Xiaoxu, XU Tong, CHEN Yangsheng, XIE Qunhui, HAO Yanfen, WANG Chu, CHEN Jie, WANG Pu, ZHANG Qinghua, XU Li, ZHAO Bin* (1067)
- 3D-QSAR predicts the endocrine disrupting effect of estrogen and measures and evaluates the effect of estrogen in chicken feed and chicken on the human body *FANG Jing, SHEN Zhemin, YUAN Tao, ZHANG Xuxiang* (1077)
- Bioaccumulation and biotransformation of decabromodiphenyl ethane (DBDPE) in zebrafish *GU Shunxi, TANG Bin, CAI Fengshan, YAN Xiao, YAO Lijun, LI Jialu, YAO Lili, XIE Chun, ZHENG Jing* (1085)
- Effect of gut microbiota on bioaccessibility of chromium in vegetables and human health risk assessment *ZHENG Yu, LUO Yang, WU Yonggui, PENG Xiaoyu, WU Jianye, PENG Zile, LUO Jian* (1097)
- Non-targeted screening of trace organic pollutants in source water by GC×GC-TOFMS *ZHANG Bochao, ZHANG Liping, WANG Dawei, WANG Yan, DONG Huiyu, QIANG Zhimin* (1109)
- Molecular characterization of ¹⁵N-labelled hydroxylamine-derivatized natural organic matter by FTICR-MS *CAO Dong, GENG Fanglan, RAO Ziyu, KANG Yuehui* (1118)
- Rapid determination of tris(2,4-di-tert-butylphenyl)-phosphate (AO1680) and 2,4-di-tert-butylphenyl (2,4DtBP) in human serum by liquid phase extraction - gas chromatography - mass spectrometry *LU Boling, CAI Limei, LIU Si, GUO Liqiong, PENG Zijuan, WANG Xiaoli, SONG Shanjun, LI Penghui* (1128)
- Determination of 35 per- and polyfluoroalkyl substances (PFASs) in insect by QuEChERS pretreatment combined with ultra-performance liquid chromatography-tandem mass spectrometry *ZHANG Xinghui, TANG Aiping, GUO Huiqin, TU Wenqing, LIU Yu* (1137)
- Establishment and evaluation of the determination method of an emerging disinfection by-product of *cis*-2-butene-1,4-disformaldehyde *LI Junfang, HUA Zhechao, ZHOU Zhihong, HUANG Xiongfei, FANG Jingyun* (1148)
- Establishment of multi-parameter population model and its application in assessment of psychoactive substances *ZHANG Haiqing, LI Hao, SUN Tao, LIU Heping, LI Xianguo, ZHANG Dahai* (1156)
- Simultaneous determination of 16 organophosphates in waters by direct injection LC-MS/MS *LIU Dianjia, WU Yufeng, ZHANG Jing, ZUO Ming, WANG Xiaoguo, WANG Hongqian, ZHANG Zhaoyuan, GUO Dong* (1165)
- CuO@CeO₂ bimetallic catalyst derived from MOFs for the degradation of 1,2-dichlorobenzene at low temperature *ZHANG Hongyu, YU Ying, FAN Yun, ZHANG Haijun, CHEN Jiping* (1176)
- Removal of trichloroethylene by non-thermal plasma combined with Co-Mn bimetallic catalyst *HOU Hao, DANG Xiaoqing, LI Shijie, YU Xin, WANG Pengyong, MENG Xiangkang* (1185)
- Iron-carbon micro-electrolysis substrate for constructed wetland: Interaction mechanisms, performance and Ecological effects *WANG Wenhui, JI Wenxiang, ZHAO Jie, HAN Yuze, TIAN Yechao, ZHU Daoxu, LI Dongmei, LI Aimin* (1196)
- Effect of transition metal oxide doping MnO_x/ZSM-5 on the adsorption and catalytic oxidation of toluene *LIU Han, ZHOU Yuan Yuan, DENG Lin, WAN Jie, LIU Yanjun, WANG Xiaoli, YU Xiankun, YANG Xiaojun, HU Chunzheng, WU Gongde* (1209)
- Degradation of diclofenac in water by Cu(II)-combined with heat activation of peracetic acid *DENG Jiewen, ZHANG Linyue, FU Yongsheng, LIU Yiqing* (1222)
- Treatment of tetracycline hydrochloride by high voltage needle-plate pulsed spark discharge combined with Ag modified composite catalytic materials *DONG Bingyan, TU Wenjuan, LI Zhendong, WANG Peixiang, LUO Ting* (1230)
- Fabrication of Polypyrrole/Kevlar hollow fiber composite nanofiltration membrane for dye desalination *LAI Xing, WANG Liming, WANG Chun, XIAO Changfa, CHEN Huanhuan, FU Mengjie, CAO Liuqi, HAO Huimin, CHEN Kouqin* (1239)

- Crosslinking polymerization to recover organic matter and nitrogen/phosphorus from the supernatant of sludge combined alkali-microwave pretreated sludge DAI Qicai, ZHANG Ruiliang, YIN Jian, QIN Xi, LIU Zhaobin, ZHEN Guangyin, LU Xueqin (1249)
- Seasonal mass concentration variation and potential source regions of atmospheric particulate matter in Ngari area, Tibet Plateau XIE Huiqing, WU Guangjian, CAO Bo, YU Zhengliang, SHI Hongfa, ZHANG Yuxuan, HUANG Ju (1260)
- Vertical profiles of particulate matter in a chemical industrial park of Yangtze River Delta studied by a sensor on an unmanned aerial vehicle YUAN Kaibin, PANG Xiaobing, LI Jingjing, CHEN Lang, HAN Zhangliang, CHEN Jianmeng, ZHANG Baofeng, WANG Junliang (1270)
- Pollution characteristics, sources and health risk assessment of elements in PM_{2.5} during wintertime in Jinan city ZHOU Ruiwen, CHEN Min, LI Yuanyuan, WANG Yachen, LI Zheng, MENG Jingjing, HOU Zhanfang, ZHU Chengda (1280)
- Remediation effect of combined application of pig manure biochar and yellow phosphorus slag on cadmium contaminated paddy soil LIU Zhao, HOU Yanwei, CAI Chao, ZHANG Youchi, LIN Shanna, DENG Shengning, LI Yunju (1293)
- Distribution characteristics of carbon, nitrogen and phosphorus in sediments of water source reservoir and pollution assessment WANG Bin, HUANG Tinglin, ZHAI Zhenqi, CHEN Fan, ZHOU Shanshan (1304)
- Spatial distribution and ecological risk assessment of heavy metals in sediments of Dongda River wetland in Dianchi Lake CEN Yanba, SU Bin, CHEN Yuehao, XU Rui, SHI Zhengtao (1313)
- Pollution and risk assessment of heavy metals in Camellia oleifera main producing area soil of Guizhou province HUANG Anxiang, BAI Wenlian, WU Nengying, WANG Zhongwei, YANG Shoulu, ZHANG Yanxiong, ZHANG Fuan (1325)
- Hydrochemical characteristics of carbonated geothermal water from deep borehole in Longchuan County, Guangdong Province HUANG Leihui, CHEN Bin, XIE Linjun, LIN Xuanhao, LIU Junhong, LI Yan, HU Hongyu, ZENG Yongjun, LU Guoping (1337)
- Nutrients content and distribution characteristics of the Yangtze River Estuary in summer, 2020 XING Zhiyuan, ZHU Wenxin, XU Huanzhi, LI Bo, HU Haiyan (1349)
- The migration and transformation of nitrogen under different microbial communities in sediment-water system of drainage pipe ZHOU Jie, LIU Cuiyun, WANG Yiyang, LIU Qi, LV Wenke, WEI Haodong, TAO Yang (1357)
- Microbial phytase and its role in phytate mineralization in soils: A review SU Qiqian, DING Haojie, LI Xiaofeng, LI Lin, RENSING Christopher, LIU Xue (1366)
- Research on the photocatalytic elimination of methyl mercaptan trimethylamine by noble metal-doped graphene oxide TiO₂ QI Yu, CHEN Fawang, SUN Renhui, SUN Shaofan, HAN Ruiyan, YANG Kai (1381)
- Determination of TVOC emission behavior after combination of various decorative materials DONG Xuemei, GUAN Hongyan, YUAN Qingdan, ZHAO Tongxin, ZHOU Jian, GUO Zhongbao, TIAN Feifei (1389)
- Taking Mahuang decoction residue as an example to explore the resource utilization of Chinese pharmaceutical residue XIAO Lukun, WANG Caixia, CUI Yu, ZHENG Zhe, CHEN Sha, ZHANG Aiping, LIU Yan (1393)

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。

